# DETAILED PROJECT REPORT OF LUMDING BLOCK, DISTT:- HOJAI, STATE:- ASSAM

**Formation & Promotion of farmer Producer Organizations (FPO's) Under the Central Sector scheme for formation & promotion of 10000 FPO's**

**Submitted To:**

National Bank For Agriculture And Rural Development

NATIONAL BANK FOR AGRICULTURE AND RURAL DEVELOPMENT

NABARD

ISAP

Enterprise4Impact

**Prepared by**


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# Contents

| Acronyms and Abbreviations | |
|---|---|
| CBBO | Cluster Based Business Organization |
| CDM-EB | Clean Development Mechanism Executive Board |
| CGWB | Central Ground Water Board |
| FGD | Farmer Group Discussion |
| FPOs | Farmer Producer Organizations |
| Ha | Hectares |
| IA | Implementing Agency |
| IFFCO | Indian Farmers Fertiliser Cooperative Limited |
| INR | Indian Rupee |
| KCC | Kisan Credit Card |
| KRIBHCO | Krishak Bharati Cooperative |
| KVIC | Khadi and village Industries |
| MT | Metric Tonne |
| NABET | National Accreditation Board for Education and Training |
| ODOP | One District, One Product |
| NABARD | National Bank for Agriculture & Rural Development |
| SWOT | Strength, Weaknesses, Opportunity, Threats |

# Executive Summary, Background and Block Profile

## 1.1 Executive Summary

The small and marginal farmers face challenges both in production and post-production stages in terms of access to production technology, credit and market linkages etc. Over the years, it is noticed that collectivization of such small and marginal farmers to form their organizations as Farmer Producer Organizations (FPOs) is critical to reduce cost of production and facilitate better market linkages so as to enhance their net income.

Thus, the Department of Agriculture, Cooperation and Farmers' Welfare, Ministry of Agriculture and Farmers' Welfare, Govt. of India has launched a Central Sector Scheme for Promotion and Formation of 10,000 Farmer Producer organizations through the Country which is being implemented through various stakeholders such as Implementing Agencies (IAs), Cluster-Based Business Organizations (CBBOs), National Project Management Agency (NPMA) and concerned State Authorities.

The FPO intervention can help small and marginal farmers to cater some of their difficulties by making collective efforts. Thus, the Department of Agriculture. Cooperation and Farmers Welfare, Ministry of Agriculture and Farers' Welfare Govt. of India has launched a Central Sector Scheme for Promotion and formation of 10,000 Farmer Producer Organizations Throughout the Country which is being implemented through various stakeholders such as Implementing Agencies, Cluster-Based Business Organizations (CBBOS), National Project Management Agency (NPMA)and concerned State Authorities.



In this context, a Detailed Project Report is prepared and submitted from LUMDING block of HOJAI district of ASSAM to understand the possibilities of development of agri based/ agro-processing cluster by strengthening farmers' collective.

The report will discuss in detail the district's and block's agriculture scenario, the gaps which exist in the block and proposed suggestions which will reform majorly vegetable cluster of LUMDING block of HOJAI with trained farmers, well-informed farmer-groups, enhanced productivity and competitiveness.

In the first section, the proposed cluster's location, major crop, project's objectives, methodology and key gaps are discussed briefly. Other than that the background of this approach, the scheme information, block and district's profile, with major agricultural and Horticultural crops of block are described. The second section lays down the profile of the block and project cluster, block's

demographic profile, education status, occupational details, socio-economic profile, land use pattern and land holding of the block are described.

The third section outlines the technical details of cropping pattern, costing, Input & Output Ratios and Yields and Current Productivity. Other than that, proposed cluster's crop cycle/calendar and livestock population in the block are described. Fourth section highlights the production practices including quality and quantity of inputs, technological levels, input suppliers and vendors, seasonality of production and availability and tied sales etc. This includes availability of basic amenities i.e. electricity, internet, water, sanitation etc. Along with that

**"DETAILED PROJECT REPORT OF LUMDING FARMER PRODUCER COMPANY, HOJAI, ASSAM"**

Climate and soil analysis of the block and marketable surplus of the major crops are also describe

In fifth section, the financial aspects i.e. sources, and terms and conditions, interest and existing outstanding, access to government programs etc. are discussed. In sixth section, risk aspects, historical risks, computation of losses due to Risks, Coping mechanisms etc are discussed. This includes major constraints identified in the cluster and potentialities identified in the cluster. The seventh section describes existing channels of marketing in and around the block, and presence of weekly haats and gramin bazaar in the block. Other than that, this section also includes the complete Value chain study of major crop of the block – LUMDING and Its value addition.

# PROJECT SNAPSHOT

| PROJECT SNAPSHOT | | |
|---|---|---|
| **1** | Cluster Category | Major Agri-cluster |
| **2** | Location | State: ASSAM |
| | | District: HOJAI |
| | | Block: LUMDING |
| **3** | Craft/Industry | Farmer Producer Organization registered under Companies |
| | | Act Part IX A |
| **4** | Name Of CBBO | **INDIAN SOCIETY OF AGRIBUSINESS PROFESSIONALS** |
| **5** | Name of Implementing Agency | **NATIONAL BANK FOR AGRICULTURE AND RURAL DEVELOPMENT** |
| | | |
| **6** | Name of Registered FPO | APPLIED FOR |
| **7** | Crop Identified | **Sugarcane, Chilli & Vegetable(Brinjal, Ridge Gourd)** |
| **8** | Project Objective | i. To mobilise farmers in groups at the village level and build their association (FPO) at an appropriate federating point to plan and implement product specific cluster/ commercial crop cycles. |
| | | ii. To strengthen farmer capacity through agricultural best practices for enhanced productivity. |
| | | iii. To ensure access to and usage of quality inputs and services for intensive agriculture enhancing cluster competitiveness |
| | | iv. To facilitate access to fair & remunerative markets including linking producer groups to marketing opportunities by market aggregators |
| **9** | Methodology Adopted | i. Collection of field data by visiting cluster villages, support institutions, interviews with the farmers and related stakeholders |
| | | ii. Collection of secondary data from Government departments |

| | | |
|---|---|---|
| | | iii. Interaction with various cluster stakeholders including farmers, tools and equipment suppliers, seed and fertilizer dealers, banking institutions, |
| | | iv. Discussion with key stakeholders to bring out a suitable business plan for implementation |
| | | |
| **10** | Key Gaps Identified | i. **Non-Availability of Storage Facility:** There are lack of warehouses/cold storages in the block in which farmers could store their produce while they find the better market to sell their produce. |
| | | ii. **Non-Availability of Processing unit:** Lack of knowledge amongst farmers about the deduction made while paying them for their produce in Mandi is because of lack of cleaning, sorting and grading of the produce. |
| | | iii. **Weak links in backward and forward integration:** In view of scattered approach, farmers are unable to leverage on the advantages available to them in procurement in inputs and marketing of the produce. The FPO will provide scope for procurement of inputs at lower price and selling of produce under one roof at better price. |
| | | iv. There is a need to bridge the above gaps through appropriate interventions like Market linkages in order to control the cost and improve the quality of production to gain competitiveness. |

## Stage of Project Development, Timeline, Deliverable and Measures of Verification:

| Time-line | Key Activities | Deliverables | Means of Verification |
|---|---|---|---|
| **Stage One: Pre-Project Implementation** | | | |
| **3 months** | (i) Baseline on volume, value & Market access, centrality analysis, | (i) Detailed Project Report (Checklist Provided); List of Product specific clusters identified | (i) Submitted DPR |
| | (ii) Identification of Product specific clusters | (ii) Database of farmers prepared, computerized and analyzed | (ii) Meeting minutes and photographs of meetings |
| | (iii) Feasibility Analysis - break- even estimates | (iii) Various interface table prepared | (iii) Inception report |
| | (iv) Project Implementation Plan, procurement, inputs, storage and marketing, | | |
| **Stage Two: Enhancing Capacity & Implementation of Surplus Production Plan (Mobilization Phase)** | | | |
| **6 months** | Stage Two: Enhancing Capacity & Implementation of Surplus Farm Production Plan (Mobilization Phase)<br><br>(i) Village meetings- identify potential farmers, identify opinion leaders | (i) Farmers Organized into FIGS, LRP identified and training completed on improved agriculture practices | (i) List of FIGs/FIG registers |

| | | | |
|---|---|---|---|
| | (ii) Identification of potential farmers for FIG & FPOs, LRP/ BF/LF Identification | (ii) FIG formed (min 50%) of Target | (ii) List of LRP/ BF/LF trained and ready for<br>Deployment |
| | (iii) Hand holding support for Productivity Increase, IPM/ INM/ IPP | (iii) Trained LRP/BF ready for deployment in field | (iii) Training curriculum, training report & participant list |
| | (iv) Identifying Value- proposition for setting FPO (logic of collectivization) | (iv) Farmers Participated in Improved Agriculture/ vegetable/pulse-based farming System | (iv) List of farmers adopting package of practices |
| | (v) Exposure Visit of Farmers/opinion leaders | (v) Farmers realized benefits in terms of increased yield and less expenditures | (v) No. of farmers supported, areas of demonstration |
| | | | (vi) Six monthly reports with Sugyan data |
| **Stage Three: Pre Formation Stage of FPO/ Collectctive & Preparation of FPOs Business Plan through FIG Level Exercise** | | | |
| **12 Months** | | | |
| | (i) Demonstration Conducted on improved agriculture | (i) Min 5 village level agri business potential, gap analysis | (i) FIG meeting registers and shareholders list prepared |
| | Practices | exercises done. | |
| | (ii) Start up shareholders campaign | (ii) Information documented and business plan drafted and shared | ii) Business Plan |

| | | | |
|---|---|---|---|
| | | with FIGs members | |
| | (iii) Identification of training needs & | (iii) 2 modulated trainings imparted to lead/ promoters farmers on Business plan | (iii) Farmer's information list prepared |
| | (iv) FIGs meeting & orientation started for FPO scoping, vision building exercise & exposure visit of promoters farmers | (iv) Share money from min 250 farmers collected | (iv) FPC Accounts Statement |
| | (v) Generate crop-wise household information with surplus, deficit and | (v) FIGs shown some trends/ indicators for collective action | (v) Yearly Report with Sugyan Data |
| | **(vi) FPO forming process initiated** | (vi) Business Case of FPO/ Collective prepared (checklist provided) Farmers detailed information list prepared | |
| **Stage Four: FPO Formation Stage** | | | |
| **18 Months** | (i) Identification of FPO promoters by FIGS | (i) Demonstration of Farmer Patronage to Project Concept (70% repeat farmers | (i) Demo Farmers List |
| | ii) Initiation of statutory process required for formation of FPO like attainment of PAN, DIN of Directors etc. | (ii) Collectivization Arrangements (FPO) Instituted | (ii) Minutes of FG and |
| | (iii) Stabilize New Surplus Production | (iii) Share money from 750 farmers | (iii) List of shareholders |

| | | | |
|---|---|---|---|
| | System & Farmers in 2nd Crop Cycle | collected | |
| | (iv) Finalizing list of FIG members willing to join FPOs and start share money collection | (iv) Institutional Arrangements For Market Access Placed | |
| | (v) Membership drive continues and framing of Bye-laws/ MoA /AoA, incorporation of FPO | v) Training conducted for Farmers | |
| | (vi) Training of FIG Members/ promoters on FPOs | | |
| **Stage Five: FPO Establishment Stage** | | | |
| **24 Months** | (i) Physical establishment of FPO | (i) FPOs established, office/outlets opened | (i) Minutes of meeting FIG subscription to FPO/ collective |
| | (ii) CB & inputs need assessment | (ii) FPO/Collective/ Aggregation Structure Placed | (ii) Registration & Compliances |
| | (iii) Strengthening FPO – providing services for system development (Operating System, MIS, HR) | (iii) FIG members deposited their share money | (iii) Business Plan with key business processes |
| | iv) Business Planning Exercise Market Linkages for Produce | (iv) Certificate of FPO incorporation awarded | (iv) List of buyers consulted, meeting report & outcome (MoU on price, volume and grading |
| | (v) Interface with buyers/ Marketers | (v) 1st General Body Meeting | (v) Minutes of BoDs register |

| | | | |
|---|---|---|---|
| | (vi) Increasing FPO's equity though matching grants from NABARD | (vi) FPOs have formally applied to NABARD for equity matching Grants | (vi) Due diligence report submitted to NABARD and matching grant released to FPOs |
| | | (vii) FPOs successfully passed in due diligence report prepared by Charter Accountants and submitted to NABARD | |
| **Stage Six: Business Plan Implementation** | | | |
| **30 Months** | | | (i) Business Plan – including financing plan |
| | (i) Implementation of business plan of FPO | (i) Min 25% business activities executed as per plan | (ii) Regulatory approvals for FPO activities |
| | | (ii) Statutory Clearance obtained required to carry out business activities | (iii) Certificates from concern apartments obtained |
| | | (iii) Operating System Grounded | (iv) Farmers Field Book (FFB) |
| | | (iv) Minimum 10% target farmers accessed improved agriculture services including better access to market | (v) Increased business turnover of FPOs and reflected in MIS and Balance sheet |
| | | | (vi) Pre project ends report) |

| Stage Seven: Phase-Out | | | |
|---|---|---|---|
| **36 Months** | Stage Seven : Phase-out Systems for post-project Sustainability | (i) Agreement executed Between RI & LPO for long-term support | (i) Copy of Agreement |
| | | (ii) BoDs passed resolution for long term agreement | (ii) Minutes of BoD Register |
| | | (iii) FPCs & shareholders have started getting income from the business activities and showing growth track | (iii) FPCs balance sheet |
| | | (iv) FPOs are regular in BoD meetings, AGM, internal Audits and Statutory Audits with minimum deviation | (iv) BoD, AGM registers and SatiNABARDtory Reports of Auditors |
| | | | (v) Project ends report |

Budget and Payment Structure a detailed cost sheet of FPO promotion is attached in the table below:

| Cost Sheet for Organizing Small Farmers, Agriculture Technology Promotion & Development of FPO (Cost for 3 Years): | | |
|---|---|---|
| **Assumptions** | | |
| **1** | No. of farmers | **1000** |
| **2** | No. of Villages | **15-20** |
| **3** | No. of FIGs | **50** |
| **4** | No. of members per FIG | **20** |
| **5** | Years of intervention | **3** |
| **6** | No. of FPO | **1** |
| **7** | Objectives | **(a) Organize small farmers into FIG & FPO;**<br>**(b) Agri Technology promotion;**<br>**(c) Market linkage.** |

| | | |
|---|---|---|
| **8** | **Key Strategies** | **(a) maximum use of Local Resource Persons,**<br>**(b) preferably selecting areas where land and water related investment (viz. watershed) is done in the past / ongoing for value addition,**<br>**(c) Leveraging from other resources.** |

Budget and Payment Structure a detailed cost sheet of FPO promotion is attached in the table below:

| S. No. | Items | Unit Detail | Unit | Physical | | | Financial Target | | | Total | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | ***Y1*** | ***Y2*** | ***Y3*** | ***Y1*** | ***Y2*** | ***Y3*** | | |
| **1** | Organizational Development | No. of FIG | | 50 | 50 | 50 | 1 | 1 | | 2 | |
| **1.1** | Mobilization of farmers to form FIG and FPO | LS | 1 | 1 | 1 | | 0.45 | 0.45 | 0.3 | 1.2 | **includes events like Rallies, Cluster level Consultation workshops, Seminars / Sangosthi and Sammelan, AV shows, etc** |
| **1.2** | Organizing ToTs& Exposure visits for Lead Farmer | No. of ToT/ Exposur | 0.15 | 3 | 3 | 2 | 0.5 | 0.5 | | 1 | **LF (2 from each FIG) will be given ToT& one expo. visit.** |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | e | | | | | | | | | |
| **1.3** | Development & Distribution | No. of Kits | 0.005 | 100 | 100 | | 0.3 | 0.3 | 0.3 | 0.9 | **They will use this kit during training of their member farmers at on farm or off farm classroom sessions.** |
| **1.4** | Management & Technical Training | No. of training | 0.15 | 2 | 2 | 2 | 0.36 | 0.36 | 0.36 | 1.8 | **Training on OD issues, Training on conflicts management, basic training on book keeping & Accounts, Training on business management.** |
| **1.5** | Exposure visit of Governing | No. of Exposur e | 0.36 | 1 | 1 | 1 | 1.8 | 1.8 | 1.8 | 5.4 | **The CEO is the person first recruited & deployed by the RI. S/ he and 5 LRPs will start the process and all of them will be eventually recruited by the FPO as their staff at the end of yr-1. The RI will then transfer the budget of FPO staff cost, travel, and office expenses to the FPO from 2nd year onwards.** |
| **1.6** | Remuneration of Local Resource | cost/ person | 0.03 | 5 | 5 | 5 | 0.6 | 0.6 | 0.6 | 1.8 | LRP per 200 farmers. |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Persons (LRP) | month | | | | | | | | | |
| **1.7** | Travel & subsistence of LRPs | cost/ person month | 0.01 | 5 | 5 | 5 | 5.01 | 5.01 | 3.36 | 13.38 | |
| | **Sub Total of 1** | | | **167** | **167** | **65** | **10.02** | **10.02** | **6.72** | **27.48** | |
| **2** | Agriculture Technology Introduction & Validation | | | | | | 0.6 | 0.6 | 0.6 | 1.8 | |
| **2.1** | Organizing Agriculture Demonstrations | Cost/Demo | 0.01 | 60 | 60 | 60 | 0.6 | 0.6 | 0.6 | 1.8 | Demo on Good Agri. Practices. 4 demo/ vill./year. |
| | **Sub Total of 2** | | | **60** | **60** | **60** | **0.6** | **0.6** | **0.6** | **1.8** | |
| **3** | FPO Management Cost | | | | | | | | | | The CEO is the person first recruited & deployed by the RI. S/ he and 5 LRPs will start the process and all of them will be eventually recruited by the FPO as their staff at the end of yr-1. The RI will then. transfer the budget of FPO staff cost, travel, office expenses to the |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | FPO from 2nd year onwards |
| **3.1** | CEO of the FPO | Cost/month | 0.3 | 1 | 1 | 1 | 3.6 | 3.6 | 3.6 | 10.8 | |
| **3.2** | Travel & subsistence of CEOs | Cost/month | 0.03 | 1 | 1 | 1 | 0.36 | 0.36 | 0.36 | 1.08 | |
| **3.3** | FPO office rent, electricity, communication, etc. | Cost/month | 0.068 | 1 | 1 | 1 | 0.27 | 0.82 | 0.82 | 1.91 | For year-1 it is for 4 months considering that existence of FPO as entity will not happen before completion of eight months |
| **3.4** | FPO Registration cost | Cost/FPO | 0.4 | 1 | | | 0.4 | | | 0.4 | |
| **3.5** | Minor equipment for | Cost/FPO | 0.9 | 1 | | | 0.9 | | | 0.9 | One Desk Top PC, |
| | FPO office | | | | | | | | | | Printer and minor office |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | furniture. |
| **3.6** | FPO Equity support | Per FPO | 5 | 1 | 1 | 1 | 3 | 2 | | 5 | Equity support is given as match in with the equity raised by the FPO, considered 5 lakh @ 500 per member for 1000 members |
| | **Sub-total of 3** | | | **6** | **4** | **4** | **8.53** | **6.78** | **4.78** | **20.09** | |
| **4** | Total of 1 to 3 (per FPO cost) | | | | | | 8.53 | 6.78 | 4.78 | 20.09 | |
| **4.1** | Programme Management Cost | | | | | | 14.14 | 12.39 | 8.74 | 35.27 | |
| **4.2** | Project Coordinator | Cost/month | 0.4 | 1 | 1 | 1 | 4.8 | 4.8 | 4.8 | 14.4 | Full time. s/he should be with experience in institution building. (commercial) & agriculture/ marketing. |
| **4.3** | Travel of PC | Cost/month | 0.1 | 1 | 1 | 1 | 1.2 | 1.2 | 1.2 | 3.6 | |
| **4.4** | Training of Project Team | No. of training | 0.9 | 1 | 1 | | 0.9 | 0.45 | 0 | 1.35 | 6 days induction training is proposed to the FPO promotion team i.e. one CEO + 5 LRPs. In 2nd year there will be 3 days |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | refresher course. |
| **4.5** | RI overheads | Cost/month | 0.2 | 1 | 1 | 1 | 2.4 | 2.4 | 2.4 | 7.2 | |
| | **Sub-total of 4** | | | **4** | **4** | **3** | **31.97** | **28.02** | **21.92** | **81.91** | |
| **5** | Programme Management Cost at RI level for Block of 10 | | | | | | 9.3 | 8.85 | 8.4 | 26.55 | |
| **5.1** | Project Coordinator | Cost/month | 0.4 | 1 | 1 | 1 | 4.8 | 4.8 | 4.8 | 14.4 | Full time. s/he should be with experience in institution bldg. (commercial) & agriculture/ agribusiness. |
| **5.2** | SMS | Cost/month | 0.35 | 1 | 1 | 1 | 4.2 | 4.2 | 4.2 | 12.6 | SMS - Agri business/ agriculture/ financial linkage |
| **5.3** | Accountant cum Admin. Asst. | Cost/month | 0.15 | 1 | 1 | 1 | 1.8 | 1.8 | 1.8 | 5.4 | |
| **5.4** | Travel of project staff | Cost/month | 0.15 | 1 | 1 | 1 | 1.8 | 1.8 | 1.8 | 5.4 | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **5.5** | Training of Project Team | No. of training | 0.9 | 2 | 2 | | 1.8 | 0.9 | | 2.7 | 6 days induction training is proposed to the FPO promotion team i.e. one CEO + 5 LRPs. In 2n d. Year there will be 3 days refresher course. |
| **5.6** | RI overheads | Cost/month | 0.4 | 1 | 1 | 1 | 4.8 | 4.8 | 4.8 | 14.4 | |
| | **Sub-total of 5** | | | | | | **28.5** | **27.15** | **25.8** | **81.45** | |

## 1.2 Back Ground

The concept of collective strength is not new. Cooperatives are working traditionally for the farmers benefit and Agri development by supplying credit and other services. But most of these institutions are weakened due to poor financial resources and lack of professional management. This resulted to defunct institutions; hence the context of collective efforts needs to re look in terms of extent of work, ownership and participation of farmers in the process.

Agriculture and Agri-allied sector most of the collectives have disproportionately focused on the production side, while providing very little attention to processing, value addition and market linkages. Hence it requires farmer-controlled institutions to engage in a more holistic and end-to end approach in addressing the issues faced by the small farmer. Traditional cooperative societies were developed based on single activity; however, with changing scenario, holistic value chain approach is required to develop sustainable collective Institution. Proposed Farmer Producer Organizations (FPO), therefore, consider interventions starting from procurement/Initial services to production and processing to marketing in collective form.

Implementing Agencies are supporting this intervention by setting up Cluster- Based Business Organizations (CBBOs) at the State / Cluster level to form and promote FPOS as per their requirements. CBBOS are entrusted to assist in the implementation of the program as per scheme guidelines and as may be suggested by the NPMA. The CBBOS are entrusted to carry out baseline survey, cluster finalization, value chain study, formation of groups and FPOS and assist in their periodical meetings, registration of FPOs, training and capacity-building, linking these bodies to input suppliers, technology providers and market players. The CBB0s will help FPOS in preparation and execution of business plan for long term sustainability, assist in regular

interface with various stakeholders like Govt. Agencies, Financial Institutions. Training and Research and development Institutions at the cluster level and facilitate them to avail the Equity grant and credit guarantee facility as per their needs for creation of necessary common pool production, marketing and processing infrastructure. Will also assist FPOS in communication dissemination to farmers by way of market and crop advisory, periodical submission of progress reports to NPMA, adherence to all legal and statutory compliances, MIS Reports generation, proper financial management and utilization of funds and over all monitoring of the various activities crucial for long term sustainability.

To mainstream the process of institutional development of Farmer Producer Organizations, DAC & FW has issued the operational guidelines to encourage and support FPO promotion as a regular activity and the selected CBBO (**INDIAN SOCIETY OF AGRIBUSINESS PROFESSIONALS**) has prepared this Detailed project report on the basis of these guidelines to promote a Farmer Producer Organisation (FPO) under the "Central Sector scheme for formation and promotion of 10,000 FPOs" in LUMDING Block of HOJAI District of ASSAM

## 1.3 Block & District Profile

### District

Hojai District is a district in Assam, India. It was formed on 15 August 2015. The headquarters of the district is situated at Sankardev Nagar, which is about 8 km away from Hojai town. Hojai District was formed from three tehsils of Nagaon District, namely Hojai, Doboka and Lanka. Hojai was a part of undivided Nowgong district (now Nagaon) of then Assam Province.The word 'Hojai' is of Dimasa origin. The priestly class of the Dimasas is known as Hojai or Hojaisa and the place they inhabited came to be known as Hojai. Even now Hojai area has a sizeable population of Dimasas and some of them have the surname 'Hojai'.

The geographical area presently under Hojai district and its surrounding area as in the history of the ancient Kamarupa, was known as Davaka kingdom or Kapili Valley kingdom. In different sources this kingdom is mentioned as 'Dabak', 'Kapili' and 'Tribeg'. This kingdom enjoyed independent status up to the 6th century CE.

Medieval historical sources mention that during the reign of Kashyap (1365-1400) of the Barahi Pala dynasty there began a new era of Kachari supremacy in the Kapili-Jamuna valley. Birochana, a minister of Kachari origin in the service of king Bhoumapala of Behali area in the north bank of Brahmaputra had to flee his kingdom after a conflict with the king and came to the south bank of Brahmaputra and established a new kingdom on the banks of the Kalong river which was Brahmapur or the present day Batampur and he assumed the name 'Bicharpatipha'. Soon Kachari reign spread to the entire Kapili-Jamuna valley and the name of the kingdom was known as Kacharipar.[citation needed]

Due to Ahoms kingdom's vigorous territorial expansion, the Kachari kings came in to conflict with them. During the rule of Kachari king Tamradhwaja Narayan the Kachari ruled areas went to the Ahoms under Swargadeo Gadadhar Singha.[citation needed]



The word 'Hojai' is of Dimasa origin. The priestly class of the Dimasas is known as Hojai or Hojaisa and the place they inhabited came to be known as Hojai. Even now Hojai area has a sizeable population of Dimasas and some of them have the surname 'Hojai'.[citation needed]

In the modern day, Hojai saw a large influx of Sylheti Hindu refugees after Sylhet went to Pakistan. In 1993, the Hojai riots broke out between Hindus and Muslims over tensions related to the Babri Masjid demolition

Judicial Court at Hojai was established on 20th October, 1982 and functioning as Court of Judicial Magistrate First Class. The Courts of Additional District and Sessions Judge(Fast Track Court),Sub-Divisional Judicial Magistrate, Munsiff cum JMFC Courts were later added under District Judiciary,Nagaon.

On 6th of March, 2021, Hon'ble Mr. Justice Suman Shyam, Judge Guahati High Court, inaugurated the Newly created Courts of District & Sessions Judge and Chief Judicial Magistrate at Hojai, Sankardev Nagar. Sri Aditya Hazarika became the first District & Sessions Judge and Sri Shakti Sharma became the first Chief Judicial Magistrate of Hojai District

## Block

LUMDING is a Block located in HOJAI district in Uttar Pradesh. Located in urban area of Uttar Pradesh, it is one among the 10 blocks of HOJAI district. According to the administration register, the block code of LUMDING is 132. The block has 103 villages and there are total 32087 families in this Block.

LUMDING's population is 195271. Out of this, 104735 are males while the females count 90536 here. This block has 29816 kids in the age bracket of 0-6 years. Out of this 15916 are boys and 13900 are girls.

Major Crop:- **T**he major crops of the district & block are SUGARCANE, CHILLI, VEGETABLE (BRINJAL, RIDGE GOURD, is themain cash crop of the district. The district has made a prominent place in fruits and vegetables cultivation. The important crops cultivated on commercial basis are SUGARCANE, CHILLI, VEGETABLE (BRINJAL, RIDGE GOURDetc. Major food and commercial crops include SUGARCANE, CHILLI, VEGETABLE (BRINJAL, RIDGE GOURD

**Major Top Agricultural and Horticultural Crops of the Block**

| Sr. No | Agriculture Commodities | Horticulture Commodities |
|---|---|---|
| 1 | Wheat | Potato |
| 2 | Peddy | Brinjal |
| 3 | Millet | Mix Vegetable |
| 4 | Sugarcane | Tomato |
| 5 | Urad | Chilli |
| 6 | Garlic | Garlic |
| 7 | Mustard | Ginger |
| 8 | Bajra | Ridge Gourd |
| 9 | Millets | Urad |
| 10 | Tomato | Pepper |

## General Information of the block and project cluster.

The word 'Lumding' owes its roots to a couple of Dimasa words 'Lama' and 'Ding' connoting 'straight pathway'. The word Lumding is also believed to be from karbi words 'loom' means the 'water from cloud' and 'ding' meaning 'scarcity or Nil'. There's another Railway station adjacent to it with the same root word "Lama" (Path), it is Lamasakhong (Valley of the small pathways) which is just a few kilometers away from Lumding

Over the years Lumding has developed into township. The railway township had always enjoyed scant rainfall during the rainy season every year, although the trend has significantly altered over the past few decades. Also Lumding was used as a radar station during World War II by British

Lumding is connected by NH 27 four-lane, which starts at Porbandar, Gujarat ends at Silchar (6 hrs.journey) via Lumding. Guwahati (2.5 hrs. journey) connected near Borghat Roundabout which is 5 km apart from Nagaon Sadar. State Highway 329 connects Lumding to Diphu (District Headquarter of Karbi Ang Long East).

Lumding, Lanka, Doboka, Hojai, Bheluguri, Borghat. Borghat Roundabout has four diversions to Guwahati, towards Lumding-Silchar, towards Tezpur and towards Nagaon.

Lumding-Silchar four-lane further diverted to Numuligarh near Doboka.LUMDING is a Block located in HOJAI district in Uttar Pradesh. Located in urban area of Uttar Pradesh, it is one among the 10 blocks of HOJAI district. According to the administration register, The block has 83 villages and there are total 32087 families in this Block.

## (Demographics, household size, members, and details of occupation)

| S. No | Parameter | LUMDING Block | | LUMDING Project Cluster | |
|---|---|---|---|---|---|
| | | Numbers | % | Numbers | % Against Block |
| 1 | Total No of Villages | 83 | 100 | 33 | 40 |
| 2 | Total Population of the Block | 255872 | 100 | 102349 | 41 |
| 3 | No. of Male | 130677 | 51 | 52271 | 42 |
| 4 | No. of Female | 125195 | 49 | 50078 | 40 |
| 5 | Child (0-14 years) | 29816 | 12 | 11926 | 39 |
| 6 | Total House Holds | 32087 | 100 | 12835 | 40 |
| 7 | SC House Holds | 3530 | 11 | 1412 | 41 |

| | | | | | |
|---|---|---|---|---|---|
| **8** | ST House Holds | 7059 | 22 | 2824 | 41 |
| **9** | Avg. members per Household | 5 | 100 | 5 | 100 |

Source: Fifth Annual Employment -Unemployment Survey, Labour Bureau, Ministry of Labour& Employment (2015-

## 2.1 Education Status:

The literacy rate of the block as whole is approx. 89% and out of which is female literacy rate is83% and male is 91%.

| S.No | LUMDING Block | | | LUMDING Project Cluster | |
|---|---|---|---|---|---|
| | **Parameter** | Male (no's) | Female (no's) | Male (no's) | Female (no's) |
| **1** | Total Population | 130677 | 125195 | 52271 | 50078 |
| **2** | Illiterate | 11761 | 22535 | 4704 | 9014 |
| **3** | Literate | 118916 | 102660 | 47566 | 41064 |

## 2.2 Occupational Details:

Almost 12% people of LUMDING block of HOJAI district are working directly in agriculture/ Horticulture sector requiring more interventions from the govt. or institutions forimprovement of this block's agri-production and overall market size of the cluster.

| S. No. | Parameter | LUMDING Block | LUMDING | |
|---|---|---|---|---|
| | | | Male (nos.) | Female (nos.) |
| **1** | Total Population | 255872 | 130677 | 125195 |
| **2** | Working Population | 86,184 | 43954 | 42,230 |
| **3** | Main Workers | 63,297 | 32282 | 31,016 |
| **4** | Main Cultivator | 19,993 | 10197 | 9,797 |
| **5** | Agri Labourers | 2,893 | 1476 | 1,418 |
| **6** | Marginal Workers | 1,266 | 646 | 620 |
| **7** | Marginal Cultivators | 1,140 | 581 | 559 |
| **8** | Non Working | 169,688 | 86541 | 83,147 |

## 2.3 Socio-economic Profile:

Socio-economic profile of LUMDING block shows that the majority of population is occupied in rural occupations and around 95% of the area of LUMDING block is being utilised for agricultural practices which have been selected for this project

| S. No | Particulars | LUMDING Block | LUMDING Project Cluster |
|---|---|---|---|
| 1 | Geographical area (sq. kms) | 575 | 230 |
| 2 | Population (total) | 255872 | 102349 |
| 3 | Males | 130677 | 52271 |
| 4 | Females | 125195 | 50078 |
| 5 | Population (rural) | 171434 | 68574 |
| 6 | % Rural population | 67 | 65 |
| 7 | Sex ratio (adult) | 970:1000 | 988:1000 |
| 8 | Sex ratio (0-6 years) | 970:1000 | 988:1000 |
| 9 | Total households | 32087 | 12835 |
| 10 | No. of rural households | 20857 | 8343 |
| 11 | BPL households (%) | 65 | 65 |
| 12 | APL households (%) | 35 | 35 |
| 13 | Per capita income | 12685 | 12690 |

## 2.4 Land use Patterns (Acres / Ha)



The details on land use pattern (acres/ha) are described as below:

| S. No | Parameters | LUMDINGBlock | LUMDING Block Project Cluster |
|---|---|---|---|
| 1 | Total geographical area (Sqkm) | 575 | 230 |
| 2 | Total cultivable area(000 h) | 57182 | 22873 |
| 3 | Net sown area(000 h) | 47019 | 18807 |
| 4 | Gross cropped area | 70582 | 28233 |
| 5 | Forest area(Ha) | 318 | 127 |
| 6 | Fallow land | 1289 | 516 |
| 7 | Rain fed area | 152 | 61 |
| 8 | Canal irrigated area | 248 | 99 |

## 2.5 Land holding:

In the rural areas, agriculture is the mainstay of the economy, with hardly any non-farm occupations available. Land Holding Pattern of the ABC Block and ABC project cluster is as under.

| Location | Total Farmers (Nos.) | Land Less/ Tenant Farmers No. / % | Marginal Farmers No./ % | Small Farmers No. / % | Semi Medium Farmers No. / % | Medium Farmers No. / % | Large Farmers No. / % |
|---|---|---|---|---|---|---|---|
| **LUMDING Block** | 17,466 | 0 | 8908 | 4192 | - | - | 3843 |
| **LUMDING project cluster** | 6986.4 | 0 | 3563 | 1677 | - | - | 1537 |

For the census, the government classifies land holdings into five groups: marginal (with holdings of less than one hectare), small (1-2 hectares), semi-medium (2-4 hectares), medium (4-10 hectares), and large holdings of over 10 hectares.

It is clear from the above table that Marginal and small farmers predominate in the villages of LUMDING Block and LUMDING project clusters having maximum number of Marginal and small farmers together comprise 61 percent of the total.

## 2.6 Mode of transportation.

| Mode of transportation | LUMDING Block | LUMDING Project Cluster |
|---|---|---|
| **Train service** | Yes | No |
| **Bus service** | Yes | Yes |
| **Truck service** | Yes | Yes |
| **Estimated no. of Power Weeder available** | 320 | 116 |
| **Others like tempo & Taxi service etc.** | Yes | Yes |

## 3.0 Economics of Agriculture – Cropping Pattern, costing, input and output ratios, yields and current productivity

**Crop wise cost of Production, Productivity per Acre / Ha, Average Realization from sale of commodities grown to be captured for top 5 Agricultural / Horticultural Crops grown in the LUMDING Block and LUMDING block project Cluster.**

| S.No | Crop | Season Kharif/Rabi | Sowing period | Harvest period | % area under crop | Prod. MT | Yield MT/ Ha | Cost of cultivation/Ha | Prod Cost Rs. /MT | Avg. Selling Price Rs. /MT |
|---|---|---|---|---|---|---|---|---|---|---|
| **LUMDING Block & LUMDING Project Cluster** | | | | | | | | | | |
| **1** | Sugarcane | Kharif | May | Spt-oct | 30 | 93968 | 2649 | 400000 | 470000 | 630000 |
| **2** | Paddv | Kharif | May | Spt-oct | 25 | 98429 | 2110 | 62000 | 90000 | 150000 |
| **3** | Wheat | Rabi | Nov | Apr-May | 13 | 557349 | 3060 | 62000 | 90000 | 150000 |
| **4** | Chilli | Rabi/kharif | - | - | 5 | 1544 | 1214 | 32000 | 36000 | 40000 |
| **5** | Arhar | kharif | May | Spt-oct | 7 | 179S | 1055 | 32000 | 36000 | 40000 |
| **6** | Vesretables | Rabi/ Kharif | - | - | 6 | 60556 | 22362 | 62000 | 90000 | 150000 |
| **7** | Potato | Zaid | Mar-Jun | - | 14 | 29200 | 28500 | 32000 | 36000 | 40000 |

# 4. Production Practices –

## 4.1 Availability of Basic amenities: Electricity, Internet and Water

Availability of Electricity, Water facility, Internet forms the gamut of basic amenities for the household and defines the socio-economic condition of the household in the block& project clusters. Hence data pertaining to these facilities may be captured here.

The Net annual Ground water availability at LUMDING block is 12420 Ham, In General the quality of ground water is suitable for drinking and irrigation Purposes. As per Wilcox classification based on EC of ground water, the water has been grouped in 5 categories as Detailed. Based on EC valuesclculated, water falls under good to permissible class for irrigation use

| S No | Parameter | LUMDING Block | LUMDING Project Cluster | |
|---|---|---|---|---|
| | | Number | Numbers | %age |
| 1 | Total no. of House Holds (HH) | 32087 | 12835 | 100 |
| 2 | No. of HH Having Electricity connection | 32087 | 12835 | 100 |
| 3 | No. of HH having Potable water Availability | 32087 | 12835 | 100 |
| 5 | Average Availability of Electricity (Hrs./day) | 16 Hours | 16 Hours | 67 |
| 6 | Availability of Internet in the block | 32087 | 12835 | 100 |



LUMDING block is totally rainfed as the farmers lack permanent source of water. Some of the farmers have created permanent source of water by constructing RCC water storage tanks but that is not sufficient for irrigating the orchard as the mode of irrigation is only flood irrigation. Farmers are aware about the benefits of micro irrigation but still they are not adopting it due to lack of subsidy as most of the farmers surveyed said that they have no hesitation in adopting micro 5 irrigation lest government provides them subsidy. The department of horticulture is providing subsidy on MI system but the funds for meeting the subsidy requirement is not sufficient. Moreover, farmers are demanding lifting of irrigation water from rivers/nallahs (wherever available) so that permanent source of irrigation can be created for saving apple during summer season

## 4.2 Climate and Soil:

Hills of Lumding puts it to a notable altitude from the sea level, but summers here can burn you up to 40 °C and the winters can be as chilling as 4-5 °C with fog and mist intervening in the early hours of the day. Monsoon is a notable season here, with rainfall around 60–125mm at an average. But its hills and altitude prevents any flooding in the region during heavy monsoon.

Climate here is favorable for vegetation and agriculture of tropical fruits and vegetables. Fruits like coconuts, pineapple, jack-fruit, papaya, banana are grown here. Cucumber, potatoes, cabbages and other green vegetables are common agricultural vegetables here.

The area experiences hot sub-tropical humid climate. A hot and humid pre-monsoon
From March to mid-May, a prolonged southwest monsoon or rainy season from mid-May to September, a pleasant post-monsoon or retreating monsoon from October to November and a Cold pleasant winter from December to February are the characteristics of the general climate.
5
Summer runs concurrently with the later part of the pre-monsoon season and continues throughout the monsoon season.

The four climatic seasons viz pre-monsoon, monsoon, post-monsoon and winter could be considered as comprising of the following months:

i. Pre-monsoon: March, April and May
ii. Monsoon: June, July, August and September
iii. Post-monsoon: October and November
iv. Winter: December, January and February
Sometimes, the monsoon commences in mid-May and ends in mid-September. Therefore, the boundaries between the seasons are not very rigid. The months October, November and December are considered to be representative study period. The mean daily maximum temperature during winter is about 25°C and minimum is11°C. The mean daily maximum temperature during summer is 34°C and the minimum is 24°C. The relative humidity varies from month to month and increases from 76% to 84% during the South west monsoon and is about 77% in rest of the year. The humidity varies throughout the year but seldom drops down below 67%. The average annual rainfall is 1541 mm. Rainfall is confined mainly during the monsoon season.

## 4.3 Soil Types

The major geomorphic units in the district are –

i. Denudational hills,
ii. Piedmont zone,
iii. Flood plain deposits with Charland and Swampy areas

i. Denudational Hills: It occupies eastern and southern part of the district comprisingparts of Karbi angling hills and N.C.hills. They are NE-SW trending ruggedtopographic highs standing out due to differentiated erosion. The hilly terrain iscovered by thick mantle of lateritic deposit and is densely forested.
ii. Piedmont Zones: These zones occur at the contact of the denudational hills and plains. They are high land forms deposited adjacent to hill slopes by fluvial action.They consist of assorted admixture of cobbles, pebbles, sand and a matrix of clay.
iii. Flood Pain deposits: Flood Plain deposit occupy a major part of the district withhuge thickness of unconsolidated alluvial sediment deposited by the mightyBrahmaputra and its tributaries. The Kopili River on the south and the Kalong Riveron the north-east have deposited the sediment during floods.
iv. Charland: Charland is relatively low lying area along the river Brahmaputra within therecent flood plain. The area is characterized by fertile land with sandy and silty loam. The Charland is formed due to oscillation of the river water which is eitherwashed away by subsequent floods or strengthened by further deposition.
v. Swampy areas: Swampy areas are low lying areas or the natural depressions createddue to change of river courses as abandoned channels or meander lakes. They arelocally known as beels and are found abundantly in the district.

The alluvial soil is mostly loamy and consists of a mixture of clay and sand in varyingproportions, ranging from pure sand on the banks of the Brahmaputra to sticky clay which is considered unfit for cultivation. Marshy soil is chiefly found in the low lying areas. These are black in colour. The red soil generally occupies the hill slopes and foot hills. Occasionally lateritic soil is also found near about Lumding. The plain areas bordering Brahmaputra River are occupied by alluvial sediments belonging to Quaternary ages. Based on such criteria such as sedimentation, soil characteristics and geomorphic features, the Quaternary sediments can be grouped into two subdivisions, viz.
(i) Older Alluvium, and
(ii) Younger alluvium.
The Older alluvium by virtue of its relative maturity is composed of somewhat oxidized sediments comprising yellow and the reddish brown colour sand, silt and clay in contrast to the light colour, less compact Younger alluvium sediment. The Older alluvium always occupies the higher grounds than the adjacent Younger alluvium but takes the proper stratigraphy position underlying the Younger alluvium sediments in the plain areas.

## 4.4 Availability of inputs:

Describe here the availability and quality status of various Agri-inputs such as Fertilizers, Manure, Pesticides, Herbicides, High quality Seeds, seedlings etc. required for growing the major crops

| S.No. | Parameter | Nos. in block |
|---|---|---|
| **1** | Fertilizer dealers | 5 |
| **2** | Pesticide dealers | 5 |
| **3** | Seed dealers | 8 |
| **4** | Nurseries | 30 |
| **5** | Tractor Agencies | 1 |
| **6** | Agri-implements dealers | NO |
| **7** | Agri – implement repair workshops | NO |
| **8** | Custom Hiring Centers (Agri-implements) | NO |

## 4.5 Access to Pre and Post-Harvest Facilities:

| S. No | Parameter | Nos. in block | Remarks |
|---|---|---|---|
| **1** | Soil testing labs | NO | |
| **2** | Agri-clinics | NO | |
| **3** | Krishi Vigyan Kendra (KVK) | NO | |
| **4** | Training Centre for farmers | NO | |
| **5** | Agriculture University (AU) or Nearest AU with distance | NO | |
| **6** | APMC Mandi | NO | |
| **7** | Food Parks | NO | |
| **8** | Agri Exports Zones | NO | |
| **9** | Mills / Processors | YES 10 MILLS | |
| **10** | Packaging centres | NO | |
| **11** | Food quality testing laboratory | NO | |
| **12** | Pack houses/Primary Processing centres/Collection Centre with capacity | NO | |
| **13** | Procurement centre | NO | |
| **14** | Others | NO | |

## 4.6 Availability of surplus crops for sale (Top 5 Crops)

| S.no | Crop | Season Kharif / Rabi | Harvest period | Production MT | Local Consumption MT | Free surplus for sale MT |
|---|---|---|---|---|---|---|
| 1 | Sugarcane | Kharif | Spt-oct | 93968 | 61079 | 32889 |
| 2 | Paddv | Kharif | Spt-oct | 98429 | 63979 | 34450 |
| 3 | Wheat | Rabi | Apr-May | 557349 | 362277 | 195072 |
| 4 | Chilli | Rabi/kharif | - | 65174 | 42363 | 22811 |
| 5 | Arhar | kharif | Spt-oct | 1795 | 1167 | 628 |
| 6 | Vegetables | Rabi/ Kharif | - | 77551 | 50408 | 27143 |
| 7 | Potato | Zaid | - | 29200 | 18980 | 10220 |

# 5. Financial Aspects – Sources, terms and conditions, interest and existing outstanding, access to government programmers

## 5.1 Sources of Finance available to Farmers

| S.No. | Source | Name of bank | No. of branches | Rate of Interest | KCC Account Holders (Nos) |
|---|---|---|---|---|---|
| 1 | Scheduled Commercial Banks | **PNB** | **3** | **7 %** | **3500 (Approx.)** |
| | | | | | |
| 2 | Cooperative Banks | | | | |
| | | | | | |
| 3 | Micro Finance Banks | **BANDHAN BANK** | **1** | **17 %** | **850 (Approx.)** |
| | | | | | |
| 4 | Non-Banking Finance Cos | | | | |
| | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 5 | Other Financial Institutions | | | | |
| | | | | | |

Other terms and conditions for extension of farm loans and difficulties faced by farmers (if any)

## 5.2 Access to Government Programs (Latest cumulative figure):

| S. No | Government Programs (State/Central) | Scheme Name | No. of Farmers Availing Scheme |
|---|---|---|---|
| 1 | Central | Paramparagat Krishi Vikas Yojana (PKVY) | 256 |
| 2 | Central | SFURTI | - |
| 3 | Central | PMFME (MoFPI) | - |
| 4 | Central | Formation of 10,000 FPOs | 122 |
| 5 | Central | Cold Chain Scheme of MoFPI | - |



## 6. Risk Aspects – Historical risks, computation of losses due to risk, coping mechanisms.

This chapter describes the risks and constraints those have been identified in the cluster; which have been the bottlenecks in the agricultural growth of this sector. The cluster's major risks and constraints are discussed as below along with potential solutions to cope up with the risk situation. Following are the historical risk in the block:-

## 6.1 Major Risks and Constraints Identified

The major constraints/risks of the selected cluster that emerge from the village survey and focus group discussions is mentioned below:

►Weak institutional structure: Weak institutional structure at grassroots and lack of collectives at intermediate level to address the livelihoods needs of marginal farmers. Lack of aggregation of demand through group activity or through cooperatives disables the farmers to access suitable business development services and in accessing distant markets, which is important to get better price for the produce.

►Premium market of agricultural produce has not yet available: as a result, the advantage of high agricultural produce has not percolate down to the farmers to its fullest potential.

►Uneven distribution of rainfall: Due to uneven distribution of rain fall and heavy down pour in month of July – August flood like situation is a major constraint.

►Lack of availability of credit for cultivation: Lack of availability of credit access for cultivation is identified as another prime constraint in these areas. Most of the farmers depend on village money-lenders for credit as they do not have KCC with the bank and have to pay high interest for borrowing money.

Transportation and distance are also found to be problems faced by the farmers.
Moreover, due to lack of collection and grading centres, transport and post-harvest losses are high.

►Heavy Pest and Disease Infestation: Heavy pest and disease infestation like stem borer, case worm, leaf folder, Gandhi bug, Blast, stem root, root knot nematodes, YMV, Bacterial wilt, Fungal wilt, late blight in potato, TLCV, are major problems in the cropping season.



## 6.2. Potentialities Identified for Coping Mechanism

There are a number of potential areas that have been identified while discussing with the farmers and Govt. Officials. Some of them can be as follows:

►Off-season vegetable cultivation: Off season vegetable cultivation is the most profitable venture and the farmers of the state are already doing it. But a number of growers grow these vegetables in open fields. There is huge potentiality to enhance the productivity and qualities of the produce through the use of protected cultivation such as, poly-green houses, shade nets etc.

►Great Scope for Rain Water Harvesting: Rain water harvesting can be used for irrigation using drip technology.

►Opportunity to shift towards farm mechanization: The FIGs can be provided with farm equipments like power tillers, so that the cost of cultivation can be reduced.

►Scope of Plantation Crops and Diversification: There are some parts of the state where there is scope of plantation crops. The vegetable growers can also be motivated to use their fellow lands to go for some plantation crops to maintain a diversification and stable income.

►Training Mechanisms for Unemployed Youth: The youths, many of them unemployed, can be initiated into farming which offers higher returns and intensive labour. The youths can be trained in farming techniques for selected crops and market linkage.

►Online marketing: Online Marketing channels can be made for marketing linkages with forward and backward linkage facilitation

►E-Haat & E-Mandi:Concepts of E- haat and Mandi can be adopted to make profitable venture.

| S.No. | Type of Crisis | Month and Year of Occurrence | Nos. of farmer affected | Crop involved in crisis |
|---|---|---|---|---|
| 1 | Heavy drought | During March/April. | 60 no's of Farmers. | Rabi crops. |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |

## 7. Marketing Aspects –

The chapter of Marketing Aspects would cover quick understanding of Channels of Marketing, Margins and Costs at Various Levels, Quality Aspects, Price Sensitivity, Seasonality of Markets, Alternate Market Structure, Present and Future Demand of Product.

## 7.1 Channels of Marketing:

The marketing channels of LUMDING blocks are mainly nearby Mandis in and around HOJAI district in Mandi. The details of a few nearby Mandis are as below:

| S.no | Name and location of weekly Market | Distance in Km from Block HQ | Major commodities handled |
|---|---|---|---|
| 1 | Lanka Bazar,Lanka,Hojai(Assam). | 5 kms. | Rice,Brinjal & Chilli. |
| | | | |

## 7.2 Presence of weekly Haats and Garmin Bazaars in the Block if any,

LUMDING block has a few such weekly haats and gramin bazaars where cluster farmers sell their vegetables/crops. The details are as below:

| S.no | | Name and location of weekly Market | Distance in Km from Block HQ | Major commodities handled |
|---|---|---|---|---|
| **1** | | LUMDING Market | 8 | Potato,Onion,Paddy Wheat & Vegetable |
| **2** | | N/A | - | |

## 7.3 Presence of Processing and Quality Assaying facilities in Clusters nearby

| S.no | Name and location of Processing Cluster | Quality Assaying Facilities | Distance in Km from Block HQ | Major commodities / Products |
|---|---|---|---|---|
| | Not yet. | | | |
| | | | | |

## 7.4 Value Chain Study

During LUMDING block's agri-cluster study, we have conducted a value chain analysis (VCA) sothat the cluster actors can make informed choices and the govt. and implementing agency can understand the cluster better in order to extend necessary support to the cluster and farmers' collective. The main purpose of this study is to focus on each component of value chain so the gaps can be identified and rectified with essential aid provided through the above discussed scheme/s. In this chapter, we would discuss major product's Sugarcane, Chilli Vegetable profile, and the overall chain from selection of seeds to final packaging of value added products using the selected crop. The analysis is as below

## Product Profile:

LUMDING block generally follows the cropping pattern of Sugarcane, Chilli Vegetable cultivation. The Agriculture crop Sugarcane, Chilli, Vegetable is identified for the FPO business.

The Indian Economy is primary agro based as over 58% of Indian population is directly involved in the occupations related to agriculture which is the main source of livelihood. The country is the leading or the second largest producer of many Fruits & Vegetables in the world. When it comes to Potato, India is the second largest producer with estimated production of 52 million tons in 2019. But when it comes to processing, India is not even in top 10 nations as Potato processing is insignificant.

**Requirement of Cooling System**

In Lumding Block Ninety-three percent population depend on agriculture. Upliftment of those categories can improve the overall status of the state, Comparing the developed states of our country, the economic condition of farmers from our state is miserable. The economic condition of of the people is poor out of the total farmers about 47 to 48 % of the people cultivate potato,tomato ,cabbage, beans, onion, brinjal, sweet potato, Pea Etc which harvest in limited period, Similarly the fruits have also limited life after harvesting, post-harvest cooling rapidly remove fields heat, reduces respiratory-Activity, Reduce internal water,wilting,Slow the growth of micro-organism and reduces the production of natural ripening agent i.e ethylene. Post-harvest cooling also provides marketing flexibility by allowing the grower to sell produce at the most appropriate time. Unavailability cooling and storage makes it necessary to market the produce immediately after harvest may result Unistress sale.

This can be an advantageous to growers who supply products restaurants and grocery stores or to small growers who wait to assemble truck load for transportation to other place,

Post-harvest cooling can be an effective tool to deliver highest qualitative produce to the consumer, intervention through through post-harvest cooling will help the farmers to store their produce and market them at the opportune

## NECESSITY OF COLD ROOM :

The financial condition of the farmers does not permit to establish a cold storage having capacity of 5000 MT which is meant to store 50,000 quintals of the products in the cold storage which require crores of Rupees to establish it. The concept of cold room is to store vegetables, fruits and flowers for shorter duration for which a small and marginal farmer can store products for shorter period and sell it without deterioration of the product. Farmers will also get appropriate value of the product. It will reduce the distress sale. The farmers can establish cold rooms having 10 MT capacity where the storing of surplus quantities may vary from 100 quintals . Since the investment of such cold room is low a farmer can easily establish a cold room to store his surplus products..

## CONCEPT OF THE POJECT Capacity utilization

The capacity utilization in cold storage for fruits and vegetables is generally about 70% which is due to short storage life of the produce and availability of produce for storage throughout the year. Generally cold storage operates for 300 days in a year. The cold storage space of the proposed project shall be primarily used for storing fruits and vegetables for short duration storage of around 1-4 weeks. Such cold storage facility would enable them for bargain for a better price of their produce at the bi-weekly /weekly wholesale markets.

**INCOME**: Income can be generated from cold rooms in the manner as follows:

(a) Income of the project shall be by the way of rent paid by hirers of cold storage space on a daily charge basis. It is proposed that space rent shall be Rs.0.30 p per Kg per day.

(b) Income of the project shall be by way of procurement and trading of vegetables and fruits.

(c) Income of the project can be made by both the above way i.e. by way of 50% by own trading and 50% by rent basis.

**Loading & Unloading**:

Loading of commodities in the cold chamber and subsequent unloading from cold chambers shall be by contract laborers, the charges for which will be realized from the hirers of space.

**Salary & wages**: One operator can operate the cold room who can be paid an amount of Rs.5,000/- per month.

**Chamber size:**

Size of the chamber will be of 14'-0"x10"-0"x10-0" for 10 MT capacity cool chambers. The storage racks shall be made of M.S. channels and angles.

**Objective of the Scheme:**

(i) To establish the small capacity of cool chamber / cold room in vegetable mandi / markets or in the field of farmers growing vegetables/fruits.

(ii) To store the surplus amount of vegetables in daily market for selling the products later.

(iii) To reduce the distress sale of the vegetables in the market.

(iv) To develop the cold chain facility in the concerned area

(v) To augment in case of farmers/small beneficiaries.

**Strategy:**

To fulfill the above objectives, following strategy will be adopted.

i) Most appropriate system will be provided to reduce the distress sale of vegetables.

ii) Farmers will get profit by selling the vegetables in the market in subsequent days.

iii) Capacity building of farmers and field functionaries will be taken up through training and demonstrations with active participation of refrigerated company.

iv) Information and communication technology will be deployed extensively for ensuring transparency in the implementation process and effective monitoring of the scheme.

**Pattern of Assistance:**

a) Subsidy @ 40% of the cost with maximum limitation will be provided under PHM of NHM.

b) The balance 60 percent amount is to be borne by the beneficiary.




**Process Chain Involve from Producer to customers**

**Business- Model- Contract Farming**

**This Fpo is the major produce of Sugarcane,Chilli, Vegetable(Brinjal, RidgeDourd) too, If we talk about the produce. With 150 farmers thereis a handsome chunk of Potato & peddy has been produce**

Contract farming can be defined as agricultural production carried out according to an agreement between a buyer and farmers, which establishes conditions for the production and marketing of a farm product or products. Typically, the farmer agrees to provide agreed quantities of a specific agricultural product. These should meet the quality standards of the purchaser and be supplied at the time determined by the purchaser. In turn, the buyer commits to purchase the product and, in some cases, to support production through, for example, the supply of farm inputs, land preparation and the provision of technical advice

In the major context, we are tie-up with various company for the maize for selective production of maize on contract basis, which give profitability and stability to farmers on there produce.

As maize is the popular staple food uses in various commercial products, So in order to get demand is easy. After getting demand, we will make proper channel/ Infra to develop proper supply without any breach.

\

**Market linkages.**

As farming as far scope for market linkages and get benifitted. After proper study on each aspect of blocks, we are looking for various channel of Market linkages for Peddy.

There are so many market for **Sugarcane,Chilli, Vegetable(Brinjal, RidgeDourd)**with accumulated produce of **Sugarcane,Chilli, Vegetable(Brinjal, RidgeDourd)** we are able to manage bargaining for the **Sugarcane,Chilli, Vegetable(Brinjal, RidgeDourd)** on right price at right time to reduce wastage by delay and also reduce loss incurred by farmer on not getting right market for their produce.

A farmer doesn't know about business, he/she only cares about there produce and give best out from their land. But with right Market linkages, we will help them to double their income and increase there  yield and living standard

### 7.5.1 Gaps identified in value chain study

The below gaps are identified by stakeholders in the

i. Non-Availability of Storage Facility: There are lack of warehouses/cold storages in Blocks where farmers could store their produce while they find a better market to sa

ii. Non-Availability of Processing Unit: Lack of knowledge amongst farmers about the deduction made while being paid for their produce in Mandi is because of lack of cleaning, sorting and grading of the produce.

iii. Weak links in backward and forward integration: In view of scattered approach, farmers are unable to leverage on the advantages available to them in procurement inputs and marketing of produce. The FPO will provide scope for procurement of inputs at lower price and selling of produce under one roof at a better price

iv. Lack of information about Government Schemes: More than 70% farmers are unaware about the government schemes such as Rashtriya Krishi Vikas Yojana, etc. and after conducting a study in the block, it was observed that more than 55% of them does not have a Kisan Credit card and more than 90% of them are unaware about the farm subsidies.

## Connectivity through Road, Train, Air, Etc.

| Parameter | Value Km/Nos |
|---|---|
| Total Villages in Block | 83 |
| Villages connected with Pucca Roads | 66 |

### 7.5.2 Availability of storage infrastructure

| S.No. | Storage Structure | Nos. | Capacity MT | Rate of Storage Rs/MT/Month | Remarks |
|---|---|---|---|---|---|
| **1.** | WDRA Approved ambient temperature warehouses | 1 | 400 | | |
| **2.** | Other ambient temperature | 0 | 350 | | |

| | | | | | |
|---|---|---|---|---|---|
| | warehouses | | | | |
| **2a** | Central Warehousing Corporation | 1 | 550 | | |
| **2b** | State Warehouse Corporation | 2 | | | |
| **2c** | Private Warehouses | 3 | 155 | | |
| **3** | Cold Stores | 5 | | | |
| **4** | Controlled Atmospheric Cold Stores | N/a | | | |

## Outcome & Social Impact

- At least a 30% increase in the income of at least 60% of total targeted households;
- At least 40% of farmers adopt best practices in agriculture and availed extension services, resulting in at least a 25% increase in farm production;
- Producer companies have established links with private market channels
- Additional youth farmers will benefit through replication of the model.

## Social Impact

- Social capital built in the form of FPOs
- Improved gender relation & decision making of women farmers in FO & FPOs – No. of women in key/ board member positions
- Increased bargaining power for input purchase and output marketing
- With youths gainfully engaged reduction in social conflicts and risks and enhance welfare at household level
- Improved food and nutritional value
- Leadership role of producers in technology absorption
- Environment- carbon credit
- Reduction in Migration
- Positive health and nutrition effects for users
- Increased food & nutritional security

# 8. Best Practices:

## 8.1. Post-Harvest Management – Meaning and Significance:

In agriculture, post-harvest management/handling is the stage of crop production immediately following harvest, including cooling, cleaning, sorting and packing. The instant a crop is removed from the ground, or separated from its parent plant, it begins to deteriorate. Post-harvest treatment largely determines final quality, whether a crop is sold for fresh consumption, or used as an ingredient in a processed food product. The most important goals of post-harvest handling are keeping the product cool, to avoid moisture loss and slow down undesirable chemical changes, and avoiding physical damage such as bruising, to delay spoilage. Sanitation is also an important factor, to reduce the possibility of pathogens that could be carried by fresh produce, for example, as residue from contaminated washing water.

After the field, post-harvest processing is usually continued in a packing house. This can be a simple shed, providing shade and running water, or a large scale, sophisticated, mechanized facility, with conveyor belts, automated sorting and packing stations, walk-in coolers and the like. In mechanized harvesting, processing may also begin as part of the actual harvest process, with initial cleaning and sorting performed by the harvesting machinery.

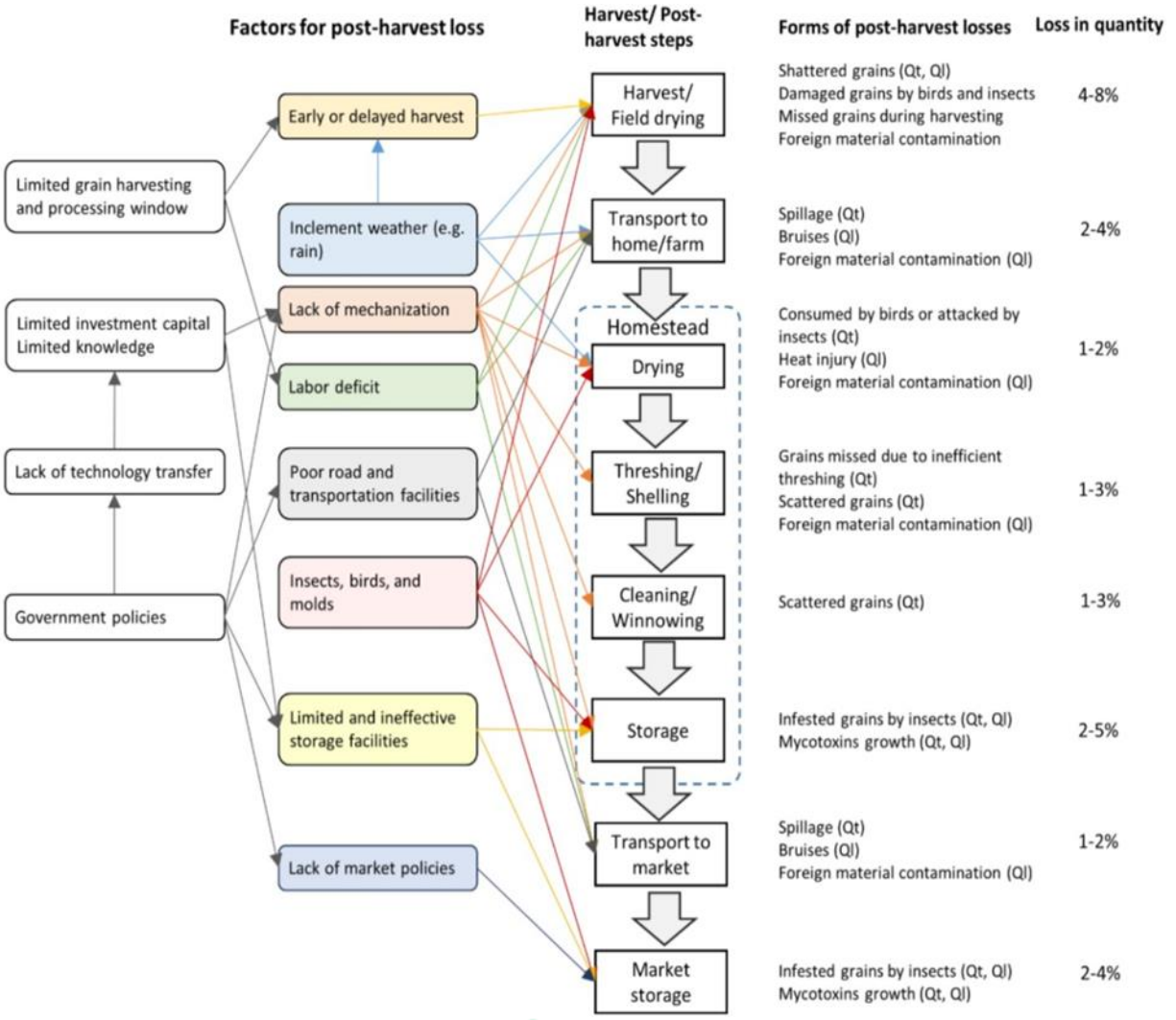
Initial post-harvest storage conditions are critical to maintaining quality. Each crop has an optimum range for storage temperature and humidity. Also, certain crops cannot be effectively stored together, as unwanted chemical interactions can result. Various methods of high-speed cooling, and sophisticated refrigerated and atmosphere-controlled environments, are employed to prolong freshness, particularly in large-scale operations.

Regardless of the scale of harvest, from domestic garden to industrialized farm, the basic principles of post-harvest handling for most crops are the same: handle with care to avoid damage (cutting, crushing, and bruising), cool immediately and maintain in cool conditions, and cull (remove damaged items).

Therefore, the post-harvest sector includes all points in the value chain from production in the field to the food being placed on a plate for consumption. Postharvest activities thus include harvesting, handling, storage, processing, packaging, transportation and marketing.

## 8.2. Post-Harvest Losses – Definition and Causes:

Post-harvest grain losses include all losses, starting from grain harvesting before it is used for consumption or other purposes. In most developing States, especially in ASSAM, agricultural productivity is lower compared to developed States. In addition to the lower agricultural productivity, post-harvest losses of cereals and legumes range from 20–30% in most developing countries around the world. Losses could be in terms or the quantity and quality of grain, both of which significantly reduce the value. Quantitative losses occur due to spillage and scattering of grain, direct infestation by pests, birds and mycotoxins, or mechanical breakages, whereas qualitative losses are mainly due to infestation by mold, mycotoxins, and mechanical breakages. There are different factors associated with different forms and extents of post-harvest losses along the grain supply chain.






Post-harvest loss of fruits and vegetables is defined as “that weight of wholesome edible product (exclusive of moisture content) that is normally consumed by human and that has been separated from the medium and sited of its immediate growth and production by deliberate human action with intention of using it for human feeding but which for any reasons fails to be consumed by human”. Not only quantity and quality but even appearance of fruits and vegetables are affected and their market values are reduced.

The nature in which post-harvest losses occur is given in brief below:

- Economic loss, which refers to reduction in monetary value as a result of physical loss,
- Quantitative loss which includes reduction in weight by moisture loss and loss of dry matter by respiration,
- Pilferage and other incidental loss in terms of quality of food, accepted standards of quality leading to loss of consumers appeal, and

Nutritive loss which includes loss in vitamins, minerals, sugars, etc. Proper postharvest handling of these perishables reduces post-harvest losses and helps in preserving nutritional qualities.

Moreover, causes of post-harvest loss of agricultural products can be classified into two. They are:-

a) **Primary causes**: Primary factors of post-harvest losses are those for which certain mechanical, physiological, pathological or environmental factors are directly responsible. Mechanical losses are caused by careless handling during harvesting, packaging, transportation and storage. Insects and birds are also responsible for mechanical injury in fruits and vegetables. Many a times, mechanical injury received by agriculture products due to pressure thrust during transportation, though sometimes invisible, leads to rupturing of inner tissues and cells. Such produce degrades faster during natural ageing process.

   A significant portion of losses during post-harvest period is attributed to diseases caused by fungi and bacteria. Besides attacking fresh produce, these organisms also cause damage to canned and processed products. Moreover, among environmental factors, temperature, humidity, composition and proportion of gases in controlled atmospheric storage play an important role in post-harvest loss of agriculture.

b) **Secondary causes**: Inadequate harvesting, transportation, storage and marketing facilities and legislation lead to conditions favorable for secondary causes of loss. Inadequate harvesting facilities and rough handling during harvesting result in bruising and increased possibilities of contact of produce of soil which leads to contamination with organisms. A prolonged period taken for harvesting and grading in field, leaves the produce with fiel

heat for longer time which subsequently causes faster senescence. Besides, use of improper machinery and equipment in mechanical harvesting causes serious losses.

Inadequate storage facilities at producing and marketing centers leave the produce at natural causes of losses. Transportation and distribution are important areas of post- harvest loss. Physical and mechanical injuries occur during transportation and distribution. Longer shipment and distribution periods eventually cause heavy losses.

## 8.3. Scenario of Post-Harvest Management and Losses:

Though Indian government is working actively to increase its food production to feed its population ,it is still a huge challenge for a country like India to waste so much of food when many people is spending days in poverty and hunger. The total loss in agricultural produce is estimated according to data published by the Ministry of Food Processing Industries. Reducing food losses by proper and appropriate postharvest management should be an important goal to follow by the government.

Apart from other problems, food security in a country is an important issue in agriculture. One of the major problems faced by developing countries today is to adequately feed the rapidly growing population and combating the malnutrition and under nutrition among the poor section of its society. Vegetables are closely associated with determining health standards of the people by preventing disease, and contributing to the nation's development and prosperity. Vegetables are not only rich and cheap source of carbohydrates but also of minerals and vitamins which are essential for building resistance against diseases. In order to have a balanced diet, a certain amount of vegetables is needed to consume per daily. In order to feed population of over a billion, there are so much to be done as average farm yield is still quite low and post-harvest losses are high.

## 8.4. Summary of Findings:

 Families engaged in shifting cultivation are having low socio-economic status in the study areas. It is observed that the monthly income of more than 62% of these farmers is less than Rs.10000. The average family size is estimated at 6 of which half of them are regularly working in the cultivation. As per the criteria of National Food Security Act 2013, more than 80% of the families are not having food security, while 28% are living in kutcha house.

 In spite of its significance in the livelihood system of the people in rural areas, the jhum size is quite low. The average size per family is estimated at 1.75 Ha. With a standard deviation of 0.9 Ha. and almost half (49.33%) of the farmers have cultivated areas less than 1 Ha. It is also worth noting that all these households are found to have adopted mixed cropping by cultivating different types of crops in the same land.

 It was observed that more than half (54.65%) of the produce from shifting cultivation are used for home consumption, and around 45% only are sold in the market to earn income The major crops which are cultivated for commercial purposes as indicated by the percentage of quantities sold are ginger (96.98%), dried chilli (79.48%), mock tomato (54.34%) and brinjal (51.83%). At the same time 100% of the paddies produced are home consumed.

 In the absence of organized marketing channels for agriculture produce under shifting cultivation, the main marketing stakeholder is middlemen through which more than 41% of the marketable surplus are sold by the farmers, while 21.31% are sold in the nearby urban market by the farmers themselves and sell in the village constitute 21.97%.

 The total average loss is observed higher for all the items which do not go through any post-harvest management activities while compared with those which went through some post-harvest management activities. The calculated statistics to compare the difference between the two are found to be significant for different post-harvest stages. Thus, it is safe to conclude that post-harvest management activities significantly reduce post-harvest loss of agriculture produces. This justifies our study hypothesis.

## 8.5. Conclusions:

This study observed that subsistence nature of farming under shifting cultivation in project area, where major portion of the produces are meant for domestic consumption. At the same time, the farmers have started selling of their surplus produces in the market, and started to select cash crops in their jhumland. People in the study areas have earned substantial amount of income by selling their produces. They do not have the proper skill, knowledge and materials to adopt modern post-harvest technology. Moreover, due to the absence of adequate storage facilities quantities they produce have to be disposed quickly after harvest to avoid loss. In spite of the quick selling of these produces, they are still found to have loss substantial quantities of their crops before selling it. Thus, it is necessary to introduce the practice of post-harvest management among the farmers to avoid loss and enhance their income from agriculture. Suggestions Given the existing scenario of post-harvest management practices and loss of agriculture produces under shifting cultivation, and to increase the farmers' income, this study has made the following suggestions.

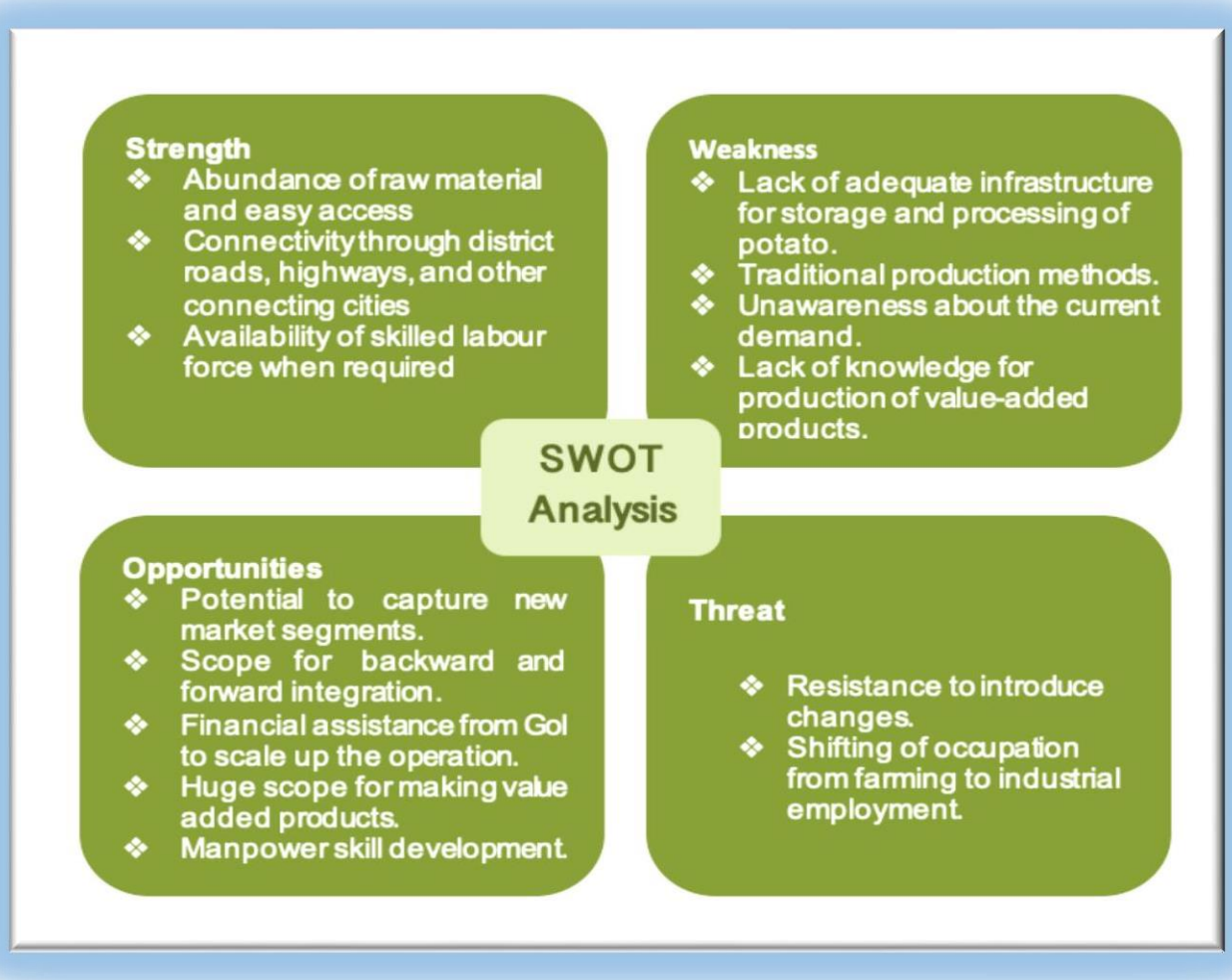
 It is necessary to make awareness among the farmers about the necessity and importance of post-harvest management practices to ensure higher farm income and hence agriculture development. In addition, skill development initiative may be made on the post-harvest management of agriculture commodities. This will have dual effect of generating employment and increasing farm income.

 It is necessary to make the tools and equipment for proper post-harvest management available and accessible to the farmer producers. This will greatly increase the practice and significantly reduce the loss by the farmer. The facilities may be made through either subsidy or other public intervention scheme.

 Inadequate storage facility is the main hurdle for the emergence of organized marketing channels for agriculture crops in Project area. So, it is suggested that the government maycreate environment for the coming of investment in the areas through the legislative and infrastructural provisions.

## 9. Constraints and Challenges (SWOT)

This section presents a summary of Strengths-Weakness-Opportunities and Threats (SWOT) analysis of the cluster, re-enforcing the need for the interventions. Appropriate intervention



# 10. Scope for Interventions along with Convergence.

## 10.1 Stages of Project Work

### 10.1.1 Village Study and Preliminary Identification

Soon after getting NABARD work order, **INDIAN SOCIETY OF AGRIBUSINESS PROFESSIONALS** team entered the community with a view to understand the community structure. **INDIAN SOCIETY OF AGRIBUSINESS PROFESSIONALS** also visited the District Agriculture Offices of the selected districts to identify the potential blocks for implementation of the programme. It has conducted some sample village profiling based on focus group discussion and some individual level interview held at Household level. The village profiling was done in some of the villages. The findings of the profiling have indicated that Fruits, vegetables and Paddy are the main contributor to income.

Potato and Peddy is widely being cultivated in the sample area and it is one of e livelihood activities that is predominant in the area and engage a sizeable number of the poor/women, in which there is a potential for increasing returns through aggregation Aggregation can be done for supply of inputs (seeds, fertilizers, cattle feed, raw materials, credit etc.), management of resources (water, common land etc.), processing/ value addition, marketing of output.

### 10.1.2 Organizing FPO

Identification of opinion leaders: Identify opinion leaders from among the producers and form a representative group of proactive people.

To organize farmers in group following features of group would be taken into consideration:

- The members should have common interests and similar resources at their disposal to form relatively homogenous groups.

- Be willing and able to contribute to group activities and meet group obligations

- Include both genders – men and women

- Orientation of leaders: Share the findings of the feasibility study and discuss the need for formation of an organization to utilize the potential of the particular livelihood activity.

- Discussion with village community: Involve the leader's group to organize a series of meetings of the village councils to discuss the following:

- Findings of feasibility study
- Proposed activities, Product's value addition, Linkages etc.
- Proposed action plan

## Issues Influencing Participation in FPOs:

**INDIAN SOCIETY OF AGRIBUSINESS PROFESSIONALS** Staff will exercise necessary caution in group formation, as the following issues will influence the extent of participation:

- The degree of the farmer's dependence on the outputs of the organized activity.
- The degree of certainty of the availability of the outputs.
- The extent to which the outputs will be available only as a result of collective action.
- The extent to which the rewards associated with the collective action will be distributed equitably.
- The extent to which the rewards are commensurate with the costs associated with continued participation

## 10.1.3 Formalizing

Visioning: Facilitate formulation of vision and mission of the collective with the promoters. Develop with them the values on which organization should be based.

Objectives and plans: Identify specific and realistic goals/objectives to inform the development of work plans and budgets. Some basic questions addressed through focus group discussions can help to identify objectives

## Steps in Developing an Organizational Structure –

- **INDIAN SOCIETY OF AGRIBUSINESS PROFESSIONALS** would facilitate discussion with the group leaders to understand the appropriate organizational structure,
Composition, and working rules for the efficient management of the respective farmer organization (FO & FPO) they belong to.

- Leaders should then draw up a tentative organizational structure and working rules for this FO & FPO. They should consider various models or types of organizations that serve their special needs for

agricultural development and discuss them with other experienced leaders from that village or neighbouring villages.

 Design an appropriate organization – objectives, activities, structure, rules, legal form and basic operating system (work flow) – in consultation with the leaders. Provide them complete information on each aspect and facilitate decision-making.

 Identify rules including obligations of group members to ensure the smooth running of the group and avoid conflict within the group

 Identify responsibility for leadership, coordination of logistics, record keeping, networking, team building, communication and other roles.

 Facilitate the election of the Governing Board/ Management Committee and office bearers, as required depending on the legal form of the organization. Facilitate framing of Vision, Mission, and Goals and draft the byelaws and other applicable resolutions with the board. Also facilitate the formation of subcommittees, as required, and clarify their roles and responsibilities.

 Educate the leaders and members about management principles covering planning, implementing, and monitoring their projects and programmes. The following empowerment methods may be useful

 Educating - Organize formal and informal learning activities.

 Leading - Help the leaders to lead and to learn from their actions by reflection as a team.

 Mentoring and supporting - Help the members initially by mentoring or supporting them in their planning and implementation stages.

 Providing - Obtain the services of other stake holders in providing various services to nurture the FO in the early stages of development.

 Structuring - Help the FO to structure its meetings and various participative planning activities and to learn from their experience through reflection.

 Actualizing - Help them to reflect on the process of managing their FO. Learning by doing can help them in self-actualization.

 Opening of bank account: Facilitate opening of a bank account, with signatories as per the byelaws of the organization.

 Collect share capital and other necessary fees: Collect the share capital, membership fees as applicable from members and deposit in the bank account.

 Registration: Complete the documentation required for registration and follow-up the process of registration. The Board/office bearers should take responsibility of these activities; the staff of **INDIAN SOCIETY OF AGRIBUSINESS PROFESSIONALS** will have only a facilitation role. Obtain the following from the Registrar's office

- Registration on certificate
- Approval of Board and Copy of Byelaws
- Instruction to open an account

 Training and exposure of producers – Organize trainings for producers on concepts and roles of the FIG & FPO and their own roles as members. If possible, also organize exposure visits to similar community organizations in the nearby area.

 Training Need Assessment shall be made by the RI for facilitation of better training, knowledge, dissemination of information and helping in marketability of produce for FPO

It is to be noted here that registration is not an essential part of formalizing at this stage. The organization may initiate its operations and register in the appropriate legal form later on when the membership and operations are sizeable. If the organization is an informal group, registration may not be required at all.

## 10.1.4 Systems development

**INDIAN SOCIETY OF AGRIBUSINESS PROFESSIONALS** would facilitate detailing of the Operating system, including the accounting system and document in the form of a manual in the vernacular language. It will also facilitate development of manual MIS Information system. It will also work upon development of HR system detailing roles and responsibilities, authority, compensation/remuneration etc. of the hired Human resource /Executive board/operational sub-committee members who run the day-to-day operation. Besides, it will develop a process wherein performances of the staff are reviewed against the business plan. This will be documented into a manual in a vernacular language so that Management Committee/board can easily understand and discuss amongst them.

## 10.1.5 Business planning and proposed business strategy

**INDIAN SOCIETY OF AGRIBUSINESS PROFESSIONALS** will facilitate development of a broad Business plan of the FPO. It will ensure that farmers viewpoints/ feedback is incorporated thus enabling FOs & FPOs should reflect on their activities more frequently so that they learn and improve their management skills.

### 10.1.6 Existing Value Chain and the Interventions Required:

The market led extension to the farmers need to be in place to bring awareness about market demands and standards so that small and marginal producers can adopt the right methods of post harvest management. The participation of small and marginal producers in the value chain needs to be ensured by taking right steps in undertaking capacity building programmes and training them on handling the produce in a way that agriculture produce can be marketed at a profitable price. Aggregation models for produce need to be developed with a network of assembly points, collection centres a terminal market in ASSAM. Government of ASSAM needs to invest in specialized markets and market infrastructure to handle agriculture produce and retain at each point of value chain. A systematic plan of investment, establishing institutions to manage organic produce and capacity building of producers and stakeholders in market led extension is a key suggestion to achieve efficiency in supply chain.

### 10.1.7 Monitoring and Review

The monitoring and evaluation of FOs & FPOS by measuring the increase in the members' productivity, the increase in their net income, and the net reduction in the cost of cultivation due to bulk purchases of inputs by the organization. It will also ensure that regular monitoring of the operations and governance of the institution and periodic evaluations are conducted.

**INDIAN SOCIETY OF AGRIBUSINESS PROFESSIONALS** would promote a system where in performance are jointly reviewed thus building in the FPOs a capability of self governance and data guided decision making.

## 10.2 Scope of Convergence:

### 10.2.1 Convergence & Linkages with other organizations and available scheme

**INDIAN SOCIETY OF AGRIBUSINESS PROFESSIONALS**
will facilitate long term collaborations with institutions/individuals such as input suppliers, output markets, service providers like seed suppliers/veterinary doctors/research institutions as applicable, so that they get timely and quality inputs/support. It will also facilitate linkage with support institutions, banks/ financial institutions to ensure timely flow of various kinds of funds/ capital.

Convergence with state schemes of Agriculture and horticulture department and other departments would be explored so as to maximize the impact of the interventions.

Various schemes are available for FPOs at state level which can be converged after the FPOs are formed for sustaining them. Following are schemes available:

- Apply Bio Fertilizer provided by HCCDD (Horticulture Cash Crop Development Department).
- Joint orientation training the farmer by HCCDD and RMDD (Rural Management Development Department) official before distribution planting material.

## Scope of Convergence

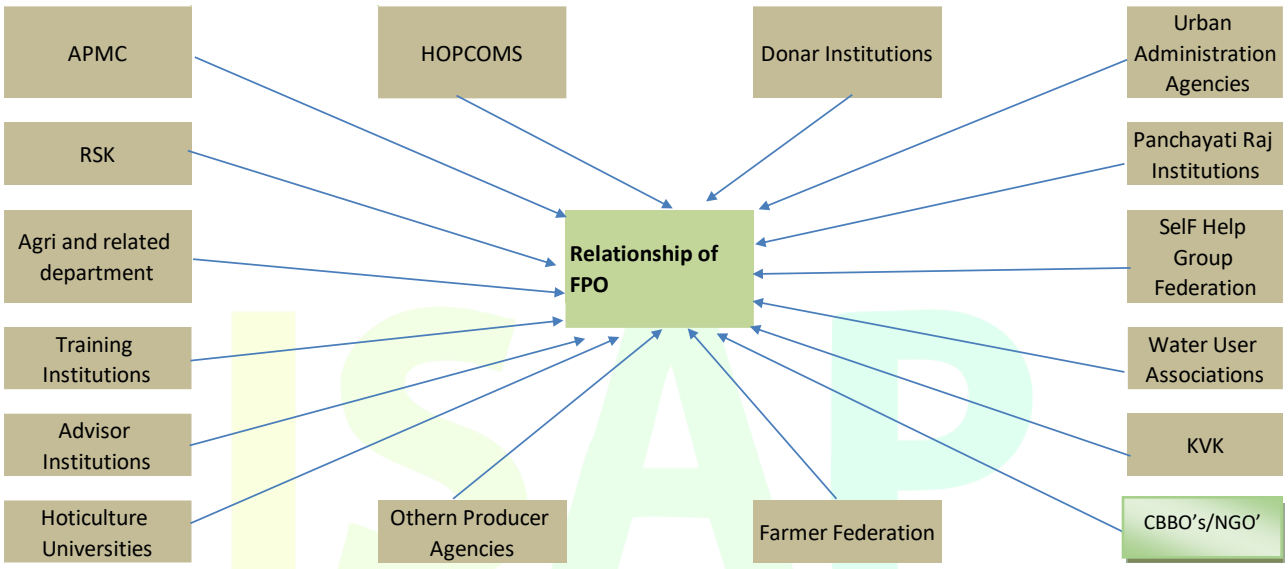
In order to achieve the aims of the FPO, if personal effort is made through the organization, department, and person and programmes it is difficult to achieve. It is very important to converge the programmes of various departments, projects that have same purpose and aim. The FPOs play a significant role as part of government help and part of departments. In this background, through convergence of FPO with various government departments and programmes it will be possible to achieve sustainable development aims, speed, quantitative and positive effect.

Why Convergence?

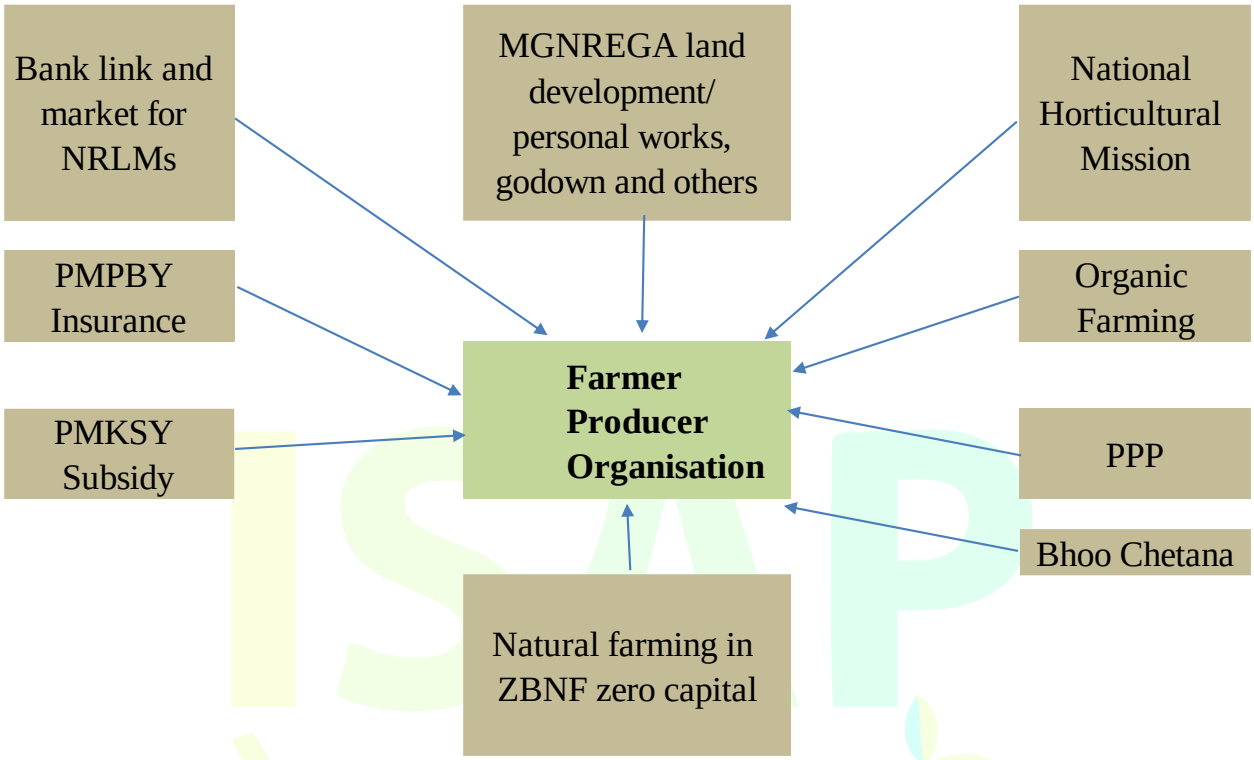
- Improving financial level
- Bring improvement in business affairs
- All the stakeholders participating in all the levels
- Strengthening democratic set-up
- Providing opportunity for sustainable development.

Convergence Methods:

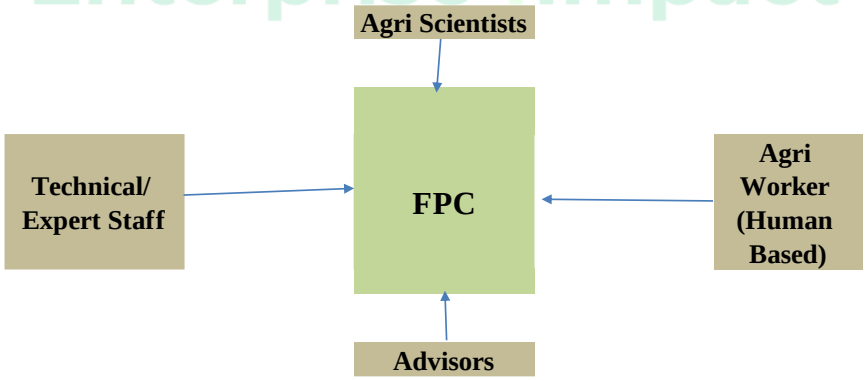
- Institutional Convergence
- Schematic Convergence
- Human resource Convergence
- Financial Convergence


APMC
HOPCOMS
Donar Institutions
Urban Administration Agencies
RSK
Panchayati Raj Institutions
Agri and related department
Relationship of FPO
SelF Help Group Federation
Training Institutions
Water User Associations
Advisor Institutions
KVK
Hoticulture Universities
Othern Producer Agencies
Farmer Federation
CBBO's/NGO'

Programme based Convergence:




Human based Convergence:



A Farmer Producers Organization can develop basic infrastructure through managing natural resources. It can achieve institutional network in its work area through convergence.

Primary level:

- Company's basic infrastructure
- Managing natural resources

↓

Value enhancement of the farmers production:

- Other Department/ convergence of programmes

↓

Production Skill Development:

- Food grains, fruits, flowers,
- Vegetables, milk, fish
- NMDP, RKVY
- SFS, PPP

↓

Market link:

- FIG/ WLF /GPLF
- NRLM fairs
- Market Organizations

## Equity Grant Scheme for FPO:

The Scheme shall address nascent and emerging FPCs, which have paid up capital not exceeding Rs. 30 lakh as on the date of application.

The Equity Grant Scheme enables eligible FPCs to receive a grant equivalent in amount to the equity contribution of their shareholder members in the FPC subject to a maximum of Rs. 10.00 lakh per FPC in two tranche.

## Credit Guarantee Fund Scheme:

Period of Implementation:

The Credit Guarantee Fund (CGF) shall be implemented from Financial Year (FY) 2013-14 onwards.

Implementing Agency
The CGF shall be operated by NATIONAL BANK FOR AGRICULTURE & RURAL DEVELOPMENT. (NABARD) through lending institutions.Eligible Lending Institution (ELI):
A Scheduled Commercial Bank for the time being included in the second Schedule to the Reserve Bank of India Act, 1934, and Regional Rural Banks, NABARD, NABARD and its subsidiaries, NEDFi, or any other institution (s) as may be decided by the NABARD Board or as directed by the Government of India from time to time.

## Pradhan Mantri Kisan SAMPADA Yojana:

Government of India (GOI) has approved a new Central Sector Scheme – Pradhan Mantri Kisan SAMPADA Yojana (Scheme for Agro-Marine Processing and Development of Agro- Processing Clusters) with an allocation of Rs. 6,000 crore for the period 2016-20 coterminous with the 14th Finance Commission cycle. The scheme will be implemented by Ministry of Food Processing Industries (MoFPI).
Pradhan Mantri Kisan SAMPADA Yojana:

PM Kisan SAMPADA Yojana is a comprehensive package which will result in creation of modern infrastructure with efficient supply chain management from farm gate to retail outlet. It will not only provide a big boost to the growth of food processing sector in the country but also help in providing better returns to farmers and is a big step towards doubling of farmers income, creating huge employment opportunities especially in the rural areas, reducing wastage of agricultural produce, increasing the processing level and enhancing the export of the processed foods.

## 12.Conclusion:

The government of India has envisaged doubling farmer's income by 2022, but this target is likely to be missed. This is because the efficiency, productivity, and economic viability of Indian agriculture are affected by many factors.

Factors like poor supply chain management, lack of modernization, and the declining average size of farm holdings are some of the reasons for agrarian distress. Moreover, these factors affect the small farmers to a bigger magnitude.

Recognizing the problems of small and marginal farmers in India, the government is actively promoting Farmers Producer Organization (FPO). The aggregation of small, marginal, and landless farmers in FPOs has helped enhance the farmers' economic strength and market linkages for improving their income.

## Benefits Emanating From FPO:

Declining Average Land Holding Size: The average farm size declined from 2.3 hectares (ha) in 1970-71 to 1.08 ha in 2015-16. The share of small and marginal farmers increased from 70 per cent in 1980-81 to 86 per cent in 2015-16.

 FPOs can engage farmers in collective farming and address productivity issues emanating from small farm sizes.

 Further, this may also result in additional employment generation due to the increased intensity of farming.

Negotiating With Corporates: FPO can help farmers compete with large corporate enterprises in bargaining, as it allows members to negotiate as a group and can help small farmers in both input and output markets.

Economics of Aggregation: The FPO can provide low-cost and quality inputs to member farmers. For example, loans for crops, purchase of machinery, input agri-inputs (fertilizers, pesticides, etc.) and direct marketing after procurement of agricultural produce.

 This will enable members to save in terms of time, transaction costs, distress sales, price fluctuations, transportation, quality maintenance, etc.

Social Impact: Social capital will develop in the form of FPOs, as it may lead to improved gender relations and decision-making of women farmers in FPOs.

 This may reduce social conflicts and improved food and nutritional values in the community.

## Government's Effort for Promotion of FPO

 Since 2011, it has intensively promoted FPOs under the **NATIONAL BANK FOR AGRICULTURE & RURAL DEVELOPMENT** (NABARD), NABARD, state governments and NGOs.
 The ongoing support for FPOs is mainly in the form of, one, a grant of matching equity (cash infusion of up to Rs 15 lakh) to registered FPOs, and two, a credit guarantee cover to lending institutions (maximum guarantee cover 85 per cent of loans not exceeding Rs 100 lakh).
 The budget for 2018-19 announced supporting measures for FPOs including a five-year tax exemption while the budget for 2019-20 talked of setting up 10,000 more FPOs in the next five years.

 **One District One Product Cluster**: The Ministry of Agriculture and Farmers Welfare on Tuesday reiterated the importance of FPOs which are to be developed in production clusters, wherein agricultural and horticultural produces are grown/ cultivated for leveraging economies of scale and improving market access for members.
B. **"One District One Product"** cluster will promote specialization and better processing, marketing, branding and export.
 Collective Farming: FPOs can be used to augment the size of the land by focusing on grouping contiguous tracts of land as far as possible.

C. More focus should be on creating a supply chain and find new markets. Women farmers will play a major role in collective farming.

## Major Issues and Recommendations

| | | |
|---|---|---|
| 1. | Major problems/ issuesfaced by farmers in order of priority | • Price of final products needs to be corrected/fixed |
| | | • Wastage of crop |
| | | • Poor Market Linkage |
| | | • No storage facility |
| | | • No processing unit/ common facility units |
| | | • Weak links in backward and forward integration |
| | | • Lack of information about govt schemes |
| | | • Lack of technology adoption in the agriculture sector |
| 2. | Key Recommendationsfor formation of FPO | • FPO needs to engage process of value addition to their crop production cluster/s |
| | | • FPO needs to adopt technological interventions i.e. food processing machinery/equipment and storage facility in the village/block level |
| | | • FPO needs to ensure the cost effectiveness of the production/ processing in the cluster by minimizing transport and using local facility |
| | | • FPO needs to ensure the membership of farmers; more no of farmers in the group will always helpin raising the capital and ensuring the supply of enough raw material |
| | | • FPO needs to ensure the membership of farmers; more no of farmers in the group will always helpin raising the capital and ensuring the supply of enough raw material<br>• FPO members to strictly follow the systematic meeting and capacity building plan for each |
| 3 | Name of village/ Blockand District | • LUMDING in Dist. HOJAI |
| 4 | No. of FPO FORMED | • One - “FARMER PRODUCER ORGANIZATION” |

Annexure-II: OUTPUT TABLES

**Name of State: ASSAM**

## 12BASELINE SURVEY ABSTRACT

| Sl. No. | Name of State | Name of District | Name of Block | Name of Villages covered under baseline Survey | No. of farmers. interviewed during baseline survey | Name of Crops covered under baseline survey (Horticulture Crops) | Name of Crops covered under baseline survey Agriculture Crops) | No. of Mandis covered under baseline | No. of infrastruct re available | No. of infrastructure requred(based on the availability of crop produced in that area) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ASSAM | HOJAI | LUMDING | kaki | 50 | Wheat | Potato | LUMDING Krishi Mandi | 16 | |
| | | | | 2 No. Block 1 No. Gaon, Kaki | | Peddy | Brinjal | | | |
| | | | | 2 No. Block 2 No. Gaon, Kaki | | Millet | Mix Vegetable | | | |
| | | | | 2 No. Block 3 No. Gaon, Kaki | | Sugarcane | Tomato | | | |
| | | | | 2 No. Block 4 No. Gaon, Kaki | | Urad | Chilli | | | |
| | | | | 3 No. Block 1 No. Gaon, Kaki | | Garlic | Garlic | | | |
| | | | | Panijan | | Mustard | Ginger | | | |
| | | | | Pagla Basti. | | Bajra | Ridge Gourd | | | |
| | | | | LalMati | | Millets | Urad | | | |
| | | | | Choorahansi | | Tomato | Pepper | | | |

## Table 1: Status of Production Clusters in the district (i.e., sample area)

| S, No | Name of Block | Name of Crop largely produce in the district (For example Vegetable, Pulses, Oilseed, Cereal,forest produce etc.) | Average no. of growers (small and marginal farmer per hectare) | Estimated land devoted to cultivation (ha) |
|---|---|---|---|---|
| **1.** | LUMDING | Peddy | 22 | **10.0211546** |
| | | Wheat | 35 | **50.2335125** |
| | | Sugarcane | 25 | **7.23546521** |
| | | **Vegetable** | **45** | **45.2545121** |

## Table 2: Area and Production status of crop (i.e., sample area)

| S N | Name of Crop largely produce in the area as mentioned in the Table - 1 (For example, Vegetable, Pulses, Oilseed, Cereal, forest produce etc.) | | | | Name of Block | | |
|---|---|---|---|---|---|---|---|
| | | **Peddy** | **wheat** | **Sugarcane** | **Vegetable** | | |
| **1** | AREA (HA) | 10.0211546 | 50.2335125 | 7.23546521 | 45.2545121 | | **LUMDING** |
| **2** | PRDUCTION TONNES | 2014.35 | 740 | 110 | 1024.1 | | |
| **3** | **PRODUCTIVITY Qtl/ha** | **140.01** | **72** | **11.45** | **22.63** | | |

**Note: Mixed cropping and crop rotation is largely followed in the cluster area.**

Table 3:Main Source of Purchase of Seed/planting materials in the production clusters of identified cities- Percent Status

| S. No. | Name of State/City/Block | Govt. agencies | SAUs / Research Institution | Cooperative societies | Pvt. Agencies / Input dealers |
|---|---|---|---|---|---|
| 1 | ASSAM/HOJAI /LUMDING | 1 | 0 | 0 | 04 |

Table 4: Problems faced in getting quality seed (Percent Response to total sample farmers)

| S.No. | Block | Sample Farmers (Nos.) | Uncertainty in getting seed / planting material | Delay in supply of seed / planting material | inadequate quantity of seed / planting material |
|---|---|---|---|---|---|
| 1 | LUMDING | 50 | 0 | 24 | 5 |

## Table 5: Infrastructure/facilities available in the identified block (Percent status)

**Facilities available in the overall Production Clusters (You may change the heads of the facilities as per availability).**

| SN | District/Block | Soil Test Lab | Agri-clinic | Diseaseforecastig unit | Bio control laboratory | Cold Storage | e.t.c. |
|---|---|---|---|---|---|---|---|
| 1 | HOJAI/LUMDING | 2 | 0 | 0 | 0 | 5 | |

## Table 6: Area under the following on farm Management Practices

| Name of Block | Sprinkler irrigation (ha) | Drip irrigation(ha) | Plastic mulching (ha) | Low cost tunnels /green house | Lost Cost Green House | High tech GH/Poly sheets) | Shade nets/ Anti hail nets |
|---|---|---|---|---|---|---|---|
| LUMDING | 440 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 7: Percent wastage in produce at different stages of transportation and extent of wastage in the ProductionClusters

| Name Of Block | Sample Farmers (Nos.) | Stages of Occurrence of wastage | | | Extent of such wastage | | |
|---|---|---|---|---|---|---|---|
| | | Transport to Market | Any other stage after harvesting | No wastage caused | Upto 15% | 15 % to 30% | Above 30% |
| **LUMDING** | 50 | 4 | During transportation and span in between (in store and selling) | - | Yes | - | - |

Table 8: Farmers response towards cold storage/cool house usage

| S. No. | Total Sample Farmers | Number of Farmers using cold storage | % usage |
|---|---|---|---|
| **LUMDING** | **50** | **0** | **0** |

Table 9: Existing Cold storage facilities in and around Production Clusters of identified cities

| S. No. | Cold Storage Availability (Nos.) | Level/Quality of Facility | Nos. under Development |
|---|---|---|---|
| 1 | 2 | Average | - |

Table 10: KCC status of farmers in the sample area and Sources of loan

| Total No. of sample farmers | % of Farmers getting Loan from banking system (Commercial Bank /Coop. Bank) | % of Farmers having KCC facility | % of Farmers accessing loans through SHGs / Federations | % of Farmers depending on Informal Credit (money lenders) |
|---|---|---|---|---|
| **50** | 85% | 45.55 | 95 | 20 |

Table 11: Preferred markets by the growers of selected production clusters

| S.No | Sourcing Destination / Production Cluster | Preferred Market 1 (Name & Distance from production cluster to nearest Mandi) | Preferred Market 2 (Name & Distance from production cluster to nearest Mandi) |
|---|---|---|---|
| 1 | LUMDING | 1. Local Trader | LUMDING Krishi Mandi |

Table 12: Annual arrival of produce over the last three years in main Mandies of the identified cities

| Name of block | Name of Mandi | Total Annual arrivals (Quintal) | | |
|---|---|---|---|---|
| | | Year15 | Year16 | Year17 |
| LUMDING | Krishi Mandi | | | |

Table 13: Average Margins / Profits accessed at various stages of all produce (% margin/ profits per quintal)

| S. No. | Name of Produce | Commission Agent at sourcing point % | Commission Agent at Big Mandi + Mandi fee 1% | Wholesaler | Retailer |
|---|---|---|---|---|---|
| **1** | **Peddy** | 15 | 8 | | |
| **2** | Wheat | 11 | 5 | | |
| **3** | Sugarcane | 15 | 7 | | |
| **4** | Chilli | 12 | 5 | | |

Table 14: Time gap in getting the Price against the produce sold and duration of gap

| S. No. | Sample Farmers (Nos.) | Time gap reported in No. of days | | | | Mode of payment | | |
|---|---|---|---|---|---|---|---|---|
| | | Upto 1 day | 2-7 days | 7-15 days | >15 days | Cash | Kind | Cheque |
| **1** | 50 | - | 75 | 45 | 0 | 120 | - | - |

Table 15: Farmers willingness to take additional area in future and reasons for reluctance

| S.No. | Block Name | Name of Crop | %age of sample farmers willing to increase under productionArea | Reasons for reluctance to adopt additional area for producing particular crop | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | High Production cost | Area not Produ ctive | Crop susceptible to pests/ diseases | Certified seed / variety of choice not available | inputs not availab le | Crop not Remu nerative | Others |
| 1 | LUMDING | Peddy | 12 | - | 0 | 0 | **21** | 0 | 0 | Produce for their home consumption only |
| | | wheat | 20 | 10 | 10 | 30 | **0** | 0 | 10 | |
| | | Sugarcane | 0 | 0 | 0 | 0 | **0** | 0 | 4 | Produce for their home consumption only |
| | | Vegetable | 62 | | 12 | | | | | |

Table 16: Farmers' interest to join the cluster/group of farmers and farmers' association

| S. No. | Sample farmers (Nos.) | Interested to join Cluster / Group of farmers (%age) |
|---|---|---|
| 1 | 50 | 100% |

Table 17: Source of vegetables purchase by Consumers (Percent status)

| (% response of sample consumers towards preferred crop purchase point) | | | | | | |
|---|---|---|---|---|---|---|
| **Block** | **Name of Crop** | **Street Vendors** | **Locality/Colony Shop** | **Corporate Retail Outlets** | **Local Mandi** | **Main Mandi** |
| LUMDING | Peddy, Wheat, Vegetable & Sugarcane | 9% | - | 10% | **66%** | **15%** |

Table 18: Reasons for selecting the source of seed purchase (Percent response of consumers)

| Comparatively cheap price | Good quality | Convenience in purchase | All | Remark |
|---|---|---|---|---|
| 00 | 00 | 100 | | Easy to get on Credit |

Table 19: Protection Chemical uses in particular crop

| Crop Name | Main Protection Chemical Used | Source of purchasing chemical |
|---|---|---|
| **Peddy** | Thiamethoxam | IFFCO centre/local |
| **Wheat** | Carbendazim | Home Made/local |
| **Sugarcane** | | Local/IFFCO Centre |
| **Vegetable** | neonicotinoids | Local/IFFCO Centre |

Table 20: Average Cost of production of major crop in the production clusters under study

| Name of crop | Land Preparation | Seeds | Fertilizers/ Nutriens | Protection Chemicals | Irrigation | Labour for Intercultural Operations | Labour for Harvesting & Packing | Total |
|---|---|---|---|---|---|---|---|---|
| **Sugarcane** | **1500** | **100** | **2800** | **6000** | **1000** | **5000** | **5000** | 21100 |
| **Vegetable** | 1000 | 700 | 2500 | 2000 | 1000 | 500 | 2000 | 9700 |

Table 21: Crop constituting more than 70% of market arrivals in identified cities

| S.No | Block | Name of the vegetables comprising over 70 % of market arrivals |
|---|---|---|
| **1** | LUMDING | Sugarcane, Chilli, vegetable |

Table 22: Marketing channels followed by growers in study area

| SN | Farmer- Commission Agent/Broker-Wholesaler-Retailer-Consumer | | Farmer-Wholesaler-Retailer-Consumer | | Farmer-Farmer Collective/Mandi-Retailer-Consumer | | Any Other channel {Farmers-vendors/other state Mandis/consumers) | |
|---|---|---|---|---|---|---|---|---|
| | % of total produce sold | Producer's share | % of total produce sold | Producer's share | % of total produce sold | Producer's share | % of total produce sold | Producer's share |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# PICS RELATED TO FORMATION OF FPO IN BLOCK



GPS Map Camera
Village No.2 Block No.3, Assam, India
W2GM+VJ4, Village No.2 Block No.3, Assam
782445, India
Lat 25.926694°
Long 93.033982°
11/09/22 12:33 PM GMT +05:30
Google


GPS Map Camera
Nagaon, Assam, India
Udali Bazar Rd, Assam 782445, India
Lat 25.965965°
Long 93.020282°
11/09/22 01:28 PM GMT +05:30
Google

**Details of Farmers Participate in Baseline Survey**

| S.No | farmer_name | father_name | gender | Age | mobile_no | Block | Village | total_land |
|---|---|---|---|---|---|---|---|---|
| 1 | DUTIRAM BORAH | LT. PUHOR BORAH | Male | 60 | 9950000000 | LUMDING | Block 1 No. Gaon, Kaki | 3.42 |
| 2 | GHANA KANTA BORAH | LATE LILAMBOR BORAH | Male | 50 | 9680000000 | LUMDING | Block 1 No. Gaon, Kaki | 6.8 |
| 3 | TUNMONI BORUAH | NANDESWAR BORUAH | Male | 33 | 7090000000 | LUMDING | Block 1 No. Gaon, Kaki | 3.4 |
| 4 | DIBYA JYOTI BORAH | LT. RAMNATH BORAH | Male | 34 | 8400000000 | LUMDING | Block 1 No. Gaon, Kaki | 3.4 |
| 5 | JUNMONI BORAH | LT. GOBIN BORAH | Male | 32 | 9370000000 | LUMDING | Block 1 No. Gaon, Kaki | 3.4 |
| 6 | NABAJYOTI HAZARIKA | NABIN CH. HAZARIKA. | Male | 35 | 9710000000 | LUMDING | Block 1 No. Gaon, Kaki | 3.4 |
| 7 | ARUP BORAH | LT. FULAI BORAH | Male | 50 | 8640000000 | LUMDING | Block 1 No. Gaon, Kaki | 6.8 |
| 8 | SANTANU BORAH | PRABIN KR. BORAH | Male | 26 | 8490000000 | LUMDING | Block 1 No. Gaon, Kaki | 6.8 |
| 9 | BUBUL NATH | LT. RAMESWAR NATH | Male | 58 | 9710000000 | LUMDING | Block 1 No. Gaon, Kaki | 1.7 |
| 10 | POBITRA BORAH | LT. HOMESWAR BORAH | Male | 45 | 6000000000 | LUMDING | Block 1 No. Gaon, Kaki | 1.7 |
| 11 | BIPIN BORA | LT. MANIRAM BORA | Male | 59 | 9680000000 | LUMDING | Block 2 No. Gaon, Kaki | 2 |
| 12 | DEBA BORA | LT. MINAI BORA | Male | 42 | 8490000000 | LUMDING | Block 2 No. Gaon, Kaki | 1.4 |
| 13 | HEMKANTA BORA | LT. KOLIMON BORA | Male | 53 | 9950000000 | LUMDING | Block 2 No. Gaon, Kaki | 2.28 |
| 14 | JANTU | BHADRA BORA | Male | 36 | 864000000 | LUMDING | Block 2 No. Gaon, | 2.28 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | BORA | | | | 0 | | Kaki | |
| **15** | CHANTU DAS | BIRENDRA DAS | Male | 27 | 8010000000 | LUMDING | Block 2 No. Gaon, Kaki | 4.28 |
| **16** | BAPDHAN DAS | LT. LILADHAR DAS | Male | 51 | 9390000000 | LUMDING | Block 2 No. Gaon, Kaki | 2 |
| **17** | BHASKAR DAS | RATNA KANTA DAS | Male | 24 | 8470000000 | LUMDING | Block 2 No. Gaon, Kaki | 2 |
| **18** | MANIRAM BHARALI | LT. DHANESWAR BHARALI | Male | 60 | 9100000000 | LUMDING | Block 2 No. Gaon, Kaki | 4.5 |
| **19** | PRAFULLA BORA | LT. MINAI BORA | Male | 56 | 9950000000 | LUMDING | Block 2 No. Gaon, Kaki | 3.42 |
| **20** | PRADIP BORA | LT. THULESWAR BORA | Male | 58 | 7580000000 | LUMDING | Block 2 No. Gaon, Kaki | 1.42 |
| **21** | ANANDA SAIKIA | LT. HARAKANTA SAIKIA | Male | 56 | 8010000000 | LUMDING | Block 3 No. Gaon, Kaki | 3.42 |
| **22** | PUSHPA BORAH | LT. DIMBA BORAH | Male | 56 | 9960000000 | LUMDING | Block 3 No. Gaon, Kaki | 3.42 |
| **23** | BIDYUT BIKASH BORAH | THULESWAR BORAH | Male | 32 | 8400000000 | LUMDING | Block 3 No. Gaon, Kaki | 6.85 |
| **24** | BASANTA SAIKIA | LT. PANIRAM SAIKIA | Male | 55 | 9100000000 | LUMDING | Block 3 No. Gaon, Kaki | 3.71 |
| **25** | BASANTA BARUAH | CHANDRAKANTA BARUAH | Male | 50 | 8250000000 | LUMDING | Block 3 No. Gaon, Kaki | 4.57 |
| **26** | PRADIP BORAH | LT. TANGKESWAR BORAH | Male | 38 | 7900000000 | LUMDING | Block 3 No. Gaon, Kaki | 6.85 |
| **27** | RANTU BORAH | LT. KANTA BORAH | Male | 55 | 8010000000 | LUMDING | Block 3 No. Gaon, Kaki | 3.42 |
| **28** | PRAFULLA BORAH | MONIRAM BORAH | Male | 40 | 8100000000 | LUMDING | Block 3 No. Gaon, Kaki | 1.71 |
| **29** | RABIRAM KALITA | LT. PHEDUA KALITA | Male | 56 | 7900000000 | LUMDING | Block 3 No. Gaon, Kaki | 2.28 |
| **30** | BHUKSING | LT. MANPUR | Male | 58 | 995000000 | LUMDING | Block 3 No. Gaon, | 5.14 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | NATH | NATH | | | 0 | | Kaki | |
| **31** | SARAT BORAH | LT. GHANA BORAH | Male | 36 | 9680000000 | LUMDING | Block 4 No. Gaon, Kaki | 3.42 |
| **32** | MUKUT BORAH | LT. SUNARAM BORAH | Male | 42 | 9370000000 | LUMDING | Block 4 No. Gaon, Kaki | 3.42 |
| **33** | AKAMAN SAIKIA | KANMOINA SAIKIA | Male | 65 | 9680000000 | LUMDING | Block 4 No. Gaon, Kaki | 3.42 |
| **34** | BABLU BORAH | RITEN BORAH | Male | 32 | 7100000000 | LUMDING | Block 4 No. Gaon, Kaki | 3.42 |
| **35** | HIRANYA BORAH | PRABHAT CHANDRA BORAH | Male | 39 | 6000000000 | LUMDING | Block 4 No. Gaon, Kaki | 3.42 |
| **36** | PANKAJ BORAH | LT. MONIRAM BORAH | Male | 52 | 7900000000 | LUMDING | Block 4 No. Gaon, Kaki | 3.42 |
| **37** | PRABIN KALITA | LT. BHRIGU KALITA | Male | 51 | 9680000000 | LUMDING | Block 4 No. Gaon, Kaki | 2.28 |
| **38** | RANJAN HAZARIKA | LAKHESWAR HAZARIKA | Male | 39 | 7000000000 | LUMDING | Block 4 No. Gaon, Kaki | 3.24 |
| **39** | ARUP BORAH | LT. NARAYAN BORAH | Male | 53 | 6000000000 | LUMDING | Block 4 No. Gaon, Kaki | 3.24 |
| **40** | DIGANTA MAHANTA | BHUBANESWAR MAHANTA | Male | 52 | 8810000000 | LUMDING | Block 4 No. Gaon, Kaki | 2.28 |
| **41** | TILESWAR HAZARIKA | LT. KOLIRAM HAZARIKA | Male | 50 | 8470000000 | LUMDING | Block 1 No. Gaon, Kaki | 3.42 |
| **42** | RITUMONI BORA | NITYANANDA BORA | Male | 40 | 8820000000 | LUMDING | Block 1 No. Gaon, Kaki | 4.57 |
| **43** | DEBANANDA BHARALI | LAHI RAM BHARALI | Male | 36 | 8640000000 | LUMDING | Block 1 No. Gaon, Kaki | 3.42 |
| **44** | PRANJAL DAS | TULARAM DAS | Male | 35 | 6000000000 | LUMDING | Block 1 No. Gaon, Kaki | 5.14 |
| **45** | DIPANKAR HAZARIKA | PUSPA KANTA HAZARIKA | Male | 38 | 9860000000 | LUMDING | Block 1 No. Gaon, Kaki | 3.42 |
| **46** | SANGITA BORA MUDOI | W/O:- SUVAM MUDOI | Female | 36 | 9440000000 | LUMDING | Block 1 No. Gaon, Kaki | 5.14 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **47** | JONAKI DAS | W/O:- LT. ARUN DAS | Female | 49 | 8100000000 | LUMDING | Block 1 No. Gaon, Kaki | 6.85 |
| **48** | PUTUL BORA | LT. HEMA BORA | Male | 55 | 8010000000 | LUMDING | Block 1 No. Gaon, Kaki | 2.57 |
| **49** | GOJANDRA HAZARIKA | LT. KOLIRAM HAZARIKA | Male | 47 | 8010000000 | LUMDING | Block 1 No. Gaon, Kaki | 3.14 |
| **50** | SUNIL BORA | LT. HEMA BORA | Male | 43 | 971000000 | LUMDING | Block 1 No. Gaon, Kaki | 3.42 |