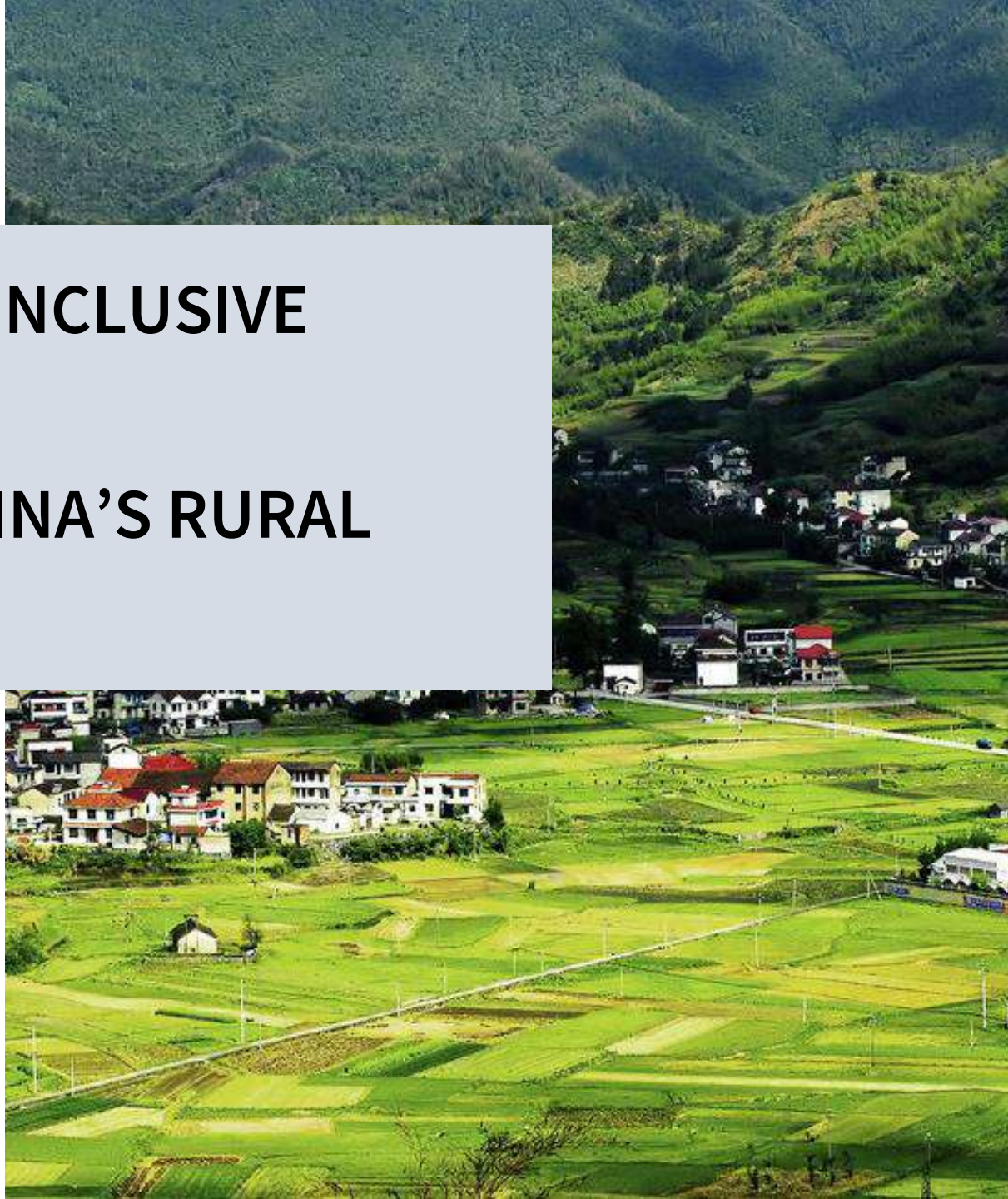


# A NEW MODEL FOR INCLUSIVE AGRICULTURE: THE FUTURE OF CHINA'S RURAL DEVELOPMENT

2019 China  
Global Leaders Programme

Laixi, Qingdao

Honest Inquiry • Asia's Worldview • Ideas to Action



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# Executive Summary

## Project Scope

This project aimed to understand the key issues of rural revitalisation in Laixi, Qingdao, China and propose a sustainable business model that would encourage smallholder farmer organisation and help them capture more of the value chain. Participants on the 2019 China Global Leaders Programme carefully considered a wide range of complex issues. Our research included field studies and interviews with stakeholders including government, businesses, co-operatives and local farmers.

## The Proposal

A new entity would be created called the Township Agricultural Collective Enterprise (TACE). It provides agricultural services through a Service Center for Smart Villages (SCSV) in each township in Laixi. Local farmers, business enterprises and other financial investors will become the company's shareholders. TACE will provide agricultural services to smallholder farmers and generate economic value, while channeling part of the profits to benefit the local community. This helps smallholder farmers benefit from scale through organisation and provide institutional support.

While the plan will be piloted in Yuanshang township and expand across other townships in Laixi, the long-term goal is to scale this model across China in regions with similar rural revitalisation issues.







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## Introduction and Background



# Global Leaders Programme



The **Global Institute For Tomorrow (GIFT)** is an independent pan-Asian think tank that provides content-rich and intellectually challenging executive education from an Asian worldview. GIFT's methodology invites participants to build greater self-awareness and test personal resilience whilst creating robust new business models linked to contemporary challenges and opportunities.

The **Global Leaders Programme (GLP)** is GIFT's flagship experiential programme designed for managers from leading global organisations to think critically about the drivers of change in the 21st century and develop new business models that address the defining challenges of our times.

# Project Team

- A cohort of 24 participants from 10 companies and 2 government bodies representing 10 countries and regions joined the 65<sup>th</sup> Global Leaders Programme in Hong Kong and Shandong, China from 2nd – 13th September 2019. The cohort convened in Hong Kong from 2 – 6th September for classroom sessions, followed by site visits and business planning sessions in Laixi in Qingdao, China, from 7 – 13th September.
- In partnership with the Hundred Villages Programme, participants produced a business plan that empowers smallholder farmers to organise themselves and professionalise their operations. The entity would help farmers achieve scale in production and support farmers' integration into the modern value chain. This report serves as the precursor to a collaboration between the Laixi Government and the Hundred Villages Programme to run a pilot project in Laixi, Qingdao.



A solution for inclusive agricultural services developed by a team of international executives

# Project Partner

In response to the implementation of China's rural revitalisation strategy, the “Hundred Villages Programme” (HVP) was launched in 2018 by the Consulting Centre of Farmers' Association (CCFA) with the Institute of Sociology of the Chinese Academy of Social Sciences serving as an advisory unit. The HVP is led by Professor Yang Tuan of the Chinese Academy of Social Sciences.

The programme brings together experts from the government, academia, industry, research institutions and civil society to work with farmers' cooperatives and village collectives all across China. The HVP provides key services including strategic planning, product design, sales channel development, platform building, and talent development.

This is their first project working with the Laixi government in Qingdao, Shandong.



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The Hundred Villages Programme provides interdisciplinary consultancy work to farmers organisations all over China



# Scope of Project

## Programme Objectives

- To develop a business model which helps smallholder farmers integrated into the modern value chain through organisation and providing the right services.
- To produce recommendations that take into account:
  - ✓ The balance between long term economic and social well being of smallholder farmers;
  - ✓ Local context including the social, political, economic and environmental factors that impact the rural sector;
  - ✓ Supply side of the value chain including farmers' organisation, technical training, sustainable farming inputs, production, quality assurance;
  - ✓ Demand side including branding and communications strategies;
  - ✓ The potential for scalability across the country

## Methodology of Field Project

- Site visits, meetings and focus groups with a diverse array of stakeholders, including cooperatives, agricultural service providers, smallholder farmers, local government and consultants.
- Information gathering and analysis; business model generation and business planning sessions in-country.

## Outcomes

- Development of a business plan and the necessary institutional arrangements with analysis of these key areas: Business Model & Governance, Production & Operations, Financial Analysis & Investment, Marketing & Distribution, and Community Engagement and Services.
- Presentation of the business plan to representatives from cooperative members, business councils, investors and other associated stakeholders in the value chain.





# China and Laixi

A country of 1.4 billion people, China has seen an 82 fold increase in GDP since the country's reform and opening up in 1978. In 2018, the economic growth rate stabilised at 6.7%, but still remains the second largest economy in the world. The slow down comes as it transitions from an economy driven by exports and infrastructure investments to an economy led by internal consumption and services.

In 2017, China pledged to pursue a rural revitalisation strategy to prioritise the development of its agriculture and rural areas and build a “moderately prosperous society” by eradicating extreme poverty by 2020.



Laixi is a county-level city in the North-Eastern part of Shandong province. The province has a population of around 100 million and is China's largest agricultural exporter. Its GDP amounted to RMB 7.65 trillion (USD 1.156 trillion) in 2018 and is China's third wealthiest province.

Laixi is known as “Qingdao's back garden”, and has a population of 760,000 with 53% engaged in agriculture. It ranks 35th among 2851 county-level administrative region by GDP. Primary industry accounts for 10% (RMB 7.9 billion) of GDP.

The total production of vegetables, fruits and peanuts in 2018 was 1.58 million tonnes. It produces the most meat, eggs and dairy in Shandong and handles a quarter of China's total poultry and peanut exports.







## Current Situation and Challenges





# Agriculture in China

In China, the **household responsibility system (HRS)** was launched after the people's commune system was abolished in the early 1980s. It redistributed land to farmers in the form of contracts and agricultural production operation was returned to individual households. The HRS has encouraged a wide range of farmers to expand production and promoted rural development.

But organising smallholder farmers and integrating them with the modern value chain remains challenging. Over 227 million smallholder households in China cultivate a total of 120 million hectares of farmland and produce over 20% of the world's food, though average land size per household is less than 0.3 hectares.

Smallholder farmers can miss the benefits of economic development because of:

- Low economies of scale
- Limited capital
- Lack of technical expertise
- Lack of market access
- High capital requirements for modernisation and logistics development.

China's rural revitalisation strategy signaled a shift in the country's development focus from unbridled economic growth to better quality expansion and improved wealth distribution.

A majority of smallholder farmers operate in a fractured value chain that prevents them from benefitting from the investments being made into the agricultural sector.

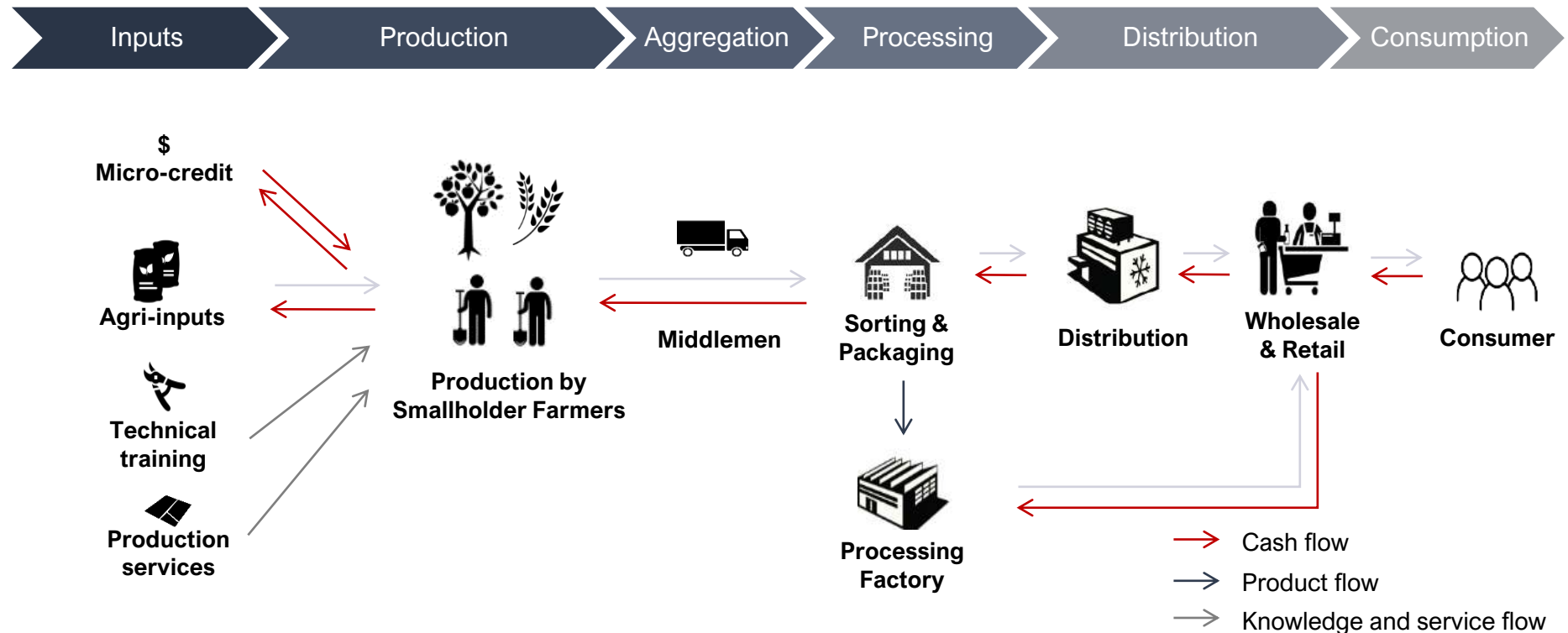
Establishing long-term mechanisms to integrate smallholder farmers into modern efficient value chains is fundamental to both rural sustainability and meeting market demand for safe, high quality produce.



Long-term, sustainable solutions to integrate smallholder farmers in China into the modern value chain are needed

# Fragmented Value Chain

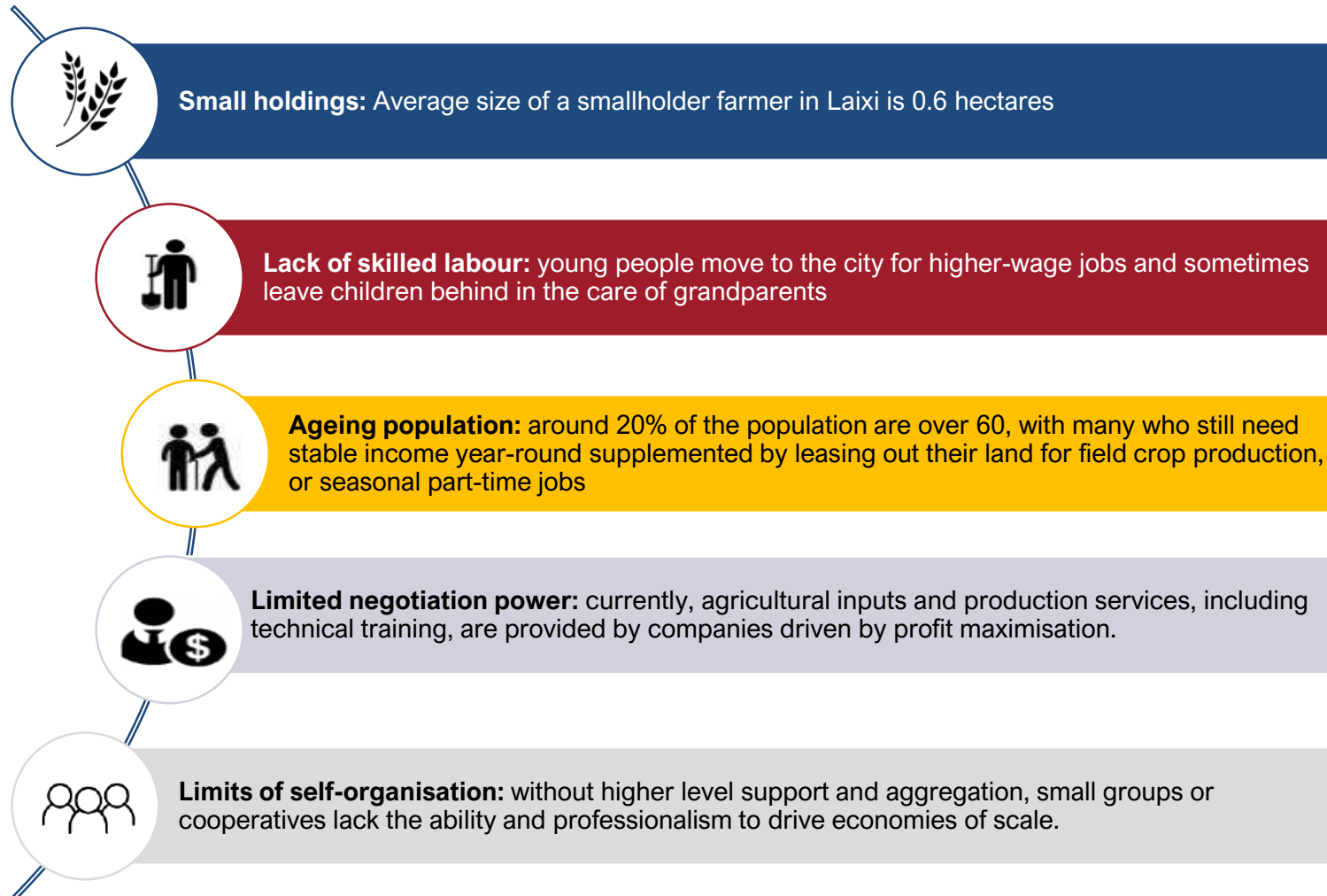
Majority of produce in China are grown by smallholder farmers and sold through middlemen via a long and fragmented value chain. They have no control of the produce once it is sold to the middlemen or in the sorting / packaging process. A bulk of the value is made from the middlemen level onwards up to retail as paid by the consumer. Also, due to the unorganised nature of the value chain, it is difficult to address quality and sustainability issues in production and implement a fully traceable and verifiable system.



A fragmented value chain means smallholder farmers lack a means of organisation and reaching scale



# Issues Facing Farmers in Laixi



Two main problems facing smallholder farmers in Laixi: lack of organisation and ageing population in villages

# Issues Facing Service Providers in Laixi

Service providers in agricultural inputs and services provide important support to farmers in terms of connecting them to upstream and downstream services. However, they also face issues reaching the critical mass of farmers needed for effective provision of services and products.

Below are some highlighted issues that service providers face:

Lack of farmer organisation: inability to achieve the scale needed for effective service provision, particularly when consolidating land for running large machinery for field crops

Lack of professional talent: there is not enough technical or management talent to run organisations effectively, as many younger professionals have left for the city.

Lack of trust from farmers: farmers have little-to-no loyalty towards a particular service provider.

Lack of professional training for companies: founders or people running the company may lack professional skills and support needed to run accounts, manage teams and farmers.

**Without scale, service providers cannot efficiently give assistance to farmers**





## Business Model



# Rationale of Business Model

Smallholder farmers are not integrated into the modern value chain, which means they do not capture much of the added value between farmer and end-consumer.

One way to achieve that would be empowering smallholder farmers to organise themselves, professionalise their operations and integrate at the township level.

However, with the breakdown of communes in the 1970s and the rise of the Household Responsibility System, organising efforts have been lacking. Companies now provide value chain services to farmers, but this means that farmers are no longer responsible for their own modes of production. In spite of the general improvement to livelihoods, farmers still lack negotiating power, technical skills and market information.

With these challenges in mind, a new **Township Agricultural Collective Enterprise (TACE)** is expected to encourage farmer self-organisation across villages, and enable the farmer groups to collectively manage production assets and capture more of the value chain.

While the field studies and partners were based in Laixi, the ideas in this model can applied across similar regions in China.



*"After the implementation of HRS, there still exists the cooperative economy built upon the collective ownership of the working people" in order to "manage basic production materials such as collective land and other public property, and provide various services to the members.... **This regional cooperative economic organisation is necessary**" (National policy, 1983)*

Farmers will benefit from the increased scale achieved by organising through TACE

# Introducing the Business Model

The proposed business model establishes a Township Agricultural Collective Enterprise (TACE) to provide services via a Service Centre for Smart Villages (Service Centre or SCSV for short) at each town.

TACE will organise farmers in the township to gain economies of scale and provide services through the Service Centre that will generate a profit as well as create higher returns for farmers. Key services include group purchase of agri-inputs, post-harvest sorting, packaging and branding, labour brokerage, financial services, and “Farming-as-a-Service”. The SCSV serves as a platform for agricultural service providers to provide services to members at scale through a more efficient and cost-effective manner.

Scale is achieved when farmers are organised into Farming Group Communities (FGC). Each FGC consists of different Producer Groups (PG) that grow the same type of crop and are within geographical proximity of each other. Farmer-members of TACE will become owners of the organisation through an initial investment, and will have voting rights as well as be part of a shared profit scheme.

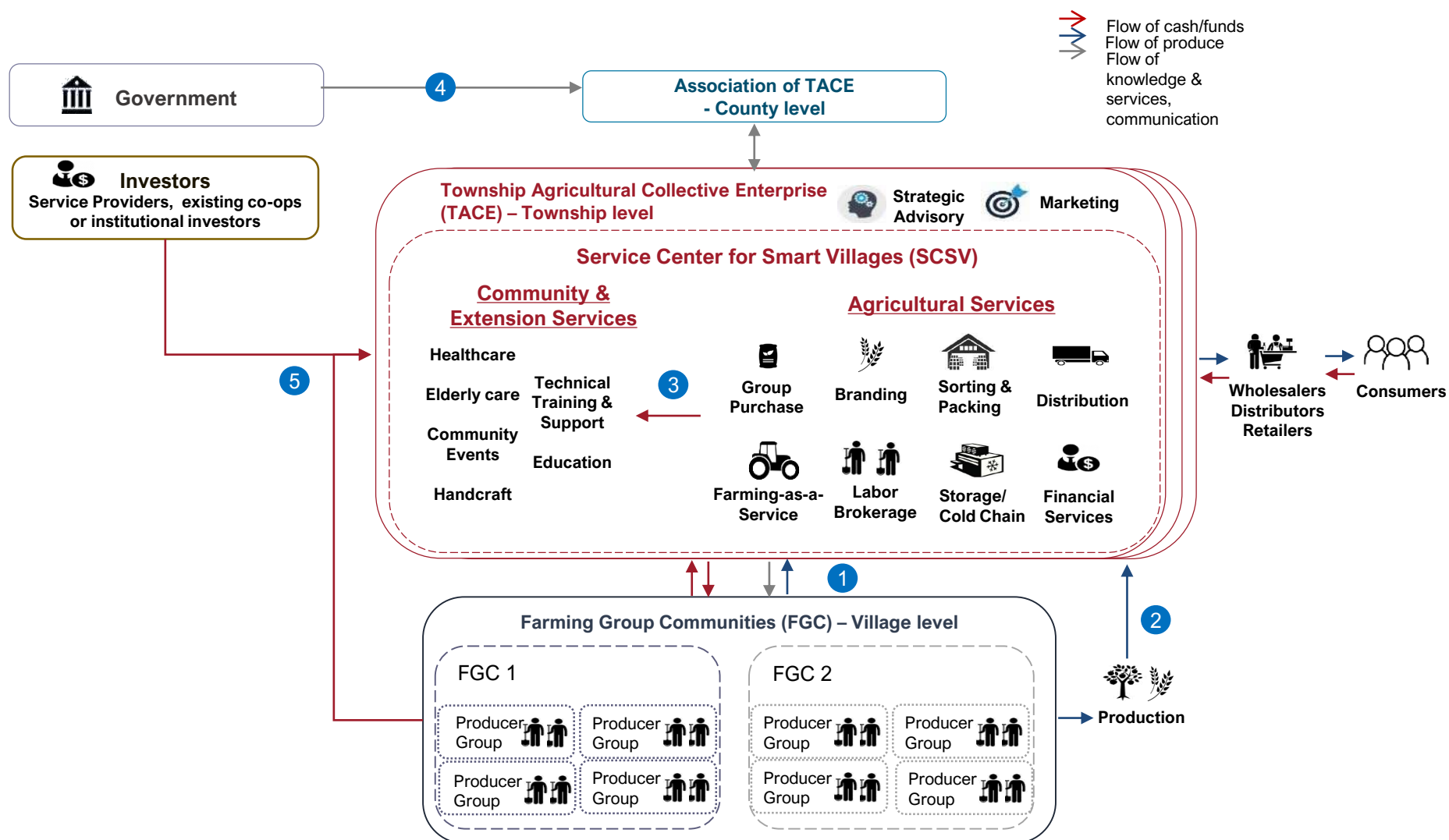
The Association of TACE at the county-level then connects the TACE at each township to ensure resources are coordinated and external stakeholders like the government are managed. It is also in charge of creating standards for product and traceability system standards.

Investors, whether institutional or existing service providers, will provide funding and act as business partners for TACE.





# The Township Agricultural Collective Enterprise



# Details of the Business Model

1

The Service Centre for Smart Villages (SCSV) will address some of the main agricultural issues of the Farming Group Communities (FGC).

Five main revenue streams (input sales, sorting/packaging and logistics, labour management, “farming-as-a-service” and financial services) are expected to increase income for farmers and fund community services.

All farmers in the township will join as members and co-owners of TACE through an initial investment. They will have voting rights to ensure TACE and Service Centre address members’ needs.

2

Producer Groups will work with the SCSV through five main channels (also the SCSV’s revenue streams):

1. Agri-input sales at a preferable rate based on consolidated orders from various FGCs
2. Provide value-added sorting, packaging and logistics services
3. Labour management and matching
4. “Farming as a Service”: providing machinery services for field crops
5. Financial services including loans and insurance

4

The government would support the establishment and take the lead in recruitment of farmers to TACE. It can also bring in resources from county and provincial level as well as extension services like university partners.

3

30% of profit (or RMB 600,000, whichever is higher) from each SCSV is set aside to fund community services to the FGCs. The focus areas are healthcare and education, but will also include elderly care, extension services and other community events.

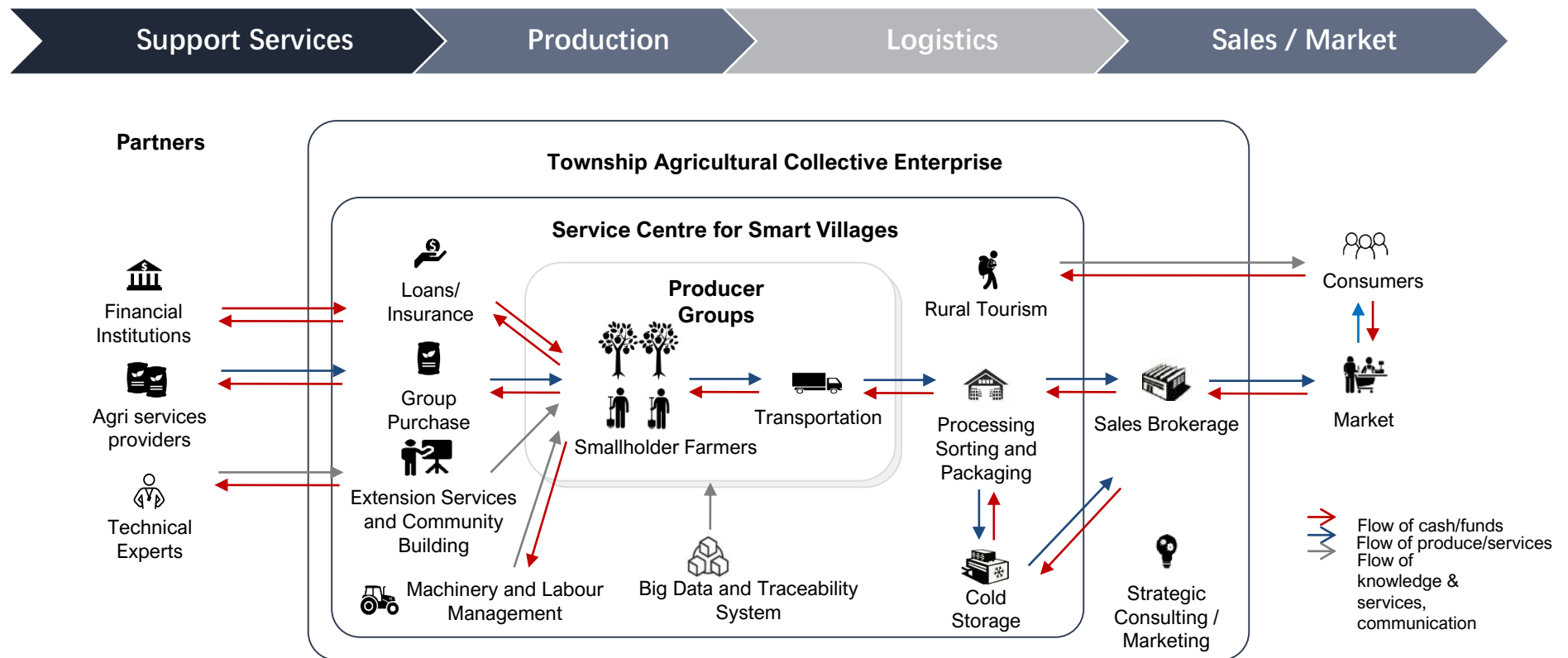
5

The TACE is 60% owned by the FGC members, while 40% of the shares are owned by investors. Investors could include institutional investors, agricultural service provider companies or existing co-operatives. By investing in TACE, they could more easily organise farmers at scale, and benefit from a larger market.

# Building a Service Model for the Entire Value Chain

TACE's goal is to help farmers throughout the value chain while working with existing service providers in a sustainable manner. Leveraging the scale of the Producer Groups, the TACE and Service Centre will be able to service farmers as a group, while service providers can work with TACE to provide this assistance more efficiently.

A data platform will also run throughout the value chain in order to enhance food traceability for consumers as well as provide services and market information for farmers.



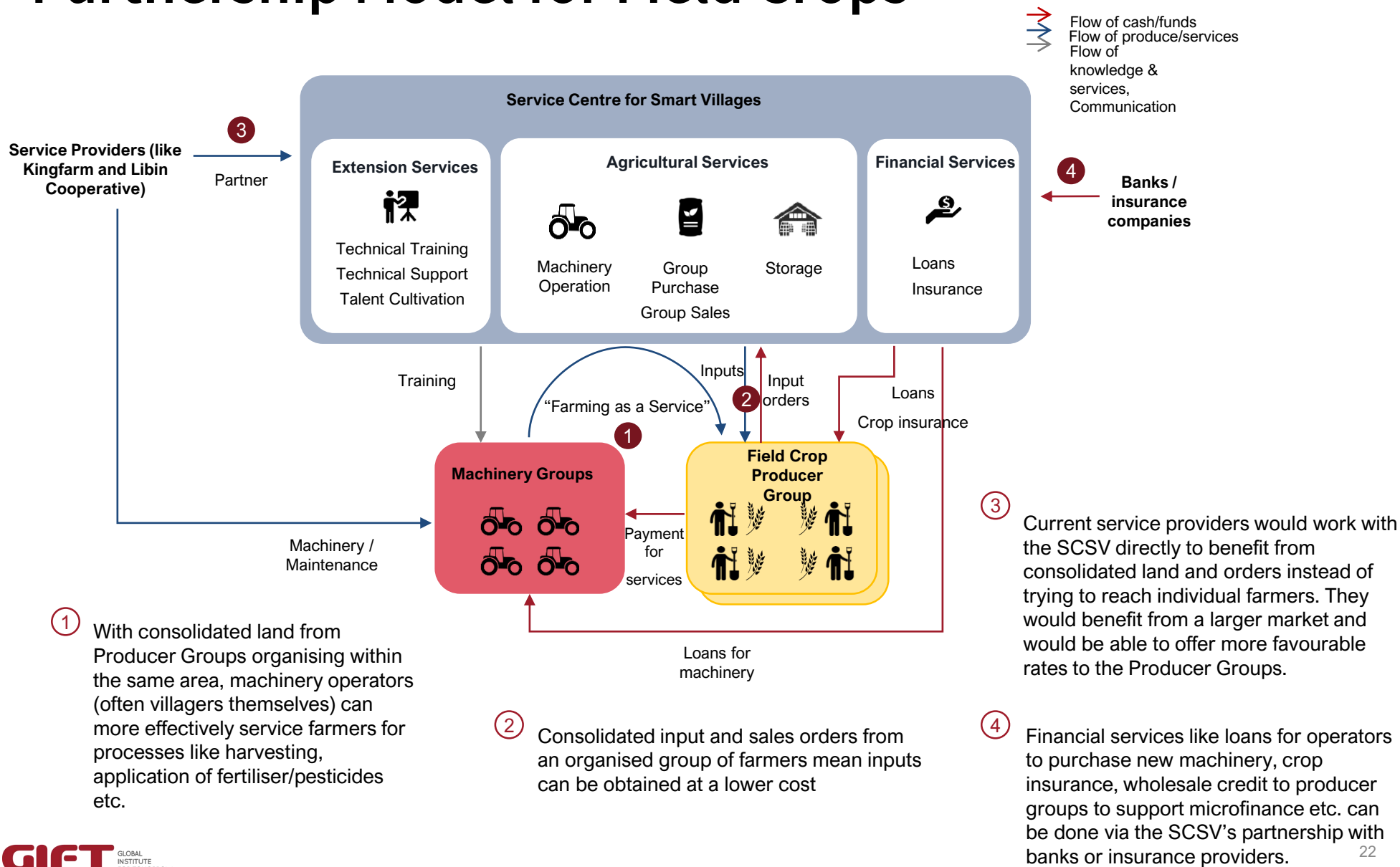


# Differences in Service Models

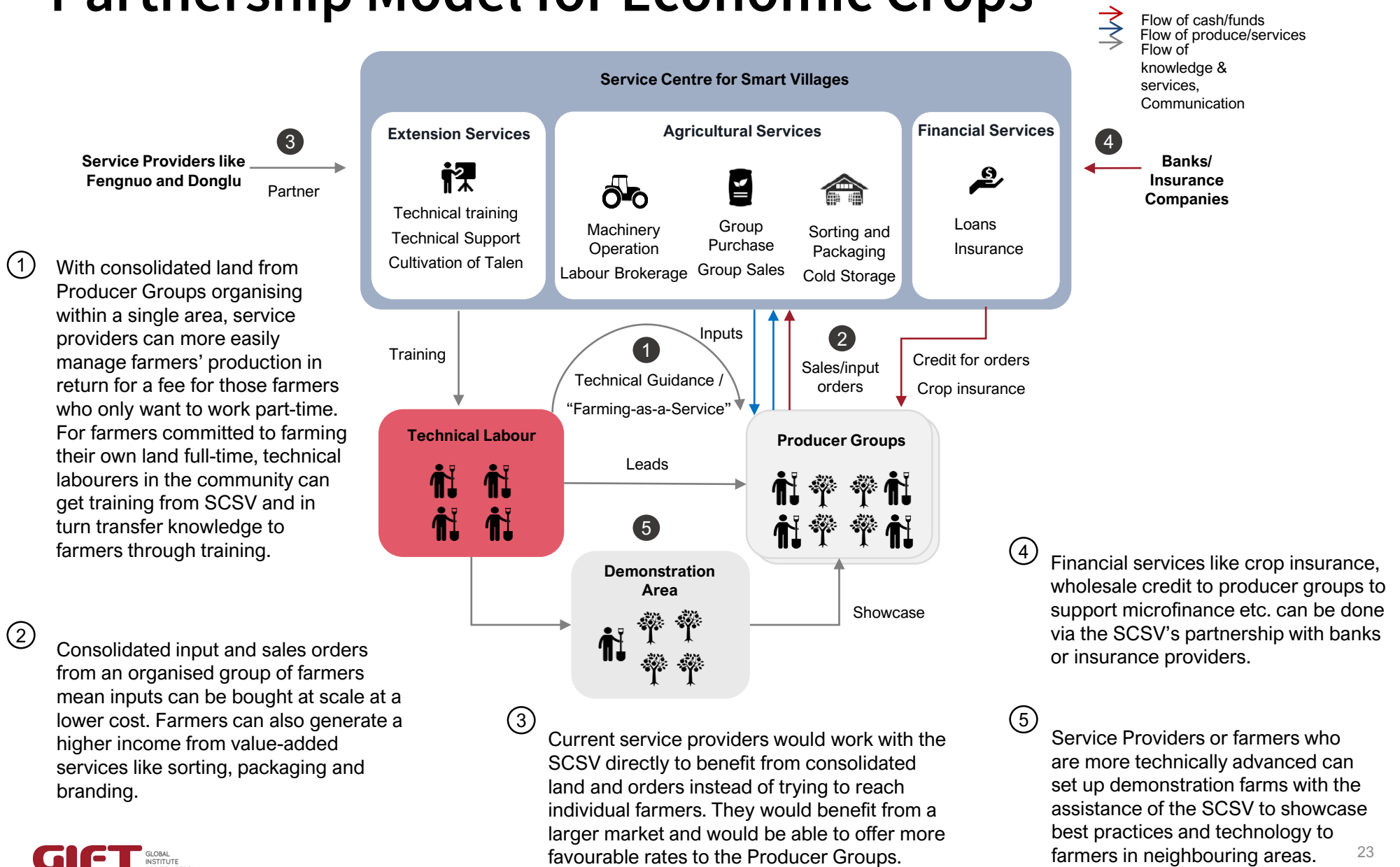
There are two main types of crops: field crops (referring mostly to grains like wheat and corn) and horticulture crops (referring mainly to fruits like melon, grapes and apples in the case of Laixi). The production processes between field and horticulture crops can vary, and so will require a different partnership model with service providers:

	FIELD CROP	HORTICULTURE CROP
<b>Labour</b>	<ul style="list-style-type: none"> <li>Less labour-intensive: automation and machinery can be deployed to increase efficiency.</li> </ul>	<ul style="list-style-type: none"> <li>More labour-intensive: crops must be attended to throughout the whole life-cycle, and cultivation requires knowledge of plant health that is difficult to automate.</li> </ul>
<b>Machinery</b>	<ul style="list-style-type: none"> <li>Almost the entire cultivation and harvesting process can be automated.</li> <li>Needs cooperation among farmers to coordinate machinery services as a group.</li> </ul>	<ul style="list-style-type: none"> <li>Cultivation and harvesting cannot be automated entirely, but machines can be used for some processes, such as spraying and weeding.</li> </ul>
<b>Land</b>	<ul style="list-style-type: none"> <li>Farmers tend to work part-time or full-time in the city, and either outsource mechanised farming to service providers or lease their land to larger agricultural companies.</li> <li>Consolidation of land — at least 30mu or 2ha — is crucial for mechanised farming to make economic sense.</li> </ul>	<ul style="list-style-type: none"> <li>Farmers tend to work on their own farms due to the higher income from horticulture crop.</li> <li>Farming of horticulture crops can be viable on smaller plots of land; and farmers can share labour and expertise.</li> <li>Some professional farmers lease land from other farmers to scale up production.</li> </ul>
<b>Processing</b>	<ul style="list-style-type: none"> <li>Primary produce such as wheat and corn are sent directly to local mills.</li> </ul>	<ul style="list-style-type: none"> <li>Produce needs to be sorted to allow for produce differentiation.</li> </ul>
<b>Distribution</b>	<ul style="list-style-type: none"> <li>Direct to local mills, does not require long distance cold-chain logistics nor multiple middlemen.</li> </ul>	<ul style="list-style-type: none"> <li>Access to cold-chain logistics crucial to preserve produce quality.</li> </ul>
<b>Branding</b>	<ul style="list-style-type: none"> <li>Produce is sold as a commodity, with no branding.</li> </ul>	<ul style="list-style-type: none"> <li>Produce is more differentiated, meaning branding can help producers command higher prices.</li> </ul>

# Partnership Model for Field Crops



# Partnership Model for Economic Crops





# Key Benefits to Stakeholders

The following are key benefits of the proposed business model for the local community:

## Key Benefits for Farmers

## Key Benefits for Service Providers

## Key Benefits for Government

### Economic

- Supports production through various agricultural services
- Increases revenue from produce sales through value adding services
- Lowers cost of inputs for the crops
- Reduces costs for community services

- Achieve economies of scale and long-term stability through land consolidation and farmer organisation

- Encourage rural development
- Tax revenue increase
- Job creation

### Environmental

- Reduces the use of chemical inputs through technical help and training
- Reduces waste with consolidated sorting and packaging services

- Better management of resources
- Reduces pollution from chemicals

- Increases awareness of sustainable farming practices
- Increases food safety

### Development & Social

- Provides new opportunities for ambitious young members in the community
- Establishes a mutually supportive community, particularly for elderly farmers

- Retains young talent in villages
- Builds trust and enhances social cohesion
- Supports rural revitalisation and poverty alleviation

- Decreases dependency on government to provide social services
- Encourages young people to return to work and live in rural areas

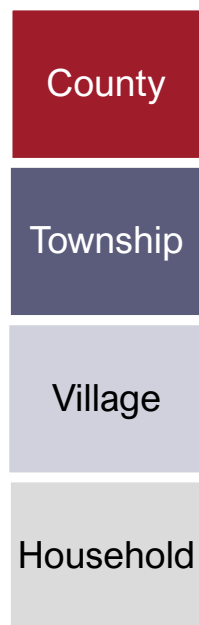


# Organisational Design and Governance

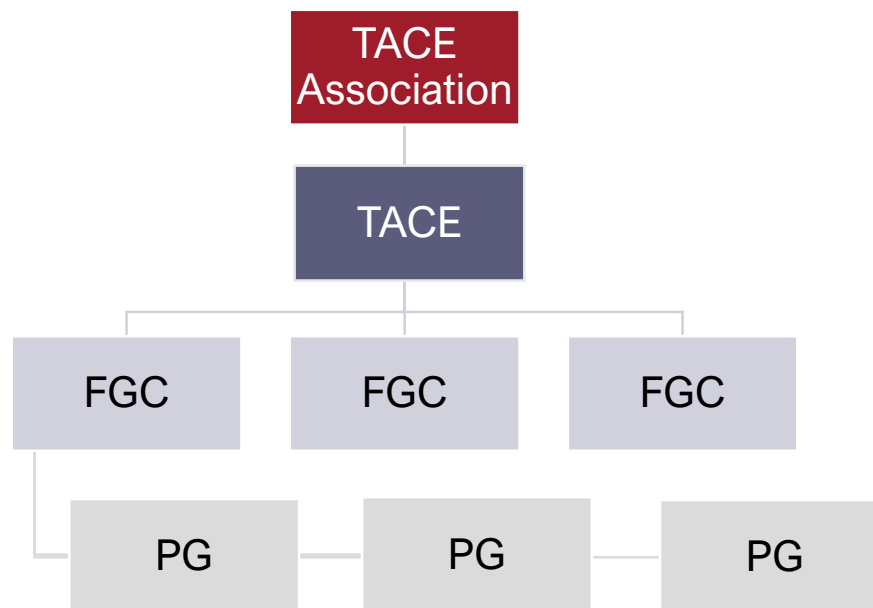


# Organisational Framework

## Administrative levels



## Organisational Structure



- A **Township Agriculture Collective Enterprise** (TACE) at the township level will deliver services through the **Service Centre for Smart Villages** (SCSV) to farmers in the **Farming Group Community** (FGC).
- The FGC consists of various **Producer Groups** (PG) based on geographical proximity.
- A PG is a self-organised group of farmers producing the same crop, thus having similar production needs.
- The **TACE Association** will sit at the county level, consisting of a representative from each TACE in order to ensure resources are coordinated and external stakeholders like the government are managed. It is also in charge of creating standards for product and traceability system.
- Within this framework, TACE will support both the agricultural and social needs of each FGC.

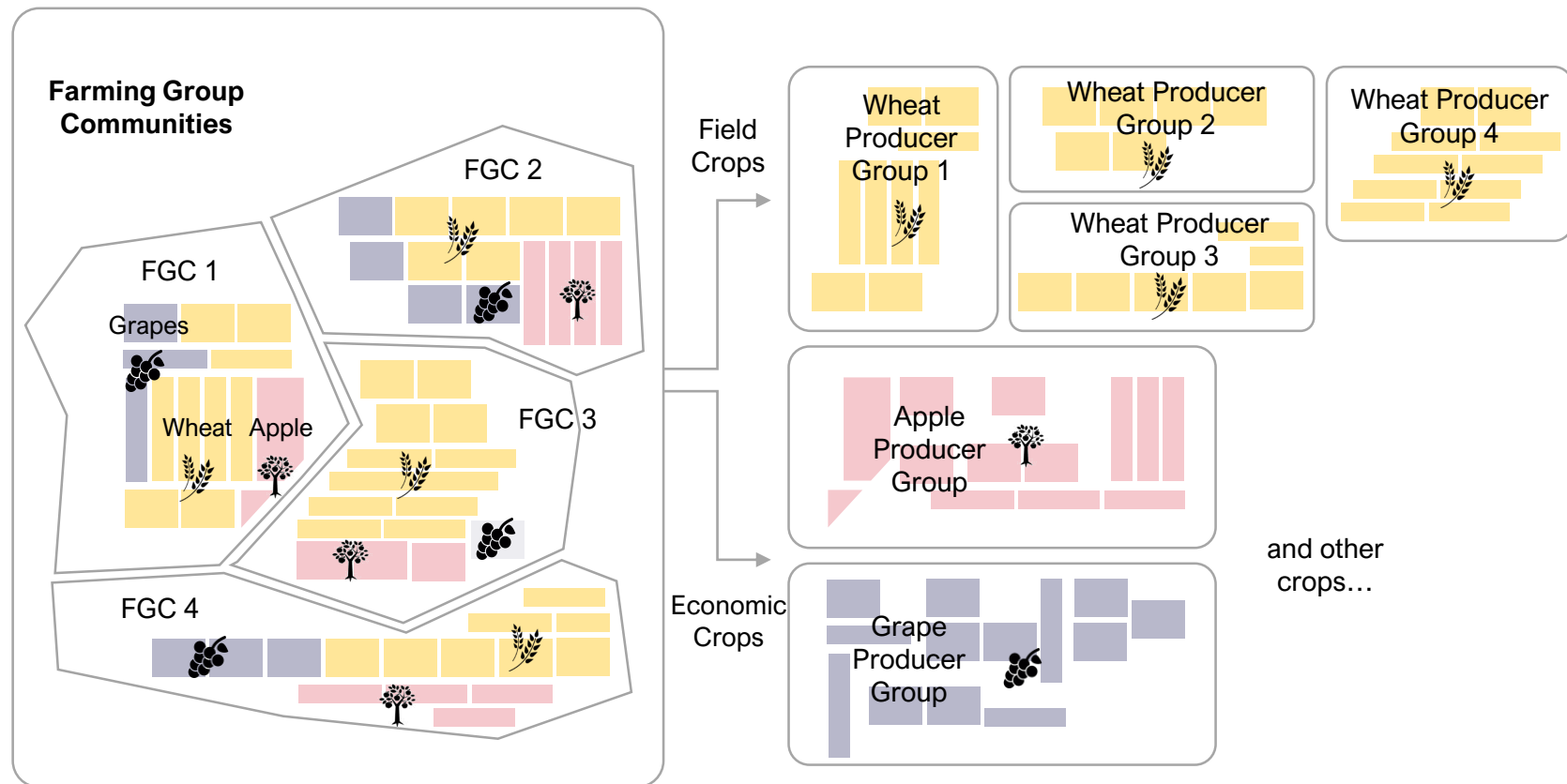
**The framework provides support to farmer self-organisation through Producer Groups**



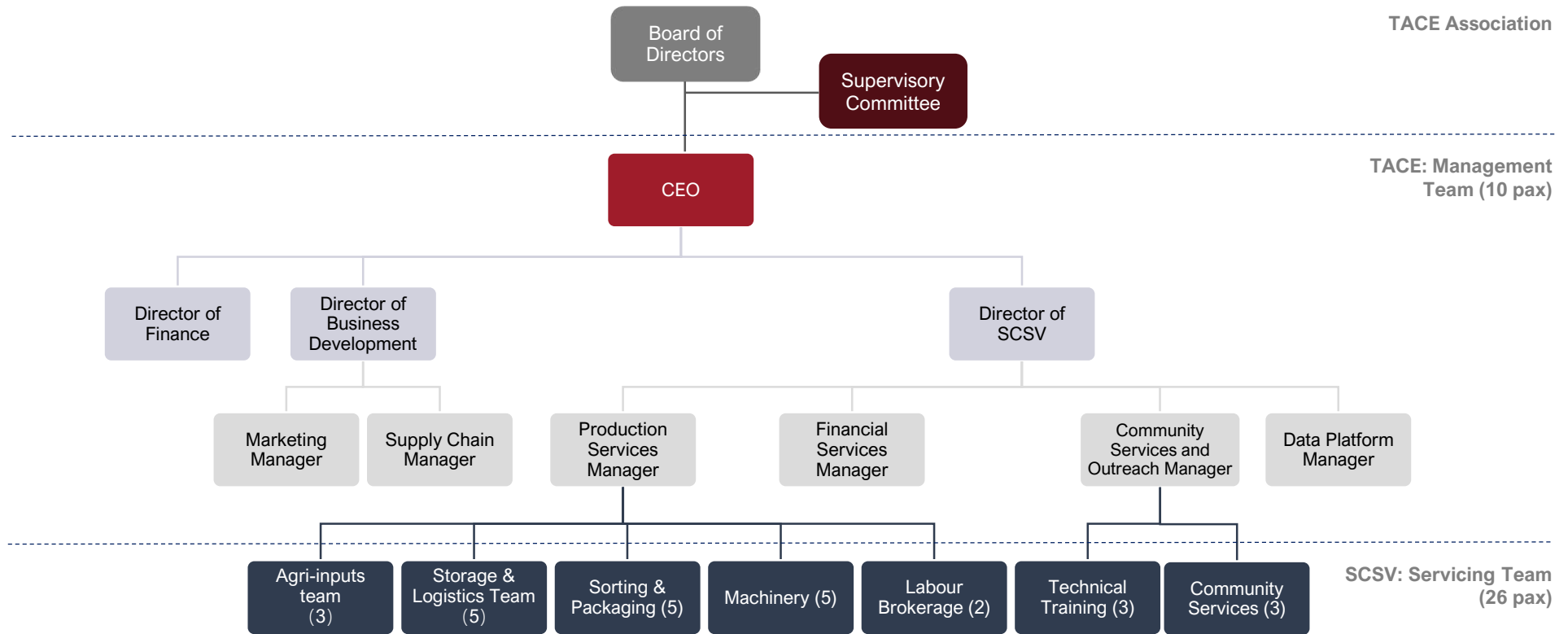
# Farming Group Communities and Producer Groups

Each Producer Group (PG) conducts its own economic activities based on the type of crop they grow (e.g. grapes, apples, peaches and field crops etc.). This division is due to the different conditions for each type of crop, particularly between field crops and economic crops. Each Producer Group will aggregate demand for training and services to work directly with the SCSV.

However, Producer Groups are limited by geographical proximity, so various PGs are then grouped into FGCs by location for easier management. Each FGC will have a self-elected leader for better management and communication with TACE.



# Organisational Structure of TACE and SCSV



- The Board of Directors of the TACE Association manages decisions at the highest level, and is responsible for its strategic direction and supervising financial resource allocation to achieve organisational goals.
- The Supervisory Committee consists of representatives elected by TACE shareholders and representatives. Its purpose is to supervise and monitor TACE operations.
- The CEO is hired by the Board of Directors, and he/she is in charge of executing decisions made by the Board and managing the organisation.
- Under the CEO, the enterprise is made up of 6 different departments: Marketing, Supply Chain Management, Production Services, Financial Services, Community Services & Outreach and Data Platform.

# Responsibilities of Major TACE Roles

The responsibilities of various roles are outlined below:

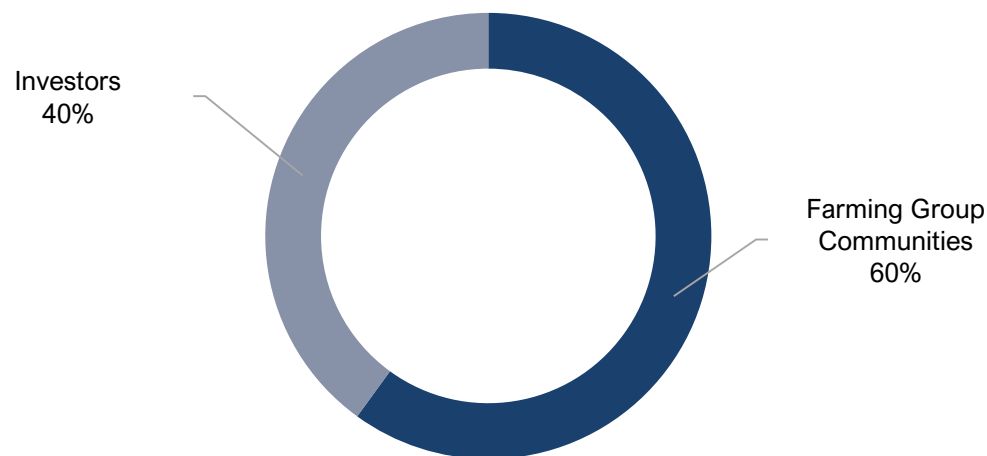
Role	Responsibilities
<b>CEO</b>	<ul style="list-style-type: none"> <li>• Responsible for strategic direction and overall performance of the Enterprise</li> <li>• Manage key stakeholders and partner relations</li> <li>• Report to the Board of Directors</li> </ul>
<b>Director of Finance</b>	<ul style="list-style-type: none"> <li>• Responsible for financial planning and risk management of the Enterprise</li> <li>• Create a compliant system for internal controls</li> <li>• Report to the Board of Directors</li> </ul>
<b>Director of Services</b>	<ul style="list-style-type: none"> <li>• Responsible for overall operations of the Service Centre for Smart Villages</li> <li>• Strategic planning for core services such as production services, financial services, extension services and community outreach as well as the data platform</li> <li>• Develop a management system and guidelines to facilitate good delivery of services</li> <li>• Manage the SCSV management team as well as the servicing team</li> <li>• Establish partnerships with FGCs, service providers and other community players to achieve a win-win relationship</li> <li>• Understand farmer and community needs in order to create and adapt services for them</li> <li>• Discover and consolidate local resources for community development</li> </ul>
<b>Director of Business Development</b>	<ul style="list-style-type: none"> <li>• Responsible for supply chain management and business development using insights and data from the entire supply chain</li> <li>• Assist Producer Groups in getting contract orders and linking up with the modern value chain</li> <li>• Create a sales and marketing plan that includes pricing strategy, market breakdown and promotional strategies</li> <li>• Create brand strategy for TACE</li> </ul>



# Ownership Structure

- Initial investment of RMB 22 million will be coming from farmers and investors (e.g. service providers or institutional investors)
- The FCGs as a collective will invest RMB 13.2 million, holding 60% of the shares, while investors will be offered 40% of the shares with RMB 8.8 million investment.
- Each household would contribute RMB 600 each, and with 99% of coverage of 22,000 households (in an average township), that would add up to RMB 13.2 million.
- This ensures that members of Producer Groups can receive a profit commensurate with their roles and contribution, fostering sustainable growth of the community and business.

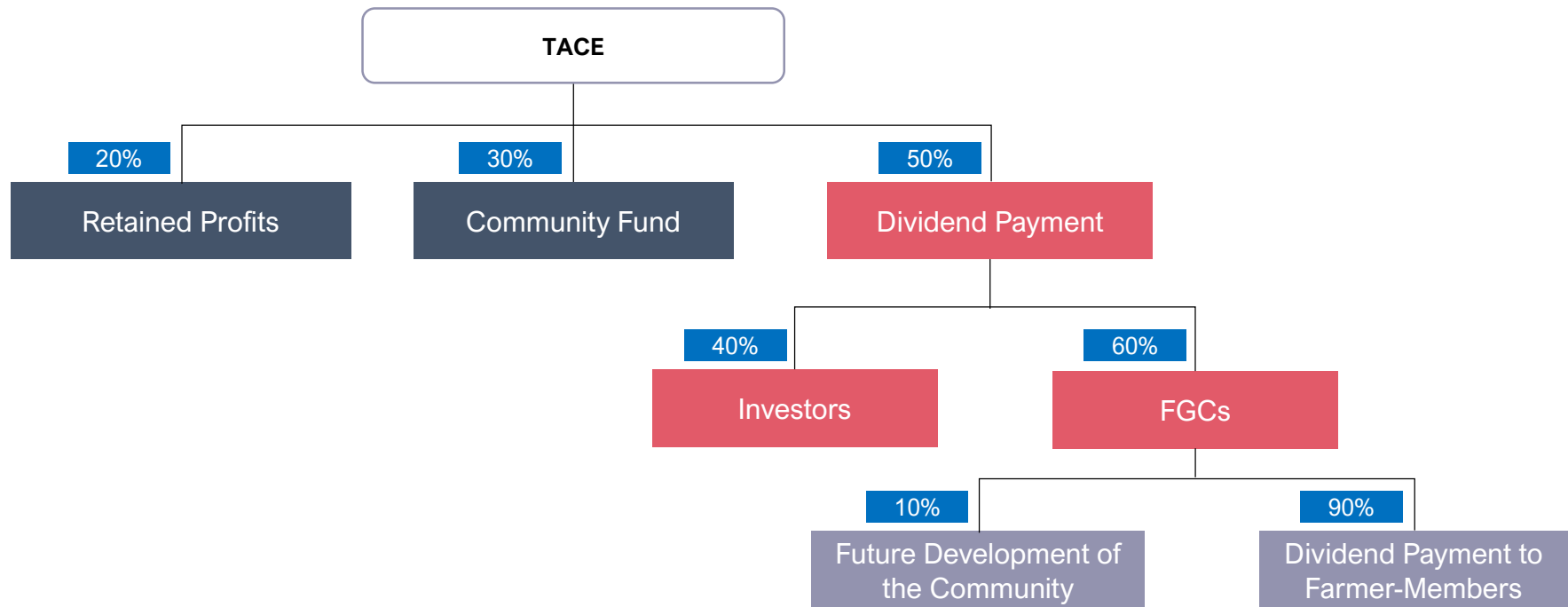
Proposed Shareholding Structure of TACE



**The Township Agricultural Collective Enterprise is a collaboration between Farming Group Communities and investors**

# Profit Share Structure

- The revenue share structure of TACE achieves an equitable distribution between various parties.
- TACE will share up to 50% of its profit as dividends to its shareholders (members of FGCs and investors). 30% of the profits will directly go to the Community Fund that provides social services, while 20% of the profits are reinvested in the company for growth.
- The FGCs will share 90% of their allocated profits directly to members, while 10% will be retained for collective community purposes.



The profit sharing structure of TACE allows for financial returns and social development



**Service Centre for Smart Villages**

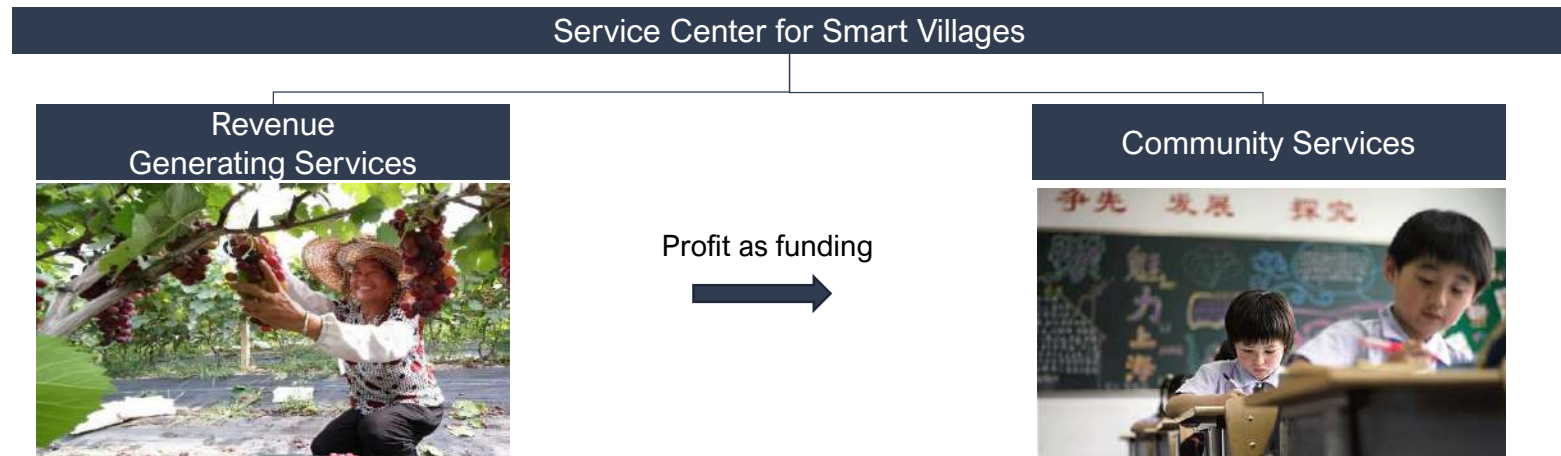


# Introducing the Service Centre for Smart Villages

## Goal

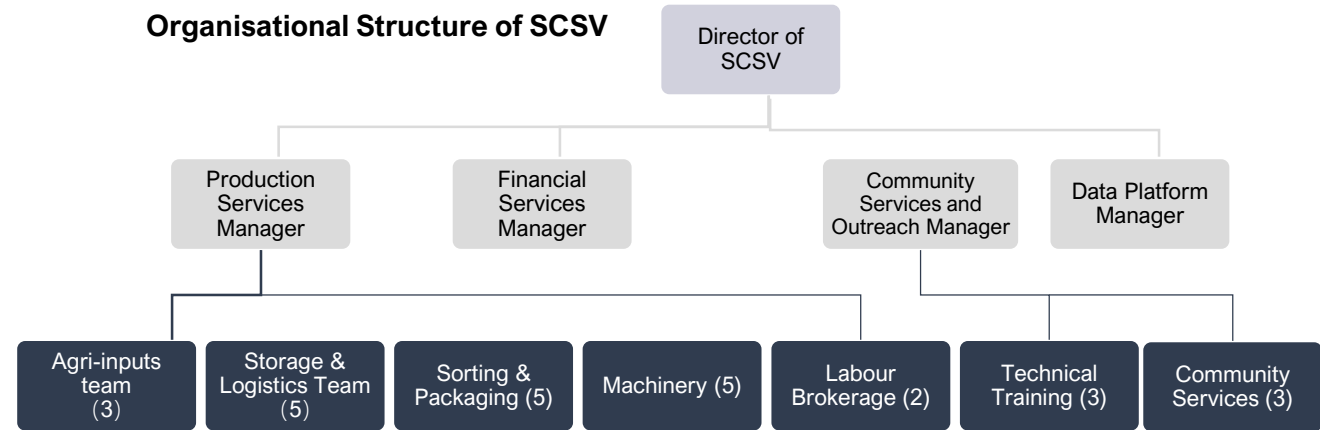
- To help farmers capture greater economic benefits through scale, elevated bargaining position, and value-added services for new revenue streams by replacing the middlemen in the value chain.
- To improve the quality of life for the rural community with an improved social safety net created by community services, so that elderly farmers are cared for, while also providing attractive incentives for young people to stay and work in rural areas

## Operating model



Generating a higher income for farmers through services while distributing profits to fund community activities

# How the SCSV is Run



The Service Centre serves as an open platform to provide services to Producer Groups in partnership with existing service providers. It will be divided into four main departments headed by a manager:

1. **Production Services Team:** The largest team in the centre covers the majority of revenue-generating services offered by the SCSV. This includes consolidating agri-inputs, logistics, sorting and packaging, machinery operation and labour brokerage. They will coordinate demands from various Producer Groups within the FGCs in order to consolidate orders, and deliver the services at a lower cost by partnering with various service providers.
2. **The Financial Services team** is mainly responsible for working with banks and insurance companies to obtain wholesale deals on loans and insurance products. Leaders of the FGCs can then offer the financial services to their members at a fee.
3. **The Community Services and Outreach team** is responsible for providing and promoting community and extension services to various villages under the SCSV. Trainers will conduct educational programmes while the rest of the team will focus on providing services and building relationships with farmers.
4. The data platform will be run by the **Data Platform team**, to ensure that it is running smoothly and has data from a wide variety of sources.

# SCSV Revenue Streams

SCSV revenue will not only help cover the Centre's operational costs, but would also fund additional community services.

Five different categories of services will be offered through the SCSV:



## Group Purchase

- Purchase agricultural inputs at wholesale rate
- Sell inputs to Producer Groups at a 10% lower-than-market rate. Producer Groups need to consolidate their purchasing requirements to enjoy bulk discount
- Provide testing on soil quality and guidance on appropriate usage of chemicals
- Purchases are done through the app to fulfil traceability requirements



## Postharvest Handling

- Automated sorting of fruits according to size and quality
- Support premium branding, packaging, traceability with the digital app and naming rights for produce in order to increase value during the sales process.
- Provide cold-storage and logistical support to preserve quality and garner a high price for fruits
- Partners such as delivery companies could provide technical and management support
- The SCSV handling various processes from sorting to packaging to logistics not only increases the value-add of the product, but also ensures that the profits from the higher value generated is shared with member-farmers and partners



**By providing these services, farmers will be able to capture more value from sales of their produce**



# SCSV Revenue Streams

SCSV revenue will not only help cover the Centre's operational costs, but would also fund additional community services.

Five different categories of services will be offered through the SCSV:



## Farming -as-a- Service

- Providing mechanised services for field crops which includes sowing, applying fertiliser/ pesticides and/or harvesting for a fee, while farmers will still keep the crops for sale at the end
- Providing selected technical services for farmers growing fruit
- Partnering with agri-service companies to provide machinery maintenance services for machinery operators



## Labour Management

- Create and maintain a cross-township labor database for freelance labor and skilled technicians to register
- Collect and aggregate needs for labour and match demand with the right workers particularly during harvest season
- Broker contracts for skilled and non-skilled labour



**Lowering costs for farmers to obtain necessary assistance and labour**

# SCSV Revenue Streams

SCSV revenue will not only help cover the Centre's operational costs, but would also fund additional community services.

Five different categories of services will be offered through the SCSV:

## Financial Services (Credit)

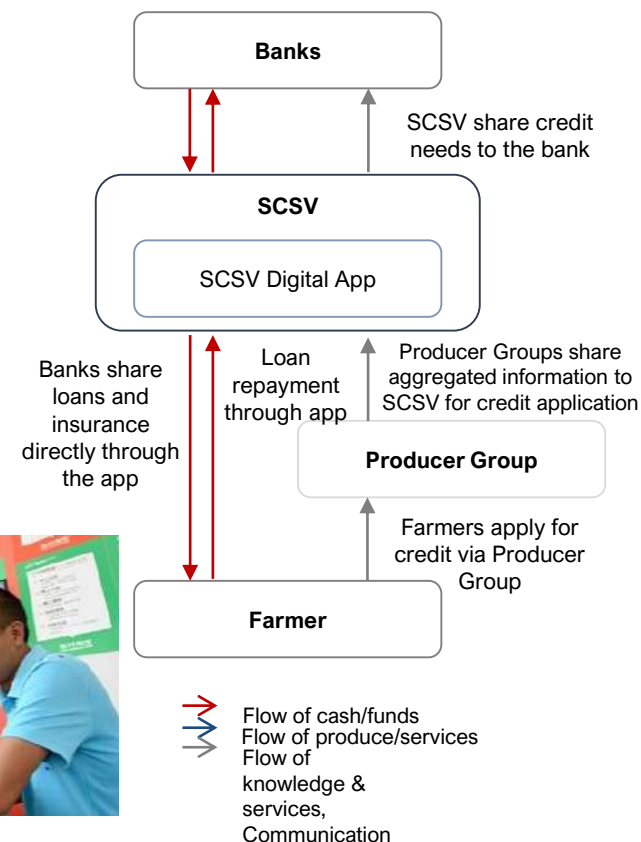
- Partner with banks and other financial institutions to provide credit for member-farmers
- Producer Group to aggregate demand for credit to the SCSV
- Based on the sales orders and credit history of Producer Groups, the amount of credit will be adjusted accordingly
- Loans will be distributed through the app under supervision from the SCSV
- Loans will be made at a 9% interest, which includes the 3% service charge for SCSV and the remaining 6% goes to the bank

## Financial Services (Insurance)

- Partner with insurance companies to provide agriculture-related insurance
- Products include crop insurance against natural disasters, and accident or medical insurance for farmers and machinery operators.



## Financial Services Operating Mechanism



Partnering with financial institutions to reduce the financial risks for smallholder farmers

# Long-Term Product Development

Once the SCSV's core revenue streams are running smoothly, the team can develop new revenue streams, such as rural tourism or new product development.

## Developing Agricultural and Rural Tourism

- Design and promote a rural experience to tourist agencies for urban dwellers
- Foster a deeper understanding of how food is produced, as well as offer a relaxing experience away from the city
- Work with travel agencies as well as promote to individual consumers.
- Develop attractions and events such as harvest festival, farm stay experiences, camping etc.



## Continuously Developing New Products

Revenue from new product development: create new product lines and innovation. For example:

- A futures contract to lock in favorable prices and guarantee sales for farmers. In the event of a bad harvest, buyers can still buy futures to get produce delivered in future months to meet contractual obligations.



Future services of TACE will diversify its income sources



# Digital Innovation

Digital technology can help create higher value for farmer produce, through information sharing and service provision.

Currently, market information is inaccessible to farmers, which limits their ability to capture value. Vice versa, consumers have increased concerns about food safety and sustainability, yet know very little about what happens in the production stage.

TACE will develop a digital application that:

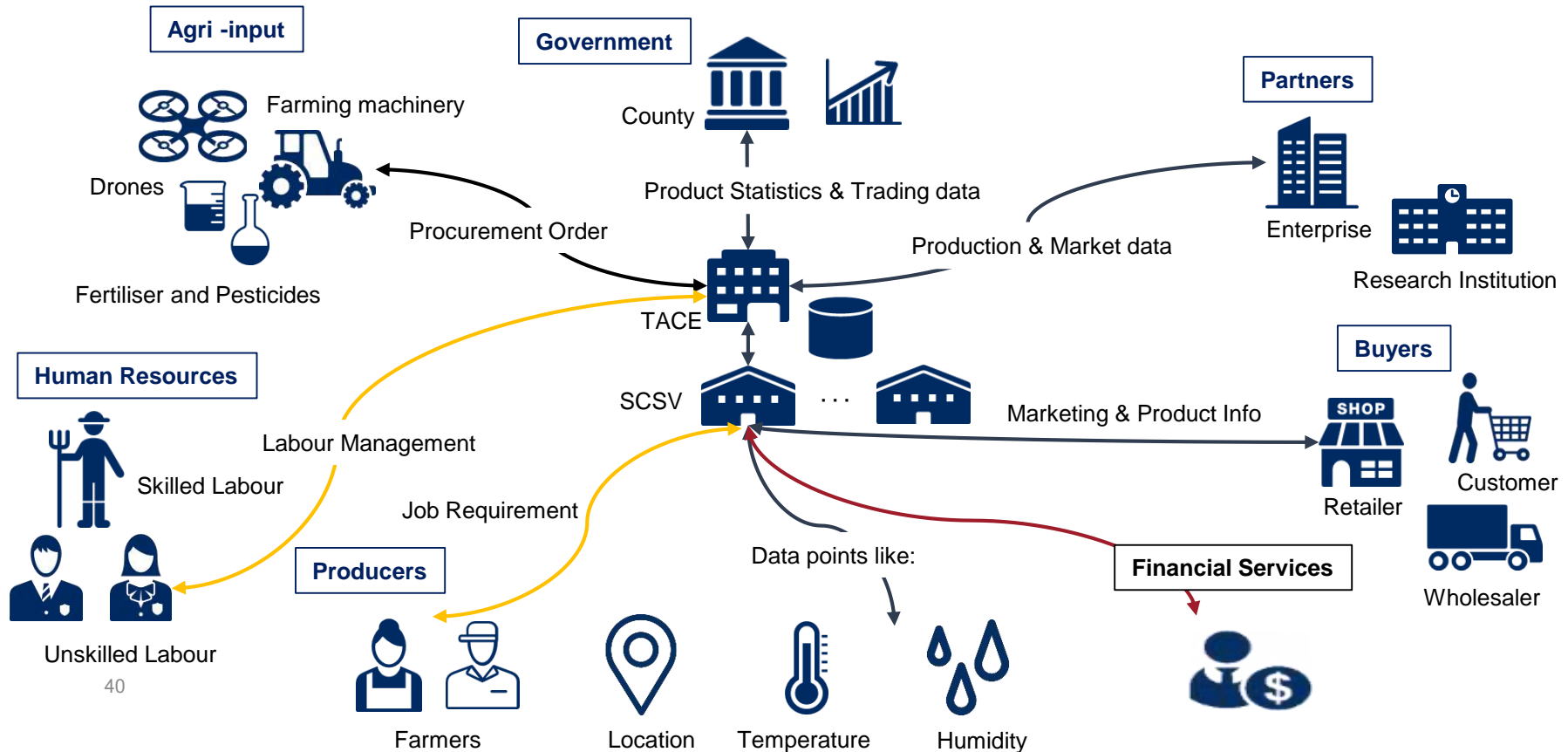
1. Provides Producer Groups access to market information, trends and intelligence that can support management decisions, planning and negotiations with buyers.
2. Improves traceability of products by tracking data from inputs, production, sorting, logistics and sales. Traceability not only improves consumer confidence and supports branding, it is also a risk-management tool which allows businesses to recall products identified as unsafe.
3. Provides a platform for labour management and sourcing for Producer Groups.
4. Provide a platform for transaction of financial services like loans and crop insurance.



**Farmers can get access to market info, loans and labour at their fingertips**

# Data Flow of Proposed Digital App

Data throughout the value chain can be shared via the digital application, with an emphasis on production data (agri-input orders, production data points like location, temperature, humidity etc., and storage/logistics information). The platform can also be used to share market information and labour information to facilitate other services offered by the SCSV. With this centralised data, the TACE team will be able to unlock new insights and patterns throughout the value chain, leading to better and more efficient operations.



Connecting all points of data into one application for transparent information sharing

# Growth of SCSV Over a Five-Year Horizon

A pilot project in Yuanshang township in Laixi is proposed in order to pilot this business model. Below are the short to long term goals for the organisation as it develops over time:

	Short-term: year 1	Mid-term: year 3	Long-term: year 5+
Strategic goals	<ul style="list-style-type: none"> <li>Establishing presence in the township by setting up the revenue generating services</li> </ul>	<ul style="list-style-type: none"> <li>Making full use of the data platform to optimise services and providing full spectrum of community services</li> </ul>	<ul style="list-style-type: none"> <li>Launching new products like agri-tourism and other revenue generating services</li> </ul>
Key actions	<ul style="list-style-type: none"> <li>Negotiate procurement of agri-inputs and sales of agri-products</li> <li>Recruit talent registration to start labor exchange service</li> <li>Initial planning stage and farmer organisation</li> <li>Implementation of cost effective services</li> </ul>	<ul style="list-style-type: none"> <li>Start production planning according to supply / demand trends with data acquired from the digital platform</li> <li>Start premium branding activities</li> <li>Full implementation of community services</li> </ul>	<ul style="list-style-type: none"> <li>Initiate partnerships needed for Phase II functions, e.g., retailers, tourist agencies</li> <li>Invest in facilities (storage, processing, etc.) needed for Phase II functions</li> <li>Expanded community services</li> </ul>
Resources required	<ul style="list-style-type: none"> <li>Initial investment to start core functions of trading and brokerage</li> </ul>	<ul style="list-style-type: none"> <li>Mature database to support production planning</li> </ul>	<ul style="list-style-type: none"> <li>Talent with network and knowledge of downstream industries</li> </ul>

**Data used to enhance services as well as uncover new revenue streams**



## **Community Engagement and Extension Services**



# Overview of Community and Extension Services

The Township Agricultural Collective Enterprise (TACE) will provide community services funded through its revenue streams as part of its profit-sharing arrangement. Services include community building initiatives, elderly care, and a focus on education and healthcare programmes.

The Service Centre will also be the vehicle through which to coordinate and create partnerships with universities, government and service providers in order to provide extension services to local communities.

Extension services generally refer to education and training provided to people in rural areas in efforts to stimulate rural revitalisation. In other countries, extension services are traditionally done through universities supported by the government, but there is an opportunity for private agri-service companies to also provide extension services via the Service Centre as an open platform.

The services provided by the Service Centre will:

1. Improve livelihoods of farmers and ensure the elderly and needy are cared for by the community.
2. Encourage young people to return to villages to work through scholarships, improved opportunities for advancement and a better living environment.

In the long run, provision of these services can help attract talent to work for TACE as well as contribute to community building and rural revitalisation efforts.



# Community Services Offered

Community services generated from part of the profits from TACE/SCSV is a major differentiator and incentive for farmers to join via various community groups. The services will be funded by profits generated from the agricultural services.

## Healthcare



Set up a healthcare fund so members and their family can receive financial assistance in case of significant illnesses.



## Elderly Care



Create communal spaces for elderly residents to spend their time together and engage in activities such as dance, card tournaments etc. that can promote physical activity and healthy living for the elderly.

## Handicraft Center



Establish a handicraft center where everyone including the elderly, persons with disabilities, women and young people can make handicrafts together. This will promote intergenerational exchange and collaboration for vibrant rural communities.

## Community Events



Seasonal events such as birthday party, harvest festivals etc. Farmers and their families can join the events to enhance sense of belonging to the community.

## Clean-up Activities



Organise FGCs to voluntarily conduct clean-up activity in each village to keep their land clean and beautiful. This promotes a sense of camaraderie within the community.

## Technical Training



Organise technical training for farmers to improve the skills and technical know-how of farmers and to adopt new farming technologies. Trainings on sustainable agricultural practices will also address environmental concerns.

## Scholarship



Provide scholarship for young people to learn about agriculture and related topics. Graduates can enjoy guaranteed employment with TACE and ensures a talent pool who will contribute to life in rural areas.

**Profit sharing by means of providing community services from profits**

# A Focus on Healthcare and Education

## Current Educational Challenges in Rural Areas

- Young people leave for cities in order to access better opportunities and education. Rural areas face the twin challenges of aging population and lack of skilled workers.

### SCSV Scholarship Support

- SCSV will provide Scholarship Support for areas of agriculture, business management and marketing. Candidates are selected from members of SCSV and SCSV Employees.
- Scholarship funds will be sourced from 1/3 government, 1/3 companies and 1/3 SCSV.
- Graduate students are required to work in the township for five years (either at the SCSV or in investing companies).

### Attracting talent to work in rural areas related to agriculture

- Chinese students take an important exam called Gaokao that determines which university they get into. The government and universities can consider giving students who commit to returning to rural areas to work additional points to boost their admissions.

## Current Healthcare Challenges for Farmers

- Even with government healthcare coverage (up to 70%) for the rural population, significant illnesses can devastate the finances of farmers in rural areas.

### SCSV Healthcare Support

- SCSV will establish a healthcare fund to support member of farmers with significant illness to minimise future medical cost and anxiety for their health.
- SCSV would make a one-time reimbursement, with a cap of 10,000RMB/person.



**Community service not just benefits the community but could attract talent to work in the village**

# Strategic Collaboration and Implementation

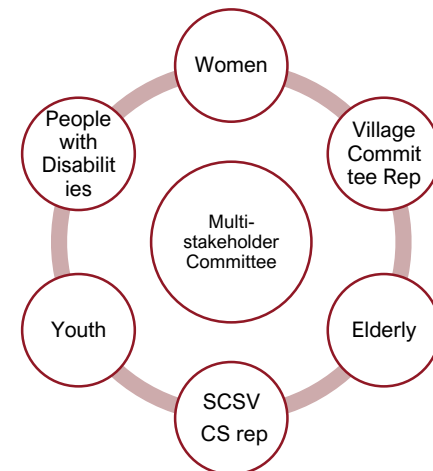
## Community Services Department

A department will be created to manage the community services offered by the Service Center. This department will ensure that the SCSV can deliver meaningful and high-quality services to various village demographics including youth, elderly, women, people with disabilities etc.

This department will implement community development programs like healthcare, education, technical training etc. It will also ensure effective engagement through community organising like events management, grassroots information/education/communication campaign etc.

## Multi-stakeholder Committee

The creation of a multi-stakeholder committee will facilitate in building the trust of the community for the Service Center and the government. Bringing sectoral leaders into the decision making process over how community services are implemented ensures that their needs are addressed. The committee will discuss what programs will be prioritised and implemented at the villages.



Empowering the community to make decisions and manage change



# Communication and Engagement Plan

- In order for the business to gain support from local communities, the government, and investors, the company must develop a communication plan that is multi-pronged and consistent. Consultation and collaboration among the various stakeholders are essential for the successful development of TACE.
- It is important to highlight the rural revitalisation benefits, given that this aligns with government policy and strategic direction. Regular reporting to and engagement with the government and other key stakeholders is necessary.

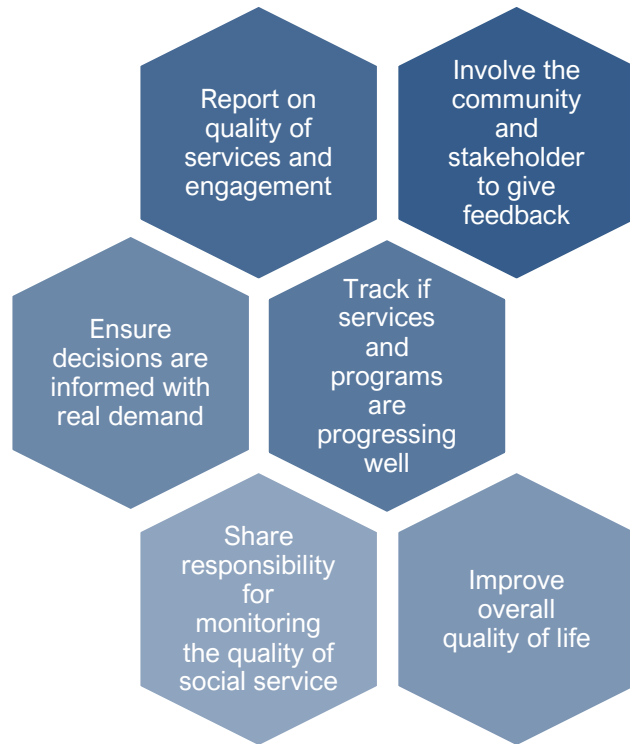
Referral Incentive scheme	Exhibits/Farm Tours	Government mandate	Farmer household visits	Different Types of Media
Members who can convince other farmers to become members can get bonus points that can be used as discounts when purchasing agri-services.	Exhibits, free technical training and demo events to farmers can reach new audiences through the offer of skills development. Partnerships with educational institutions and international agricultural companies can be forged.	By working with the government and being aligned with their policies and strategic directions, the government's endorsement would incentivise all farmers to join the SVSC.	Leaders of FGCs can take the lead in informing other farmers on the benefits they may enjoy if they become members of the SVSC through personal engagements and discussions.	Print, broadcast or digital media can be used to spread the word on the TACE and the Service Centre.

Farmers engagement incentivises active participation in TACE

# Monitoring & Measuring Social and Environmental Impact

Monitoring and measuring social services and community engagement are necessary to support the SVSC.

The goals of regular updates and assessment are to:



A Community Score Card would be done through the app on a community level. An annual socio-economic impact assessment would also be done by an external consultancy. Some KPIs for the assessments would include:

Income	Knowledge	Employment
<ul style="list-style-type: none"><li>• Increase in average incomes</li><li>• No. of farmers with increased incomes</li></ul>	<ul style="list-style-type: none"><li>• Before and after survey of skills and knowledge learned for training sessions</li></ul>	<ul style="list-style-type: none"><li>• No. of young people under 40</li><li>• Employment rate for people under 40</li></ul>
Environmental	Capital	Participation
<ul style="list-style-type: none"><li>• Decrease in chemical use</li><li>• Amount of plastics saved after consolidating sorting and packaging services</li></ul>	<ul style="list-style-type: none"><li>• No. of loans made</li><li>• Average loan amount</li><li>• Repayment levels</li></ul>	<ul style="list-style-type: none"><li>• Participation rate in community activities and training</li><li>• Utilisation rate of community health fund</li></ul>

Community services are monitored and measured to ensure suitability and success

# Extension Services

Extension services can be offered via the Service Centre and coordinated at the TACE Association (i.e. the county level). The goal of extension services is to help farmers succeed while protecting the environment, ensuring food safety, reaching new markets and incorporating them to the modern value chain.

In the US for example, state universities are funded and mandated by the government to set up extension services, while farmer associations in Korea or Taiwan conduct various educational programmes and trainings for their members.

With support from the government, TACE should also work with local universities to conduct research and education on diseases, pest and weed control, sustainable farming practices, technology and new crop breeds. Requests from FGCs could be aggregated at the township or Association-level through various Service Centres, while pilot projects for new R&D could then be implemented via Service Centres.

Service providers could also work through the Service Centre to provide technical training and knowledge transfer to smallholder farmers in order to grow their market influence.

TACE could offer similar services not just to farmers directly, but also to agri-service companies and provide “train-the-trainer” type educational programmes to raise the level of competencies within the entire township.



# Examples of Extension Services

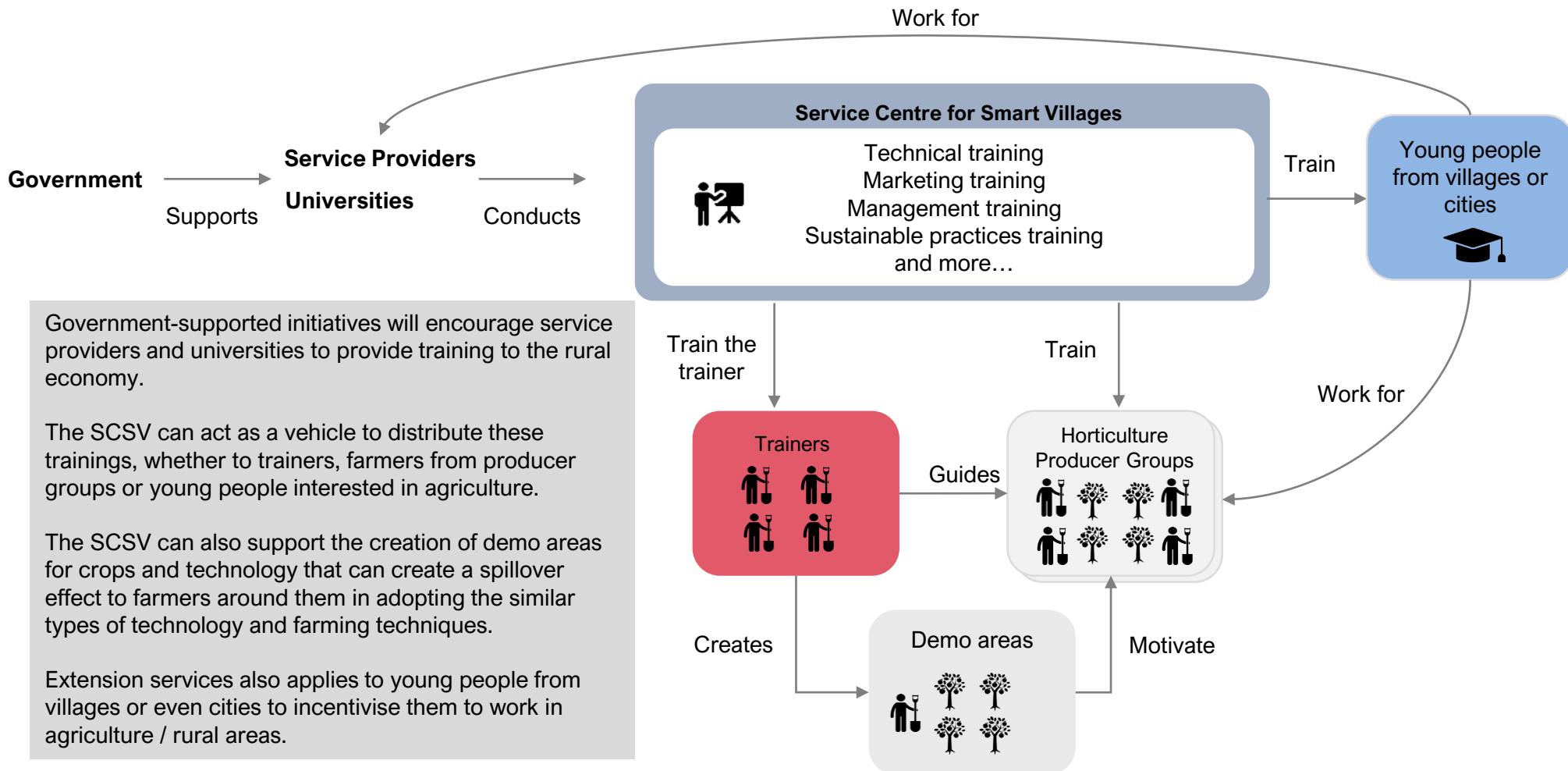
The SCSV would serve as a hub for the necessary training and knowledge transfer for trainers, producer groups and young people in the community:



Extension services to ensure knowledge is shared to those living in rural areas



# Model for Extension Service Distribution



Extension services enrich the livelihoods of farmers and incentivise young people



# Financial Analysis and Investment

# Financial Analysis

- TACE will require an investment of RMB 22 million to set up a pilot Service Centre in Yuanshang Township.
- 60% (RMB 13.2 million) of the investment will come from 22,000 households in the township (99% coverage) and 40% (RMB 8.8 million) will come from investors who are value chain partners.
- This will include investment for a fruit handling centre with a sorting and packaging capacity of 15,000 tonnes and storage capacity of 6000 tonnes.
- TVSC will generate an annual revenue of RMB142.9 million and net income of 8.1 million by year 5.
- TVSC will have a Net Present Value of RMB 11 million in Year 5, with a payback period of 3.4 years.
- The model shows that TVSC offers investors an attractive IRR of 18.1% over a 5 year period.
- In addition to the RMB 600,000 per year set aside for community services, a community fund will be setup in Year 6 using 30% dividend from TVSC.
- Investors will receive dividend from Year 6 onwards.
- After year 5, further investments will be considered. Further value-creating production will be explored in the future.

*Key underlying financial assumptions are highlighted in the following page.*

**Assessment Year:**

**5**

	Metrics	Results
Investors	Total Investment	\$ 22,000,000
	Net Present Value	\$ 11,340,730
	Internal Rate of Return	18.1%
	Payback Period	3.4 Years
Business Stakeholders	Avg Gross Margin (%)	10.5%
	Avg Net Profit (%)	4.6%
	Avg Return on Capital Employed	18.3%
	Gearing Ratio	(Cash amount exceeds the debt)

# Key Financial Assumptions

## Revenue Assumptions

### Mechanised Services for Field Crops

Services include tillage, planting, spraying, harvesting. Total fee for managed mechanised services is RMB 370/mu.

### Farming Inputs

Field Crops: RMB 430/mu;

Fruits handled include apples: RMB 2,500/mu, pears: RMB 3,000/mu, grapes: RMB 5,000/mu.

### Labour for Fruits

RMB 1000/mu

### Fruit Postharvest Handling and Branding

RMB 3700/mu (sorting, packaging, storage, branding & sales)

### Microfinance

9% interest for farming input credit



## Scale of Operations

Covering agricultural services in Yuanshang township, the pilot model includes 5 types of crop production: wheat, corn, apples, pears and grapes.

### Field Crops (Grains: Wheat and Corn)

Y1: Service 30,000 mu (36% of grain field in Yuanshang township)

Y2: 50,000mu (60%)

Y3 onwards: 70,000mu (84%)

Assuming each households has 4-10mu of field crops, SCSV will work with 12,000 households organised into around 100 producer groups of 100-200 households across villages.

### Fruits (Horticulture Crop)

Y1: Service 1500 mu (7%) of fruit orchards, including 500mu of apple, pear and grape respectively

Y2: 3000 mu (15%)

Y3 onwards: 4000 mu (19%)

Assuming each households has 2-10mu of orchards, SCSV will work with 1000 households organised into different producer groups of 30-50 households sorted by type of fruit.

### Extension & Community Services

Starting with RMB 100,000 in Y1, community services budget will increase to RMB 600,000 in Y3 onwards. Community services cover residents in the whole township.

A budget of RMB120,000 will also be used to provide trainings to 22,000 households in Yuanshang township.



# Key Financial Assumptions

## Cost Assumptions

### Mechanised Services for Grains

RMB 359/mu

95% of cost paid to operators

5% of cost paid to producer group organisers

### Farming Inputs

Farming inputs are sold at a reduced price to farmers with bulk purchase and SCSV takes 10% profit margin

### Labour for Fruits

Taking 3% brokerage fee and 97% of fees go to the working farmer

### Fruit Postharvest Handling

5% of revenue goes to value chain partners to cover their advisory services. 5% of revenue goes back to farmers. 75% to pay for direct cost incurred.

### Micofinance

6% interest for wholesale loan from bank.

**Inflation rate** of 2.7% and **corporate tax** rate of 15%

## Investment

- A **total investment of RMB 22 million**, with 14 million initial funding and 8 million invested in Year 2 will cover investment in sorting, packaging and storage facilities, trucks, office equipment and management software.
- 60% of the investment (RMB 13.2 million) will come from 22,000 households (99% coverage) in Yuanshang township, each contributing RMB 600.
- The remaining 40% (RMB 8.8 million) will come from investors who are also value chain partners.

## Operating Assumptions

- FGCs organises producer groups with support from SCSV.
- SCSV services will be delivered to farmers through Producer Groups.
- SCSV organises machinery operators and skilled labour to support smallholder farmers in improving farming efficiency (10-20%) and product quality.
- SCSV operates its fruit postharvest handling center with support from value chain partners.
- Producer Group leader will manage transactions and payments with SCSV through an online management platform.
- Value chain partners deliver products and services to producer groups through SCSV.

# Uses and Sources of Funds

Initial investment includes management software, office equipment and a 10,000 tonne sorting and packaging line, a 3,000 tonne storage facility and two trucks. In Year 2, investment includes the remaining of software development fees and a 5,000 tonnes sorting and packaging line, a 3,000 tonne storage facility and a truck.

## Capital Structure & Investment Requirements (RMB)

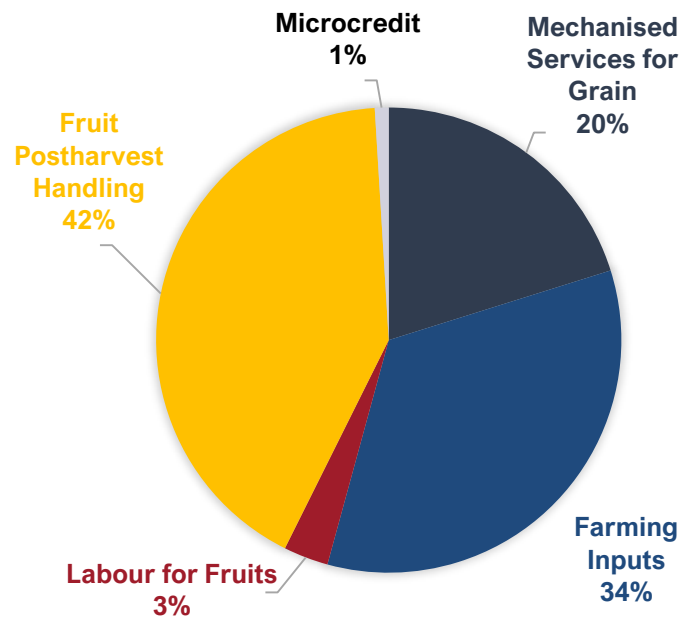
Categories	Initial Capital Requirement	Additional Requirements				
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Software Development	500,000	-	100,000	-	-	-
Office Equipments	460,000	-	-	-	-	-
Fruit Sorting & Storage Facility	10,700,000	-	7,700,000	-	-	-
Trucks	400,000	-	200,000	-	-	-
Working Capital	1,940,000	-	-	-	-	-
<b>Total (Required Investment)</b>	<b>14,000,000</b>	<b>-</b>	<b>8,000,000</b>	<b>-</b>	<b>-</b>	<b>-</b>
Source of Capital Requirement	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Equity	14,000,000	-	8,000,000	-	-	-
Loan	-	-	-	-	-	-
Retained Earnings	-	-	-	-	-	-
<b>Total (Required Investment)</b>	<b>14,000,000</b>	<b>-</b>	<b>8,000,000</b>	<b>-</b>	<b>-</b>	<b>-</b>

**Initial investment of 14 million and 8 million in Year 2**

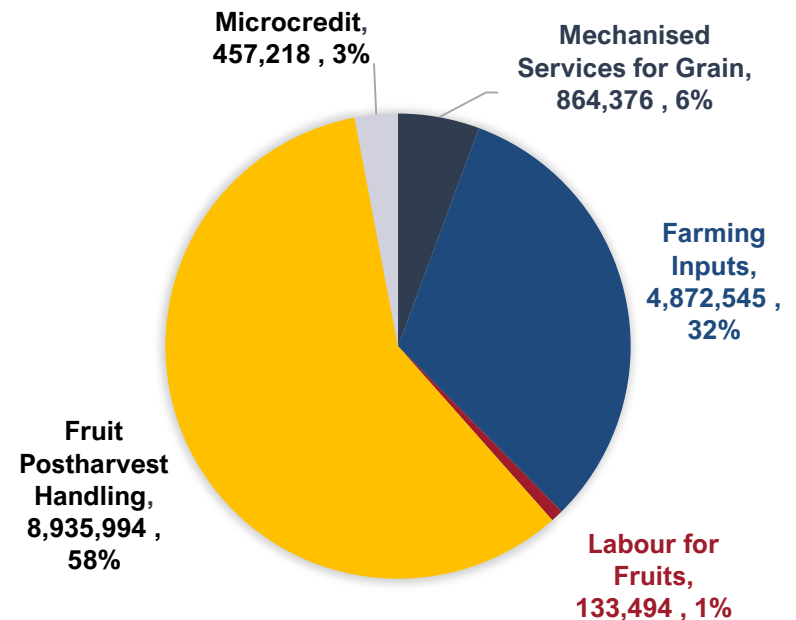
# Revenue Sources and Gross Profit Structure

SCSV relies mainly on postharvest handling of fruit and sales of farming inputs to generate its profit. 72% of the gross profit comes from the fruit services and 28% from field crop/grain services.

REVENUE SOURCES (YEAR 5)



GROSS PROFIT STRUCTURE (YEAR 5)

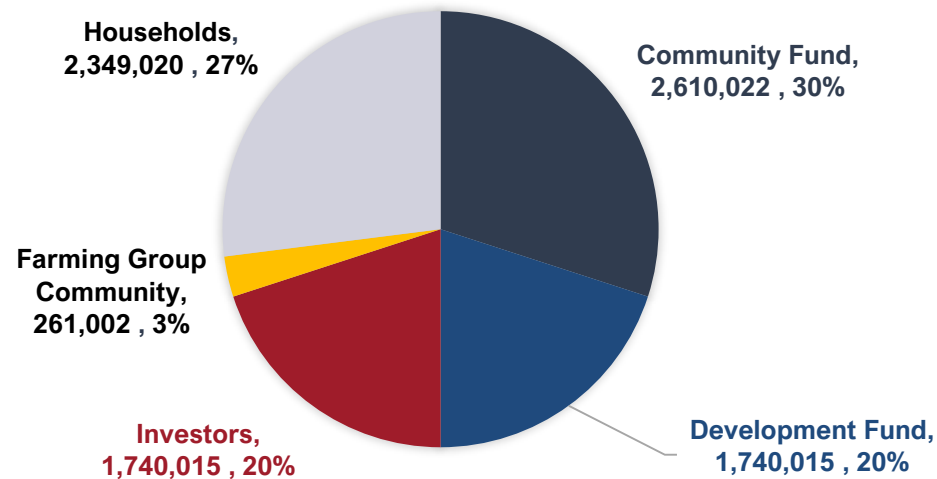


Postharvest handling of fruits and farming input sales are expected to be the two key revenue drivers

# Profit Sharing

Dividend is distributed starting in Year 6 according to the following diagram. 30% of the net income (2.6 million) will go to a community fund. Farming Group Communities will also receive a 3% dividend and it will be distributed equally among the 10 FGCs in Yuanshang township. In addition, each household who has invested RMB 600 in shares will receive RMB107 dividend in return.

## PROFIT SHARING (RMB)



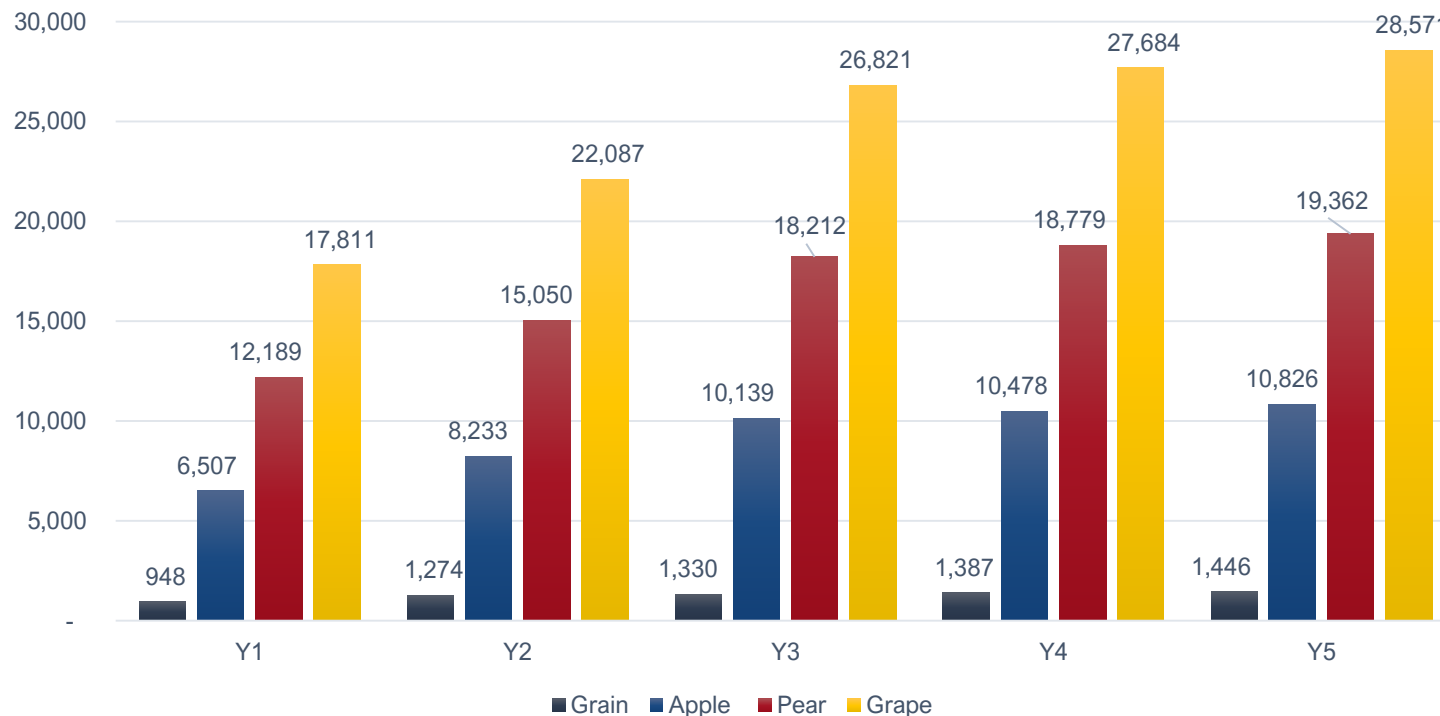
Profit sharing with farmers to ensure farmers' work is rewarded appropriately



# Farmer's Net Income

The following figure shows farmer's net income by crops. Grapes give the highest net income per mu (0.067ha) of land, followed by pears, apples and grains. Farmers in Laixi have 10 mu of land on average and usually grow a variety of crops. Growing 4 mu of grains and 2 mu each of apples, pears and grapes will give farmers an annual net income of RMB 76,805 in Year 1. Income will increase by 10-20% with improved production management and reduced costs, and additional 5-15% with post harvest handling, branding and access to direct sales channels.

**FARMER'S NET INCOME BY CROPS (RMB/MU)**



Farmers' income expected to increase significantly through using SCSV services

# Consolidated P&L (RMB)

	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue	47,792,752	93,353,843	135,516,091	139,175,025	142,932,751
Less: Cost of Goods Sold	(42,956,714)	(83,465,698)	(121,044,480)	(124,312,681)	(127,669,123)
Gross Profit	4,836,038	9,888,144	14,471,611	14,862,344	15,263,628
Gross Margin	10.1%	10.6%	10.7%	10.7%	10.7%
Less: Indirect Costs					
Administrative Wages and Salaries	(1,661,160)	(2,128,601)	(2,186,074)	(2,245,097)	(2,305,715)
General and Administrative	(360,000)	(369,720)	(379,702)	(389,954)	(400,483)
Data Centre	(24,000)	(24,000)	(24,000)	(24,000)	(24,000)
Training and Technical Support	(120,000)	(123,240)	(126,567)	(129,985)	(133,494)
Community Services	(100,000)	(200,000)	(600,000)	(600,000)	(600,000)
Startup costs	(300,000)	-	-	-	-
Depreciation	(1,342,000)	(2,172,000)	(2,172,000)	(2,172,000)	(2,172,000)
Profit before Interest and Tax	928,878	4,870,583	8,983,268	9,301,308	9,627,935
Less: Interest					
Less: Tax	(139,332)	(730,587)	(1,347,490)	(1,395,196)	(1,444,190)
Net Income	789,546	4,139,995	7,635,777	7,906,112	8,183,745
Net Margin	1.7%	4.4%	5.6%	5.7%	5.7%

The business should reach profitability in Y1. Net income should steadily increase, and exceed RMB 8mil by Y5

# Consolidated Cash Flow Statement (RMB)

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Cash Flow from Operation:	0	2,131,546	6,311,995	9,807,777	10,078,112	10,355,745
Cash Flow from Investing:	(12,060,000)	0	(8,000,000)	0	0	0
Cash Flow from Financing:	14,000,000	0	8,000,000	0	0	0
Beginning Cash	0	1,940,000	4,071,546	10,383,542	20,191,319	30,269,431
Change in cash	1,940,000	2,131,546	6,311,995	9,807,777	10,078,112	10,355,745
Ending Cash	1,940,000	4,071,546	10,383,542	20,191,319	30,269,431	40,625,175

Cash flow from operations is positive from Year 1 onwards

# Consolidated Balance Sheet (RMB)

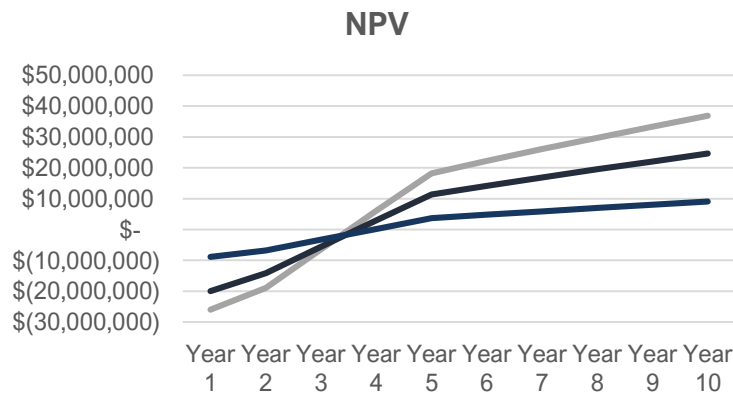
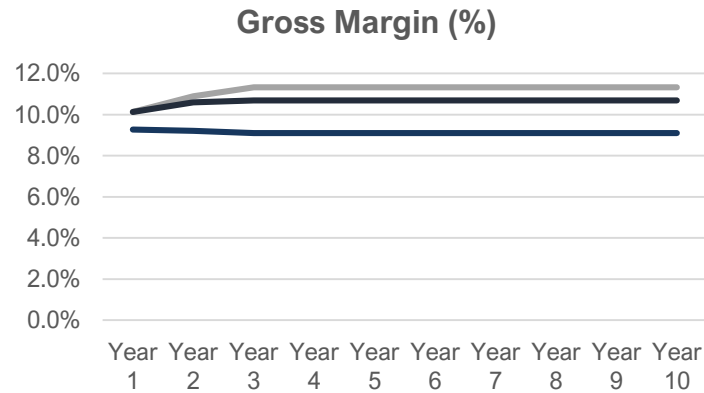
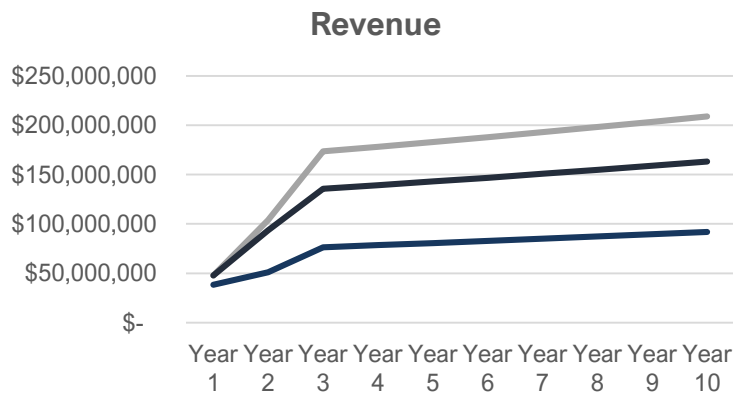
ASSETS	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Current Assets						
Cash	0	4,071,546	10,383,542	20,191,319	30,269,431	40,625,175
Trade and other receivables	0	0	0	0	0	0
Non-current Assets						
Software Development	0	400,000	380,000	260,000	140,000	20,000
Office Equipments	0	368,000	276,000	184,000	92,000	0
Fruit Sorting & Storage Facility	0	9,630,000	15,490,000	13,650,000	11,810,000	9,970,000
Trucks	0	320,000	400,000	280,000	160,000	40,000
<b>Total Assets</b>	<b>0</b>	<b>14,789,546</b>	<b>26,929,542</b>	<b>34,565,319</b>	<b>42,471,431</b>	<b>50,655,175</b>
<b>LIABILITIES and SHAREHOLDER'S EQUITY</b>						
Current Liabilities						
Trade and other payables	0	0	0	0	0	0
Non-current Liabilities						
Long-term loan	0	0	0	0	0	0
<b>Total Liabilities</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Shareholder's Funds</b>	<b>0</b>	<b>14,789,546</b>	<b>26,929,542</b>	<b>34,565,319</b>	<b>42,471,431</b>	<b>50,655,175</b>
<b>Total Liabilities and Shareholder's Funds</b>	<b>-</b>	<b>14,789,546</b>	<b>26,929,542</b>	<b>34,565,319</b>	<b>42,471,431</b>	<b>50,655,175</b>

Average return on capital employed over the life of the project should exceed 18%



# Scenario Analysis

Scenario	Scale of Service	Sorting and packaging capacity	Storage capacity
Base	Field crops: 70,000 mu Fruits: 4,000 mu	15,000 tonnes	6000 tonnes
Best	Field crops: 70,000 mu Fruits: 6,000 mu	25,000 tonnes	6000 tonnes
Worst	Field crops: 60,000 mu Fruits: 1,350 mu	5000 tonnes	3000 tonnes



# Implementation Timeline

Focus Area	Milestones	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6+			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Setting Up	Establish Association of TACE, TACE/SCSV and its framework and policies																								
	Source for financial investors, sponsors																								
	Membership recruitment of Farming Group Communities (FGC)																								
Core Functions and Services	Develop framework for value chain services starting from production, aggregation and processing																								
	Consolidate production supply data and finalise agreements / contracts																								
	Negotiate and finalise logistics agreements on processing, packaging and storage																								
	Negotiate and finalise bulk procurement processes for agri-inputs																								
	Provide premium branding and naming right services																								
	Provide labor management and technical support services																								
	Develop marketing platform to support labor management																								
	Build storage and processing facilities																								
Non-Core Functions and Services	Consolidate demand data from wholesalers, distributors																								
	Develop agri-tourism program																								
	Act as broker for leasing of machinery, financial loans and crop insurance																								
	Offer land management services																								
Community Services	Finalise program/scheme for farmer engagement and incentivisation																								
	Develop social impact monitoring and measurement																								
	Conduct social impact monitoring																								
	Develop annual program and schedule of community events																								
Finance	Secure the sources of initial funding																								
	Report financial statements of the service center annually																								



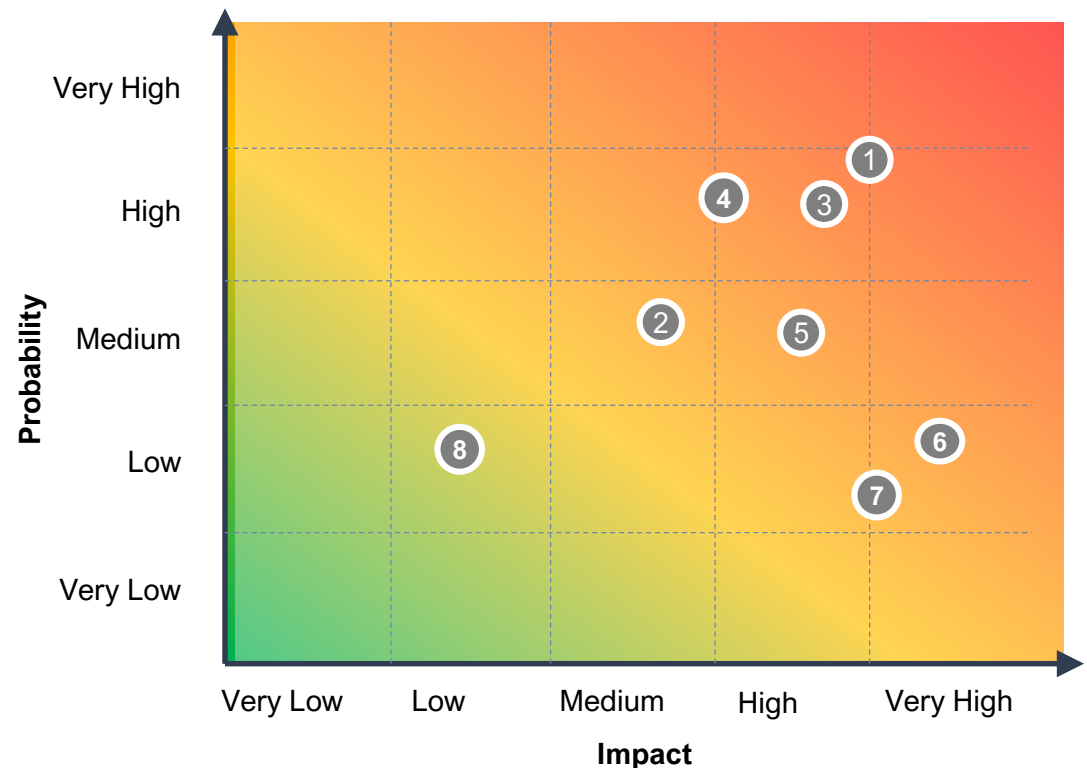
## Risk Analysis & Mitigation

# Risk Analysis

This business plan describes how smallholder farmers would empower themselves to organise into producer groups, professionalise their operations and integrate within the Township Agricultural Collective Enterprise. This also supports the goals of the Laixi Government for sustainable agriculture and rural revitalisation.

This section identifies the risks of not achieving the goals in this plan. It also outlines the measures to be taken to mitigate these risks.

- ① Volatility prices for agri-product
- ② Insufficient access to funding
- ③ Uncertain supply of skilled labor
- ④ Ability to improve margins through training, scale & branding
- ⑤ Demand uncertainty for all revenue streams
- ⑥ Natural disasters / Crop diseases
- ⑦ Uncertainty supply chain
- ⑧ Reputational risk & trust among farmers





# Risk Mitigation



## Financial

### Risk

#### 1. Volatility prices for Agri-product

Significantly price increase / drop

#### 2. Insufficient access to funding

Lack of investment interest

#### 3. Demand uncertainty for all three revenue streams

Demand for agri inputs, agricultural outputs and labor might fall behind projections

### Mitigation

- Consolidate supply data from FGCs, monitor supply-demand trends in the market using the data-collection app
- Diversify investor source
- Government backing is crucial for farmer participation and investment
- Consolidate supply data from FGCs, monitor supply-demand trends in the market using the data-collection app



## Operational

#### 4. Uncertain supply of skilled labor

Difficulty in adopting skilled labor

#### 5. Limitation to improve margins through species upgrade, scale & branding

Difficulties to adopt new species, limited scaling, or poor branding

#### 6. Natural disasters

Crop diseases, drought, earthquake, hurricane

#### 7. Uncertainty supply chain

Lack of interest to partner with TACE

- Establish labor platform to access a wider pool of labour
- Setting up scholarships and other incentives to attract young people to work in rural areas like Laixi
- Conduct research/study of land productivity
- Annual review of membership requirements to ensure sufficient incentives
- Develop promotional activities to gain more scale
- Maintain reputation and trust
- Establish strategies for premium branding and naming rights
- Enhance risk management education i.e. awareness of disaster insurance
- Establish and define unique benefits from the partnership/membership



## Reputational

#### 8. Reputational risk & trust among farmers

Negative social image i.e. corruption, service complaint, etc

- Set up comprehensive compliance mechanism to lower the risk and have crisis management plan in place
- Build up positive relationship with government to bring on a win-win strategic relationship



## Conclusion & Recommendation



# Conclusion and recommendations

With China's large population, limited arable land and Household Responsibility System, smallholder farmers face many constraints in organising and ultimately connecting to the modern value chain.

Establishing the **Township Agricultural Collective Enterprise (TACE)** to provide services through the **Service Centre for Smart Villages (SCSV)** is a first step towards addressing key issues facing smallholder farmers.

The business model connects farmers in the community with necessary services at scale. The model also enables profit sharing and provision of community services. The ultimate goal is to connect farmer groups to the modern value chain so they can maximise their profit, while incentivising young people to stay or move to the countryside for continued development of rural areas.

## Key Recommendations

To properly execute and implement the business plan, the following are recommended:

1. Buy-in and engagement from the important stakeholders including the government and farmers.
2. Develop the next level of details in the business plan through consultation processes with various supporting parties and experts.
3. Finally, consider the commercial viability of the business plan by doing sensitivity analysis and preparing back up options.





Thank you!