



SWAYAMPURNA GAON VIKAS PRAKALP

AN INTEGRATED RURAL DEVELOPMENT MODEL

Self-Reliant Villages • Prosperous Farmers • Strong India



WATER
MANAGEMENT



MODERN &
DIGITAL FARMING



DAIRY &
LIVESTOCK



PROCESSING &
VALUE ADDITION



STORAGE &
WAREHOUSING



MARKETING &
E-TRADE



EXPORT
LINKAGE



SHARE CROPPERS PVT. LTD.

Sanjay Khatri
Executive Director

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Director's Message

A New Rural Movement for Self-Reliant Villages, Prosperous Farmers, and a Strong India

Dear Farmer Friends, Villagers, and Project Partners,

Today, our nation's greatest need is true self-reliance. This idea is not limited only to an Atmanirbhar Bharat; it also begins with building self-reliant villages. With this vision, Share Croppers Pvt. Ltd. has undertaken the Swayampurna Gaon Vikas Prakalp. This project is not merely a scheme; it is a broad movement for rural transformation.

The project brings together all essential elements required for village development, including assured water availability, planned rural infrastructure, modern and computerised farming, dairy and processing industries, organic production, financial literacy, and digital literacy. The combined impact of these components will be reflected in increased farmer income, improved productivity, and a better quality of life in rural areas.

This project is built on the foundation of transparency, data analysis, and an open approach towards markets. Our main objective is to provide farmers with accurate information, proper guidance, and a clear understanding of market realities, so that they become capable of making their own informed decisions. We do not expect any guarantee from the government, because we firmly believe that with the right direction, trust, and active participation, farmers can create their own path of progress.

The greatest capital for this project is your participation, trust, and commitment. Money is not the main obstacle. If farmers, villagers, and partners participate wholeheartedly, this rural transformation can certainly become a reality.

Sanjay Khatri

Executive Director

Share Croppers Pvt. Ltd.

Swayampurna Gaon Vikas Prakalp

Share Croppers Pvt. Ltd.
Empowering Farmers. Enriching Future.

Farmer Testimonials

Voices from the Village

Bhaurao Shinde
Savargaon Village
Soybean Farmer
“ Before this project, farming was uncertain. Now I understand my costs, crop planning, and market options much better. ”

Akash Jadhav
Karanji Village
Vegetable Grower
“ Digital records, water planning, and timely guidance helped me improve quality and increase my farm income. ”

Vitthal Patil
Devgaon Village
Wheat & Dairy Farmer
“ With machinery support and better marketing, I now save time, reduce costs, and earn more from farming. ”

Planned Farming • Better Income • Stronger Villages

Project Vision

Self-Reliant Village, Prosperous Farmer, Strong India

Swayampurna Gaon Vikas Prakalp is designed with a clear and practical vision: to make every village economically strong, digitally connected, agriculturally productive, and socially responsible. The project focuses on creating a village-level development system where farmers do not remain dependent only on traditional farming, uncertain markets, middlemen, or seasonal income.

Through this project, Share Croppers Pvt. Ltd. aims to build a structured rural ecosystem in which water, agriculture, livestock, processing, storage, marketing, finance, technology, and social support work together as one integrated model. The goal is not only to increase production, but also to improve farmer decision-making, reduce unnecessary costs, create new income sources, and bring transparency in every stage of rural economic activity.

The project gives special importance to digitalisation and farmer-level data collection. When every farmer's land, crop, water availability, input cost, production cost, income, loss, and market linkage are recorded properly, the village can move towards a data-based development model. This will help farmers, Farmer Friends, FPOs, investors, CSR partners, banks, processors, exporters, and service providers work with clarity and confidence.

The Swayampurna Gaon Vikas Prakalp is not a short-term activity. It is a long-term rural transformation model based on participation, discipline, transparency, and collective growth. Every farmer, every village, and every partner has an important role in making this movement successful.

Through this project, the village will not remain only a production centre. It will become a planned rural economic unit capable of producing, processing, storing, marketing, and creating value for its own people.

Our vision is simple:

- A village should not wait for development.
- A village should become the centre of development.

2. Swayampurna Gaon Vikas Prakalp – Introduction

An Integrated and Partnership-Based Concept to Revitalise the Rural Economy

For many years, agriculture, irrigation, storage, processing, marketing, and various sources of rural income in Maharashtra's villages have functioned in a fragmented and unorganised manner. Because of this disconnected system, the financial stability, planning capacity, and long-term strength of farmers and rural communities have been seriously affected.

Today, the farmer is struggling alone for market prices, production stability, water availability, working capital, and rightful opportunities. However, this is not the problem of one farmer or one crop alone. It is a collective problem, and therefore its solution must also be collective, digital, partnership-based, and integrated.

With this background, Share Croppers Private Limited (SCPL) has developed the concept of the Swayampurna Gaon Vikas Prakalp. The objective of this project is to connect agriculture, water, production, input procurement, storage, processing, marketing, dairy, energy, and export-oriented production into one digital and professionally managed rural system.

Main Objectives of the Project

The key objectives of the Swayampurna Gaon Vikas Prakalp are:

- To create an integrated system for agriculture, water, markets, and income through digitalisation.
- To develop a sustainable rural investment and service delivery structure through the PPP – Public-Private Partnership – model.

To provide farmers with clear information and decision-making power regarding their land, production, cost of cultivation, sales, market prices, and profit.

- To implement a village-centric, self-managed, and data-based rural management model.
- To transform farmers from being only producers into active supply chain partners and stakeholders in the rural economy.

Key Features of the Project

The project includes the following major components:

- A digital platform for farmer registration, data collection, and real-time tracking.
- A farmer balance sheet system based on crop-wise cost, production, sales, and profit.
- Transparent and uniform-rate availability of seeds, fertilisers, pesticides, and agricultural materials through input trading.
- Access to farm machinery on a fuel-cost basis to reduce cultivation and labour costs.
- Storage, sorting, grading, packing, e-bidding, and warehouse e-trading systems for agricultural produce.
- Partner e-trading systems for perishable crops, along with Farmer Shop, Retail Vendor, and Society Vendor models.
- Solar-based well-to-well water management and irrigation service model.
- Integrated dairy collection, processing, biogas, energy generation, slurry utilisation, and organic or residue-free production chain.
- Development of export-quality agricultural produce, processing facilities, and market linkages.

Implementation Methodology

This project will be implemented through the active participation of CSR partners, PPP partners, investors, banks, FPOs, local institutions, technology partners, and farmers.

In this model, the farmer will not remain only a beneficiary. The farmer will become a participant, a co-decision-maker, and a partner in income growth.

Under this project, SCPL will develop the digital system, planning framework, management model, market linkages, infrastructure coordination, and service delivery structure.

FPOs and local institutions will participate in operations, sorting, grading, packing, service delivery, and local employment generation.

Investors and CSR partners will contribute to the development of rural infrastructure and essential project facilities.

Conclusion

The idea of a self-reliant village is not merely a concept. It is the combined form of management, technology, collective participation, infrastructure, and market connectivity.

Through this project, a village can stand on its own foundation. Farmers can practise more planned and profitable agriculture. The rural economy can become stronger, and villages can respond more effectively to future challenges related to water, markets, production, and employment.

“When the village becomes strong, the farmer becomes strong; and when the farmer becomes strong, the foundation of the nation becomes stronger.”

3. Project Background

Why Are Farmers Economically Weak in an Agriculture-Based Economy?

India is rapidly moving towards becoming a stronger and more developed economy. The country is counted among the major economies of the world and is making continuous efforts to achieve an even stronger economic position in the future. However, although India is an agriculture-based country, the contribution of agriculture and the financial condition of farmers have not improved to the expected level.

Even today, many farmers remain burdened by debt. To get their demands heard, they often have to come onto the streets, organise protests, block roads, or even stop railway movements. Although agriculture has great future potential, the younger generation is not strongly attracted towards farming. In many cases, farmers themselves think of keeping their next generation away from agriculture.

Why has this struggle emerged? Why does the farmer remain financially weak despite the opportunities available in agriculture?

- After studying these questions, Share Croppers Pvt. Ltd. identified ten major reasons behind the challenges faced by farmers.

Problem No. 1: Farmers Are Scattered, Making Communication and Service Delivery Difficult

Farmers in rural areas are spread across different villages. Because of this, direct communication, information sharing, service delivery, and business transactions become costly and complicated.

As a solution, SCPL is working on the digitalisation of agriculture and farmers. Every farmer and farm will be registered on a digital platform. This will make it possible to communicate with farmers, provide scheme information, deliver services, and conduct transactions through a single organised system.

Problem No. 2: Lack of Digital Farm Data Creates Difficulties in Import-Export Policy

For effective import-export policy decisions, the government requires accurate information about marketable agricultural produce available with farmers. At present, in many cases, only cultivation area data is available, while actual production and marketable surplus data are not digitally available.

As a result, policy decisions are often made on estimates. This may lead to inflation, hoarding, and market instability.

SCPL will collect farmer-wise and crop-wise data on marketable production. This information can help create a more transparent and accurate import-export policy framework.

Problem No. 3: Lack of Clarity in Market Intervention Policy

The government occasionally intervenes in the market to control prices and protect consumers or producers. However, due to the absence of accurate data about the quantity of marketable produce available with farmers, such interventions often fail to produce the desired impact.

SCPL will create a data-based balance between urban market demand and marketable produce available with farmers. This can make market intervention more planned, transparent, and effective.

Problem No. 4: Farmers Do Not Receive Prices Based on Cost of Production

In the global market, prices are determined by demand and supply. However, in India, there is still no sustainable, digital, and transparent system to calculate crop-wise and farmer-wise production costs.

Due to this, farmers do not receive fair market prices based on their actual cost of production. This creates dissatisfaction, leads to protests, and turns agriculture into a political issue.

SCPL will collect crop-wise cultivation area, actual expenditure, and production data from each farmer. This will help develop a system to estimate the true cost of production for agricultural commodities.

Problem No. 5: Support and Relief Policies Are Not Fully Transparent or Farmer-Centric

Agriculture is highly dependent on natural conditions. Unseasonal rain, drought, pests, diseases, and natural disasters can cause major losses to farmers. If timely and accurate support is not provided during such situations, farmers fall into serious financial distress.

At present, a complete farm balance sheet or real financial data of each farmer is not available. Therefore, relief and support policies are often based on incomplete information.

SCPL will prepare a digital farmer balance sheet based on cultivation cost, production, sales value, and losses. With this transparent data, CSR companies, institutions, and donors can directly support affected farmers.

Problem No. 6: Lack of Control Over Production Cost

Every farmer has different financial capacity, landholding, resources, and technical knowledge. Because of this, there is a large variation in production costs. If the cost of seeds, fertilisers, pesticides, saplings, labour, and machinery is not controlled, farming cannot remain profitable.

SCPL will make quality agricultural inputs available to farmers at fair prices through input trading. In addition, a machinery service model on a fuel-cost basis will be introduced to reduce labour and machinery expenses. This will help farmers control their overall production cost.

Problem No. 7: Lack of Infrastructure to Secure Prices Based on Production Cost

Demanding fair prices based on production cost is not enough. For this, proper infrastructure, data systems, collection centres, warehouses, processing centres, and marketing systems are required.

SCPL will appoint Farmer Friends / Data Collectors at the village and pin-code level. Block offices, crop-wise collection centres, warehouses, and future processing centres will be developed to enable planned marketing of agricultural produce. This will help farmers enter the market in an organised and collective manner.

Problem No. 8: Farmers Cannot Afford Irrigation Infrastructure Investment

Irrigation requires wells, borewells, pumps, pipelines, electricity connections, and other infrastructure. Small farmers often cannot afford such investment. If water is not found in a well or borewell, the farmer faces a major financial risk.

To solve this problem, SCPL will implement an Integrated Irrigation Management and Distribution Project under the PPP model. Through this project, village water sources will be connected and a planned, shared water supply system will be developed.

Problem No. 9: Farmers Do Not Have Regular Monthly Income

Farm income is seasonal. Therefore, farmers do not receive regular monthly cash flow. This creates difficulties in household expenses, loan repayment, education, healthcare, and further investment in farming.

SCPL will implement an Integrated Milk Management and Marketing Project through the PPP model. The dairy project will provide farmers with a regular monthly income base. In addition, biogas, slurry, organic manure, and energy generation will create additional economic opportunities.

Problem No. 10: Need to Connect Farmers with Organic and Export-Oriented Production Systems

There is a major global opportunity for organic, residue-free, and export-quality agricultural produce. However, this requires proper production systems, records, certification, quality control, traceability, and market linkages.

SCPL will implement an Integrated Organic Agricultural Production Management Project to prepare farmers for organic and export-oriented production. This will include digital records, input control, organic certification, processing support, and export market linkage.

Overall Conclusion

- Based on this background, Share Croppers Pvt. Ltd. has developed the Swayampurna Gaon Vikas Prakalp.

This project brings together technology, data, the PPP model, CSR participation, Farmer Friends, FPOs, irrigation, dairy, input trading, e-bidding, warehouse e-trading, Farmer Shops, and export-oriented production into one integrated rural development system.

The project does not attempt to solve farmers' problems in isolation. Instead, it connects these problems to one comprehensive rural development framework.

Through this model, the farmer can become digitally visible, economically stronger, better connected to the market, and more capable of taking independent decisions. At the same time, the village can move towards self-reliance through planned water management, local employment, rural infrastructure, value addition, and transparent market participation.

“A strong village creates a strong farmer, and a strong farmer creates a strong nation.”

4. Four-Phase Project Model

Swayampurna Gaon Vikas Prakalp

The Swayampurna Gaon Vikas Prakalp is designed as a structured four-phase rural development model. Each phase is connected with the next, so that farmers, villages, services, markets, and livelihood projects can work together under one integrated system.

This four-phase model aims to create a clear roadmap for self-reliant villages, profitable farming, sustainable agriculture, and long-term rural development.

Phase 1: Farm Operations Digitization

- The first phase focuses on creating a complete digital foundation for farmers and farm operations.

Under this phase, digital records will be created for farmers, land details, crops, cultivation costs, production, sales, insurance, and farmer balance sheets. Real-time data will be collected to analyse crop-wise cost, production, income, and profit.

This phase will help farmers understand their own farming performance clearly. With proper data, farmers will be able to take better decisions regarding crop planning, input use, cost control, market timing, and income management.

Key Activities

- Digital registration of farmers, land, crops, expenses, production, sales, insurance, and balance sheets.
- Real-time data collection for crop-wise cost, production, and profit analysis.
- Development of a data-based decision-making system for farmers.

Phase 2: Agri Services Ecosystem

- The second phase focuses on providing essential agricultural services to farmers in an organised and transparent manner.

This includes the availability of seeds, fertilisers, pesticides, organic inputs, farm machinery, labour support, fuel-based machinery services, soil and water testing, and expert guidance. Farmers will be able to register their requirements digitally, book services, and access services through a transparent pricing system.

The main objective of this phase is to reduce production costs and ensure that required agricultural services are available to farmers at the right time.

Key Activities

Organised service system for seeds, fertilisers, pesticides, organic inputs, machinery, labour, fuel, soil testing, water testing, and expert advice.

- Digital demand registration, service booking, and transparent rate system.
- Timely availability of farm services to reduce production cost and improve efficiency.

Phase 3: Farm Produce Marketing

- The third phase focuses on organised marketing of agricultural produce.

This phase includes collection, sorting, grading, packing, storage, and planned sale of farm produce. Digital systems such as e-bidding, warehouse e-trading, partner e-trading, and Farmer Shop models will be used to connect farmers directly with buyers, processing centres, exporters, retail vendors, and consumers.

The objective is to make farm produce marketing more transparent, competitive, and farmer-focused. Farmers will be able to make decisions based on sales cost, sale value, market rates, and net income.

Key Activities

- Collection, sorting, grading, packing, storage, and sale planning of agricultural produce.
- E-bidding, warehouse e-trading, partner e-trading, and Farmer Shop systems.
- Direct market linkage with buyers, processing centres, exporters, and consumers.

- Transparent decision-making based on sales cost, sale value, and net income.

Phase 4: Integrated Livelihood Projects

- The fourth phase focuses on long-term rural income generation through integrated livelihood projects.

This includes water management, irrigation services, solar energy-based infrastructure, dairy development, slurry utilisation, biogas, organic manure, energy generation, organic farming, residue-free production, and export-quality production systems.

This phase will also create rural employment, processing industries, local business opportunities, and long-term income sources for farmers and village communities.

Key Activities

- Water management, irrigation services, and solar energy-based infrastructure.
- Dairy business, slurry utilisation, biogas, organic manure, and energy generation.
- Organic, residue-free, and export-oriented production systems.
- Rural employment, processing industries, and long-term income generation.

Purpose of the Four-Phase Model

The purpose of this four-phase project model is to create an integrated strategy and action plan for the development of self-reliant villages.

Through this model, farming will not remain limited to production alone. It will be connected with data, services, market access, infrastructure, processing, energy, dairy, and export opportunities.

The four-phase model provides a practical roadmap for increasing farmer income, promoting sustainable agriculture, strengthening local development, and building a self-sufficient rural economy.

In simple terms, this model connects the farmer's field to services, services to markets, markets to livelihood projects, and livelihood projects to village self-reliance.

5. Phase 1 – Farm Operations Digitization

Detailed Module

Farmer and Farm Information Digitization – Solution and Sustainability

Farm information digitization is an effective solution for improving farmer productivity and strengthening rural financial stability. Through this system, farmers, administrators, agricultural experts, service providers, and marketing partners can access transparent, structured, and accurate data.

This phase creates the digital foundation of the entire Swayampurna Gaon Vikas Prakalp. Once farmer and farm-level data is properly recorded, all further activities such as crop planning, input supply, machinery services, irrigation planning, production forecasting, marketing, insurance, and financial analysis can be managed more effectively.

5.1 Sustainability of the Digitization System

The digitization system is designed to be sustainable, transparent, and useful for long-term rural development.

Complete Data Structure

The system will include detailed information related to farmers, crops, land records, crop growth, production capacity, resource availability, expenses, income, and financial performance.

This structured data will help create a clear profile of every farmer and every farm.

Transparency and Farmer Ownership

The farmer will have ownership and control over his data. All important transactions, records, and service-related activities will be maintained on a digital platform in a transparent manner.

This will help build trust among farmers, service providers, investors, CSR partners, FPOs, and market participants.

Better Planning Capacity

The collected data will support future planning related to crop selection, crop management, irrigation planning, production forecasting, and market linkage.

With proper data, farmers will be able to shift from guesswork-based farming to planned and informed farming.

Improved Communication

Through the digital platform, expert guidance, government scheme information, market updates, service availability, and business opportunities can directly reach farmers.

This will reduce communication gaps and make rural service delivery faster and more organised.

5.2 Data to Be Collected

The following types of data will be collected under the Farm Operations Digitization module:

Farmer Personal Information

- This includes the farmer's name, address, contact number, village, taluka, district, and other basic profile details.

Land and Area Information

This includes total landholding, cultivable land, crop-wise area, land classification, soil condition, irrigation status, and location details.

Crop and Production Information

This includes crop type, sowing details, crop growth status, estimated production, crop health, expected harvest period, and marketable quantity.

Financial Information

This includes cultivation cost, input cost, labour cost, machinery cost, irrigation cost, income, sale value, market price, profit, loss, and farmer balance sheet details.

Resource Information

- This includes irrigation sources, water availability, fertiliser usage, machinery, equipment, electricity, fuel, and other farm resources.

Agricultural Service Usage

This includes expert advice, soil testing, water testing, training programmes, government scheme benefits, input services, machinery services, and other farm support services used by the farmer.

5.3 Importance of Data Collection

Data collection is not only a record-keeping activity. It is the foundation for farmer empowerment, cost control, market planning, and long-term rural development.

Data-Based Decision-Making for Farmers

Farmers will be able to make better decisions regarding crop selection, production planning, input usage, market timing, and sales strategy.

- Instead of depending only on market rumours or traditional practices, farmers will be able to use real data for practical decision-making.

Support for Sustainable Agriculture

The system will help in better planning of water use, fertiliser application, irrigation methods, energy consumption, and environmental protection.

This will support sustainable farming practices and reduce unnecessary resource wastage.

Higher Income and Lower Risk

- Accurate data on market prices, production estimates, input costs, and expected sales will help farmers reduce financial risk.

Farmers will be able to understand whether a crop is profitable, what the expected cost is, and when it should be sold for better returns.

Village-Level Integrated Management

At the village level, the data will help create an integrated system for crop collection, service delivery, input planning, storage, marketing, and distribution.

This will make the village economy more organised and self-reliant.

5.4 Basic Data Collection Form

Web App: sharecroppers.in

A basic digital form will be made available through the sharecroppers.in web application. Farmers will be able to log in directly and upload their information.

The basic form will include the following modules:

- Farmer profile and contact information.
- Land, area, and crop details.
- Irrigation and fertiliser usage records.
- Crop type and production estimate records.
- Input, labour, machinery, and fuel cost records.
- Sales, market price, income, and profit records.
- Insurance and government scheme information.
- Complete financial transaction records.

5.5 Use of the Digital Platform

Farmers will be able to log in to the web application and update their farm-related information directly. Farmer Friends or local data collectors may also support farmers in uploading and maintaining accurate records.

Based on this data, the platform will support:

- Crop planning.
- Production forecasting.
- Cost and profit analysis.
- Farmer balance sheet preparation.
- Market connection.
- Input and service planning.
- Irrigation and resource management.
- Insurance and support documentation.
- CSR and donor-based assistance planning.
- Export-oriented production tracking.

5.6 Expected Outcome of Phase 1

The first phase will make farmers digitally visible and economically measurable. Every farmer's land, crop, cost, production, sale, income, and profit can be understood through a structured system.

This will help convert traditional farming into a data-based, transparent, and professionally managed activity.

Through Farm Operations Digitization, agriculture will become more sustainable, organised, and financially stronger.

In simple terms, Phase 1 creates the digital identity of the farmer, the farm, the crop, and the income cycle. This digital foundation becomes the base for all further services, marketing, infrastructure, and livelihood projects under the Swayampurna Gaon Vikas Prakalp.

5.1 Land Information and Its Importance

Basic Land Data Module

Land information is the first and most important foundation of farm digitization. Without accurate land data, proper crop planning, irrigation planning, input supply, production forecasting, and marketing decisions cannot be made effectively.

Under the Swayampurna Gaon Vikas Prakalp, every farmer's land information will be recorded digitally so that farming activities can be planned in a scientific, transparent, and profitable manner.

5.1.1 Data to Be Collected

The following land-related information will be collected from each farmer:

- Farmer's name and contact details.
- Group number, land parcel name, or farm plot identification.
- Total area of the land.
- Crop-wise classification of land, such as fruits, sugarcane, vegetables, grains, pulses, oilseeds, or other crops.
- Seasonal availability of land for cultivation.
- Land ownership details, leased land details, rental land information, or tenancy arrangement.
- Historical production data from previous seasons.
- Irrigation status and water availability, wherever applicable.
- Soil type and basic land condition, wherever available.

5.1.2 Importance for Farmers

Accurate land information helps farmers manage their farms in a more planned and professional way.

Complete Farm Record

Farmers get a proper digital record of their land, plots, crop areas, and cultivation history. This helps them understand and manage their farm assets more effectively.

Better Decision-Making

With clear land and crop data, farmers can take better decisions related to crop selection, sowing period, irrigation planning, fertiliser application, and seasonal crop rotation.

Increase in Productivity

When land, crop type, water availability, and previous production data are properly recorded, suitable crop planning becomes possible. This can help improve productivity and reduce unnecessary expenses.

Future Planning

Farmers can plan future crop changes, seasonal crop cycles, irrigation needs, fertiliser use, and input requirements more accurately.

This helps farming move from guesswork to data-based planning.

5.1.3 Importance for Government and Policy Planning

Land information is also useful for government departments, policy makers, and rural development agencies.

Sustainable Scheme Planning

Government schemes can be designed and implemented more effectively when they are based on actual farmer-wise and land-wise data.

Policy and Decision Support

Crop, land, and seasonal availability data can help in making better policy decisions related to agriculture, irrigation, input supply, crop insurance, market intervention, and rural infrastructure.

Transparent Survey and Registration

Digital land and production records can support transparent surveys, village-level data registration, and rural planning.

This helps reduce duplication, misinformation, and delays in scheme implementation.

5.1.4 Importance for SCPL

For Share Croppers Pvt. Ltd. (SCPL), land information is essential for project planning, service delivery, and supply chain management.

Data Analysis

SCPL can analyse farmer-wise landholding, crop pattern, production capacity, and service requirements through digital data.

This will help improve planning and provide need-based services to farmers.

Supply Chain Planning

Based on land and crop data, SCPL can plan crop collection, storage, grading, processing, transportation, and marketing more efficiently.

This will help create a direct connection between farmers and markets.

Farmer Participation Strategy

Accurate land data will help SCPL identify what facilities, training, services, financial support, and technical guidance are required for each farmer or village.

This will make project implementation more practical, targeted, and farmer-friendly.

5.1.5 Basic Data Collection Format

The basic land data collection format will include:

- Farmer's name and contact number.
- Village, taluka, district, and pin code.
- Group number, plot number, land parcel name, or farm identification.
- Total land area.
- Cultivable area.
- Crop type and crop-wise area.
- Seasonal land availability.
- Ownership type, leased land, rented land, or tenancy details.
- Previous crop and historical production details.
- Irrigation and water availability details.

5.1.6 Expected Outcome

This module will create a clear digital identity for every farmer's land. It will help farmers, SCPL, FPOs, investors, service providers, and government agencies understand the actual agricultural capacity of each village.

Accurate land information will become the base for crop planning, cost calculation, production forecasting, irrigation services, input supply, marketing, insurance, and future investment planning.

In simple terms, land data is the foundation of the entire farm digitization system. Once land is digitally recorded, every further farming activity can be planned more accurately, transparently, and profitably.

5.2 Labour Expenses Before Sowing

Purpose, Use, and Importance

Labour expenses before sowing are an important part of farm cost planning. Before any crop is planted, the land must be prepared properly, inputs must be applied, irrigation arrangements must be checked, and required machinery or labour support must be organised.

Under the Farm Operations Digitization module of the Swayampurna Gaon Vikas Prakalp, pre-sowing labour expenses will be recorded digitally. This will help farmers understand their actual cultivation cost and support accurate balance sheet preparation.

5.2.1 Purpose of Labour Expenses Before Sowing

- The main purpose of recording labour expenses before sowing is to understand the real cost involved in preparing the farm for cultivation.

Land Preparation

Labour is required for cleaning the field, removing unwanted plants, ploughing, levelling, soil preparation, and making the land ready for sowing.

- Proper land preparation improves seed germination, crop growth, water absorption, and overall productivity.

Application of Inputs

Before sowing, farmers may apply organic manure, fertilisers, soil conditioners, compost, or other inputs. Labour may be required for spreading these inputs properly across the field.

- In some cases, irrigation channels, drip lines, sprinklers, or water arrangements also need labour support before sowing.

Support Services

Labour may be required for operating or supporting farm machinery such as tractors, rotavators, cultivators, seed drills, and other equipment.

Along with labour, expenses related to fuel, machinery maintenance, and machinery handling may also be recorded as part of pre-sowing preparation.

Planning and Record-Keeping

Recording labour expenses helps farmers prepare a proper cultivation budget. It also supports farmer balance sheet preparation, cost analysis, and season-wise planning.

When labour expenses are recorded from the beginning of the crop cycle, the farmer can clearly understand the actual cost of cultivation.

Sustainability and Efficiency

Proper use of labour and machinery helps save time, fuel, and operational cost. It also improves sowing efficiency and ensures timely completion of farm activities.

Timely sowing and planned labour use can directly support better crop performance and higher production capacity.

5.2.2 Importance for Farmers

For farmers, labour cost recording is important because it helps them control expenses and improve profitability.

When farmers know how much they are spending before sowing, they can compare cost with expected income and take better decisions. This helps in budget planning, crop selection, input planning, and production management.

- Accurate labour cost records also help farmers avoid unnecessary expenses and identify where savings can be made.

5.2.3 Importance for SCPL

For Share Croppers Pvt. Ltd. (SCPL), labour expense data is important for preparing farmer balance sheets, crop-wise cost reports, and production planning.

This data helps SCPL understand the actual cost structure of different crops and villages. It also supports service planning, machinery deployment, input supply planning, and supply chain management.

With accurate labour cost data, SCPL can design better farm service models and help reduce farmers' production costs.

5.2.4 Importance for Government and Policy Planning

For government agencies and policy makers, labour expense data can support better agricultural planning and scheme implementation.

This information can help in understanding the real cost of cultivation, designing farmer support schemes, planning subsidy structures, promoting sustainable agriculture, and managing financial assistance during crop losses or natural calamities.

Accurate labour cost data can also help make agricultural policies more farmer-focused and practical.

5.2.5 Basic Data to Be Recorded

The following basic information should be recorded under pre-sowing labour expenses:

- Farmer name and crop details.
- Land area prepared for sowing.
- Type of labour work completed.
- Number of labourers used.
- Labour charges paid.
- Machinery support used, if any.
- Fuel and maintenance expenses related to machinery.
- Date of land preparation activity.
- Input application work completed before sowing.
- Total pre-sowing labour and support service cost.

5.2.6 Expected Outcome

Recording labour expenses before sowing will help create a clear picture of the farmer's initial cultivation cost. This data will support crop-wise cost analysis, farmer balance sheet preparation, production planning, and profit calculation.

Through this module, farmers can control unnecessary expenses, use labour and machinery more efficiently, and plan their crop season in a more professional manner.

In simple terms, pre-sowing labour expense data helps the farmer understand the real starting cost of cultivation and supports better planning for profitable farming.

5.3 Purchase Expenses Before Sowing

Input Purchase Data, Cost Control, and Supply Chain Planning

Purchase expenses before sowing are an important part of cultivation cost. Before the crop is planted, farmers purchase seeds, fertilisers, organic inputs, ropes, farm materials, soil conditioners, and other required agricultural inputs.

Under the Farm Operations Digitization module of the Swayampurna Gaon Vikas Prakalp, all pre-sowing purchase expenses will be recorded digitally. This will help farmers understand their actual input cost, compare brands and prices, control unnecessary expenditure, and plan cultivation more efficiently.

This module will also help SCPL, manufacturers, and government agencies create a transparent and demand-based agricultural input supply system.

5.3.1 Data to Be Collected

The following information will be collected under the pre-sowing purchase expense module:

- Seeds, fertilisers, ropes, organic inputs, soil conditioners, and other materials purchased before sowing.
- Farmer-wise real-time record of purchase expenses.
- Village-wise total input consumption based on farmer-wise purchase records.
- Company name, brand name, product type, quantity, and price details.
- Purchase date, supplier details, and payment details.
- Crop-wise input requirement and actual input use.
- Comparison of market price, project price, and farmer purchase price.

5.3.2 Importance for Farmers

For farmers, pre-sowing purchase data is highly useful for cost control and better production planning.

When every purchase is recorded digitally, the farmer can clearly understand how much money is being spent before sowing. This helps in preparing a proper cultivation budget and avoiding unnecessary or duplicate purchases.

Through organised input trading, farmers may save nearly 30% to 40% on input costs, depending on product type, supply chain efficiency, and direct linkage with manufacturers.

Farmers will also get better information about suitable brands, product quality, prices, and input usage. This will help them choose the right products at the right time and improve crop planning.

A transparent purchase record will also support farmer balance sheet preparation, profit calculation, insurance claims, support schemes, and future financial planning.

5.3.3 Importance for SCPL

For Share Croppers Pvt. Ltd. (SCPL), purchase expense data is important for developing a demand-based input trading model.

By collecting farmer-wise and village-wise input requirement data, SCPL can understand the actual demand for seeds, fertilisers, pesticides, organic inputs, and other farm materials. Based on this demand, SCPL can plan bulk procurement, direct manufacturer linkage, quality control, and timely supply.

This will help strengthen the supply chain from producer to farmer.

SCPL can also study brand-wise demand, farmer preference, price variation, product quality, and advertising impact. This will help SCPL identify reliable manufacturers and provide quality inputs to farmers at fair and transparent rates.

The main objective is to ensure inclusive benefit by reducing input cost, improving quality access, and creating a transparent supply system for farmers.

5.3.4 Importance for Manufacturers

For manufacturers, this model creates a direct and organised route to reach farmers.

Instead of depending only on multiple layers of distribution, manufacturers can supply products through SCPL's demand-based input trading system. This helps reduce unnecessary marketing and distribution costs.

Manufacturers can also understand farmer-wise and village-wise demand more accurately. This allows better production planning, inventory management, branding, and product improvement.

Through SCPL, manufacturers can sell directly into a transparent rural market. This helps protect margins, improve market discipline, and ensure that quality products reach farmers at reasonable prices.

5.3.5 Importance for Government and Policy Planning

For government agencies, a transparent input purchase system is useful for monitoring agricultural input supply, price stability, and farmer access.

This system can help control black marketing, artificial price rise, duplicate products, and poor-quality inputs.

During crop seasons, government agencies can use input demand and consumption data to understand whether seeds, fertilisers, and other materials are available at fair and stable prices.

This can support better agricultural policy, subsidy planning, crop-season management, and farmer welfare programmes.

5.3.6 Basic Data Collection Format

The basic pre-sowing purchase expense format will include:

- Farmer name and contact details.
- Crop name and season.
- Land area under cultivation.
- Type of input purchased.
- Product name and brand name.
- Manufacturer or company name.
- Quantity purchased.
- Purchase rate and total amount.
- Supplier or vendor details.
- Date of purchase.
- Payment mode.
- Expected use and actual use of the input.
- Comparison with standard requirement, wherever applicable.

5.3.7 Expected Outcome

This module will create a transparent record of pre-sowing input expenses. Farmers will be able to understand and control their input costs, while SCPL will be able to plan demand-based input trading and direct manufacturer-to-farmer supply.

Manufacturers will get a reliable rural market channel, and government agencies will get better visibility on input availability, pricing, and consumption patterns.

- This creates a win-win model for farmers, SCPL, manufacturers, and the rural economy.

In simple terms, pre-sowing purchase expense digitization converts input buying from an unorganised market activity into a transparent, demand-based, cost-saving, and farmer-benefiting supply system.

5.4 Sowing Information

Farmer-Wise and Land-Wise Crop Sowing Data

Sowing information is one of the most important parts of farm operations digitization. Once a farmer completes sowing, the crop cycle officially begins. Therefore, accurate sowing data helps in crop planning, production forecasting, insurance support, input planning, market linkage, and future income estimation.

Under the Swayampurna Gaon Vikas Prakalp, sowing information will be collected farmer-wise, land-wise, crop-wise, and season-wise through a digital platform. This will help create a transparent and reliable database for farmers, SCPL, government agencies, buyers, processors, and market partners.

5.4.1 Data to Be Collected

The following information will be collected under the sowing information module:

- Farmer-wise and land-wise sowing details.
- Season-wise sowing date.
- Location details such as pin code, village, taluka, district, and state.
- Crop group, crop name, crop variety, and brand details, wherever applicable.
- Area under cultivation for each crop.
- Seed type, seed quantity, and input use details, wherever required.
- Estimated production based on crop and cultivated area.
- Crop loss estimate and insurance-related information.
- Expected harvest period.
- Marketing and production forecast.

5.4.2 Importance for Farmers

For farmers, sowing information helps in better crop planning and crop management.

When sowing details are digitally recorded, farmers can track which crop has been sown, on which land, in which season, and on what date. This helps in planning irrigation, fertiliser application, pest control, labour requirement, harvesting period, and market timing.

Sowing data is also useful for crop insurance, compensation claims, and loss assessment. In case of natural calamity, crop disease, pest attack, drought, or unseasonal rain, the farmer can use digital sowing records as supporting information.

This data also gives farmers early visibility about expected production and possible market planning. As a result, farmers can take better financial decisions regarding storage, sale timing, processing, or direct market linkage.

5.4.3 Importance for SCPL

For Share Croppers Pvt. Ltd. (SCPL), sowing information is essential for planning marketing linkages and supply chain activities.

Based on farmer-wise and crop-wise sowing data, SCPL can estimate future production volume. This helps in planning crop collection, sorting, grading, packing, storage, processing, transportation, e-bidding, warehouse trading, and direct buyer linkage.

Sowing data also helps SCPL connect farmers with suitable buyers, processors, exporters, retail vendors, Farmer Shops, and partner e-trading channels.

Another important benefit is transparency. The information collected from farmers can be organised and shared with government departments, institutions, or project partners in a structured format whenever required. This creates trust and improves decision-making.

5.4.4 Importance for Government and Policy Planning

For government agencies, sowing data is extremely useful for agricultural planning and policy decisions.

Farmer-wise and crop-wise sowing information helps in estimating production, planning procurement, managing market intervention, preparing crop insurance support, and designing subsidy or relief measures.

Digital sowing data can also help ensure that schemes, financial assistance, and agricultural support reach the right farmers in a transparent manner.

Through a digital platform, crop and sowing data can be made available quickly and accurately. This can help control artificial shortages, black marketing, market instability, and unplanned price fluctuations.

- It also supports sustainable agriculture by enabling better planning of inputs, water, storage, and market systems.

5.4.5 Basic Data Collection Format

The basic sowing data collection format will include:

- Farmer name and contact details.
- Land parcel / group number / farm plot details.
- Village, taluka, district, state, and pin code.
- Crop group.
- Crop name.
- Crop variety or brand.
- Season and sowing date.
- Area under cultivation.
- Seed quantity used.
- Expected production.
- Expected harvest period.
- Insurance details, if applicable.
- Crop loss or risk estimate, if applicable.
- Marketing and production forecast details.

5.4.6 Expected Outcome

The sowing information module will create a clear digital record of every crop planted by every farmer. This data will help farmers manage their crop cycle more effectively and will help SCPL plan input supply, service delivery, marketing, storage, and sales.

For government agencies, this data can support accurate policy decisions, crop insurance, relief planning, procurement, market intervention, and agricultural development programmes.

In simple terms, sowing information connects the farmer's field with production planning, insurance support, market forecasting, and transparent decision-making.

5.5 Labour Expenses After Sowing

Crop-Wise Labour Cost Tracking and Cost Control

Labour expenses after sowing form a major part of the total cultivation cost. Once sowing is completed, every crop requires different types of work at different stages, such as irrigation support, weeding, fertiliser application, spraying, intercultural operations, crop protection, harvesting preparation, and other field activities.

Under the Farm Operations Digitization module of the Swayampurna Gaon Vikas Prakalp, post-sowing labour expenses will be recorded crop-wise, stage-wise, and farmer-wise. This will help farmers understand the actual cost of cultivation and take better decisions to reduce expenses and increase net income.

5.5.1 Data to Be Collected

The following information will be collected under the post-sowing labour expense module:

- Crop-wise labour expense details.
- Labour expenses at every stage of crop growth.
- Type of work completed in the field.
- Labour category such as male labour, female labour, machinery work, lump-sum work, or self-recorded work.
- Labour rate based on cultivated area.
- Male labour charges.
- Female labour charges.
- Machinery rent or machinery service cost.
- Date and stage of work completed.
- Total labour cost for each crop and each farmer.

5.5.2 Importance for Farmers

For farmers, post-sowing labour cost records are useful for controlling expenses and improving profitability.

By recording labour expenses at every crop stage, farmers can clearly understand where money is being spent. This helps them compare labour cost, machinery cost, and crop returns.

Farmers can plan labour use more efficiently and avoid unnecessary expenses. They can also decide whether a particular activity should be done manually, through machinery, or through a combined method.

Proper labour cost tracking helps reduce total production cost and increase net income.

5.5.3 Importance for SCPL

For Share Croppers Pvt. Ltd. (SCPL), post-sowing labour data is important for cost analysis and service planning.

By analysing labour expenses crop-wise and stage-wise, SCPL can prepare reduced-rate planning for the next season. This may include better machinery deployment, group labour planning, village-level service scheduling, and fuel-cost-based machinery services.

Farmer-wise data will also help SCPL understand where labour costs are high and where mechanisation or organised services can reduce expenses.

This information will improve production planning, supply chain planning, farm service management, and sustainable agriculture support.

5.5.4 Importance for Government and Policy Planning

For government agencies, crop-wise labour expense data can support better agricultural policy decisions.

This data can help understand the actual cost of cultivation for different crops and regions. It can also support subsidy planning, farmer training programmes, labour support schemes, mechanisation schemes, and financial assistance.

A digital labour expense system can improve transparency and cost control. It can also help prevent unnecessary cost escalation in the agricultural market.

5.5.5 Basic Data Collection Format

The basic post-sowing labour expense format will include:

Suvichar: A strong village creates a strong farmer, and a strong farmer creates a strong nation.

- Farmer name and contact details.
- Crop name and crop stage.
- Land area under cultivation.
- Type of work completed.
- Labour category: male, female, machinery, lump-sum, or self-work.
- Number of labourers used.
- Labour rate.
- Machinery rent or service cost.
- Work completion date.
- Total stage-wise labour expense.
- Total crop-wise labour expense.

5.5.6 Expected Outcome

This module will create a clear record of labour expenses after sowing. Farmers will be able to understand their crop-wise and stage-wise labour cost, compare manual labour with machinery use, and identify areas where expenses can be reduced.

SCPL will be able to plan better farm services, machinery support, labour management, and reduced-rate models for future seasons.

Government agencies will get useful data for policy planning, subsidy design, mechanisation support, and transparent agricultural cost analysis.

In simple terms, post-sowing labour expense digitization helps farmers control cultivation cost, improve crop management, and increase net income through better labour and machinery planning.

5.6 Purchase Expenses After Sowing

Crop-Wise Input Use, Cost Tracking, and Transparency

Purchase expenses after sowing are an important part of crop management and total production cost. After sowing, farmers regularly purchase and use different inputs such as fertilisers, pesticides, micronutrients, organic inputs, crop protection materials, and other crop-related items.

Under the Farm Operations Digitization module of the Swayampurna Gaon Vikas Prakalp, all post-sowing purchase expenses will be recorded crop-wise and farmer-wise. This will help farmers calculate the actual cost of production, use inputs at the right time and in the right quantity, and improve crop productivity.

This module will also support SCPL, experts, and government agencies in creating a transparent, data-based, and sustainable farm input management system.

5.6.1 Data to Be Collected

The following information will be collected under the post-sowing purchase expense module:

- Crop-wise and farmer-wise purchased input details.

Purpose of input use, such as pesticides, fertilisers, micronutrients, organic inputs, crop protection material, or other crop-related items.

- Brand name, company name, product type, and quantity used.
- Quantity ratio or dosage used for each crop.
- Method of application, such as manual application or machinery-based application.
- Machinery used for spraying, fertiliser application, or other crop-related work.
- Purchase cost records.
- Date of purchase and date of application.
- Supplier or vendor details.
- Uploading of bills, receipts, and supporting documents.

5.6.2 Importance for Farmers

For farmers, post-sowing purchase records help in calculating the actual production cost of each crop.

When every input purchase is recorded digitally, farmers can clearly understand how much they are spending on fertilisers, pesticides, and other crop inputs after sowing. This helps them control unnecessary expenses and improve crop-wise financial planning.

Proper records also help farmers use fertilisers and pesticides in the right quantity and at the right time. This can improve crop health, reduce wastage, and increase production.

- By reducing unnecessary input use and improving crop management, farmers can lower production costs and increase net income.

5.6.3 Importance for SCPL

For Share Croppers Pvt. Ltd. (SCPL), post-sowing purchase data is important for expert-based input planning, cost analysis, and sustainable farming management.

With proper data, SCPL can monitor the use of specific fertilisers, pesticides, brands, and crop protection products. This will help identify which products are being used, whether they are suitable, and how they affect crop cost and productivity.

SCPL can also use this data to guide farmers through experts, plan future input supply, improve supply chain management, and calculate accurate production costs.

This data will support residue-free production, organic transition planning, quality control, and export-oriented crop management.

5.6.4 Importance for Government and Policy Planning

For government agencies, crop-wise input purchase data is useful for agricultural policy, subsidy planning, and farmer support programmes.

This data can help understand the actual cost of cultivation after sowing and the type of inputs used by farmers. It can also support training programmes on safe pesticide use, balanced fertiliser use, organic farming, and sustainable agriculture.

A digital purchase record system can improve transparency in the input market and help control black marketing, duplicate products, artificial price rise, and poor-quality agricultural inputs.

It can also help ensure that subsidies, schemes, and technical guidance reach the right farmers at the right time.

5.6.5 Basic Data Collection Format

The basic post-sowing purchase expense format will include:

- Farmer name and contact details.
- Crop name and crop stage.
- Land area under cultivation.
- Input type purchased.
- Product name and brand name.
- Manufacturer or company name.
- Purpose of use.
- Quantity purchased and quantity used.
- Dosage or usage ratio.
- Purchase rate and total purchase amount.
- Supplier or vendor details.
- Date of purchase.
- Date of application.
- Method of application: manual or machinery-based.
- Machinery used, if any.
- Bill, receipt, or document upload.

5.6.6 Expected Outcome

This module will create a transparent record of all input purchases made after sowing. Farmers will be able to calculate crop-wise production costs more accurately and use inputs in a more planned and efficient manner.

SCPL will be able to support farmers with expert guidance, input planning, cost control, supply chain planning, and sustainable farming practices.

Government agencies will get useful data for policy decisions, subsidy planning, training, and transparent monitoring of agricultural input use.

In simple terms, post-sowing purchase expense digitization helps farmers reduce unnecessary input costs, improve crop productivity, and create a transparent record for cost calculation, expert guidance, and sustainable agriculture.

5.7 Production Information

Crop-Wise Production Analysis and Marketable Produce Tracking

Production information is a key part of farm operations digitization. After a crop reaches the harvesting stage, it is important to record the actual production, quantity kept by the farmer for personal use, and quantity available for sale.

Under the Farm Operations Digitization module of the Swayampurna Gaon Vikas Prakalp, production data will be collected crop-wise, farmer-wise, and season-wise. This information will help farmers calculate actual production cost, plan sales, manage storage, and connect with suitable markets.

It will also help SCPL and government agencies understand real production availability and take better decisions related to supply chain planning, warehousing, marketing, price stability, and import-export policy.

5.7.1 Data to Be Collected

The following information will be collected under the production information module:

- Crop-wise production details.
- Farmer-wise actual production quantity.
- Type of production and harvesting pattern.

Toda Type Production: Crops where harvesting is done at regular intervals during the season.

One-Time Harvesting: Crops where the entire production is harvested at one time.

Post-harvest records, including:

- Actual total production.
- Quantity retained by the farmer for personal or household use.
- Quantity kept for seed or future farm use.
- Quantity available for sale.
- Real-time record of marketable produce.
- Expected and actual harvest date.
- Quality, grade, and storage requirement, wherever applicable.
- Perishable or non-perishable classification of produce.

5.7.2 Importance for Farmers

For farmers, production information helps in better planning of personal use, storage, and sale.

When the actual production is recorded, the farmer can calculate the real cost of production more accurately. This helps in understanding whether the crop was profitable or not.

Farmers can also plan how much produce should be kept for household use, how much should be stored, and how much should be sold immediately.

Real-time data on saleable produce allows farmers to make better marketing decisions. Instead of selling under pressure, farmers can plan sales based on quantity, quality, market demand, storage availability, and expected price.

This helps farmers receive better value and improve net income.

5.7.3 Importance for SCPL

For Share Croppers Pvt. Ltd. (SCPL), production data is essential for supply chain planning and market linkage.

Based on actual production and saleable quantity, SCPL can plan warehouse size, warehouse location, collection centres, transportation, sorting, grading, packing, and storage infrastructure.

Production data also helps SCPL connect farmers with suitable buyers, processors, exporters, retail vendors, Farmer Shops, and e-trading platforms.

For perishable produce, SCPL can plan fast collection, cold chain support, direct buyer linkage, and partner e-trading systems. For non-perishable produce, warehouse e-trading, storage planning, and bulk marketing can be organised.

- This data also supports accurate production cost calculation and better planning of future crop cycles.

5.7.4 Importance for Government and Policy Planning

For government agencies, real production data is highly important for agricultural planning and policy decisions.

Actual crop production and availability data can support import-export policy, procurement planning, market intervention, and price stability measures.

When the government has access to accurate crop production and marketable surplus data, decisions can be taken on the basis of real ground-level information rather than only estimates.

This can help manage inflation, avoid artificial shortages, control hoarding, and create more balanced agricultural policies.

5.7.5 Basic Data Collection Format

The basic production information format will include:

- Farmer name and contact details.
- Crop name and crop variety.
- Season and sowing date.
- Harvesting type: Toda Type or One-Time Harvesting.
- Actual harvest date.
- Total production quantity.
- Quantity retained for personal use.
- Quantity retained for seed or farm use.
- Quantity available for sale.
- Quality or grade details, if applicable.
- Perishable or non-perishable classification.
- Storage requirement.
- Expected market price.
- Actual sale planning.

5.7.6 Expected Outcome

This module will create a transparent record of actual crop production and marketable produce. Farmers will be able to calculate their real cost of production, plan sales more effectively, and improve income from their produce.

SCPL will be able to plan warehousing, marketing, transportation, e-trading, processing, and buyer linkages based on real production data.

Government agencies will get useful information for import-export policy, market intervention, price stability, and agricultural planning.

In simple terms, production information connects the farmer's actual harvest with cost calculation, storage planning, market linkage, and better income decisions.

5.8 Selling Expenses

Marketing Cost Records and Net Income Calculation

Selling expenses are an important part of the farmer's final income calculation. After production, the farmer has to spend money on transportation, market handling, commission, loading, unloading, weighing, and other market-related activities.

Many times, farmers calculate only the production cost but do not properly record the cost incurred during sale. Because of this, the actual net income from farming is not clearly understood.

Under the Farm Operations Digitization module of the Swayampurna Gaon Vikas Prakalp, all selling expenses will be recorded farmer-wise and crop-wise. This will help farmers calculate their real profit after deducting all marketing and selling costs.

5.8.1 Data to Be Collected

The following information will be collected under the selling expenses module:

- Farmer-wise selling expense records.
- Crop-wise marketing expenses.
- Transport cost from farm to market, warehouse, collection centre, processor, or buyer.
- Adat charges or trade commission.
- Market season charges, market fees, or related charges.
- Hamali, handling, loading, unloading, and weighing charges.
- Packaging or bagging expenses, wherever applicable.
- Sorting, grading, or cleaning expenses, if paid by the farmer.
- Other miscellaneous selling expenses.
- Current market system expense records for each farmer.
- Sale date, market location, buyer details, and sale amount.

5.8.2 Importance for Farmers

For farmers, selling expense data is very important for understanding the real income from each crop.

When all selling costs are recorded clearly, farmers can calculate the actual net profit after deducting transport, commission, handling, and other charges.

This helps farmers compare different selling options such as local market sale, direct buyer sale, warehouse sale, e-bidding, Farmer Shop, processor linkage, or export-oriented sale.

With transparent records, farmers can control unnecessary selling expenses and plan future marketing more effectively.

5.8.3 Importance for SCPL

For Share Croppers Pvt. Ltd. (SCPL), selling expense data is useful for improving supply chain and marketing planning.

By analysing selling costs, SCPL can identify where farmers are losing money in the current system. This will help design better logistics, collection centres, warehouse facilities, e-trading systems, and direct buyer linkages.

SCPL can also guide farmers on the most profitable selling route based on transport cost, market charges, commission, storage facility, buyer demand, and expected price.

This data will help create a more farmer-benefiting marketing system.

5.8.4 Importance for Government and Policy Planning

For government agencies, selling expense data can support better agricultural market policy.

This information can help understand the real cost farmers face while selling their produce. It can also support decisions related to market regulation, transport support, commission control, market fee structure, subsidy planning, and farmer assistance.

A digital selling expense system can increase transparency in agricultural markets and reduce unnecessary exploitation of farmers.

5.8.5 Basic Data Collection Format

The basic selling expense format will include:

- Farmer name and contact details.
- Crop name and quantity sold.
- Sale date and market location.
- Buyer, trader, processor, or market name.
- Transport cost.
- Adat or trade commission.
- Market fees or season charges.
- Hamali, handling, loading, unloading, and weighing charges.
- Packaging, sorting, grading, or cleaning expenses.
- Other miscellaneous expenses.
- Gross sale amount.
- Total selling expenses.
- Net amount received by the farmer.

5.8.6 Expected Outcome

This module will create a transparent record of all expenses incurred during the sale of agricultural produce. Farmers will be able to understand the difference between gross sale value and actual net income.

SCPL will be able to develop better marketing, logistics, warehouse, and e-trading systems for farmers.

Government agencies will get useful data for market regulation, farmer support, and policy planning.

In simple terms, selling expense digitization helps farmers understand their real profit and choose the most beneficial marketing channel for their produce.

5.9 Cost of Production

Crop-Wise and Farmer-Wise Cost Calculation

Cost of production is one of the most important outcomes of farm operations digitization. Unless the farmer knows the actual cost of producing a crop, it is difficult to decide whether the crop is profitable or not.

Under the Farm Operations Digitization module of the Swayampurna Gaon Vikas Prakalp, production cost will be calculated crop-wise and farmer-wise through the digital system. This calculation will be based on land preparation, labour expenses, input purchases, sowing details, post-sowing expenses, production data, and selling-related information.

This module will help farmers understand the real economics of farming and support better decisions related to crop planning, market price, sales, storage, and future investment.

5.9.1 Data to Be Collected

The following information will be used to calculate the cost of production:

- Crop-wise and farmer-wise production cost calculated by the system.
- Land cultivation and land preparation details.
- Labour expenses before sowing.
- Purchase expenses before sowing.
- Sowing information and area under cultivation.
- Labour expenses after sowing.
- Purchase expenses after sowing.
- Input cost, machinery cost, fuel cost, irrigation cost, and service cost.
- Post-harvest production data.
- Quantity produced and quantity available for sale.
- Selling expenses, wherever applicable.
- Farmer-wise and crop-wise total cost, gross income, and net income.

5.9.2 Importance for Farmers

For farmers, accurate production cost calculation is essential for profitable farming.

When the farmer knows the actual cost of each crop, it becomes easier to compare production cost with market price. This helps the farmer decide whether to sell immediately, store the produce, process it, or explore better market options.

Continuous tracking of production cost also helps farmers understand demand, price movement, crop profitability, and financial risk.

This data supports sustainable farming because farmers can identify where unnecessary expenses are happening and where cost can be reduced.

Accurate cost data can also reduce confusion and dissatisfaction. When farmers have clear information about their production cost and market situation, they can take more informed decisions instead of depending only on protests, roadblocks, or pressure-based demands.

5.9.3 Importance for SCPL

For Share Croppers Pvt. Ltd. (SCPL), production cost data is the foundation for market planning and farmer-benefiting price discovery.

Based on crop-wise production cost, SCPL can support bidding-based price systems, e-bidding models, warehouse e-trading, and direct market linkage.

This data will help SCPL improve supply chain planning, marketing strategy, storage planning, transportation, processing, and distribution.

SCPL can also guide farmers towards crops and production methods that are more profitable and sustainable.

By using production cost data, SCPL can work towards ensuring better price opportunities for farmers while maintaining transparent market participation.

5.9.4 Importance for Government and Policy Planning

For government agencies, crop-wise production cost data is useful for agricultural policy, support schemes, and market intervention.

Accurate production cost information can help in designing better subsidy systems, crop insurance support, compensation policies, procurement planning, and farmer welfare programmes.

It can also support decisions related to minimum support price, import-export planning, market regulation, and price stability.

When production cost data is available digitally and transparently, government support can become more targeted, practical, and farmer-focused.

5.9.5 Basic Cost Calculation Format

The basic cost of production format will include:

- Farmer name and crop details.
- Land area under cultivation.
- Pre-sowing labour cost.
- Pre-sowing purchase cost.
- Sowing-related cost.
- Post-sowing labour cost.
- Post-sowing purchase cost.
- Machinery, fuel, and irrigation cost.
- Harvesting and post-harvest cost.
- Total production quantity.
- Cost per acre.
- Cost per quintal / kg / unit.
- Selling expenses.
- Gross sale amount.
- Net income.
- Profit or loss.

5.9.6 Expected Outcome

This module will give every farmer a clear and accurate understanding of crop-wise production cost. It will help farmers take better financial decisions, reduce unnecessary expenses, and improve profitability.

SCPL will be able to design better bidding, marketing, supply chain, and service models based on real production cost data.

Government agencies will get useful information for policy decisions, financial support, market regulation, and sustainable agriculture planning.

In simple terms, cost of production digitization helps convert farming from an uncertain activity into a measurable, planned, and profit-focused enterprise.

5.10 Sales Amount

Farmer-Wise Sales Value and Income Record

Sales amount is the actual income received by the farmer after selling agricultural produce. It is one of the most important records in the farmer balance sheet, because it shows how much money the farmer has received from each crop, area, and market transaction.

Under the Farm Operations Digitization module of the Swayampurna Gaon Vikas Prakalp, sales amount data will be recorded farmer-wise, crop-wise, area-wise, and market-wise. This will help farmers understand their actual income, compare it with production and selling expenses, and plan future farming activities more effectively.

5.10.1 Data to Be Collected

The following information will be collected under the sales amount module:

- Sales amount received by each farmer.
- Crop-wise sales details.
- Area-wise production and sale records.
- Market rate received under the current marketing system.
- Quantity sold by the farmer.
- Date of sale.
- Buyer, trader, market, processor, or sales channel details.
- Gross sales amount.
- Net amount received after selling expenses.
- Payment status and payment mode.

5.10.2 Importance for Farmers

For farmers, sales amount records provide a clear and accurate report of income received from each crop.

This data is useful for preparing the farmer balance sheet. When sales amount is compared with production cost and selling expenses, the farmer can understand actual profit or loss.

Sales records also help farmers make better decisions about future crop selection, market timing, storage, direct sale, e-bidding, warehouse trading, or processing.

With proper sales data, farmers can plan their finances more effectively and move towards sustainable and profitable farming.

5.10.3 Importance for SCPL

For Share Croppers Pvt. Ltd. (SCPL), sales amount data is useful for analysing farmer-wise production, market performance, and income patterns.

This information helps SCPL understand which crops are giving better returns, which markets are more profitable, and where farmers are receiving lower prices.

Based on this analysis, SCPL can improve supply chain planning, marketing strategy, buyer linkage, e-trading systems, storage planning, and distribution models.

Sales amount data will also help SCPL design better strategies to secure more beneficial prices for farmers.

5.10.4 Importance for Government and Policy Planning

For government agencies, crop-wise sales amount and market rate data are useful for agricultural policy and market planning.

This data can help understand actual market prices received by farmers, income patterns, and crop-wise financial performance.

It can also support transparent delivery of subsidies, schemes, compensation, financial assistance, and farmer welfare programmes.

Sales data is useful for monitoring market stability, price movement, procurement planning, and agricultural development decisions.

5.10.5 Basic Data Collection Format

The basic sales amount format will include:

- Farmer name and contact details.
- Crop name and crop variety.
- Cultivated area.
- Quantity sold.
- Market or buyer name.
- Sale date.
- Rate received per kg / quintal / unit.
- Gross sales amount.
- Selling expenses deducted.
- Net amount received by the farmer.
- Payment mode.
- Payment status.
- Balance amount, if any.

5.10.6 Expected Outcome

This module will create a transparent record of the income received by every farmer from every crop. Farmers will be able to compare sales amount with production cost and selling expenses to understand actual profit or loss.

SCPL will be able to analyse market performance, improve farmer linkages, and plan better marketing systems.

Government agencies will get useful data for price monitoring, policy planning, subsidy distribution, and market stability.

In simple terms, sales amount digitization helps the farmer clearly understand how much income was earned, from which crop, through which market, and at what actual rate.

5.11 Crop Photos

Visual Crop Monitoring, Evidence, and Digital Verification

Crop photos are an important part of farm operations digitization. Photographs taken at different stages of crop growth help record the actual condition of the crop, identify crop diseases, support expert guidance, and create digital evidence for insurance or loss-related claims.

Under the Farm Operations Digitization module of the Swayampurna Gaon Vikas Prakalp, crop photos will be collected farmer-wise, land-wise, crop-wise, and stage-wise. These photos may also be linked with farm location data and satellite references to improve transparency, verification, and decision-making.

5.11.1 Data to Be Collected

The following information will be collected under the crop photos module:

- Crop photos at every important growth stage.
- Farmer-wise and land-wise photo records.
- Date and time of photo capture.
- Crop name, crop stage, and crop variety details.
- Farm location details.
- Geo-tagged location and satellite linkage, wherever applicable.
- Crop health observations.
- Disease, pest attack, nutrient deficiency, or damage observations.
- Photos related to crop loss, natural calamity, or insurance claims.
- Expert remarks or advisory notes, wherever applicable.

5.11.2 Importance for Farmers

For farmers, crop photos are useful for crop monitoring, expert guidance, and evidence-based decision-making.

When crop photos are captured at different stages, they can be shared with agricultural universities, experts, or technical advisors for disease diagnosis and crop management guidance.

Crop photos can also be used as supporting evidence during insurance claims. In case of crop loss due to unseasonal rain, drought, pest attack, disease, hailstorm, or other natural reasons, digital crop photos can help prove the actual crop condition.

This can reduce dependence on delayed physical inspection, traditional panchnama processes, and manual verification. As a result, insurance claims and compensation processes may become faster, more transparent, and more farmer-friendly.

- Crop photos also help farmers take decisions based on the actual condition of the crop rather than assumptions.

5.11.3 Importance for SCPL

For Share Croppers Pvt. Ltd. (SCPL), crop photos are important for production forecasting, crop health monitoring, and supply chain planning.

By reviewing stage-wise crop photos, SCPL can understand the actual condition of crops in different villages and areas. This helps in estimating production, identifying risk, planning collection, arranging storage, and preparing marketing strategies.

Crop photos also support expert-based problem solving. If crop disease, pest attack, nutrient deficiency, or crop stress is observed, SCPL can coordinate guidance from agricultural experts and provide timely advisory support to farmers.

This module will improve transparency and strengthen the digital monitoring system of the project.

5.11.4 Importance for Government and Policy Planning

For government agencies, crop photos provide real-time visual information about crop condition at the field level.

Such data can support import-export decisions, crop loss assessment, disaster response, agricultural schemes, and policy planning. It can also help improve transparency in insurance claims, compensation distribution, and crop damage verification.

Digital crop photo records can also help monitor market supply conditions. When crop health and production status are visible digitally, government agencies can better understand expected crop availability and market movement.

This can support better market regulation, reduce information gaps, and improve transparency in trading markets.

5.11.5 Basic Data Collection Format

The basic crop photo format will include:

- Farmer name and contact details.
- Land parcel or farm plot details.
- Crop name and crop variety.
- Crop stage.
- Date and time of photo capture.
- Geo-location or satellite reference.
- Crop health status.
- Disease or pest observation, if any.
- Crop damage or loss details, if any.
- Insurance claim reference, if applicable.
- Expert remarks or advisory note.

5.11.6 Expected Outcome

This module will create a visual digital record of crop growth and crop health. Farmers will get better access to expert advice, faster support for insurance claims, and stronger evidence for crop loss verification.

SCPL will be able to monitor crop conditions, forecast production, plan supply chains, and support farmers with timely technical guidance.

Government agencies will get real-time crop condition data for policy planning, loss assessment, market regulation, and transparent scheme implementation.

In simple terms, crop photo digitization converts field-level crop condition into visual evidence, helping farmers, SCPL, experts, insurers, and government agencies make faster and more accurate decisions.

5.12 Farmer Balance Sheet Report

Digital Financial Record for Farmer-Wise and Crop-Wise Decision-Making

The Farmer Balance Sheet Report is a digital and transparent financial record of every farmer's farming activities. It includes details of land, crops, expenses, production, sales, services, loans, insurance, and net income.

Under the SCPL digital system, crop-wise and farmer-wise information will be collected and analysed for every season. Based on this data, a separate balance sheet report will be prepared for each farmer.

This balance sheet is not only an accounting document. It is a practical decision-making tool. It helps the farmer understand whether farming is giving profit or loss, which crop has higher expenses, which crop gives better income, and what changes should be made in the next season.

5.12.1 Concept of the Farmer Balance Sheet

- A farmer balance sheet gives a clear financial picture of the farmer's agricultural activity.

It records every important detail from land preparation to final sale. It shows how much the farmer has spent, how much production was received, how much produce was sold, how much income was earned, and what the final profit or loss is.

Through this report, farming can be understood as a professional business activity rather than only a traditional livelihood activity.

5.12.2 Information Collected for the Balance Sheet

The following information will be collected and included in the farmer balance sheet:

Basic Farmer Information

- This includes the farmer's name, village, taluka, district, pin code, contact number, and other profile details.

Land Information

- This includes group number, land parcel, area, ownership type, leased land, rented land, joint ownership, and land-use details.

Crop Information

- This includes crop name, variety, brand, season, sowing date, and cultivated area.

Pre-Sowing Expenses

- This includes land preparation, labour, machinery, fuel, seeds, fertilisers, ropes, organic inputs, and other required farm materials.

Post-Sowing Expenses

This includes labour, pesticides, fertilisers, spraying, machinery use, drone spraying, manual spraying, irrigation cost, and other crop management expenses.

Service Expenses

This includes soil testing, water testing, insurance, organic certification, expert guidance, technical services, and training-related expenses.

Production Information

This includes total production, production retained for household use, production retained for seed or farm use, and marketable production available for sale.

Selling Expenses

- This includes transportation, hamali, weighing charges, adat, commission, packing, sorting, grading, and market expenses.

Sales Amount

This includes the rate received, market or buyer details, sale quantity, gross sale amount, deductions, and net amount received by the farmer.

Loans and Payables

- This includes bank loans, input credit, machinery dues, service dues, and other outstanding payments.

Supporting Documents

- This includes bills, receipts, crop photos, quality certificates, insurance documents, sale bills, and other proof records.

5.12.3 Importance for Farmers

The Farmer Balance Sheet Report is highly useful for farmers because it gives a clear and complete view of their farming economics.

It helps the farmer understand the exact production cost of each crop. It also shows which crop has given profit and which crop has resulted in loss.

Based on this report, the farmer can plan the next season more carefully. Crop selection, cost control, input use, labour planning, irrigation planning, storage, and sales decisions can be made on the basis of real data.

The balance sheet also keeps documents ready for bank loans, crop insurance, compensation claims, government schemes, and financial assistance.

It gives farmers a strong basis to demand better rates based on actual cost of production. It also helps farmers develop financial discipline and treat farming as a structured business.

- With this system, unnecessary expenses, informal borrowing, and dependence on middlemen can be reduced.

5.12.4 Importance for SCPL

For Share Croppers Pvt. Ltd. (SCPL), the farmer balance sheet is an important tool for data-based planning and transparent project management.

Through this report, SCPL can understand farmer-wise and crop-wise expenses, production, sales, profit, and losses.

This helps SCPL plan input trading, machinery services, marketing, warehouse facilities, processing units, e-bidding systems, and supply chain operations more accurately.

The balance sheet also helps identify farmers who are genuinely facing financial loss and need support under CSR or Social Responsibility Fund activities.

Farmers who require financial assistance, technical guidance, input support, insurance claim support, or recovery planning can be identified and supported on priority.

Data-based decision-making will increase transparency, accountability, and trust within the project.

5.12.5 Importance for Banks and Financial Institutions

For banks, the Farmer Balance Sheet Report can become a reliable document for loan assessment and credit planning.

When the farmer's income and expense record is available digitally, banks can better understand the farmer's repayment capacity.

The report also helps banks assess whether the farmer is involved in regular income-generating crops or livelihood activities.

A digital balance sheet can reduce lending risk and improve confidence in agricultural finance.

It can support the approval of crop loans, farm equipment loans, irrigation loans, dairy loans, livestock loans, and other rural enterprise loans.

5.12.6 Importance for Government and Policy Planning

For government agencies, farmer balance sheet data is useful for policy planning, scheme implementation, and support delivery.

- It provides real information about farmers' cultivation costs, production, selling prices, income, and losses.

This data can support compensation, subsidies, crop insurance, agricultural schemes, market intervention, import-export decisions, and inflation control measures.

It can also help identify which crops are becoming costly in which areas and where farmer income is weak.

A digital balance sheet system can reduce fake beneficiaries, incorrect information, duplication, and misuse of schemes.

5.12.7 Use for Social Responsibility Fund

The farmer balance sheet can be used as a transparent base for the Social Responsibility Fund.

SCPL can analyse actual farmer losses, production costs, sales losses, and income conditions through balance sheet reports. This allows CSR companies, donors, social organisations, and investors to take evidence-based decisions while providing support.

Farmers who have suffered major seasonal losses can receive assistance, guidance, input support, insurance claim support, or recovery planning based on their balance sheet data.

Once the farmer recovers or becomes financially stable, the farmer's name can be removed from the assistance list. This will help ensure that support reaches only genuinely needy farmers.

5.12.8 Final Benefit of the Farmer Balance Sheet

The Farmer Balance Sheet Report helps farmers think of agriculture as a business. When expenses, production, sales, and profit are clearly visible, decision-making becomes easier and more practical.

For SCPL, banks, government agencies, CSR organisations, and market partners, this report becomes a reliable source of verified agricultural data.

- It creates a transparent bridge between farmers and institutions.

“When a farmer’s balance sheet is clear, farming becomes more planned, sustainable, and profitable.”

6. Farmer Friend – Information Collector

Concept, Eligibility, Rules, Responsibilities, and Income Sources

The Farmer Friend – Information Collector is a key village-level pillar of the Swayampurna Gaon Vikas Prakalp. In many villages, farmers may not have internet access, digital skills, mobile app knowledge, tablets, or laptops. Therefore, to implement farm digitization at the village level, there is a need for a local, trusted, and trained person.

- To fulfil this requirement, Share Croppers Pvt. Ltd. (SCPL) has developed the Farmer Friend – Information Collector Module.

The Farmer Friend will record each farmer's land, crop, expenses, production, sales, insurance, services, and balance sheet information in the digital system. Through this process, the farmer becomes connected with the digital platform, and his farm-level economic and production report can be prepared.

The Farmer Friend is not only a data entry person. He works as a local link between the farmer, SCPL, FPO, service providers, banks, insurance institutions, CSR partners, and the market.

6.1 Concept

The main concept of the Farmer Friend is to create a village-level support system for farm digitization.

Every farmer cannot manage digital records independently. Therefore, a trained local person will help farmers register, upload documents, update crop information, maintain expense records, upload crop photos, prepare balance sheets, and connect with services.

- This creates a bridge between traditional farming and the digital agricultural management system.

6.2 Eligibility for Farmer Friend

To be selected as a Farmer Friend, the candidate should fulfil the following basic eligibility conditions:

- Minimum 12th standard pass.
- Basic computer knowledge.
- Ability to use mobile apps, websites, and online forms.
- Good communication skills.
- Good knowledge of the village and local farmers.
- Permanent resident of the village.
- No criminal background.
- Ability to remain away from party politics and village groupism.
- Ability to maintain good relations with all social groups.
- Ability to build trust among farmers.

6.3 Registration, Training, and Selection Process

- Interested candidates must register on the official platform: sharecroppers.in.

A registration fee of ₹300 will be required. After registration, an information booklet or guidance material will be provided to the candidate.

The registration fee will not be refundable.

Registration alone does not mean final selection. The candidate will be selected only after completing training and after evaluating his understanding of the work.

The candidate will also be required to submit written feedback on village-level farm planning, irrigation systems, farmer problems, and possible solutions.

Even after selection, the appointment may be cancelled if the work is not satisfactory, if incorrect information is entered, or if there is misbehaviour with farmers.

6.4 Required Technical Facilities

To work effectively, the Farmer Friend should have access to the following facilities:

- Desktop computer or laptop.

Printer.

- Internet connection.

Smartphone.

- Scanner or document scanning facility.
- Ability to upload digital photos and documents.

These facilities are necessary for farmer registration, document upload, crop photo upload, data entry, reporting, and balance sheet preparation.

6.5 Main Objective

The main objective of the Farmer Friend is to achieve 100% digitization of farm operations in the village.

- This includes digital recording of every farmer's land, crop, expenses, production, sales, insurance, services, and balance sheet.

Based on this data, farmers can be connected with farm services, input trading, machinery services, marketing, insurance, compensation, CSR support, and banking facilities.

6.6 Major Responsibilities of the Farmer Friend**A. Farmer Registration**

The Farmer Friend will register all farmers in the village.

This includes recording the farmer's personal information, contact number, address, identity details, bank account information, proof of farmer status, 7/12 extract, 8A extract, land documents, and other required documents.

B. Land and Crop Information Collection

The Farmer Friend will collect and record land details such as group number, account details, area, ownership type, and lease agreement details if the land is rented.

He will also record crop information such as crop name, variety, brand, season, cultivated area, sowing date, seed use, fertiliser use, pesticide use, and other input details.

C. Expense Registration

The Farmer Friend will record all major expenses related to cultivation.

This includes pre-sowing labour cost, post-sowing labour cost, seed cost, fertiliser cost, pesticide cost, rope, saplings, organic inputs, machinery cost, fuel cost, and other purchase expenses.

Bills, receipts, and proof documents will also be uploaded wherever available.

D. Crop Stage and Photo Records

The Farmer Friend will take photos of crops at different growth stages.

Along with photos, he will record the location, date, crop stage, and crop condition. If disease, pest attack, damage, or weather-related impact is observed, the same will be recorded.

- If required, crop photos may be shared with experts for technical guidance.

E. Production and Sales Information

The Farmer Friend will record the total production received by the farmer.

He will separately record the quantity retained by the farmer for personal use and the quantity available for sale.

He will also record selling expenses such as transport, hamali, weighing charges, adat, commission, and other market expenses.

Sale rate, sale amount, and buyer information will also be recorded.

F. Farmer Balance Sheet Preparation

The Farmer Friend will help prepare the farmer balance sheet based on crop-wise expenses, production, sales, and profit.

He will also identify farmers who have suffered losses and help prepare proposals for insurance, compensation, CSR support, or Social Responsibility Fund assistance.

- The Farmer Friend may also guide farmers on cost control and production planning for the next season.

G. Service and Scheme Implementation

The Farmer Friend will record farmer demand for input trading.

He will also book farmer demand for machinery services on a fuel-cost basis and help prepare machinery schedules.

He will guide farmers regarding crop insurance, soil testing, water testing, organic certification, expert advisory services, and other project-related services.

6.7 Working System of the Farmer Friend

The Farmer Friend will work through the following process:

- Collect basic information of farmers in the village.
- Verify farmer and land-related documents.
- Create farmer accounts on the digital platform.
- Record land, crop, expenses, photos, production, and sales information.
- Upload required documents, bills, photos, and certificates.
- Prepare crop-wise farmer balance sheets.
- Coordinate with SCPL, FPOs, and service providers.
- Inform farmers about available schemes, services, and market opportunities.
- Update data regularly.
- Help prepare an integrated farm management report for the village.

6.8 Self-Motivation Income Plan

Each Farmer Friend will initially be given a target of registering 200 farmers.

The income plan will become applicable only after completing 200 farmer registrations and maintaining regular data updates.

Registered Farmer Accounts	Monthly Income Per Account	Total Monthly Income
200	₹0	₹0
201	₹100	₹20,100
500	₹100	₹50,000

Features of the Income Plan

Income will start only after completing registration of 200 farmers.

- From the 201st farmer account onwards, an incentive of ₹100 per month per account will be provided.

More registrations and better data maintenance can create higher income opportunities.

Income will depend on data maintenance, quality of work, and farmer activity.

- Incorrect information, incomplete data, or inactive accounts may affect the income.

6.9 Other Possible Income Sources

The Farmer Friend may also get additional income opportunities through the following services:

- Farmer registration service.
- Document scanning and uploading service.
- Crop photo update service.
- Crop insurance application support.
- Soil and water testing coordination.
- Input trading demand collection.
- Machinery booking coordination.
- Produce registration for e-bidding or warehouse e-trading.
- Farmer Shop or FPO service coordination.

- Data preparation for CSR support or compensation claims.

6.10 Required Documents

Documents Required from Farmer Friend

- Government-approved identity proof such as Aadhaar card, PAN card, or driving licence.
- Passport-size photograph.
- Educational certificate.
- Computer knowledge certificate, if available.
- Bank account details.
- Cancelled cheque.
- Address proof.
- Local recommendation or self-declaration letter, if required.

Documents Required from Farmers

- Proof of being a farmer.
- 7/12 land extract.
- 8A account extract.
- Passport-size photograph.
- Aadhaar card or identity proof.
- Bank account proof.

Lease agreement, if the land is rented.

- Bills or proof related to crops, expenses, sales, and services.

6.11 Rules and Code of Conduct

- The Farmer Friend must follow the rules and code of conduct strictly.
- Farmer information must be kept confidential.
- False information must not be entered into the system.
- No unauthorised fee should be collected from farmers.
- The Farmer Friend must not participate in village politics or groupism.
- All farmers must be treated equally.
- SCPL's digital system rules must be followed.
- Data must be updated on time.
- Farmers must be clearly informed about schemes, services, conditions, and charges.
- Misbehaviour, incorrect records, financial irregularities, or misuse of information may lead to cancellation of appointment.

6.12 Conclusion

The Farmer Friend – Information Collector is the most important village-level representative of the Swayampurna Gaon Vikas Prakalp.

He connects farmers with the digital system, records their data properly, helps prepare farmer balance sheets, and links them with farm services, markets, insurance, CSR support, and government schemes.

Through this role, every village can build a strong digital agriculture foundation.

“If every village has a capable Farmer Friend, every farmer can become digital, planned, and financially empowered.”

7. Machinery and Fuel Cost Planning

SCPL Farm Mechanisation Support Model

Machinery and fuel cost planning is an important part of reducing the overall cost of cultivation. In many villages, farmers depend heavily on manual labour or private machinery services, which are often costly, irregular, and difficult to access during peak agricultural seasons.

Under the Swayampurna Gaon Vikas Prakalp, Share Croppers Pvt. Ltd. (SCPL) will use digital data to plan machinery availability, fuel use, labour reduction, and farm work scheduling. This model will help farmers complete farm operations on time while reducing unnecessary expenses.

7.1 Data Collection and Analysis

The first step in this model is the collection of labour, machinery, and fuel-related data.

SCPL will collect data on labour expenses before sowing and after sowing. Along with this, information related to crop type, cultivated area, machinery requirement, fuel usage, and work stage will also be recorded.

This data will be maintained on the digital platform in real time. Based on this information, SCPL can understand how much machinery is required, where it is required, when it is required, and how fuel and labour expenses can be reduced.

Key Data Points

- Farmer-wise labour expense before sowing.
- Farmer-wise labour expense after sowing.
- Crop type and cultivated area.
- Machinery required for each farm activity.
- Fuel requirement and fuel usage.
- Work stage and expected work duration.
- Village-wise and land parcel-wise machinery demand.

7.2 Machinery Availability and Planning

SCPL will ensure that the required machinery is made available for farmers based on actual demand and farm activity.

Machinery distribution and usage schedules will be prepared village-wise, group-wise, and land parcel-wise. This will help avoid delay, duplication, and unnecessary movement of machinery.

Priority will be decided based on farmer demand, crop stage, land area, seasonal urgency, and available machinery.

This organised planning will help farmers receive machinery support at the right time.

7.3 Cost Reduction

The main purpose of this model is to reduce cultivation cost.

Through data analysis, SCPL will identify where labour cost and fuel cost are high. Based on this analysis, better machinery planning, shared usage, route planning, and work scheduling can be done.

Proper use of machinery can save time, reduce labour dependency, reduce extra fuel use, and complete agricultural work more efficiently.

This will help farmers reduce production cost and increase net income.

7.4 Digital Monitoring and Transparency

SCPL will use digital records and, wherever applicable, GPS-enabled asset tracking to monitor machinery usage.

This will help track where machinery is being used, how much work has been completed, how much fuel has been used, and what cost has been incurred.

Transparent digital monitoring will help build trust between farmers, SCPL, service providers, investors, and government agencies.

The data will also be useful for future planning, cost control, and policy-level decision-making.

7.5 Importance for Sustainable Farming and SCPL

Machinery and fuel cost planning helps farmers use machinery in a more affordable, efficient, and organised manner.

For SCPL, this data improves supply chain planning, marketing planning, production forecasting, and service management.

When farm operations are planned on the basis of data, resources can be used more sustainably. Fuel can be saved, labour shortages can be managed, and farming can become more productive.

- This model supports the larger goal of making agriculture more planned, cost-effective, and sustainable.

7.6 Workflow

The machinery and fuel cost planning workflow will operate as follows:

- Collect labour and machinery requirement data from farmers.
- Record the data on the digital platform.
- Analyse the data to identify machinery and fuel requirements.
- Prepare machinery distribution schedules village-wise and land parcel-wise.
- Deploy machinery according to priority and demand.
- Monitor machinery use, fuel consumption, labour savings, and work completion.
- Prepare reports for farmers and SCPL.
- Use reports to improve cost saving, efficiency, and future planning.

7.7 Expected Outcome

This module will help reduce unnecessary labour and machinery costs. Farmers will get timely access to machinery, and farm operations will be completed in a more planned and efficient manner.

SCPL will be able to manage machinery services transparently and design better village-level farm mechanisation plans.

In simple terms, machinery and fuel cost planning helps farmers complete farm work at the right time, with lower cost and better efficiency.

8. Machinery on Fuel Cost Scheme

Concept and Implementation Model

The Machinery on Fuel Cost Scheme is an important initiative under the Swayampurna Gaon Vikas Prakalp, operated by Share Croppers Private Limited.

The main objective of this scheme is to reduce the production cost of farmers and make farm operations more organised, affordable, and efficient.

At present, the average cost of ploughing one acre of land may range from approximately ₹1,000 to ₹1,500. Under this scheme, SCPL will study the village's agricultural area, cultivated land, crop requirement, and farm work demand. Based on this assessment, tractors and required machinery will be made available to farmers.

The machinery will reach farmers through the support of the Farmer Friend / Information Collector system.

8.1 Core Concept

Under this scheme, farmers will not have to bear the full commercial machinery service cost.

Instead, farmers will mainly pay only the fuel cost required for the machinery operation. This will reduce the burden of high machinery rent and make mechanised farming more affordable for small and marginal farmers.

This model is especially useful during peak agricultural seasons, when machinery demand is high and private service rates increase.

8.2 Digital Planning and Tracking

All farm work schedules will be planned digitally.

SCPL, with the help of Farmer Friends, will decide when, where, and how machinery should be used. The plan will be prepared based on farmer demand, land area, crop stage, and urgency of work.

The entire process will be monitored transparently through digital records.

This will help avoid confusion, delay, favouritism, and unnecessary cost.

8.3 Benefits for Farmers

The farmer will have to bear only the fuel cost for the machinery service, as per the scheme conditions.

Compared with the current system, farmers may save approximately ₹700 to ₹1,000 per acre, depending on the type of work, machinery used, distance, fuel use, and local service rates.

This will directly reduce the cost of production.

The scheme will also help farmers complete land preparation, sowing support, intercultural operations, and other farm activities on time.

8.4 Social Partnership

This scheme can also create a new model of social participation.

Funds that are normally used for political publicity or general promotional activities can be redirected towards practical farmer-support initiatives such as machinery services.

This can create visible positive impact at the village level and encourage socially responsible public participation.

Such an approach can promote constructive and farmer-oriented public leadership.

8.5 Rules and Conditions

The following rules and conditions will apply to the Machinery on Fuel Cost Scheme:

- The farmer must be registered under the SCPL-operated Swayampurna Gaon Vikas Prakalp.
- The farmer must follow all rules related to farm operations and machinery use.

The work schedule will be decided in coordination with SCPL and the Farmer Friend / Information Collector.

The farmer will be informed in advance about machinery availability, usage time, and work schedule.

- The farmer must keep the field ready as per the scheduled time.
- Fuel management must be completed as per the instructions given.
- Machinery must be used only for approved agricultural work.
- Any misuse, delay, or violation of rules may affect future service eligibility.

8.6 Expected Results

The Machinery on Fuel Cost Scheme is expected to create the following results:

- Reduction in production cost.
- Lower dependency on costly private machinery services.
- Better management of labour shortage.
- Timely completion of farm operations.
- More planned and efficient agriculture.
- Increased farmer savings.
- Stronger social participation in rural development.
- Positive and farmer-focused public contribution.

8.7 Final Outcome

The Machinery on Fuel Cost Scheme is not only a machinery support facility. It is a practical step towards reducing cultivation cost and making farming more self-reliant.

By combining digital planning, Farmer Friend coordination, machinery availability, fuel-cost-based service, and transparent monitoring, this scheme can help farmers achieve more efficient and profitable farming.

“Machinery on fuel cost is not just a service; it is a step towards self-reliant and cost-effective agriculture.”

Suvichar: A strong village creates a strong farmer, and a strong farmer creates a strong nation.

9. Input Trading

Current Challenges and SCPL's Digital Solution

Today, farmers purchase seeds, fertilisers, pesticides, micronutrients, organic inputs, and other agricultural materials from different markets, different shops, and at different prices. As a result, farmers from the same village or same cluster often pay different rates for the same product.

Some farmers who pay immediately may receive lower rates, while farmers who buy on credit may be charged higher rates. This increases the cost of cultivation and reduces the farmer's profit.

Under the Swayampurna Gaon Vikas Prakalp, Share Croppers Pvt. Ltd. (SCPL) aims to create a transparent, demand-based, and digital input trading system. This system will connect farmer demand directly with manufacturers, distributors, or authorised suppliers.

9.1 Current Problems in the Input Supply System

Lack of Uniform Pricing

- The same seed, fertiliser, pesticide, or agricultural input from the same company is often sold at different prices in different shops.
- Because of this, farmers do not know the correct and fair market rate.

Inputs Are Not Available on Time

During sowing, spraying, or peak crop seasons, demand suddenly increases. At such times, some areas face shortage of seeds, fertilisers, pesticides, and other inputs.

Due to this shortage, prices are often increased, and farmers are forced to buy at higher rates.

Higher Cost Due to Credit Purchase

- Farmers who do not have ready cash often purchase inputs on credit.

In credit-based purchases, rates are usually higher. This increases the farmer's production cost and reduces profit.

Confusion About Brand and Quality

- Many farmers purchase products based on the advice of local shopkeepers.

They may not have accurate information about which brand is suitable, which fertiliser is required for a particular crop, or which pesticide should be used for a specific pest or disease.

- This creates confusion and sometimes results in unnecessary or wrong input use.

Fake Seeds and Poor-Quality Inputs

During the season, demand for agricultural inputs increases sharply. In such situations, fake seeds, low-quality pesticides, and poor-grade products sometimes enter the market.

- This directly affects crop growth, production, and farmer income.

Black Marketing and Hoarding

- During sowing or crop protection seasons, artificial shortages of fertilisers, seeds, and pesticides may be created.
- Because farmers have limited alternatives during urgent periods, they are forced to buy at higher prices.

9.2 SCPL's Integrated Input Trading System

SCPL will develop a Digital Input Trading System under the Swayampurna Gaon Vikas Prakalp.

Through this system, demand from all farmers in a village or cluster will be collected digitally. Based on this combined demand, SCPL will coordinate directly with manufacturing companies, distributors, or authorised suppliers.

This will help farmers receive quality inputs at uniform, transparent, and fair rates.

The system is designed to reduce unnecessary intermediaries, control input costs, ensure quality, and make input supply more predictable and farmer-friendly.

9.3 How the System Will Work

Farmer Demand Registration

- The farmer, or the Farmer Friend on behalf of the farmer, will register input requirements on the digital dashboard.

This may include seeds, fertilisers, pesticides, saplings, organic inputs, micronutrients, ropes, crop protection materials, and other agricultural supplies required for a particular crop.

Cluster-Wise Demand Creation

After demand registration, the system will generate a digital report showing total input requirements village-wise, pin-code-wise, taluka-wise, district-wise, and crop-wise.

This will help identify the real demand of farmers before the season begins.

Company and Brand-Wise Price Comparison

The system will compare different companies, brands, quantities, and price offers.

This will help identify which product is available at what price and which brand provides better value for farmers.

Uniform Rate Finalisation

A single transparent rate will be finalised for registered farmers in the cluster.

This means there will be no unfair price difference between a farmer who pays immediately and a farmer who may not be able to pay at once.

The objective is to create fairness and transparency in input pricing.

Digital Order and Billing

- Farmer orders, company supply, invoices, payment records, and delivery details will be recorded digitally.

This will create a transparent transaction history for farmers, SCPL, suppliers, and future balance sheet preparation.

Village-Level Distribution

Inputs will be made available at the village or cluster collection point.

This will reduce farmers' transport cost, save time, and ensure timely availability of required inputs.

9.4 Benefits for Farmers

The input trading system will provide several direct benefits to farmers.

Farmers will receive inputs at uniform and transparent rates.

Input costs on seeds, fertilisers, pesticides, and other materials may reduce by 30% to 40%, depending on product type, bulk demand, direct linkage, and supply chain efficiency.

Quality inputs will be available on time.

The risk of fake seeds and poor-quality products will reduce.

Every purchase will have a digital bill and transaction record.

Production cost can be calculated more accurately.

Crop-wise farmer balance sheet preparation will become easier.

Farmers will get better access to suitable brands and recommended inputs.

- Dependence on unorganised credit-based purchases may reduce.

Farmers will be able to plan cultivation expenses more effectively.

9.5 Importance for SCPL

For Share Croppers Pvt. Ltd. (SCPL), input trading data is highly important for planning and service delivery.

SCPL will receive accurate farmer-wise, crop-wise, and cluster-wise input demand data. This will help the company plan input trading, procurement, supply chain, distribution, and future market linkages more effectively.

SCPL will work as a digital bridge between manufacturers and farmers.

By reducing the number of intermediaries, transactions can become more transparent and farmers can receive quality inputs at fair rates.

This data will also help SCPL understand crop patterns, seasonal demand, brand preference, input consumption, and cost trends across villages.

9.6 Benefits for Manufacturers

Manufacturers will also benefit from this system.

They will receive direct demand data from farmers and clusters. This will help them reduce unnecessary expenditure on advertising, branding, and scattered marketing.

The amount saved on unnecessary marketing can be redirected towards product quality improvement, better packaging, technical support, and farmer education.

Manufacturers will receive assured cluster-wise demand in larger quantities. This will help them plan production, inventory, supply, and distribution more accurately.

Through SCPL, manufacturers can reach farmers directly in a transparent and organised manner.

- This creates a win-win model for farmers, SCPL, and manufacturers.

9.7 Importance for Government and Policy Planning

For government agencies, a transparent digital input trading system can be very useful.

It can help monitor and control black marketing, hoarding, seasonal price rise, fake inputs, and poor-quality agricultural products.

The government can receive data on how much seed, fertiliser, pesticide, or other input has been used in which area and for which crop.

This data can support agricultural policy, subsidy planning, quality control, seasonal supply planning, and market intervention.

A transparent input trading system can also help ensure that farmers receive the right inputs at the right time and at reasonable rates.

9.8 Expected Outcome

SCPL's integrated input trading system is not only a buying and selling arrangement. It is a digital system designed to control production cost, increase transparency, and ensure timely access to quality agricultural inputs.

Through this system:

Farmers can reduce input costs.

Manufacturers can directly access real farmer demand.

SCPL can build an organised rural supply chain.

Government agencies can access accurate input consumption data.

The rural input market can become more transparent and disciplined.

9.9 Conclusion

The integrated input trading system will help transform input purchase from an unorganised and uncertain activity into a transparent, demand-based, and farmer-benefiting process.

It will reduce cost, improve quality access, prevent exploitation, and support sustainable farming.

In simple terms, SCPL's input trading system connects farmer demand directly with quality supply, reduces production cost, and creates a transparent input economy for self-reliant villages.

Phase 3 – Farm Produce Marketing

Detailed Module

10. Integrated Marketing System

Current Mandi Problems and SCPL's E-Bid Solution

Agricultural marketing is one of the most important stages in the farmer's income cycle. Even after producing a good crop, many farmers do not receive a fair price because the existing market system is uncertain, fragmented, and not fully transparent.

Under the Swayampurna Gaon Vikas Prakalp, Share Croppers Pvt. Ltd. (SCPL) proposes an integrated, data-based, transparent, and digitally managed marketing system. This system is designed to connect farmers directly with buyers through quality-based grading, digital records, e-bidding, warehouse trading, and secure payment systems.

10.1 Problems in the Current Mandi / Market System

At present, most farmers take their produce to traditional mandis, traders, or commission agents for sale. In this process, the farmer faces several difficulties.

Before taking the produce to the market, the farmer does not have price certainty. The farmer has to bear transport cost, and after reaching the mandi, additional expenses such as loading, unloading, weighing, hamali, adat, commission, and other charges are incurred.

In many cases, the quality of produce is not tested properly. Sorting and grading are not done in a transparent manner. The farmer often does not know how many traders quoted a price, what rate was offered for which grade, and how the final price was decided.

- Due to crowding, confusion, weight differences, delayed payments, and unclear commission systems, farmers often suffer financial loss.

Another major problem is the absence of digital proof. Crop information, seed details, fertiliser use, pesticide use, crop photos, production cost, and quality data do not reach the buyer in a structured digital form. Therefore, even if the farmer has produced good-quality produce, he may not receive the correct value.

10.2 SCPL's Integrated Marketing Concept

SCPL will create a data-based integrated marketing system for farm produce under the Swayampurna Gaon Vikas Prakalp.

In this system, the farmer's produce will be brought to the collection centre in a planned manner. At the collection centre, the produce will be weighed, sorted, graded, quality-certified, packed, and listed for e-bidding through a digital process.

The main objective of this system is to protect farmers from the uncertainty of traditional mandis, present the true quality of their produce to buyers, and secure better prices through competitive bidding.

10.3 Three Types of SCPL Marketing Systems

SCPL's marketing system will work through three major models.

1. E-Bid System

- In this system, the farmer submits a sale request, and buyers quote prices through a quality-based digital bidding system.

The farmer receives transparent bid information and can decide whether to accept or reject the offered rate.

2. Warehouse Trade Bid System

If the farmer does not accept the offered rate or does not want to sell immediately, the produce can be stored in a warehouse and made available for future trade bidding.

This model is useful for non-perishable or storable produce.

3. Perishable Crop Partner Trade System

For perishable crops, the system will provide timely sale, quick transport, and direct linkage with partner buyers. This model is designed to reduce wastage and ensure fast movement of fresh produce.

10.4 How the E-Bid System Will Work

Sale Request Registration

The farmer will register a sale request through his own dashboard or with the help of the Farmer Friend.

Time Slot and Transport Planning

The collection operator will provide a time slot for bringing the produce to the collection centre. If required, transport arrangements will also be coordinated.

This will reduce crowding, confusion, and waiting time at the collection centre.

Primary Weight Registration

- Once the produce reaches the collection centre, the total weight will be measured and recorded in the system.

Sorting and Grading in the Farmer's Presence

Sorting and grading will be done in the presence of the farmer. The produce will be classified into quality grades such as A, B, and C.

Quality Certificate

Experts will inspect the quality of the produce and issue a quality certificate.

Barcode Packing and IoT Registration

The produce will be packed with barcode identification. Weight, photos, packing details, and process information will be automatically recorded in the system through IoT-enabled records wherever applicable.

CCTV and Dashboard Transparency

The entire sorting, grading, and packing process will be recorded through CCTV.

The farmer will be able to view the relevant information through his dashboard.

Data-Based Lot Creation

Lots will be created for e-bidding based on quality, weight, crop type, grade, packing, and barcode information.

Complete Information for Buyers

Buyers will get access to complete crop information through the dashboard, including sowing details, seed use, fertiliser use, pesticide use, crop photos, quality certificate, and process records.

This will increase buyer confidence and help the farmer receive a better value for quality produce.

Bidding Process

Buyers will participate in the e-bid process. The top five bid rates will be visible on the farmer's dashboard.

Farmer's Decision

- The farmer may accept or reject the bid. If the farmer accepts the rate, the system will notify the buyer.

Purchase Order and Billing

The buyer will issue a purchase order in the farmer's name.

The farmer will generate a bill for the produce. The FPO will generate a bill for labour, handling, grading, packing, or process charges as per fixed rates.

SCPL will generate a bill for 3% platform service charge on the transaction.

Escrow Payment System

The buyer will deposit the payment into an escrow account.

- After verification of all bills and after the farmer provides NOC, the payment will be distributed.

Payment Distribution

FPO charges will be deducted from the farmer's payable amount. SCPL's service charge will be collected from the buyer.

The remaining amount will be directly deposited into the farmer's bank account.

Logistics and Dispatch

After payment and process completion, logistics will be booked and the produce will be dispatched to the buyer.

10.5 How This System Solves Current Market Problems

- SCPL's integrated marketing system addresses several issues in the existing mandi system.
- Farmers do not have to depend on uncertain mandi rates.
- Expert-certified quality increases the possibility of better prices.

A, B, and C grading helps obtain separate prices according to quality.

- Weight records, photos, barcodes, CCTV, and IoT records increase transparency.
- Buyers receive complete crop history, which increases trust.
- Escrow payment reduces payment risk for farmers.
- Planned collection slots reduce crowding, confusion, and time wastage.

Clear roles and billing systems are created between SCPL, FPO, farmers, and buyers.

10.6 Benefits for Farmers

The integrated marketing system will provide the following benefits to farmers:

- Competitive prices based on produce quality.
- Reduction in mandi confusion, unclear commission, and hidden charges.
- Digital proof of weight, grade, photos, packing, and process records.
- Direct payment into the farmer's bank account.
- Clear calculation of production cost, selling cost, and net income.
- Better market visibility.
- Reduced dependency on traditional middlemen.
- Ability to accept or reject bid rates.
- Safer and more transparent payment system.
- Better value for quality produce.

10.7 Benefits for SCPL and FPO

For SCPL, this system provides cluster-wise data on production, quality, sales, demand, buyer participation, and market movement.

Based on this data, SCPL can plan warehouses, processing centres, packing units, logistics, buyer linkages, and future market strategies.

For FPOs, the collection centre can become a local income-generation model. FPOs can undertake sorting, grading, packing, handling, and process work at fixed labour or service rates.

- This creates a separate and sustainable income model for FPOs while supporting farmers with organised marketing services.

10.8 Importance for Government and Market System

This system can provide digital information on actual crop production, quality, marketable quantity, rates, buyers, and transactions.

Such data can be useful for market intervention, import-export planning, food security, inflation control, and farmer-focused policy decisions.

The system can also help increase transparency in agricultural markets and reduce exploitation, informal deductions, and unrecorded transactions.

10.9 Expected Outcome

The integrated marketing system will help transform farm produce sales from an uncertain mandi-based process into a transparent, quality-based, and digitally managed system.

Farmers will receive better visibility, buyers will receive verified produce information, FPOs will receive local business opportunities, and SCPL will be able to build a strong rural marketing network.

10.10 Conclusion

SCPL's integrated marketing system is a transparent and data-based alternative to the traditional mandi system.

In this model, the farmer's produce is not merely sold; its quality, production cost, crop history, and entire handling process are properly recorded and respected.

- This system benefits farmers, FPOs, SCPL, buyers, and government agencies by creating a more trustworthy agricultural market.

“When the farmer's produce is graded, certified, digitally presented, and competitively bid, the farmer receives not just a price, but true value.”

11. Warehouse E-Trading System

Concept, Current Problems, and SCPL's Digital Solution

The Warehouse E-Trading System is a digital marketing and storage system designed to help farmers avoid distress sale of agricultural produce at low market prices.

Instead of selling immediately after harvest at whatever price is available, farmers can store their produce safely in a certified warehouse and sell it later through a digital trading platform when better prices are available.

Under the Swayampurna Gaon Vikas Prakalp, Share Croppers Pvt. Ltd. (SCPL) will connect collection centres, warehouses, sorting, grading, packing, barcoding, quality certification, and e-trading into one integrated digital system.

This model is especially useful when a farmer does not accept the price received in the e-bid system, or when market prices are temporarily low and storage can help secure better value later.

11.1 Concept of Warehouse E-Trading

Warehouse e-trading allows farmers to store verified and graded produce in a warehouse and make it available for sale on a digital trading platform.

The process begins at the collection centre. The farmer's produce is weighed, photographed, sorted, graded, quality-checked, packed, and barcoded. After this, the produce is stored in the warehouse and listed for digital trading.

Buyers, processors, exporters, brand owners, and market players can view the produce details online and place bids based on quality, grade, quantity, and traceability.

- This system gives farmers better control over sale timing and reduces dependence on immediate market pressure.

11.2 How the Current System Works

- In the traditional system, farmers usually take their produce directly to the mandi, traders, or commission agents after harvest.

The farmer sells the produce at the rate available on that particular day. Many farmers do not have their own storage facility or financial strength to wait for better prices. As a result, they are forced to sell at lower rates.

In the current market system, processors, exporters, traders, and brand owners often do not receive reliable digital information about the produce. Details such as crop history, seed used, fertiliser used, pesticide use, sorting and grading records, packing details, quality certificate, and available stock are generally not available in a structured way.

- Because of this information gap, buyer confidence remains limited and farmers do not receive premium prices for quality produce.

11.3 Major Problems in the Current System

Forced Sale at Low Prices

At harvest time, market supply increases sharply. Due to excess arrivals, prices often fall. Since farmers do not have proper storage facilities, they are forced to accept lower rates.

Lack of Warehouse Facilities

- In many rural areas, safe, certified, and digitally managed warehouse facilities are not easily available for farmers.

No Quality Proof

Even if the farmer has good-quality produce, there is often no quality certificate, grading report, packing record, or digital proof. Because of this, buyers may not pay a premium price.

Trader-Controlled Market

Farmers are not directly connected with large buyers, processing units, exporters, or brand companies. This increases dependence on intermediaries.

Lack of Transparency in Payment and Billing

Traditional transactions often have unclear billing, commission, deductions, and payment timelines. This creates mistrust and financial risk for farmers.

Lack of Uniform Quality for Buyers

- Processing centres and exporters often find it difficult to source large quantities of uniform, certified, and traceable produce.

11.4 Losses Faced by Farmers

- Due to the limitations of the current system, farmers face several losses.

They often have to sell when market prices are low. Since storage facilities are not available, they cannot wait for price improvement.

Even quality produce is sold at normal rates because quality proof and digital grading are not available.

- Transport, hamali, commission, handling, and other market expenses increase the total selling cost.
- Delayed payments also create financial pressure.

Most importantly, the farmer is unable to properly connect production cost with selling price and net income.

11.5 SCPL's Warehouse E-Trading Solution

SCPL will develop a warehouse e-trading system under the Swayampurna Gaon Vikas Prakalp.

This system will connect collection centres, warehouses, sorting and grading units, packing, barcoding, quality certification, digital stock records, and online trading.

Through this model, farmers can store their produce in a certified warehouse instead of selling immediately. When a suitable price is available, the produce can be sold through digital trading.

- This gives the farmer better bargaining power and creates a more transparent market system.

11.6 How the SCPL System Will Work

Sale or Storage Request

The farmer will submit a sale or warehouse storage request through his dashboard or with the help of the Farmer Friend.

Produce Registration at Collection Centre

At the collection centre, the produce will be registered in the system. Primary weight, crop type, farmer details, crop history, and photos will be recorded.

Sorting, Grading, and Quality Certification

The produce will be sorted and classified into grades such as A, B, and C. Experts will inspect the produce and issue a quality certificate.

Barcoding and Packing

Every packing unit will receive a barcode. Weight, grade, crop name, farmer details, quality data, and packing information will be linked to the barcode in the digital system.

Safe Warehouse Storage

The produce will be stored in a warehouse. Stock quantity, weight, grade, storage location, and availability will be recorded digitally.

Lot Creation for E-Trading

Lots will be created based on grade, quality, crop type, quantity, and packing details. Buyers, processors, exporters, and market players can place bids on these lots.

Acceptance or Rejection of Price

The farmer can view bid prices on the dashboard. If the price is acceptable, the farmer can approve the sale. If not, the produce can remain stored in the warehouse for future bidding opportunities.

Escrow Payment and Billing

The buyer will deposit payment into an escrow account. Separate billing will be maintained for the farmer, FPO, and SCPL.

After verification, the final payable amount will be transferred directly to the farmer's bank account.

Logistics and Dispatch

After transaction completion, logistics will be arranged and the produce will be dispatched to the processor, exporter, trader, brand owner, or buyer.

11.7 Benefits for Market Players

- Market players, large traders, processors, and brand companies will get access to certified, graded, and traceable produce.

They will be able to view crop history, quality certificates, photos, weight records, packing details, and available stock digitally.

- This improves buyer confidence and makes purchase decisions faster and more reliable.

11.8 Benefits for Processing Centres

Processing centres will receive raw material of uniform quality.

For products such as flour, maida, rava, besan, pulses, spices, oilseeds, and other processed food products, crop-wise and grade-wise material will be available.

- This reduces the cost of raw material sourcing, improves production planning, and helps develop branded processed products.

11.9 Benefits for Exporters

Exporters will receive produce with quality certification, crop history, input usage records, packing details, grading reports, and traceability.

- This makes it easier to select produce according to export standards.

Digital proof can speed up documentation, quality verification, and procurement processes.

11.10 Cost Reduction Benefits

This system can reduce costs for multiple stakeholders.

For farmers, unnecessary transport and mandi expenses can be reduced.

For processing centres, the cost of searching and verifying raw material can be reduced.

For exporters, quality verification and sourcing costs can come down.

For brand companies, direct access to certified produce can reduce intermediary costs.

For farmers, warehouse storage can help avoid sales during low-price periods.

11.11 Opportunity for Own Brand Development

Through this system, SCPL and FPOs can develop their own brands using graded and certified produce.

Products such as pulses, besan, flour, rava, maida, packed grains, spices, oilseeds, and local agricultural products can be sold under an organised brand.

- This creates an opportunity to move beyond raw produce sales and enter value-added product markets.

As a result, farmers can receive better value for their produce.

11.12 How FPO Income Can Increase

FPOs can play an active role in collection centre and warehouse operations.

They can provide services such as sorting, grading, packing, handling, warehouse management, and processing at fixed rates.

Through this, FPOs can earn income from labour charges, processing charges, packing charges, handling charges, and management fees.

- This makes the FPO an active partner in the PPP model and creates local employment at the village level.

11.13 Importance for SCPL

For SCPL, this system provides accurate data on cluster-wise production, quality, stock, marketable produce, buyer demand, and transactions.

Based on this data, SCPL can plan warehouse capacity, processing units, logistics, market linkages, export opportunities, and brand development.

The warehouse e-trading system also helps SCPL build a strong and transparent rural supply chain.

11.14 Expected Outcome

The warehouse e-trading system will help farmers avoid forced sale during low-price periods.

It will connect farmers, FPOs, SCPL, processing centres, exporters, brand companies, and market players on one digital platform.

The system will improve quality-based pricing, storage planning, traceability, digital trading, and value addition.

11.15 Conclusion

The Warehouse E-Trading System is a practical solution to protect farmers from distress sale and low market prices.

- It gives farmers the option to store produce, wait for better prices, and sell through a transparent digital trading system.

Through storage, grading, certification, barcoding, e-trading, processing, branding, and logistics, farm produce can receive higher value.

“Warehouse e-trading gives the farmer time, transparency, and bargaining power — three essential strengths for profitable agriculture.”

12. Partner E-Trade System

Third Integrated Marketing System for Perishable Crops

The Partner E-Trade System is the third marketing system under SCPL's integrated marketing model. This system is specially designed for perishable crops and fresh agricultural products.

It is suitable for vegetables, fruits, leafy vegetables, flowers, fresh dairy-related products, and other farm produce that may lose quality or become unsuitable for sale within a short period.

In perishable crops, time is the most important factor. If the produce is not sold quickly, its weight reduces, quality declines, and farmers face losses. Therefore, long warehouse storage or lengthy e-bidding processes may not be suitable for such produce.

To solve this issue, Share Croppers Pvt. Ltd. (SCPL) will connect farmers, farmer groups, FPOs, society vendors, retail vendors, Farmer Shops, consumers, processors, and export companies through one digital Partner E-Trade System.

12.1 Concept of Partner E-Trade

The Partner E-Trade System is a fast, transparent, and demand-based marketing system for perishable produce.

In this model, farmers or farmer groups will register available produce on the digital platform. Buyers such as society vendors, retail vendors, Farmer Shops, hotels, canteens, processors, consumer groups, and exporters will register their demand.

The system will match supply with demand and help complete sale, collection, transport, billing, and payment in a planned manner.

The main objective is to reduce wastage, reduce middlemen, improve price realisation, and provide fresh produce to buyers and consumers.

12.2 How the Current System Works

At present, perishable produce is mostly sold through local traders, mandis, or commission agents.

The farmer harvests the crop in the morning and sends it to the market immediately. If the market rate is low on that day, if supply is high, or if transport is delayed, the farmer has to accept a lower price.

In the current system, farmers are not directly connected with housing societies, retail vendors, consumer groups, Farmer Shops, processors, or export companies. As a result, a large share of perishable produce is sold through middlemen.

This process increases transport cost, market expenses, commission, handling loss, quality loss, and payment delays. Ultimately, the farmer's net income reduces.

12.3 Problems in the Current System

Loss Due to Delayed Sale

Perishable produce loses quality quickly. If there is delay in sale or transport, the produce may get damaged, lose weight, or receive a lower market price.

Dependence on Middlemen

Farmers are usually not directly connected with consumers, retailers, society vendors, processors, or exporters.

- This increases dependence on traders and commission agents.

Price Uncertainty

- Rates change every day. Farmers do not have any confirmed price before sale.
- This creates uncertainty and financial risk.

High Transport and Handling Cost

- Perishable produce often passes through several hands before reaching the consumer. This increases cost and reduces freshness.

Lack of Freshness and Source Information for Consumers

- Consumers usually do not know from which farm the produce has come, when it was harvested, or how it was handled.
- This reduces transparency and trust.

Lack of Traceability for Exporters

For export of perishable crops, information related to quality, packing, grading, farmer details, crop photos, and production history is important.

In the traditional system, this data is generally not available in a structured digital format.

12.4 How SCPL's Partner E-Trade System Will Work

Produce Information Registration

The farmer, farmer group, or FPO will register produce details in the system.

This will include crop type, available quantity, expected weight, harvest date, quality, grade, and preferred sale time.

Demand and Supply Matching

Demand from society vendors, retail vendors, Farmer Shops, consumer groups, hotels, canteens, processing centres, and export companies will be registered on the platform.

- Based on location, quantity, quality, and timing, the system will match the nearest and most suitable supplier with the buyer.

Quality Check and Grading

- Basic quality inspection, crop photos, weight, grade, and packing details will be recorded digitally.

This will help buyers understand the condition and quality of the produce before confirming the order.

Fast Order Confirmation

Buyers will be able to view available produce, rate, quantity, photos, quality details, and delivery schedule.

They can confirm the order digitally.

Collection and Delivery Planning

- Produce may be collected from the farm, farmer group, FPO, or collection centre.

Transport and delivery will be planned in a time-bound manner to reduce damage and maintain freshness.

Digital Billing and Payment

The farmer or FPO will generate the bill. SCPL may apply service charges or platform charges as per the model.

Payment will be made digitally or secured through an escrow system, wherever applicable.

Buyer and Consumer Dashboard

Buyers will be able to view the source of produce, farmer information, quality details, photos, weight, and delivery status through their dashboard.

This will increase transparency and trust.

12.5 Participants in the System

Farmers

Farmers will upload information about fresh produce and get connected with suitable buyers.

Farmer Groups

Farmers in a village or cluster can combine their produce to supply larger quantities.

This helps fulfil bigger orders and improves bargaining power.

FPOs

FPOs will manage sorting, grading, packing, collection, billing, and distribution.

Through these services, FPOs can earn service charges, handling charges, and packing charges.

Society Vendors

Society vendors can supply fresh produce regularly to housing societies, residential complexes, and institutional customers.

Retail Vendors

- Grocery shops, vegetable sellers, supermarkets, and local retailers can receive produce directly from farmers or FPOs.

Farmer Shops

Farmer Shops operated through SCPL or FPOs can make farmer-sourced fresh produce directly available to consumers.

Export Companies

Exporters can receive produce with traceability, quality checks, grading, packing, and timely supply.

12.6 Benefits for Farmers

The Partner E-Trade System provides several direct benefits to farmers:

- Faster sale opportunity for perishable produce.
- Reduced dependence on middlemen.
- Lower wastage and damage.
- Better chance of receiving prices based on quality.
- Transparent digital payment.
- Possibility of bulk sale through farmer groups or FPOs.
- Better linkage with retail, society, institutional, and export buyers.
- Reduced risk of distress sale due to market delay.

12.7 Benefits for Consumers

Consumers will receive fresh, quality produce directly linked to farmers.

They will also get better information about the source, quality, and traceability of the produce.

Through society vendors or Farmer Shops, consumers can receive regular supply of fresh agricultural produce.

- As middlemen reduce, consumers may also receive produce at more reasonable rates while farmers receive better value.

12.8 Benefits for Retail Vendors and Farmer Shops

Retail vendors and Farmer Shops can purchase produce directly from farmers or FPOs.

Since quality and quantity are known in advance, purchase planning becomes easier.

A regular supply chain can be developed for fresh and traceable produce.

Retailers can also provide better-quality products to their customers with source information and transparency.

12.9 Benefits for Export Companies

Export companies will benefit from timely collection and delivery of perishable crops.

They will receive digital information about the farmer, crop history, quality, photos, packing, grading, and traceability.

This helps meet export standards and makes procurement more reliable.

Bulk supply can be organised through FPOs and farmer groups, making export planning easier and more efficient.

12.10 Income Opportunities for FPOs

In this system, the FPO will not remain only a producer organisation. It will become an important service provider.

FPOs can earn income through:

- Sorting and grading charges.
- Packing charges.
- Collection and handling charges.
- Distribution coordination charges.
- Margin from Farmer Shop or retail supply.
- Service charges for export or large institutional orders.

This will strengthen the financial base of FPOs and create employment opportunities at the village level.

12.11 Importance for SCPL

Through the Partner E-Trade System, SCPL will receive real-time data on perishable crop supply, demand, prices, quality, and distribution.

Based on this data, SCPL can plan cluster-wise market linkages, cold chain infrastructure, packing units, Farmer Shop networks, retail supply systems, and export opportunities.

This system will help SCPL build a fast and transparent fresh produce supply chain.

12.12 Expected Outcome

The Partner E-Trade System will reduce wastage of perishable crops and create faster market access for farmers.

It will connect farmers directly with buyers through FPOs, Farmer Shops, retail vendors, society vendors, consumer groups, and export companies.

The system will improve freshness, traceability, transparency, price discovery, and payment security.

12.13 Conclusion

The Partner E-Trade System is a fast, transparent, and direct marketing solution for perishable crops.

It connects farmers, FPOs, society vendors, retail vendors, Farmer Shops, consumers, processors, and export companies on one digital platform.

Through this system, produce wastage can be reduced, farmers can receive better prices, consumers can receive fresh produce, and FPOs and SCPL can build sustainable income models.

“For perishable crops, time is value. Partner E-Trade converts time-sensitive produce into timely income.”

13. Farmer Shop – Franchise Model

Rural-to-Urban Direct Sales and Distribution System

The Farmer Shop – Franchise Model is a rural-to-urban sales system developed under the Swayampurna Gaon Vikas Prakalp by Share Croppers Pvt. Ltd. (SCPL).

This model connects farmer groups, housing societies, retail vendors, consumers, FPOs, and SCPL through one digital system. The main objective of the Farmer Shop is to bring farm produce directly from farmers to consumers, help farmers receive the benefit of consumer-level pricing, and provide consumers with fresh, traceable, and fairly priced agricultural produce.

This model is especially useful for perishable crops, vegetables, fruits, leafy vegetables, fresh dairy-related products, local processed products, and branded products developed by farmer groups or FPOs.

13.1 Concept

The Farmer Shop is not only a retail outlet. It is a digital sales, collection, distribution, and customer-connect centre.

Through this model, farmers can sell their produce closer to the consumer market. Consumers can purchase fresh produce with better source visibility. SCPL will provide the digital system, branding, market intelligence, operational support, and coordination structure.

The Farmer Shop will work as a bridge between villages and urban customers.

13.2 Investment Structure

For each Farmer Shop, a farmer group of around 200 farmers within a 100 km area will be formed.

Each farmer will invest ₹2,000. Through this model, the primary financial participation of the shop will come from local farmer groups.

SCPL will provide support related to agreements, digital systems, market intelligence, shop design, branding, and operations.

The shop space is expected to be provided free of cost by the concerned housing society or local partner. This will help reduce fixed operating expenses and make the model financially viable.

13.3 Shop Location Planning

- One Farmer Shop may be planned at approximately every 10 km distance.

This will help connect farmers within a 100 km area to consumer markets in a phased and organised manner.

The shop location will be finalised after studying local demand, customer density, housing society networks, retail needs, transport convenience, and supply feasibility.

13.4 Local Operator System

A local operator will be appointed to manage the Farmer Shop.

This operator may be identified through the housing society or local representatives. This will help build customer trust and local accountability.

The operator will not be the owner of the produce. He will work on a commission basis. He will receive commission for sales handling, order management, customer service, billing, stock record maintenance, and distribution coordination.

This will reduce the burden of fixed salary and create performance-based income opportunities.

13.5 Price Finalisation System

In the Farmer Shop model, the selling price will be decided by the farmer group.

SCPL will provide market intelligence support by analysing market rates, customer demand, production cost, transport cost, quality, and local competition.

The objective is to ensure that farmers receive a better price than traditional mandi rates, while customers receive fresh produce at fair and reasonable rates without unnecessary market inflation.

13.6 Order System

Around 80% of the orders in the Farmer Shop model are expected to come through the website, digital app, society vendors, retail vendors, and customer groups.

Therefore, the Farmer Shop will not function only as an offline sales counter. It will also work as a digital order, pickup, collection, and distribution coordination centre.

Customers can place orders through the website or digital platform. Society vendors and retail vendors can collect demand from their respective areas and place bulk orders.

The Farmer Shop will manage packing, billing, stock records, and delivery coordination according to these orders.

13.7 Mini Cold Room Facility

The Farmer Shop model will include a mini cold room / cold storage facility.

This facility will help maintain the quality of vegetables, fruits, dairy-related fresh products, and other perishable produce for a longer period.

It will reduce wastage, prevent quality loss, and help customers receive fresher produce.

13.8 Role as an E-Commerce Collection Centre

The Farmer Shop can also work as a collection centre for multiple e-commerce companies.

This can reduce the need for delivery personnel to visit every customer's flat or house directly. Customers can collect their orders from the Farmer Shop or society pickup point.

This system can improve safety, discipline, and trust. It can also reduce delivery confusion, security concerns, and unnecessary entry of delivery persons into residential spaces.

13.9 Advertisement Income Model

The Farmer Shop can also generate additional income through advertisement and promotional services.

Facilities may include local advertisement booths, digital displays, branded shelves, product promotion areas, and local service advertisements.

Local businesses, agricultural companies, service providers, banks, insurance companies, e-commerce companies, and other brands can advertise through the Farmer Shop.

This will create an additional income stream for the shop and improve financial sustainability.

13.10 SCPL Support

SCPL will provide the following support for the Farmer Shop model:

- Attractive fabricated shop structure.
- Modern interior design.
- Digital billing and order management system.
- QR code, barcode, and traceability system.
- Market intelligence and price guidance.
- Customer demand analysis.
- Farmer group and society vendor coordination.
- Branding, display, and promotional support.
- Mini cold room planning.
- E-commerce collection centre integration.
- Digital stock and sales record system.
- Franchise operation guidelines.

13.11 Benefits for Farmers

The Farmer Shop model provides several direct benefits to farmers:

Farmers can receive a better share of the consumer price.

Dependence on middlemen is reduced.

Perishable produce can be sold faster.

Farmer groups can develop their own customer market.

- Digital billing and stock records create transparency.

Processed products and farmer-owned brands can be promoted.

Farmers can build long-term urban customer linkages.

13.12 Benefits for Consumers

Consumers will receive fresh, quality, and farmer-sourced produce.

They can view source information, quality details, and traceability records wherever available.

They can purchase conveniently through nearby Farmer Shops, housing societies, pickup points, or digital orders.

The model can provide reliable produce at fair prices with greater trust and transparency.

13.13 Benefits for Societies and Retail Vendors

Housing societies can receive regular supply of fresh farm produce.

Because of the local operator system, there will be better trust, coordination, and accountability.

Retail vendors can get graded and traceable produce at one place.

Societies can also use available space for a socially useful and economically productive activity.

13.14 Benefits for FPOs and Farmer Groups

FPOs and farmer groups can actively participate in sorting, packing, branding, collection, billing, distribution, and customer supply management through the Farmer Shop model.

This can create income for FPOs through service charges, packing charges, handling charges, commission, and sale of branded products.

It will also create local employment and strengthen the rural supply chain.

13.15 Expected Outcome

The Farmer Shop model will create a direct rural-to-urban market channel.

Farmers will get better access to consumer markets. Consumers will get fresh and traceable produce. Housing societies and retail vendors will get reliable supply. FPOs will get service-based income opportunities. SCPL will be able to build a digital and branded distribution network.

This model can reduce wastage, improve farmer income, support local employment, and create a sustainable market bridge between villages and cities.

13.16 Conclusion

The Farmer Shop – Franchise Model is an integrated sales system that connects farmers, consumers, societies, retail vendors, FPOs, and SCPL.

- It combines farmer group investment, society-provided space, local operator trust, SCPL's digital system, and direct customer demand.

Through this model, farmers can receive consumer-level price benefits, consumers can access fresh and reliable produce, and a sustainable village-to-city market network can be created.

“Farmer Shop connects the farmer’s field with the consumer’s home through trust, freshness, transparency, and fair value.”

Phase 4 – Integrated Livelihood Projects

Detailed Module

14. Well-to-Well Water Management Project

Background, Current Problems, and SCPL's Solution

Water is the foundation of rural agriculture. Even if the land is fertile, the farmer is hardworking, and the market is available, farming cannot remain productive and sustainable without timely water availability.

In many villages, some farmers have wells or borewells, while others depend completely on rainfall. In some areas, water is available in wells, but there is no planned and shared system to distribute that water to other farms.

Share Croppers Pvt. Ltd. (SCPL) does not view this as an individual farmer's problem alone. It views water as a village-level shared infrastructure issue. Therefore, SCPL has developed the Well-to-Well Water Management Project under the Swayampurna Gaon Vikas Prakalp.

The objective of this project is to connect available water sources, wells, pipelines, pumps, solar energy, and digital control systems to create a planned irrigation system for the village.

14.1 Project Background

Agriculture in rural areas depends heavily on reliable water management. When water is not available at the right time, crop planning becomes difficult, productivity reduces, and farmer income becomes uncertain.

In the present system, every farmer tries to arrange irrigation individually. One farmer invests in a well, another arranges a borewell, someone installs a pump, and another farmer lays a separate pipeline. This individual approach increases cost and creates inequality in water access.

The Well-to-Well Water Management Project is designed to convert scattered water sources into a shared irrigation network. This allows available water to be used more efficiently and distributed in a planned manner.

14.2 Current Problems

- The traditional irrigation system creates several difficulties for farmers and villages.
- Many farmers depend on a single well. If water reduces in that well, the entire crop becomes risky.
- Small and marginal farmers cannot afford the cost of wells, pumps, pipelines, electricity connections, and maintenance.
- Farmers who have water benefit more, while farmers without water suffer lower production and higher crop risk.

Due to lack of planning, water is wasted in some places while other farms do not receive water.

There is no digital record of crop-wise water requirement, cultivated area, irrigation schedule, and actual water use.

- Electricity supply problems, diesel cost, pump repair, and labour cost increase irrigation expenses.
- Due to water uncertainty, farmers often choose low-risk or low-income crops instead of high-value crops.

The absence of a shared village-level water system limits opportunities in vegetable production, orchards, dairy, fodder, processing, and export-oriented agriculture.

14.3 SCPL Solution – Well-to-Well Water Network

Under the Well-to-Well Water Management Project, SCPL will connect available wells and water sources in the village into a common water distribution network.

In this system, water will not be treated only as a natural resource. It will be managed as a Utility Service.

The project may include the following components:

- Main well or source well.
- Distribution wells.
- Underground pipeline network.
- Node stations.
- Solar-powered pumps.

- Digital control system.
- Water usage records.
- Farmer dashboard.
- Service fee management system.

Through this system, water distribution will be planned digitally. The system will decide which farm should receive water, for how long, for which crop, and for how much area.

14.4 One-Acre Model – Sustainable Infrastructure Hub

The One-Acre Model will be developed as a main water infrastructure hub for a village or a large cluster.

This model may include the following facilities:

- Main well or distribution well.
- Solar panels and pumping system.
- Control room and digital monitoring system.
- Water storage and distribution system.
- Main connection for underground pipeline network.
- Security, maintenance, and service management facilities.
- Additional income activities such as fish pond, bamboo plantation, or other sustainable projects.

The One-Acre Model is useful for large-scale water management. Through this model, the irrigation network of one village or multiple villages can be managed from a central point.

14.5 Five-Guntha Model – Compact Irrigation Node

The Five-Guntha Model is a compact irrigation node designed for smaller spaces, lower investment, and faster implementation.

This model is useful where one acre of land is not available or where a smaller cluster wants to begin with a limited irrigation system.

This compact node may include:

- Small water storage facility.
- Pumping unit.
- Solar energy connection.
- Local distribution pipeline.
- Digital control system.

The node can be connected to a larger water network or can work independently for a limited service area.

14.6 Irrigation Capacity for 20 Acres

A Five-Guntha compact model or a local irrigation node can be designed to provide planned irrigation support for approximately 20 acres, depending on water availability, soil condition, crop type, and season.

The irrigation schedule will be prepared based on:

- Crop type.
- Water requirement.
- Soil condition.
- Cultivated area.
- Water availability.
- Seasonal demand.

This system will help ensure that water is used according to need and not wasted through unplanned distribution.

14.7 Sustainability of the Model

The sustainability of the Well-to-Well Water Management Project will be based on the following factors:

- Use of solar energy to reduce electricity and diesel cost.
- Shared pumps and pipelines to reduce individual capital investment.
- Digital scheduling to reduce water wastage.

- Service fee-based maintenance fund.
- Crop-wise water usage data.
- Local employment for operation and maintenance.
- Better crop planning through assured irrigation.
- This model creates both environmental and financial sustainability.

14.8 □ 800 Monthly Service Fee Model

Under this project, the farmer does not need to make a large individual capital investment.

The farmer can use irrigation services by paying a monthly service fee of ₹800 per acre.

This fee can support system maintenance, operations, digital monitoring, pump management, pipeline maintenance, local operator cost, and service administration.

This model is farmer-friendly because the farmer does not need to independently invest in a well, pump, pipeline, electricity connection, and repair system. Instead, the farmer receives planned water access as a service.

14.9 Benefits for Farmers

The Well-to-Well Water Management Project provides several benefits to farmers:

- Planned water availability.
- Reduced dependence on rainfall.
- Higher productivity through crop-wise irrigation planning.
- Lower individual investment in wells, pumps, and pipelines.
- Easier cost planning through monthly service fee.
- Strong support for orchards, vegetables, sugarcane, fodder crops, and dairy activities.
- Reduction in crop loss caused by water shortage.
- Digital proof of water availability for banks, insurance, and government schemes.
- Better opportunity for high-value and export-oriented crops.
- Stronger foundation for income stability.

14.10 Rules, Conditions, and SOP for Farmers

Rules and Conditions

- The farmer must be registered under the SCPL-operated Swayampurna Gaon Vikas Prakalp.
- Land details, crop name, cultivated area, and season information must be recorded in the digital system.
- The service fee must be paid on time.

The water usage schedule will be decided in coordination with SCPL, the local operator, and the Farmer Friend.

- Water cannot be used without approval or outside the scheduled time.

If a pipeline, valve, pump, or node station is damaged due to misuse, the concerned farmer will be responsible.

Water will be provided according to crop requirement and system capacity.

SOP – Working Procedure

The farmer will register irrigation demand on the dashboard.

Crop type, cultivated area, and water requirement will be reviewed.

The SCPL system will prepare the irrigation schedule.

The local operator or Farmer Friend will inform the farmer about the timing.

Water will be supplied through the valve or node during the scheduled time.

Water use will be recorded digitally.

Service fee and water usage reports will be available on the farmer dashboard.

Complaints or maintenance requests can be registered in the system.

14.11 Benefits for the Ecosystem

Importance for SCPL

SCPL will receive accurate data on water use, crop-wise water requirement, cultivated area, service fee collection, maintenance, and expansion planning.

Based on this data, the model can be expanded from one village to another village.

Importance for Government

Government agencies can receive transparent information on village-level water use, irrigated area, crop planning, and water resource management.

This data can be useful for water conservation, agricultural subsidy planning, crop insurance, and rural development schemes.

Importance for Banks and Investors

- This project creates an income model based on infrastructure and service fees rather than only crop performance.
- This makes financing and investment more structured and comparatively safer.

Importance for FPOs and Local Employment

FPOs and local youth can get employment opportunities in operations, maintenance, water scheduling, node management, service fee collection, and farmer support.

Importance for Agricultural Market Systems

When water availability improves, production planning improves. Once production becomes more predictable, input trading, machinery planning, marketing, processing, dairy, and export systems also become stronger.

14.12 Scalable Model – From One Village to the District Level

The Well-to-Well Water Management Model is highly scalable.

It can begin with one village, one cluster, one source well, or one compact irrigation node. After successful implementation, it can be expanded to neighbouring villages, larger clusters, and eventually to the taluka or district level.

The model can be expanded based on:

- Available water sources.
- Farmer participation.
- Service fee recovery.
- Land and crop pattern.
- Solar energy feasibility.
- Pipeline network planning.
- Local operator availability.
- Investment and CSR participation.
- This scalability makes the project suitable for long-term rural water infrastructure development.

14.13 Expected Outcome

The Well-to-Well Water Management Project will create a shared, planned, and digitally managed irrigation system for villages.

Farmers will receive more reliable water access without making large individual investments. Crop planning will improve, productivity may increase, and water wastage can reduce.

The project will also support dairy, fodder, vegetable production, orchards, processing, and export-oriented agriculture.

Through this model, water becomes a managed service rather than an uncertain individual burden.

14.14 Conclusion

The Well-to-Well Water Management Project is a practical and scalable solution for village-level irrigation planning.

By connecting wells, pipelines, solar pumps, digital controls, farmer dashboards, and service fee systems, SCPL can create a sustainable water distribution model for rural agriculture.

This project can reduce water inequality, improve productivity, lower irrigation cost, create local employment, and strengthen the foundation of self-reliant villages.

“When water is managed collectively, farming becomes planned, production becomes stable, and villages move closer to self-reliance.”



15. Integrated Milk Management and Marketing Project

A Pure, Transparent, and Farmer-Centric Dairy Model

Share Croppers Pvt. Ltd.

The Integrated Milk Management and Marketing Project is a farmer-centric, transparent, and technology-based dairy infrastructure model developed by Share Croppers Pvt. Ltd. (SCPL) for rural India.

This project is designed to connect farmers, investors, banks, dairy processing institutions, consumers, and SCPL into one integrated dairy ecosystem. In this model, the farmer becomes the owner of the animal, the investor invests in dairy infrastructure, SCPL manages operations and marketing, the bank supports financing, and a separate processing institution manages milk processing.

The strength of this model lies in integrated management and full transparency. Milk collection, animal management, processing, marketing, digital monitoring, escrow-based financial transactions, organic slurry, bio-fertiliser, and Bio-CNG energy generation are connected into one organised system.

15.1 Executive Summary

The Integrated Milk Management and Marketing Project is not only a dairy business model. It is a rural infrastructure project that can create regular farmer income, local employment, organic farming support, clean energy, transparent milk supply, and sustainable village development.

Through this project, farmers receive animal ownership, regular income support, organic slurry at free or reduced cost, lower farming input cost, and market connectivity. Consumers receive pure and traceable milk. Investors receive an infrastructure-based opportunity. Banks receive a transparent income flow. Villages receive employment, energy, organic farming support, and a pathway towards self-reliant development.

Key Partners and Roles

Partner	Main Role
SCPL	Infrastructure, operations, management, and marketing
Investor	Funding for infrastructure assets
Farmer / Consumer	Animal ownership and participation
Bank	Credit support and financial discipline
Processing Institution	Independent milk processing unit

15.2 Vision and Main Objective

The vision of this project is to create one of the most transparent, technology-based, and farmer-centric dairy ecosystems in rural India.

The main objectives are to stabilise farmer income, provide pure and traceable milk to consumers, create a secure infrastructure-based model for investors, and generate employment at the village level.

In this model, traditional dairy activity is transformed into a digital, transparent, infrastructure-based, and scalable PPP ecosystem. Milk does not remain only a saleable product. It becomes the foundation for energy generation, organic farming, rural enterprise, digital governance, and residue-free production.

Main Objectives

- To provide farmers with a stable and assured income base.
- To create a pure and traceable milk system up to animal level.
- To provide investors with a secure infrastructure-based model.
- To create transparency through mobile apps, CCTV, digital records, and escrow systems.
- To generate local employment and service opportunities at the village level.

15.3 Industry Background and Current Problems

India produces milk on a large scale, but in many areas, the dairy sector remains unorganised. Farmers often depend on local traders, middlemen, or unstable purchase systems. Lack of transparency in milk rate, measurement, fat, SNF, transport, and payment creates income instability for farmers.

Milk adulteration, lack of traceability, logistics losses, poor animal health management, unclear financial transactions, and operational inefficiency affect the growth of the dairy sector.

Due to these challenges, farmers remain financially weak, consumer trust reduces, and investors become cautious about entering the dairy sector.

Major Problems

- Unorganised dairy structure.
- Farmer income instability.
- Dependence on middlemen.
- Milk adulteration and lack of traceability.
- Transport and collection losses.
- Weak animal health management.
- Lack of transparent financial systems.

15.4 SCPL Solution – Integrated Dairy Management Model

- SCPL provides a solution through an Integrated Dairy Management Model.

This model includes infrastructure development, organised animal management, digital monitoring, mobile app transparency, escrow-based financial transactions, insurance, risk protection, integrated supply chain, and traceable milk distribution.

In this project, animals, infrastructure, processing, marketing, and technology are connected into one managed ecosystem. This creates control and transparency over milk production, animal care, processing, sales, financial transactions, and customer trust.

Main Components

- Infrastructure development.
- Organised animal management.
- Digital monitoring system.
- Mobile app-based transparency.
- Escrow-based financial system.
- Insurance and risk protection.
- Traceable milk distribution.

15.5 Public-Private Partnership Model

This project is structured on a Public-Private Partnership — PPP — model.

SCPL, investors, farmers or consumers, banks, and processing institutions will work as separate but connected partners. Since the role of every partner is clearly defined, project risk reduces and scalability improves.

SCPL manages infrastructure, operations, management, and marketing. Investors provide funds for infrastructure assets. Farmers or consumers participate in animal ownership. Banks provide credit support. Processing institutions operate as independent milk processing units.

Partner Responsibilities

Partner	Responsibility
SCPL	Infrastructure, operations, management, and marketing
Investor	Funding for infrastructure assets
Farmer / Consumer	Animal ownership and participation
Bank	Credit support and income-flow verification

Processing Institution	Independent milk processing unit
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15.6 Five-Acre Dairy Hub – Infrastructure

The initial dairy hub can be developed on approximately 5 acres of land.

This hub may include irrigation systems, water supply, electricity, internal roads, dairy layout, fodder and feed arrangements, storage facilities, and utility management.

The hub can be connected with a 24/7 computerised irrigation infrastructure project. This allows integrated planning of water, electricity, fodder production, dairy operations, and organic slurry usage.

One dairy hub can create a backward linkage for approximately 10,000 acres of agricultural area.

Important Facilities

- Irrigation system.
- Water supply.
- Electricity system.
- Internal roads.
- Dairy layout planning.
- Feed and fodder arrangement.
- Storage facilities.
- Utility management.

15.7 Infrastructure Investment Structure

- Investors provide funds for cattle sheds, feed systems, storage facilities, and dairy utility systems.
- The ownership of infrastructure assets remains with the investor, while day-to-day operations are professionally managed by SCPL.

This creates an asset-based investment model. Physical infrastructure is available as security, operations run within a managed ecosystem, and a long-term recurring income model can be developed.

Investment Components

- Animal sheds.
- Feed systems.
- Storage infrastructure.
- Dairy utility systems.
- Asset-based investment.
- Managed operational ecosystem.

15.8 Farmer Ownership Structure

- In this project, the farmer does not remain only a milk supplier. The farmer becomes the owner of the animal.

According to the proposed structure, the farmer contributes 30% participation, and the remaining 70% amount is arranged through bank finance for animal purchase.

Animal selection will be done through the joint decision of SCPL experts and the farmer.

To protect the loan, SCPL-supported infrastructure, organised operations, and income-linked repayment systems will be available. This reduces risk for both the farmer and the bank.

Repayment can be structured over 5 years through automatic adjustment from milk income.

Component	Structure
Farmer Participation	30%
Bank Loan	70%
Selection Process	Joint decision by SCPL experts and farmer
Repayment	Automatic adjustment linked with milk income
Period	5-year structured repayment

15.9 Assured Farmer Income System

- The project provides a clear income support structure for farmers.

For the first 2 years, an income support of ₹2,000 per month is proposed. For the next 3 years, an income support of ₹3,000 per month is proposed.

This structure is linked with milk income, and repayment and income calculations will be done transparently.

The farmer may also receive additional benefits such as animal ownership, transparent records, government subsidies, and insurance coverage.

- As a result, the farmer becomes not only a milk seller but also an asset owner and rural enterprise participant.

Period / Component	Benefit
First 2 Years	₹2,000 per month income support
Next 3 Years	₹3,000 per month income support
Repayment	Linked with milk income
Additional Benefits	Subsidies, records, ownership, insurance cover

15.10 Animal Purchase and Safety System

Animals will be purchased from certified suppliers and verified dairy networks.

For every animal, health check-up, milk capacity verification, behaviour assessment, and veterinary approval will be completed.

A key safety feature of this system is the return or replacement policy. If the animal does not give expected milk, has health problems, or shows behavioural issues, replacement support may be available.

- This creates farmer protection from the purchase stage itself.

Main Process

- Certified suppliers.
- Verified dairy networks.
- Health check-up.
- Milk capacity verification.
- Behaviour assessment.
- Veterinary approval.
- Return or replacement support.

15.11 Daily Operations – SCPL-Controlled Dairy Management

Daily dairy operations will be conducted under SCPL-controlled management.

Standard SOPs will be prepared for milking, feeding, hygiene management, manpower management, and stock control.

- Veterinary services, insurance coverage, and digital performance monitoring will also be included.

The farmer can receive the benefit of animal ownership without bearing the full burden of daily animal management.

Local village youth can get employment in milking, feeding, cleaning, monitoring, logistics, and animal care.

Main Activities

Milking.

- Feed management.
- Hygiene management.
- Manpower management.
- Stock control.
- Veterinary services.

- Insurance coverage.
- Digital performance monitoring.

15.12 Technology and Transparency – Digital Dairy Ecosystem

- Technology and transparency form the core of this project.

The dairy facility will be monitored through live CCTV. Animal-wise milk tracking will provide production data for every animal. Production analysis will help create dashboards for trends and forecasting.

A mobile app will be used for health records, veterinary records, feed monitoring, batch-wise nutrition tracking, and financial transparency.

Farmers, investors, and consumers will receive required data visibility.

Technology Components

- Live CCTV monitoring.
- Animal-wise milk tracking.
- Production analysis.
- Health records.
- Feed monitoring.
- Financial transparency.
- Mobile app access.

15.13 Independent Processing Institution Model

The milk processing division will work as an independent professional institution.

This institution will be connected with the SCPL supply chain and may be eligible for applicable government subsidy schemes.

- Processing activities may include milk collection, chilling, packaging, and distribution support.

The supply flow will remain integrated from the animal farm to the collection hub, chilling plant, processing unit, and final distribution.

Step	Supply Flow
1	Animal Farm
2	Collection Hub
3	Chilling Plant
4	Processing Unit
5	Distribution

15.14 Integrated Product Marketing Network

SCPL can create an integrated marketing network for milk, vegetables, and fruits.

Through farmer retail stores, retail networks, society distribution, and local delivery systems, a direct chain can be created from farm gate to customer doorstep.

- This reduces intermediaries, gives farmers better market access, and provides consumers with traceable products.
- Since marketing and distribution remain within the same ecosystem, cost can reduce and control can improve.

Main Components

Milk.

Vegetables.

Fruits.

- Farmer retail stores.

- Retail network.
- Society distribution.
- Local delivery systems.

15.15 Organic Slurry Ecosystem – 1,000-Animal Model

The organic slurry ecosystem based on 1,000 animals is an important sustainability pillar of the dairy project.

Animal waste will be collected and converted into organic slurry and bio-fertiliser. Nutrients will be reused in farms and integrated with irrigation systems.

Participating farmers may receive slurry free of cost or at reduced cost. This can reduce dependence on chemical fertilisers, improve soil fertility, and lower farming costs.

- Waste becomes a value-generating resource for agriculture.

Main Benefits

- Organic slurry collection.
- Bio-fertiliser production.
- Nutrient recycling.
- Integrated use with irrigation.
- Free or low-cost slurry supply.
- Reduced dependence on chemical fertilisers.
- Improved soil fertility.

15.16 Zero-Waste Dairy Infrastructure

The zero-waste approach is based on the flow:

Animal Waste → Slurry Processing → Organic Farming

Every residue is converted into a resource.

Future opportunities may include organic compost production, biogas integration, organic certification support, and carbon credit opportunities.

For participating farmers, free slurry distribution and reduced farm input cost are major benefits.

Main Components

- Animal waste.
- Slurry processing.
- Organic farming.
- Organic compost.
- Biogas integration.
- Carbon credit opportunities.
- Sustainable farming ecosystem.

15.17 Clean Energy Generation from Slurry

Slurry generated from the dairy project can become raw material for clean energy production.

The process flow will be:

Slurry Collection → Bio-Digestion → Methane Extraction → Bio-CNG Production → Organic Residue Reuse

A separate Bio-CNG institution can be developed in coordination with the SCPL ecosystem.

Slurry from more than 1,000 animals can be converted into renewable green energy. Therefore, the dairy project can become a basic factory for energy generation.

Step	Energy Conversion Process
1	Slurry Collection
2	Bio-Digestion

3	Methane Extraction
4	Bio-CNG Production
5	Organic Residue Reuse

15.18 Renewable Energy Income Model

Clean Bio-CNG fuel can be used for dairy and transport operations.

On-site energy production can reduce dependence on outside energy sources. Green operations can reduce carbon emissions, and complete reuse can create a zero-waste system.

Financial benefits may include additional income streams, carbon credit opportunities, government green energy subsidies, and long-term sustainability.

This helps develop an integrated chain of milk, energy, organic farming, and residue-free production.

Main Benefits

- Clean Bio-CNG fuel.
- Reduced energy dependence.
- Lower carbon emissions.
- Zero-waste system.
- Additional income streams.
- Green energy subsidy opportunities.

15.19 Cost Efficiency – How Costs Are Reduced

Centralised infrastructure means one hub and shared capital expenditure.

Instead of spending separately at many locations, operations are managed through one integrated hub. A direct farm-to-market chain reduces intermediaries.

- An integrated supply chain reduces logistics leakage. Shared electricity and water systems reduce utility costs.

Because animals, processing, and marketing are connected within one ecosystem, backward linkage costs can be reduced significantly.

Reasons for Cost Reduction

- Centralised infrastructure.
- Reduced intermediaries.
- Lower logistics leakage.
- Shared electricity and water systems.
- Integrated supply chain.
- Higher operational efficiency.
- Lower operating cost.

15.20 Customer Trust Through Transparency

To build customer trust, it is important to show where the milk came from, which animal produced it, and how its quality was tested.

Farm-level origin visibility, animal-level production data, lab-certified testing, and digital dashboards can give consumers clear information about milk quality and source.

The principle of this model is:

Trust = Transparency

Transparent data can create customer loyalty, natural market trust, and a premium-quality image.

Trust-Building Factors

- Milk source tracking.
- Animal-wise traceability.
- Quality monitoring.

Swachar: A strong village creates a strong farmer, and a strong farmer creates a strong nation.

- Digital transparency.
- Strong customer loyalty.
- Premium quality image.

15.21 Escrow-Based Financial Transparency

- Financial flows between farmers, investors, SCPL, banks, and customers will be managed through an escrow system.
- This creates a centralised and monitorable payment ecosystem.

Escrow-based financial governance increases transparency and accountability. It reduces corruption, prevents financial leakage, tracks every transaction, and creates real-time responsibility.

Main Benefits

- Control over corruption.
- Reduced financial leakage.
- Traceability of every transaction.
- Real-time accountability.
- Centralised payment ecosystem.

15.22 Value for All Partners – Win-Win Ecosystem

- This project creates clear value for every partner.

The farmer receives regular income and animal ownership. The investor receives a secure infrastructure-based opportunity. The consumer receives pure and traceable milk. SCPL receives a scalable management model. The bank receives a secure lending ecosystem. The government receives a rural development and subsidy-efficiency opportunity.

This is not a one-sided business model. It is a Win-Win Ecosystem based on shared responsibility and shared benefit.

Partner	Main Benefit
Farmer	Regular income and animal ownership
Investor	Infrastructure-based secure opportunity
Consumer	Pure and traceable milk
SCPL	Scalable management operations
Bank	Secure lending ecosystem
Government	Rural development and subsidy efficiency

15.23 Rural Development and Social Transformation

- This project creates a sustainable rural economy.

Dairy operations, local manpower, digital monitoring, logistics, processing, slurry management, and organic farming can create multiple income sources.

It supports farmer empowerment, asset ownership, financial literacy, village employment, banking access, credit building, roads, irrigation, and digital connectivity.

The long-term vision is to build a self-reliant rural dairy ecosystem.

Main Outcomes

- Sustainable rural economy.
- Farmer empowerment.
- Village employment.
- Financial inclusion.
- Infrastructure development.
- Digital transformation.

15.24 Growth and Expansion – Scalable Across India

This model can begin at the village level and expand into cluster-based dairy hubs, state-level operations, and multi-product integration.

- Since each hub operates through standard SOPs, digital visibility, and financial governance, replication becomes easier.

Future integration may include organic farming, agriculture marketing platforms, cold chain systems, export-oriented dairy, and AI-driven analytics.

Expansion Direction

- Village-wise implementation.
- Cluster-based dairy hubs.
- State-level expansion.
- Multi-product integration.
- Organic farming integration.
- Cold chain systems.
- Export-oriented dairy.
- AI-driven analytics.

15.25 Traditional Dairy vs SCPL Model

Traditional dairy systems are often unorganised, less transparent, and dependent on middlemen. Farmer risk is high, monitoring is weak, and consumer trust issues remain.

The SCPL model offers a structured PPP system, full digital visibility, shared-risk ecosystem, direct integrated supply chain, real-time technology systems, and animal-wise traceability.

Factor	Traditional Dairy	SCPL Model
Structure	Unorganised	Structured PPP model
Transparency	Low	Full digital visibility
Farmer Risk	High	Shared-risk ecosystem
Supply Chain	Dependent on middlemen	Direct integrated chain
Monitoring	Weak	Real-time technology
Trust	Trust issues	Animal-wise traceability

15.26 100 KM Integrated Dairy Cluster Model

- The infrastructure strategy uses a 100 km integrated dairy cluster model.

One dairy hub can create backward linkage for approximately 10,000 acres. The hub can be planned near major cities. All animals can be centralised at the SCPL facility.

- Unified infrastructure management and centralised milk collection bring milk collection, processing, and marketing into one ecosystem.
- This improves efficiency, reduces operational leakage, and makes expansion easier.

Key Features

- One integrated dairy hub.
- Linkage with approximately 10,000 acres.
- Planned near major city areas.
- All animals centralised at SCPL facility.
- Unified infrastructure management.
- Centralised milk collection.

15.27 Bank-Controlled Low-Risk Financial Structure

To reduce bank risk, the model uses centralised operations, traceable income flows, controlled infrastructure ecosystem, digital transaction monitoring, and escrow-based financial governance.

- Banking benefits include structured cash-flow visibility, lower default probability, and infrastructure-backed lending support.
- Centralised infrastructure creates operational control and financial transparency.

Main Components

- Centralised operations.
- Traceable income flow.
- Controlled infrastructure ecosystem.
- Digital transaction monitoring.
- Escrow-based financial governance.
- Lower default probability.

15.28 Investment Opportunity

Infrastructure-based dairy investment is an asset-backed ecosystem.

Physical infrastructure works as security. SCPL provides organised management. Escrow and digital monitoring create financial transparency, while real-time visibility increases investor confidence.

- As milk demand continues to grow in India, income potential may increase with scale.

This model can develop into a long-term recurring operational ecosystem.

Investment Features

- Asset-backed ecosystem.
- Organised management.
- Transparent financial system.
- Technology-based visibility.
- Growing milk demand.
- Long-term recurring operations.

15.29 Implementation Plan

The project will be implemented in phases.

In the first phase, land and infrastructure planning will be completed. In the second phase, investor linkage and dairy infrastructure development will take place. In the third phase, farmer registration and bank financing will be arranged. In the fourth phase, animal purchase and operations will begin.

In the fifth phase, digital integration, milk distribution, and customer linkage will be established. In the sixth phase, expansion and replication will be taken forward.

- This phased plan reduces risk and makes every stage measurable.

Implementation Phases

Phase 1 — Land and infrastructure planning.

Phase 2 — Investor linkage and dairy infrastructure development.

Phase 3 — Farmer registration and bank financing.

Phase 4 — Animal purchase and start of operations.

Phase 5 — Digital integration and milk distribution.

Phase 6 — Expansion and replication model.

15.30 Rules, Discipline, and SOP

Every participating farmer and working team must follow SOPs related to milk hygiene, animal health, feeding schedule, milking time, digital records, quality testing, and waste management.

- Milk adulteration, wrong records, delay, and negligence in animal care will be strictly controlled.

Financial transactions will be maintained transparently through banking and escrow systems.

- Milk production, quality, payment, loan adjustment, insurance, and subsidy records will be available in the digital system.

Main Rules

- Adulteration-free milk.
- Milking and feeding as per SOP.
- Animal health records.
- Digital payment records.
- Escrow governance.
- Insurance compliance.
- Quality testing.
- Waste management.

15.31 Final Summary and Conclusion

In this project, SCPL develops and manages infrastructure, investors fund assets, farmers become animal owners, banks support structured finance, and the entire system operates transparently through technology and escrow-based governance.

- This creates a low-risk, fully traceable, and farmer-centric dairy ecosystem.
- The project creates an integrated chain of milk, energy, organic farming, residue-free production, and rural development.

Farmers receive regular income support. Consumers receive pure milk. Investors receive an infrastructure-based opportunity. Banks receive a transparent lending model. Villages receive employment and a path towards sustainable development.

“When dairy is managed as infrastructure, milk becomes more than a product — it becomes a foundation for farmer income, clean energy, organic farming, and self-reliant rural development.”



Swachar: A strong village creates a strong farmer, and a strong farmer creates a strong nation.

16. Special Agri Export Zone

SEAZ – Special Agriculture Export Cluster Model

One Crop • One Area • One SOP • Export-Oriented Farming

100 Farmers • 100 Acres • 10 Exporters • One Export-Quality Crop

Share Croppers Pvt. Ltd.

The Special Agri Export Zone — SEAZ is a specialised agriculture export project developed under Share Croppers Pvt. Ltd. (SCPL).

The main objective of this project is to connect small and medium farmers from rural areas with global markets, develop export-quality agricultural production, and transform scattered farming into an organised export supply system.

Many farmers produce good crops, but their produce does not reach export markets. The major reasons are lack of quality consistency, required volume, certification, traceability, processing, packing, and direct exporter linkage.

- The SEAZ model provides an integrated and planned solution to these challenges.

In this model, an agriculture export cluster is created on the basis of 100 acres of land, 100 farmers, 10 exporters, and one export-quality crop. Across the entire cluster, one crop, one SOP, one quality system, and one digital traceability system are implemented.

Through this model, the farmer does not remain only a producer. He becomes an important partner in the export supply chain.

16.1 Why SEAZ Is Necessary

India has strong agricultural production capacity. Rural areas have land, labour, farming experience, and production potential. However, many farmers do not receive the direct benefit of export markets.

The main reason is the lack of organised production planning and consistency with export standards.

Export markets require fixed quality, fixed quantity, timely supply, and complete documentation. A small farmer alone cannot fulfil all these requirements independently. Therefore, his produce is mostly sold in the local market, and he does not receive the benefit of export-level pricing.

SEAZ is necessary for the following reasons:

- To connect farmers with global markets.
- To create uniform quality and standardised production volume.
- To provide exporters with a reliable production source.
- To develop digital traceability and transparency.
- To build export-oriented rural infrastructure.
- To make farmer income more stable and profitable.

SEAZ is a model that makes the village a part of the export economy. It connects village agriculture not only with local markets, but also with national and global markets.

16.2 Current Export Challenges

- The present agriculture export system faces several challenges.

Farmers produce crops in different ways. Each farmer may use different seeds, fertilisers, pesticides, harvesting methods, packing practices, and quality standards. Because of this variation, exporters find it difficult to get consistent and standardised produce.

Major Challenges

1. Lack of Quality Consistency

Export markets require uniform quality. In the current system, every farmer's produce is different, so quality consistency is difficult to maintain.

2. Uncertainty of Production Quantity

Exporters need to supply fixed quantities as per contracts. However, due to scattered production, it becomes difficult to estimate how much produce will actually be available.

3. Lack of Traceability

In export markets, it is important to know from which farm the produce came, which inputs were used, when spraying was done, and when harvesting took place. If such records are not available digitally, the export process becomes difficult.

4. Risk of Residue Rejection

If pesticide or chemical residue exceeds export standards, the produce may be rejected. This causes losses to both farmers and exporters.

5. Limited Packing and Processing Facilities

Due to lack of grading, sorting, packing, cold chain, and quality testing facilities, produce often fails to reach export standards.

SEAZ provides a planned, digital, and cluster-based solution to these export challenges.

16.3 What Is SEAZ?

SEAZ means Special Agri Export Zone.

It is an agriculture export system where a specific area, selected farmers, assigned exporters, and one export-quality crop are brought together under a structured framework.

In this model, the entire area is managed as one export production unit. Each farmer remains the owner of his land, but the production process is carried out according to collective planning.

SEAZ Includes

- One export-quality crop.
- Uniform SOP.
- Digital registration and traceability.
- Quality testing.
- Packhouse and grading facilities.
- Direct linkage with exporters.
- Transparent pricing method.
- Clear roles for farmers, SCPL, exporters, and investors.

SEAZ is not only a farming model. It is a rural export infrastructure model that builds the entire value chain from cultivation to export.

16.4 Importance of One Crop

- The SEAZ model focuses on one crop in one cluster.

This is because export markets require large quantities of uniform-quality produce. If many different crops are grown in the same cluster, production planning, quality testing, input control, harvesting schedule, packing, and export processing become complicated.

Benefits of One Crop Model

- Quality control becomes easier.

A uniform SOP can be implemented.

Input use can be controlled.

- Harvest planning becomes easier.
- Exporters receive assured quantity.
- Packhouse and logistics planning become efficient.
- Traceability becomes more accurate.

The basic principle of SEAZ is:

One Crop • One Area • One SOP • One Export Discipline

- This converts scattered farming into planned, export-oriented, and market-focused agriculture.

16.5 Cluster Structure

Under the SEAZ model, a 100-acre agriculture export cluster is developed.

In this cluster, 100 farmers participate. Each farmer contributes approximately 1 acre of land. A total of 10 exporters are connected with the cluster, and one export-quality crop is cultivated across the entire area.

Basic Cluster Structure

Component	Structure
Total Area	100 acres
Farmers	100
Exporters	10
Area per Exporter	10 acres
Farmers per Exporter	10 farmers
Crop	One export-quality crop

This structure allows even small farmers to become part of a large export supply chain. They do not need to create their own export system independently.

Through SCPL, farmers receive planning support, technical guidance, digital records, quality discipline, and market linkage.

16.6 Exporter Allocation Model

In SEAZ, each exporter is assigned a specific group of farmers and a defined area.

For example, if there are 10 exporters, each exporter may be allocated 10 farmers and 10 acres.

Benefits for Exporters

- Clear production source.
- Better production volume estimation.
- Easier quality monitoring.
- Direct relationship with farmer groups.
- More accurate supply planning.

Benefits for Farmers

Farmers also benefit from this model. They know in advance which exporter they are producing for, what quality standards are required, when harvesting may happen, and how the pricing method will work.

Responsibilities become clear. Farmers produce according to SOP, exporters manage purchase and market linkage, SCPL manages the system, and investors support infrastructure development.

16.7 PPP Model

SEAZ is based on the Public–Private–People Partnership — PPP — model.

- This model brings together public support, private management, and people's participation.

Main Partners

1. Public / Investor Partner

- Provides investment, infrastructure support, and long-term project assistance.

2. Private Partner — SCPL

- Manages project planning, implementation, digital systems, quality control, and coordination.

3. People Partner — Farmers

- Contribute land, labour, production, and active participation.

Through this PPP model, the risk does not remain on one party alone. Farmers participate without coming under heavy debt. Investors receive a planned infrastructure-based project. SCPL maintains management and transparency. Government receives a replicable model for rural export development.

16.8 Role of the Investor

- The investor plays an important role in SEAZ.
- The investor does not directly give loans to farmers. Instead, investment is made for developing export-oriented infrastructure.

Investment May Be Used For

Packhouse.

- Grading and sorting unit.
- Cold chain facilities.
- Digital monitoring system.
- Transport facilities.
- Quality testing centre.
- Farmer training and SOP implementation.

A key feature of this model is that the farmer does not sell his land. Land ownership remains with the farmer. The investor develops infrastructure, and farmers use that infrastructure to produce export-quality crops.

- This keeps farmers debt-free and makes the project structure safer and more sustainable.

16.9 Role of SCPL

Share Croppers Pvt. Ltd. (SCPL) is the main system manager and coordinator of the SEAZ project.

- SCPL does not work as a traditional trader or middleman. It creates a digital, managerial, and transparent project structure.

Major Responsibilities of SCPL

- SEAZ project design and planning.
- Farmer registration and data management.
- Crop selection and production calendar preparation.
- SOP development and implementation monitoring.
- Exporter allocation and coordination.
- Quality monitoring.
- Digital traceability system.
- Packhouse, grading, sorting, and logistics coordination.
- Reporting, verification, and transparent record maintenance.

The objective of SCPL is to create a trusted bridge between farmers, exporters, investors, and government agencies.

16.10 Role of Farmers

In SEAZ, the farmer is at the centre of the project.

The farmer is not only a raw material producer. He is a production partner in the export supply chain.

Farmer Responsibilities

- Participate with a defined area of land.
- Follow the approved SOP.
- Use approved inputs only.
- Follow water, fertiliser, spraying, and harvesting schedules.
- Cooperate in maintaining digital records.

- Follow quality standards.
- Make produce available for the assigned exporter.

The farmer does not need to sell his land. He remains the landowner and can carry out more planned, export-oriented, and profitable farming on the same land.

16.11 Farmer Participation Model

Farmer participation in SEAZ is designed to be clear, respectful, and transparent.

The farmer contributes land and labour. SCPL provides guidance, digital records, SOP, and coordination. The exporter takes responsibility for market linkage and purchase.

Key Features

- Farmers receive crop information in advance.

The pricing method is explained clearly.

Quality standards are explained before cultivation.

- Digital records ensure transparency.
- Farmer produce enters the export supply chain directly.
- Dependence on middlemen reduces.

In this system, the farmer participates with dignity. He is not burdened with debt. He receives the position of a production partner.

16.12 Working Method and Crop Management

The SOP is the foundation of the SEAZ project.

A separate SOP is prepared for every export-quality crop. This SOP clearly explains the complete cultivation process.

SOP Includes

- Selection of suitable seeds or saplings.
- List of approved inputs.
- Fertiliser management.
- Irrigation schedule.
- Pest and disease management.
- Spraying rules and limits.
- Crop growth stages.
- Correct harvesting time.
- Post-harvest handling.
- Packing and grading guidelines.

Monitoring is done at every stage. This helps maintain crop quality and gives exporters reliable produce.

16.13 Digital Traceability System

Digital traceability is extremely important in SEAZ.

In export markets, the history of produce must be clearly available. It is necessary to know which farm the produce came from, which inputs were used, when spraying was done, when harvesting took place, and what quality test results were received.

Data Recorded in the Traceability System

- Farmer information.
- Land and plot details.
- Seed or sapling details.
- Input use records.
- Spraying records.
- Stage-wise crop photos.

- Harvest records.
- Production quantity.
- Quality test results.
- Packing and barcode information.
- Export documents.

The principle of this system is clear:

“What is not recorded cannot be accepted for export.”

16.14 Investment Structure

- In SEAZ, the investment and responsibility of every stakeholder are clearly defined.

This reduces financial confusion and helps the project operate with discipline.

Possible Investment Structure

- Investor: Infrastructure development.
- SCPL: Digital system, management, and coordination.
- Exporter: Market linkage and purchase responsibility.
- Farmer: Land, labour, and production.
- Government / Institutions: Policy support, facilities, and incentives.

Through this structure, the entire financial risk does not fall on farmers. Infrastructure is developed collectively, and the entire cluster benefits from it.

16.15 Rate Agreement and Pricing Method

The pricing method in SEAZ is kept transparent.

The price may be decided based on export market reference rates, quality of produce, grade, quantity, harvesting time, and agreement conditions.

Factors Considered While Deciding Price

- Export market demand.
- Quality of produce.
- Grading result.
- Residue test report.
- Production quantity.
- Packing quality.
- Transport and processing cost.
- High-quality produce may receive premium rates, while lower-quality produce may receive reduced rates.
- This encourages farmers to produce better-quality crops.

SCPL is not a price-controlling agency. SCPL's role is to maintain transparent records and manage the process.

16.16 Financial Flow

The financial flow in SEAZ is kept as direct and transparent as possible.

Financial Process

- Farmer produces according to SOP.

Quality testing is completed.

Produce is made available to the exporter.

Transaction is recorded as per the pricing method.

- Exporter makes payment to the farmer.
- SCPL records and verifies the transaction digitally.

This reduces dependence on intermediaries. Farmers receive a clear account of their produce, and trust increases in the transaction process.

16.17 Benefits for All Partners

- The SEAZ model creates benefits for every stakeholder.

Benefits for Farmers

- Connection with export markets.
- Opportunity for better rates based on quality.
- Debt-free participation.
- Skill development.
- Transparency through digital records.

Benefits for Exporters

- Assured production source.
- Uniform quality.
- Lower rejection risk.
- Traceable produce.
- Planned supply.

Benefits for Investors

- Infrastructure-based investment opportunity.
- Participation in long-term rural development.
- Transparent project management.

Benefits for SCPL

- Managed, data-based, and scalable project operations.
- Coordination between farmers, exporters, and investors.

Benefits for Government

- Export growth.
- Rural employment.
- Increase in farmer income.
- Development of agricultural infrastructure.

16.18 Infrastructure for Self-Reliant Villages

SEAZ is an important part of the Swayampurna Gaon Vikas Prakalp.

If a village has water management, digital farm registration, input control, production planning, packing facilities, cold chain, market linkage, and exporter connection, it can become economically stronger based on its own agricultural productivity.

Infrastructure That Can Be Developed Through SEAZ

- Export packhouse.
- Grading and sorting unit.
- Cold chain facility.
- Digital data centre.
- Farmer training centre.
- Quality testing facility.
- Logistics support.
- Exporter contact system.

Through this infrastructure, village agriculture does not remain limited to local sale. The village becomes connected with global markets.

16.19 Expected Outcome

SEAZ will help convert scattered farming into an organised export supply system.

Farmers will be able to produce according to export standards without selling their land or taking heavy debt. Exporters will receive reliable, traceable, and quality-controlled produce. Investors will support infrastructure development. SCPL will manage the digital and operational system.

- This creates a structured rural export ecosystem.

16.20 Conclusion

The Special Agri Export Zone — SEAZ is a sustainable, transparent, and scalable project that connects small farmers with export markets.

In this project, an export-quality agricultural cluster is developed on the basis of 100 farmers, 100 acres, 10 exporters, and one crop.

The greatest strength of SEAZ is:

One Crop • One Area • One SOP • One Export Discipline

Through this model, farmers, exporters, investors, SCPL, and government agencies can all benefit. Villages can develop infrastructure, employment, skills, market access, and economic stability.

“When the quality of the village reaches the global market, the dreams of farmers also become greater.”

The infographic illustrates the SEAZ Project workflow: **Produce | Process | Pack | Export**, leading to **Prosper Together**. It features a background image of an airport tarmac with a cargo plane and a large **AGRI EXPORT HUB** warehouse.

SEAZ PROJECT
SPECIAL AGRI EXPORT ZONE

→ Produce | Process | Pack | Export ←
— Prosper Together —

Key components and benefits shown in icons:

- QUALITY PRODUCTION (Icon: Farmer with plant)
- ADVANCED PROCESSING (Icon: Factory)
- MODERN PACKAGING (Icon: Boxes)
- GLOBAL MARKETS (Icon: Globe)
- BETTER INCOME FOR FARMERS (Icon: Bar chart)

BUILDING A STRONG BRIDGE BETWEEN OUR FARMS AND THE WORLD

Process steps shown in images:

- CONTRACT FARMING & CLUSTER DEVELOPMENT
- PROCESSING & VALUE ADDITION
- GRADING, PACKAGING & QUALITY CONTROL
- COLD CHAIN & WAREHOUSING
- LOGISTICS & EXPORT FACILITIES
- DIGITAL TRACEABILITY & TRANSPARENCY

THINK GLOBAL, GROW LOCAL, EXPORT TOGETHER.



SWAYAMPURNA GAON VIKAS PRAKALP

SELF-RELIANT VILLAGES • PROSPEROUS FARMERS • STRONG INDIA



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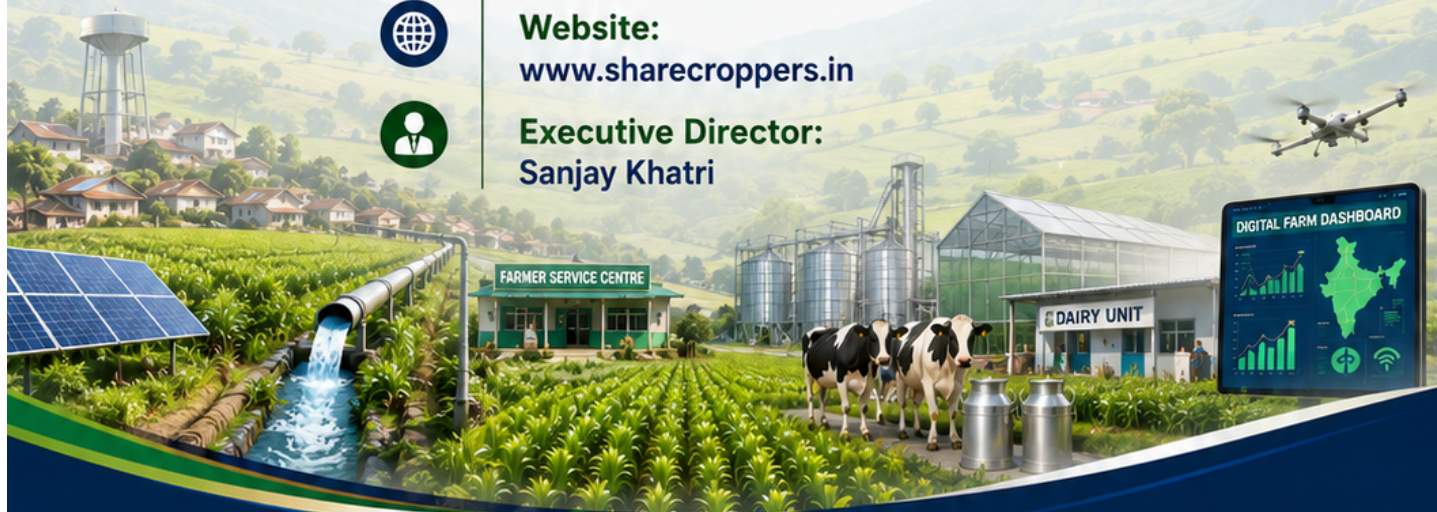
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Share Croppers Pvt. Ltd.

Building Atmanirbhar Bharat
Through Integrated Rural Development



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