SFG2665

World Bank-financed Jiangxi Agricultural Product Circulation System Project

Social Assessment Report

National Research Center for Resettlement, Hohai University

Nanjing, China

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Abbreviations

EMDP	-	Ethnic Minority Development Plan
FGD	-	Focus Group Discussion
FPCS	-	Farm Product Circulation System
FPLS	-	Farm Product Logistics System
FSC	-	Farmers’ Specialized Cooperative
JETDZ	-	Jiujiang Economic and Technological Development Zone
M&E	-	Monitoring and Evaluation
MLS	-	Minimum Living Security
PMO	-	Project Management Office
RAP	-	Resettlement Action Plan
RIS	-	Rural Information Service
RPF	-	Resettlement Policy Framework
SA	-	Social Assessment

Units

Currency unit	=	Yuan (RMB)
US$1.00	=	RMB6.33
1 hectare	=	15 mu

Abstract

A. Overview of the Project

The World Bank-financed Jiangxi Agricultural Product Circulation System Project was approved by the National Development and Reform Commission, and the Ministry of Finance for inclusion in the National Plan for World Bank Financing during Fiscal Years 2014-2016 in July 2013. The Project consists of enhancing production logistics (post-harvest and primary processing); improving sales logistics (distribution centers and wholesale markets); support services for the farm product logistics system (FPLS); and project management, monitoring and evaluation, and aims mainly to improve the efficiency of the farm product circulation system (FPCS) of Jiangxi Province by improving the infrastructure, services and production capacity. The gross investment in the Project is 1.3300653 billion yuan (equivalent to $207.8227 million), including a Bank loan of 896 million yuan (equivalent to $150 million, in which $140 million has been distributed to the 8 project counties and $10 million is to be distributed), accounting for 67.37% of gross investment; and domestic counterpart funds of 434.0653 million yuan (equivalent to $67.8227 million), accounting for 32.63% of gross investment. The Project has a construction period of 5 years. The Project will optimize the FPCS, improve agricultural efficiency, strengthen farmers' participation in the value chain, and increase farmers' income.

B. Purpose and process of SA

The purpose of social assessment (SA) is to identify primary stakeholders and their needs, opportunities and risks arising from project construction and operation for stakeholders, avoid or mitigate social risks by developing an action plan, help improve the project design, and involve individuals and groups who may be most directly affected by the Project in project activities.

In August-September 2014 and December 2015, the task force conducted fieldwork for 28 days in 19 villages, 8 counties, 6 cities in 3 sub-teams, using such methods as literature study, participatory observation, key informant interview, in-depth interview, FGD and questionnaire survey. ①Key informant interview: 88 key informant interviews were conducted with the local agriculture bureaus, poverty reduction offices, and other agencies concerned, as well as township and village heads, FSC heads, heads of leading enterprises, rural brokers, agricultural technicians, etc. ②In-depth interview: 232 in-depth interviews were conducted with local residents, including 86 women (37.1%) and 60 poor persons (25.9%). ③Organizational discussion meeting: 8 organizational discussion meetings were held with county-level agriculture bureaus, poverty reduction offices, women's federations, civil affairs bureaus, ethnic and religious affairs bureaus, labor and social security bureaus, land and resources bureaus, house demolition offices, etc. ④FGD: 38 FGDs were held with 231 farmer representatives in total, including 73 poor persons (31.6%), and 19 FGDs with 89 women (38.5%). ⑤Questionnaire survey: The SA questionnaire survey has a sample size of 800, with 657 valid copies of the questionnaire recovered, accounting for 82.1%. In addition, the questionnaire survey on training needs has a sample size of 270, with 260 valid copies of the questionnaire recovered, accounting for 96.3%.

C. Needs of primary stakeholders

The Project's stakeholders include local farmers; existing FSCs; RIS members; farm product manufacturing, processing and circulation enterprises; rural brokers, individual businesses and middlemen; electronic and WeChat businesses; and agriculture bureaus.

Local farmers expect to raise product awareness by improving processing and storage facilities, increase post-production investment, attend skills training to increase the added value of farm products, and join FSCs to increase their income level. FSC members expect to improve supporting

facilities, strengthen skills training, and cooperate with companies and agencies concerned to reduce intermediate circulation links, and increase the added value and market competitiveness of farm products. RIS members expect to improve supporting facilities, and strengthen cooperation with companies and agencies concerned to reduce to reduce intermediate circulation links. Enterprises expect to improve supporting facilities, establish cooperation with other enterprises and markets, and obtain necessary policy support to raise the awareness and added value of farm products. Electronic and WeChat businesses expect to obtain authoritative certification to broaden the market. Rural brokers expect agricultural and other skills training, and low-cost or free product testing, storage, processing and transport services.

D. FPCS

Current situation of the FPCS: There are diversified farm product circulation channels and many organizational forms of farm product circulation in the project area. Most farmers (95.7%) participate in agricultural production, and only few farmers participate in circulation and marketing. 94.4% of farmers have no nearby farm product storage and refrigeration facilities, and only a very small proportion of farm products are subject to quality testing (4.4%). Farmers think that local logistics development is poor (62.7%), farm product circulation costs are relatively high (78.3%), and transport impact on farm products is severe (77.8%).

The main marketing channels of farm products are door-to-door purchase by trader (72.6%), FSC (39.1%), bazaar (19.2%), and farm product market (13.7%). Price information of farm product markets is mostly from purchasers/middlemen/brokers/enterprises (79.8%). The factors that affect farm product circulation include market information (66.21%), intermediate circulation links (44.1.5%), infrastructure (31.8%), and logistics (28.6.1%). Farm products are rarely unsalable, and most farmers would sell farm products through convenient channels.

Farm product circulation patterns: There are 6 farm product circulation patterns in the project area, in which the main patterns are “farmer + rural broker + market”, “farmer + cooperative + market”, and “farmer + leading enterprise + market”.

Farmers’ perceptions of and needs for the FPCS: 95.6% of farmers agree with the construction of farm product markets, 98% think it necessary to construct storage and refrigeration facilities, and 81.3% are willing to process farm products before marketing. 88.9% of farmers think it necessary to improve transport conditions, and 98% think it necessary to improve storage and refrigeration facilities. 29.5%, 40.5% and 21.1% of farmers are satisfied, neither satisfied nor dissatisfied, and dissatisfied with existing farm product circulation patterns respectively. The functions of farm product markets expected by farmers are offering farm product demand and price information (68.9%), offering free or cheap booths (43.4%), and offering storage and safety facilities (46.7%).

Existing issues of the FPCS and suggestions: Existing farm products have low added value, farmers’ participation in the value chain is low, and circulation costs are high. Offering skills training, improving farm product circulation infrastructure and post-production services, and giving play to FSCs will help improve the capacity of farmers, raise the added value of farm products, and further organize farmers.

E. FSC analysis

Current situation of FSCs: The task force visited 15 FSCs, including 14 cultivation FSCs and an aquaculture FSC. The proportion of FSCs with a management workforce of 5-10 is the highest; and that of FSCs led by capable persons is the highest (53.3%). The main operating patterns fo FSCs are “enterprise + cooperative + base + farmer“, and “cooperative + base + farmer”.

Farmers’ perceptions of and attitudes to FSCs: 97.6% of farmers are aware of FSCs, 57.7%

join FSCs, and 97.8% of those having not joined FSCs are willing to join FSCs. The top 3 services expected by farmers from FSCs are technical guidance on cultivation and aquaculture (88.5%), market information (81.2%), and market development (79.4%). 88.1% of farmers think it necessary to offer training, and 81.5% think FSCs play an important role in farm product circulation.

Role of FSCs, existing issues and suggestions: The role of FSCs in the FPCS is to offer agricultural materials at relatively low prices, organize farmers for unified production, offer technical support and related training, offer farm product processing, quality testing, storage, and trademark registration services, and sell farm products. The existing issues of FSCs include farmers' low awareness of and participation in FSCs, low development level of FSCs, unsound operating mechanisms, loose interest linkup, shortage of management professionals, and poor service capabilities. Therefore, it is advised to strengthen publicity and training for FSCs, improve their participation and interest linkup mechanisms, handle relations with farmers and other subjects of circulation, and improve their service capabilities.

F. Poor population

Local poverty: In the project area, Huichang County has the largest rural poor population (88,700), and Qingyuan District has the smallest rural poor population (5,200); Huichang County has the highest poverty incidence (19.84%), and Qingyuan District has the lowest poverty incidence (2.3%). There are 44 project townships in total, with a total population of 1.27 million, including a poor population of 112,212 (8.8%), and a bottom (40%) poor population of 466,000 (38.1%). Among the project counties, Huichang County has the largest poor population (46,638), and Jing'an County has the smallest poor population (3,647); Yushan County has the largest bottom (40%) poor population (95,659), and Jing'an County has the smallest bottom (40%) poor population (15,666).

Poor population's perceptions of, attitudes to and needs for the Project and the FPCS: 29% of the poor respondents are aware of the Project, and 68.2% are aware a little. 98.5% of the poor respondents support the Project, 96% expect job opportunities offered by the Project, and 91.9% think it necessary to offer relevant training. Most poor residents participate in cultivation or aquaculture in the value chain, and few can participate in farm product processing, marketing or any other link of the industry chain. The poor needs training on cultivation or aquaculture skills, processing, testing, FSC management, market management, etc., sound infrastructure, participation in FSCs and employment.

The Project will improve poor farmers' participation in the market value chain, and promote their income increase and the development of the local economy.

G. Women

Local women's development and participation in FSCs: Most local women are within 30-59 years, their main educational level is primary school (38.4%), and their main occupation is farmer (93.9%). 139 female respondents have joined one FSC (52.9%), and 47.1% of the female respondents have never joined any FSC. Women account for a low proportion to FSC members, and their participation level is low. Among the 15 FSCs, only one was founded by women, namely the Jinyuan Cultivation FSC in Celei Village, Wubei Town, Anyuan District, Pingxiang City.

Women's perceptions of and attitudes to FSCs and the FPCS: Women's awareness of FSCs is not high. 28.9% of the female respondents are aware of FSCs, 39.2% are aware a little, and 32% are unaware. Women's willingness to join FSCs is very high (99.1%), and their willingness to receive FSC training is high (87.5%). The top 3 FSC functions expected by women are offering technical guidance on aquaculture (91.8%), offering market information (80.9%), and developing market (80.3%). The top 3 roles of FSCs in the FPCS perceived by women are offering market information (83.1%), reducing circulation links (64.3%), and realizing economy of scale (61.8%).

27.2% of the female respondents are satisfied with existing farm product circulation patterns, and 23.8% are dissatisfied. 63.5% of them think farm product circulation costs are high, and 25.9% think such costs are normal (males: 19.0%). The top 3 factors affecting farm product circulation perceived by women are market information, infrastructure, and intermediate circulation links. The top 3 existing issues in farm product circulation perceived by women are high circulation costs, many intermediate links, and low added value. Most of the female respondents think that their role in the FPCS is farmer (97.3%). Women participate in the FPCS by purchasing farm products as brokers or selling farm products as retailers, and their main role is accounting and bookkeeping.

The Project will improve women's skills, generate job opportunities for women, increase women's income, and improve their family status and living quality. However, their ability to accept new things is weak due to low educational levels, and their participation in major family affairs and public affairs is low. Their needs for FSCs and the Project are likely to be neglected; they mostly do fundamental work in FSC work, and their participation in FSC management is low.

H. Ethnic minorities

Jiangxi Province has 54 ethnic minorities and a minority population of 152,000, accounting for 0.34% of Jiangxi's gross population. 13 ethnic minorities have a population of over 1,000, such as She, Hui, Mongolian, Miao and Manchu. The project area has a gross population of 1,273,906, including a minority population of 1,713, accounting for 0.13%, in which the She population is 906.

The minority population in the project area is scattered. The ethnic minorities show no difference from the Han people in terms of economic structure, social organization, production and living customs, language, social intercourse, marriage, religion, etc., and enjoy the same treatment as the Han people in terms of employment, payment, promotion and politics. Both minority and Han residents in the project area enjoy the same development rights, and benefit equally from the Project. The Project will pose no special risk to minority residents.

I. Land acquisition and occupation analysis

The market infrastructure development component of the Project may involve temporary or permanent land use, where 9 large-scale markets for local characteristic farm products will be constructed. For the convenience of farm product circulation, all the 9 farm product markets will be located around county towns or in outskirts, and close to the logistics parks. The construction land for the farm product markets has been determined through adequate consultation with local residents and farmers.

Land used for the farm product markets: The proposed sites are on unoccupied state-owned land, involving no affected population, no land acquisition and no house demolition, and such land had been converted into state-owned construction land by July 2011. There is no need to prepare a resettlement due diligence report or RAP.

J. Training need survey

Those to be trained under the Project include PMO staff, RIS operation managers, farm product e-commerce operators, farm product market managers, family farm owners, and FSC managers.

Existing Training Modes and Effects: 46.5% of the respondents have received training. The main organizer of training is the government (93.4%), 84.3% of the respondents have received training for free, and training duration is usually within a week (87.5%). The top 3 subjects of training are farm product quality and safety (58.7%), basic FPLS knowledge (48.8%), and marketing (33.1%).

Perceptions of, attitudes to and needs for FPCS training: Most respondents are willing to receive training (96.5%). Most respondents need real-time expert advice on issues in the FPCS (79.6%), and think that FPCS training under the Project should be free (86.55%). The top 3 subjects of training needed by the respondents are basic FPCS knowledge (64.6%), farm product quality and safety (60.4%), and farm product branding (50.0%). The top 3 training modes are classroom instruction (75.8%), visit to similar bases or operators (63.8%), and field training (54.6%). 71.9% of the respondents think that training should be offered in the slack season, and 55.4% think that training should be offered at training centers.

Issues in training and measures: The existing issues include low proportion of voluntary participation in training, short training time, lack of variety in training forms, etc. Therefore, it is advised to offer training in the slack season and in diversified forms, select training venues in consideration of accessibility, and select training contents based on different training needs.

K. Social benefits, risks and measures

Opportunities in project construction and operation: The construction of farm product supporting facilities and markets will help adjust the structure of agriculture, build a circulation chain, reduce circulation links and costs, and establish a FPCS. Project publicity and training will improve the development capacity of farmers, FSCs, brokers and subjects of circulation; FSC building will further organize farmers; e-commerce training and RIS development will improve the electronic trading industry chain of farm products, increase farmers' job opportunities, enable them to benefit equally, promote the sustainable development of poor farmers, women and other vulnerable groups, and enhance farmers' resistance to market risks.

Risks and measures in project construction and operation: The main risks of the Project are market risks, management, operation and maintenance risks of farm product circulation facilities, and land acquisition risks. In order to enhance the Project's social benefits, it is advised to improve farm product circulation facilities and supporting infrastructure; promoting farmers' capacity building and strengthening skills training, further organize farmers, improve market services and circulation efficiency, broaden circulation channels, promote women's participation in the Project, and pay attention to women's needs in farm product circulation.

1. Foreword

1.1 Background of the Project

The Jiangxi Provincial Government applied for the Project in December 2012, and the Project was approved by the National Development and Reform Commission, and the Ministry of Finance for inclusion in the National Plan for World Bank Financing during Fiscal Years 2014-2016 in July 2013.

The Project consists of enhancing production logistics (post-harvest and primary processing); improving sales logistics (distribution centers and wholesale markets); support services for the FPLS; and project management, monitoring and evaluation, and aims mainly to improve the efficiency of the FPCS of Jiangxi Province by improving the infrastructure, services and production capacity.

The gross investment in the Project is 1.3300653 billion yuan (equivalent to $207.8227 million), including a Bank loan of 896 million yuan (equivalent to $150 million, in which $140 million has been distributed to the 8 project counties and $10 million is to be distributed), accounting for 67.37% of gross investment; and domestic counterpart funds of 434.0653 million yuan (equivalent to $67.8227 million), accounting for 32.63% of gross investment [including 198.595 million yuan (equivalent to $3103.05 million), accounting for 14.93% of gross investment, and 235.4703 million yuan in cash (equivalent to $36.7922 million), accounting for 17.70% of gross investment]. The Project has a construction period of 5 years. The Project will optimize the FPCS, improve agricultural efficiency, strengthen farmers' participation in the value chain, and increase farmers' income.

1.2 Tasks of SA

The tasks of SA include:

1) Promoting primary stakeholders' participation in the Project, and the realization of the expected benefits, and mitigating or avoiding negative impacts and risks;
2) Enabling farmers to benefit from and play a part in the FPCS;
3) Learning the poor population's expectations and needs for the Project, analyzing the Project's impacts on them, and proposing measures to reduce poverty;
4) Learning women's expectations and needs for the Project, analyzing the Project's impacts on them, and proposing measures to promote women's development;
5) Identifying the local minority population, learning their basic information and needs, and the Project's impacts on them, promoting their participation, and judging if an EMDP is necessary;
6) Identifying the land occupation of the Project, and judging if a RAP or due diligence report is necessary; and
7) Developing an action plan to avoid or mitigate the Project's social risks, and promote the realization of the Project's objectives.

1.3 Subjects/Scope of SA

This SA covers 9 counties (districts) in 6 cities, and aims at affected farmers (especially poor farmers) mainly. The Project mainly includes the construction of 8 large-scale markets for local characteristic farm products, where their trading volume will account for over 80% of local output.

1.4 Key Points of SA

This SA consists of 10 parts, namely economic and social development, stakeholder analysis, FPCS analysis, FSC analysis, poverty analysis, social gender analysis, ethnic minority analysis, land acquisition and occupation analysis, public participation analysis, and action plan and implementation.

1) Economic and social development: defining the beneficiary area and population, learning the socioeconomic background of the project area, such as population, land, income, cultivation and infrastructure, and analyzing the development of local FSCs and leading industries

2) Stakeholder analysis: identifying the Project's primary stakeholders, with focus on attitudes to and needs for the Project of farmers, FSCs, enterprises, the government, etc., participation in the market value chain, the current situation of FSCs, training needs, etc., and analyzing the Project's positive and negative impacts on primary stakeholders

3) FPCS analysis: analyzing the current situation, patterns and issues of the existing FPCS, stakeholders' participation in the FPCS and obstacles, their awareness, attitudes to and expectations for the existing farm product market infrastructure, potential issues under the existing project objectives and improvement measures, etc.

4) FSC analysis: analyzing the current situation, patterns and issues of FSCs, farmers' participation, FSCs' role in the existing FPCS, issues and expectations, potential issues under the existing project objectives and improvement measures, etc.

5) Poverty analysis: analyzing the poor population and its distribution, causes of poverty, their participation in the local FPCS and FSCs, their needs for the Project, etc.

6) Social gender analysis: analyzing local women's conditions, and participation in the local FPCS and FSCs, their needs for the Project, etc.

7) Ethnic minority analysis: analyzing the local minority population and their main differences from the Han people, and identifying if it is necessary to prepare an EMDP

8) Public participation analysis: learning primary stakeholders' information disclosure and participation at the preparation stage, summing up experience and lessons from participation activities to provide inputs into the Project Implementation Handbook, learning stakeholders' participation in, willingness for and needs for the market value chain, FSCs and training, and developing measures to promote their participation and improve the project design

9) Training need analysis: learning the current situation of local FPCS training, including scope, mode, time and venue, and the target population's attitudes to and needs for FPCS training

10) Action plan and implementation: identifying and analyzing project risks, and proposing pertinent suggestions and an action plan to evade or mitigate risks

1.5 Methodology of SA

In August-September 2014 and December 2015, the task force conducted fieldwork for 28 days in 19 villages, 8 counties, 6 cities in 3 sub-teams, using such methods as literature study, participatory observation, key informant interview, in-depth interview, FGD and questionnaire survey, as detailed below:

1) Literature study

During August 1-7, 2014, the task force collected relevant literatures from PMOs and through online search, including: ①local feasibility study reports; ②local 12th 5-year development plans; ③statistical yearbooks and bulletins; ④local industry development and key project implementation plans; ⑤minority survey reports; ⑥local land circulation and resettlement documents and plans; ⑦local women's development plans and women's development survey reports; ⑧local pest control plans, agricultural training records and FSC statistics; and ⑨literatures on local and non-local FSC development, management and operation.

2) Participatory observation

Participatory observation aimed to further learn the local socioeconomic profile, and the Project's potential impacts and issues through field observation, and communication with local officials and residents, thereby providing an objective basis for project design optimization.

3) Key informant interview

88 key informant interviews were conducted with the local agriculture bureaus, poverty reduction offices, and other agencies concerned, as well as township and village heads, FSC heads, heads of leading enterprises, rural brokers, agricultural technicians, etc., to learn stakeholders' opinions and suggestions on the Project.

4) In-depth interview

In August-September 2014 and December 2015, the task force conducted in-depth interviews with local residents to learn their production and living conditions, the Project's impacts on them and issues, and their suggestions on project design and implementation. 232 in-depth interviews were conducted, including 86 women (37.1%) and 60 poor persons (25.9%).

5) Organizational discussion meeting

In August-September 2014 and December 2015, the task force held 8 organizational discussion meetings with county-level agriculture bureaus, poverty reduction offices, women's federations, civil affairs bureaus, ethnic and religious affairs bureaus, labor and social security bureaus, land and resources bureaus, house demolition offices, etc. to learn the basic information of the project area, minority population and women's development, and collect opinions and suggestions from agencies concerned.

6) FGD

In August-September 2014 and December 2015, the task force held 38 FGDs with 231 farmer representatives in total, including 73 poor persons (31.6%), and 19 FGDs with 89 women (38.5%), to learn the current situation of production and livelihoods, farmers' participation in FSCs, and awareness of, attitudes to, needs for and suggestions on the Project.

7) Questionnaire survey

In the questionnaire survey, multi-stage random sampling was conducted in 19 villages, 15 townships, 8 counties. The SA questionnaire survey has a sample size of 800, with 657 valid copies of the questionnaire recovered, accounting for 82.1%, including 394 males, accounting for 60%; 263 females, accounting for 40%; and 198 poor persons, accounting for 30.1%. See Table 1-1.

Table 1-1 Distribution of Survey Samples

City	**County**	**Sample size**	**Valid samples**	
			N	**%**
Jiujiang	JETDZ	100	50	7.6
	Pengze	100	94	14.3
Shangrao	Yushan	100	88	13.4
Yichun	Jing'an	100	77	11.7
Ji'an	Taihe	100	95	14.5
Pingxiang	Anyuan	100	83	12.6
Ganzhou	Huichang	100	90	13.7
	Longnan	100	80	12.2
Total		**800**	**657**	**100.0**

Source: socioeconomic survey

In addition, the questionnaire survey on training needs has a sample size of 270, with 260 valid copies of the questionnaire recovered, accounting for 96.3%. See Table 11-1.

2. Socioeconomic Profile of the Project Area

2.1 Definition of the Project Area

The Project covers 44 townships in Huichang County, Yushan County, Pengze County, Jing'an County, Taihe County, Anyuan District, Longnan County, JETDZ and Qingyuan District , with a direct beneficiary area of 3,854.92 km^2 and a direct beneficiary population of 1,273,906, including a poor population of 112,212, a minority population of 1,713 (0.13%), and a female population of 601,114 (47.2%).

Table 2-1 Basic Information of the Project Area

County	Township	Population	Poor population	Minority population	Female population	Beneficiary area (km^2)
Huichang	Zhulan Xiang	18747	4311	104	8918	188.5
	Zhuangkou Town	33210	6098	178	16387	152
	Youshui Xiang	17955	3550	52	8628	114
	Yonglong Xiang	8639	2120	14	4146	120
	Wenwuba Town	91829	18549	204	43687	181.8
	Gaopai Xiang	15303	3227	34	7389	88
	Mazhou Town	32894	8783	51	16070	118
Subtotal		218577	46638	637	105225	962.3
Yushan	Bingxi Town	103799	7656	79	47748	31
	Yanrui Town	52958	3866	23	24361	131
	Shuangming Town	28283	3065	19	13010	137
	Xianyan Town	29883	2185	10	13746	62
	Huaiyu Xiang	20477	1595	21	9419	126
	Wencheng Town	32071	2378	68	14753	49
Subtotal		267471	20745	220	123037	536
Pengze	Taibai Lake Development Zone	5321	515	6	2448	41.4
	Dongsheng Town	13000	1056	14	5980	106
	Taiping Xiang	21241	1657	9	9771	64.2
	Dingshan Town	4576	376	10	2105	38.2
	Leguan Xiang	16765	1344	18	7712	58.5
Subtotal		60903	4948	57	28015	308.4
Jing'an	Xiangtian Xiang	13000	1320	13	5980	63
	Zaodu Town	5708	674	2	2626	119
	Renshou Town	18454	1653	14	8489	113
Subtotal		37162	3647	29	17095	295
Taihe	Guanchao Town	22075	1604	77	10492	145.4
	Tangzhou Town	34744	2675	69	16798	156.9
	Chengjiang Town	100533	7561	104	48348	158.5
	Nanxi Xiang	14139	1589	23	6794	40
	Mashi Town	38223	2350	47	18425	137
Subtotal		209714	15779	320	100857	637.8
Anyuan	Wubei Town	14326	739	103	7106	24.6
	Gaokeng Town	50013	1457	54	24523	69
	Anyuan Town	39118	1252	40	18961	25.2
	Qingshan Town	33612	1177	32	16253	36.3
	Suburb Administrative Committee	38183	554	33	20084	30.2
Subtotal		175252	5379	262	86927	185.3
Longnan	Dujiang Town	22551	2970	30	10148	79
	Taojiang Xiang	18699	1802	13	8415	94
	Dongjiang Xiang	12676	1545	20	5704	49
Subtotal		53926	6317	63	24267	222

JETDZ	Saicheng Lake Farm	30972	1240	0	10923	16.8
	Yong'an Xiang	33945	1982	23	15453	23.3
	Qilihu Sub-district	12025	1109	32	6253	13.3
Subtotal		76942	4331	55	32629	53.4
Qingyuan	Hedong Street	27974	428	0	13335	50.7
	Tianyu Town	15867	440	0	7604	49.22
	Zhixia Town	33115	845	0	16353	49
	Xinyu Town	19598	574	0	9178	49
	Futan Town	26741	768	0	12501	189.8
	Futian Town	34286	929	70	16362	216
	Wenpi Town	16378	444	0	7729	51
Subtotal		173959	4428	70	83062	654.72
Total		1273906	112212	1713	601114	3854.92

Source: statistical yearbooks, data provided by PMOs

2.2 Socioeconomic Profile

2.2.1 Population

According to the Statistical Yearbook 2013 of Jiangxi Province, in 2012, Jiangxi had a resident population of 45.04 million, a labor force of 34.955 million, a rural poor population of 3.28 million, with a poverty incidence of 7.28%, and a minority population of 152,310.

The project counties have 870,932 households with a population of 3.3279 million, including a minority population of 17,413, accounting for 0.52%, a poor population of 213,200, and a labor force of 1.4295 million, including a female labor force of 646,700, accounting for 45.23% of gross labor force, and a labor force working outside of 616,900, accounting for 43.15% of gross labor force.

Table 2-2 Local Population

City	County	HHs	Gross population (0,000)	Minority population	Rural poor population (0,000)	Labor force (0,000)	Female labor force (0,000)	Labor force working outside (0,000)
Jiangxi Province		**12316056**	**4503.9**	**152310**	**328**	**3495.5**	**/**	**/**
Jiujiang	Pengze	14346	39.88	207	1.75	13.22	6.78	7.13
	JETDZ	4498	15.87	98	0.76	8.54	4.34	7.02
Shangrao	Yushan	182174	61.69	1122	3.18	20.87	9.87	10.98
Yichun	Jing'an	31462	14.92	481	0.87	8.03	3.91	4.51
Ji'an	Taihe	192351	56.03	4618	2.25	21.76	10.19	13.25
	Qingyuan	64770	22.15	5300	0.52	13.31	6.31	4.6
Pingxiang	Anyuan	129934	38.37	1189	0.58	7.77	3.65	1.5
Ganzhou	Huichang	150904,	51.77	3440	8.87	28.36	11.39	7.94
	Longnan	100493	32.11	958	2.54	21.09	8.13	4.98
Total		870932	332.79	17413	21.32	142.95	64.67	61.69

Source: statistical yearbooks and bulletins of the project counties

2.2.2 Income

According to the Statistical Yearbook 2013 of Jiangxi Province, in 2012, farmers' per capita net income was 7,827.82 yuan in Jiangxi, including wage income of 3,530.72 yuan, family operation income of 5,838.04 yuan, transfer income of 549.68 yuan and property income of 120.69 yuan.

Among the project counties, in 2012, Anyuan District had the highest farmers' per capita net income of 11,543 yuan, and Huichang County had the lowest value of 4,902 yuan. In the project counties, the main income sources of farmers are cultivation, aquaculture and outside employment, while the proportions of transfer and property income are low.

Table 2-3 Local Farmers' Per Capita Net Income (unit: yuan)

City	County	Farmers' per capita net income	Wage income	Family operation income	Transfer income	Property income
Jiangxi Province		**7827.82**	**3530.72**	**5838.04**	**549.68**	**120.69**
Jiujiang	Pengze	9361	4825.92	5208.05	346.86	135.02
	JETDZ	10293	9673	1420	569.54	765.09
Shangrao	Yushan	8945	5397.69	3141.88	270.81	134.62
Yichun	Jing'an	7583	3612.45	4094.23	322.73	241.21
Ji'an	Taihe	8999.58	3152.29	5122.40	501.06	223.83
	Qingyuan	10365.7	6560.49	2703.01	961.59	140.64
Pingxiang	Anyuan	11543	6208.34	3543	698.55	66.8
Ganzhou	Huichang	4902	13333.81	1616.96	2778.21	38.96
	Longnan	6590	4718	1701	383	18

Source: statistical yearbooks and bulletins of the project counties

2.2.3 Cultivation

According to the Statistical Yearbook 2013 of Jiangxi Province, in 2012, Jiangxi's total sown area of crops was 5,525,890 hectares, in which the total sown area of food crops was 3,675,930 hectares, and the total output of food crops was 20.848 million tons.

In 2012, the total sown area of crops of the project counties was 324,919.1 hectares, in which the total sown area of food crops was 222,628 hectares, the total output of food crops 1.625 million tons, and the total sown area of commercial crops was 100,605.2 hectares.

Table 2-4 Local Cultivation

City	County	Food crops			Total sown area of commercial crops (ha)
		Total sown area of crops (ha)	Total sown area of food crops (ha)	Total output of food crops (ton)	
Jiangxi Province		**5525890**	**3675930**	**20848000**	**1849956**
Jiujiang	Pengze	40339	16898	105773	17031
Shangrao	Yushan	50121	37179	207750	12942
Yichun	Jing'an	6234.12	14389	405122	3509.22
Ji'an	Taihe	126280	88066	508784	32830
	Qingyuan	30782	21541	143210	8096
Pingxiang	Anyuan	5455	2932	21865	2108
Ganzhou	Huichang	41746	30020	168300	11731
	Longnan	23962	11603	64405	12358
Total		324919.1	222628	1625209	100605.2

Source: statistical yearbooks of the project counties
Note: JETDZ is excluded, because it develops aquaculture mainly.

It can be seen from the table below that the leading industries of the project counties are largely consistent with those of poor households, and only differ in terms of cultivated area and output. In addition, poor households would also grow some traditional commercial crops to meet daily needs.

Table 2-4 Leading Industries of Project Counties and Poor Households

City	County	Leading industries of county	Leading industries of poor households
Ji'an	Taihe	Grain, vegetable	Grain, vegetable
	Qingyuan	Vegetable, fruit, grain	Vegetable, fruit, grain
Yichun	Jing'an	Grain, fruit, tealeaf	Grain, fruit, tealeaf
Jiujiang	Pengze	Cotton, rape, paddy rice	Cotton, rape, paddy rice
Pingxiang	Anyuan	Grain, vegetable, fruit	Grain, vegetable, fruit
Shangrao	Yushan	Vegetable, grain, fruit	Grain, fruit, vegetable

Ganzhou	Huichang	Grain, fruit, vegetable	Grain, fruit, vegetable
	Longnan	Navel orange, vegetable, aquaculture	Navel orange, vegetable, aquaculture

Source: data provided by PMOs

2.3 Current Situation of Local FSCs

Currently, there are 2,342 FSCs in the project counties, in which 1,008 are in the project area, accounting for 43.04%, including 13 aquaculture FSCs, 8 cotton FSCs, 147 vegetable FSCs, 128 grain FSCs, 104 fruit FSCs, 3 tealeaf FSCs, 7 oil tea FSCs and 43 navel orange FSCs.

Table 2-5 Summary of Local FSCs

County	FSC		Local FSCs related to industries covered by the Project
	County	Project area	
Pengze	296	82	8 cotton FSCs
JETDZ	208	28	12 aquaculture FSCs
Yushan	403	187	11 vegetable FSCs, 37 grain FSCs, 24 fruit FSCs
Jing'an	174	42	10 grain FSCs, 9 fruit FSCs, 3 tealeaf FSCs
Taihe	452	210	36 vegetable FSCs, 43 grain FSCs, 21 fruit FSCs
Anyuan	145	145	25 vegetable FSCs, 10 grain FSCs, 17 fruit FSCs
Huichang	300	136	7 oil tea FSCs, 28 navel orange FSCs, 16 vegetable FSCs
Longnan	145	35	15 navel orange FSCs, 4 vegetable FSCs, 1 aquaculture FSC
Qingyuan	219	143	28 grain FSCs, 55 vegetable FSCs, 33 fruit FSCs
Total	2342	1008	/

Source: data provided by PMOs

2.4 Current Situation of Local Leading Industries

The project area involves cultivation and aquaculture mainly, in which cultivation includes tealeaf, forest products, grain, vegetable, fruit, cotton and navel orange. According to the Feasibility Study Report, Longnan County and JETDZ involve aquaculture mainly. See Tables 2-8 and 2-9.

Table 2-6 Local Cultivation Development

City	County	Industry	Area (mu)	Output (jin/mu)	Gross output (ton)
Ji'an	Taihe	Grain	1320990	771	1018434
		Vegetable	291375	2683	780940
	Qingyuan	Vegetable	61890	2827	87491
		Fruit	51000	3000	11000
		Grain	323115	830.73	134210
Yichun	Jing'an	Grain	213720	428	89375
		Fruit	43521	1226	53373
		Tealeaf	30000	54	1620
Jiujiang	Pengze	Cotton	255500	600	23500
Pingxiang	Anyuan	Grain	43980	497	21865
		Vegetable	21135	2587	54674
		Fruit	8160	198	1613
Shangrao	Yushan	Vegetable	88450	2500	221125
		Grain	556785	365	202980
		Fruit	103450	677	70000
Ganzhou	Huichang	Grain	450300	374	168300
		Fruit	277400	478	132500
		Vegetable	85006	1380	117300
	Longnan	Navel orange	56946	1097	62476
		Vegetable	139009	1709	237590

Source: statistical yearbooks of the project counties, work summaries and development plans

Table 2-7 Local Aquaculture Development

No.	City	County	Industry	Area (0,000 mu)	Output (0,000 tons)	Commercial quantity (0,000 tons)
1	Jiujiang	JETDZ	Aquaculture	2.11	0.38	0.36
2	Ganzhou	Longnan	Aquaculture	1.98	0.81	0.79

Source: Feasibility Study Report

3. Stakeholder Analysis

3.1 Stakeholder Identification

Stakeholders refer to individuals or groups that can affect or be affected by the realization of the project objectives. Stakeholders can be divided into primary and secondary stakeholders.

The Project’s primary stakeholders include:

- local farmers, especially the poor, women, old people, etc.;
- existing FSCs;
- RIS[1] members;
- Farm product manufacturing, processing and circulation enterprises;
- Rural brokers, individual businesses and middlemen;
- Electronic and WeChat businesses
- Agriculture bureaus;

The Project’s secondary stakeholders include:

- Government and other agencies concerned, such as women’s federation, poverty reduction office, civil affairs bureau, land and resources bureau, etc.

3.2 Demand Analysis

Different stakeholders have different needs for the Project. Analyzing the primary stakeholders’ needs will help identify the Project’s potential social risks and promote its successful implementation. Such needs mainly include:

3.2.1 Local Farmers

Local farmers are a group affected directly by the Project and the main beneficiary group of the Project, especially poor farmers, women and other vulnerable groups. Their attitudes and behaviors will affect project progress directly, and how well their needs are met is one of the evaluation criteria for the fulfillment of the project objectives. Local farmers expect to develop local leading industries to increase income. However, due to the shortage of technologies, funds, information and projects, the project area is still underdeveloped. Local economic development should be driven by FSCs and relevant enterprises. Local farmers think that though local farm products are good, they lack branding, certification, processing and testing, so farm products are not competitive enough. Local farmers have the following expectations:

①Improve the infrastructure, such as roads, and drainage and irrigation facilities; ②Receive agricultural, FSC, market management and other training; ③Join FSCs; ④Strengthen investment in processing, storage and other facilities, and improve product awareness and their bargaining power; ⑤Improve the service level of markets, and offer low booth and vehicle rents.

➔ **FGD in Liantang Village, Renshou Town, Jing’an County, Yichun City:**

Our village is ideal for paddy rice cultivation, but paddy rice output has remained low for the following reasons: ①Management skills are inadequate, and some households do not have sufficient labor force for harvesting; ②Due to poor traffic conditions, paddy rice cannot be transported timely to sell at a good price; ③Farmers cannot buy pesticides and fertilizers at

[1]RIS is a nationwide Internet project initiated by the Ministry of Agriculture to provide rural areas with integrated services, including online marketing and purchase, training, consulting, charging, insurance, lending, postal service and logistics. It costs about 30,000 yuan to establish a RIS through joint contribution by the e-commerce supplier, local government and owner. There are about 300 RISs in Jiangxi, and it is planned to establish 1,000 by 2020. Currently, there are about 7,000 RISs in 7 provinces of China.

preferential prices, thereby increasing cultivation costs.

➔ **Interview with a major cultivator in Liantang Village, Renshou Town, Jing'an County, Yichun City:**

The government should promulgate preferential policies, such as offering seeds and farm machinery at low prices, and more importantly provide marketing channels, especially long-term stable channels.

➔ **Villager FGD in Changtan Village, Wubei Town, Anyuan District, Pingxiang City:**

Villagers expect that a farm product market be built, thereby expanding their marketing channels effectively and ensuring that farm products are sold for a good price.

➔ **Interview with a villager in Zhoutou Village, Tangzhou Xiang, Taihe County, Ji'an City:**

Villagers would transport farm products for sale. However, poor road conditions increase transport costs greatly. Therefore, villagers expect that roads be renovated to reduce transport costs.

3.2.2 FSC Members

A number of FSCs have been established in the project area, but operate poorly in general, and most FSCs are still at the startup stage. Such organizations provide processing, storage, marketing and other technical services for industry development, organize farmers for production and skills training, and broaden marketing channels for farmers mainly. Through the work of local FSCs, interest linkup and risk coordination mechanisms, and normative and stable relationships between enterprises and farmers have been established gradually, thereby making the Project's benefits sustainable. Therefore, FSC members have the following expectations:

①Improve the infrastructure and supporting facilities for industry development to promote the successful operation of FSCs; ②Receive loans; ③Strengthen relevant skills training; ④Increase investment in farm product processing, storage and testing, extend the industry chain, and improve the added value and market competitiveness of farm products; ⑤Broaden marketing channels, and strengthen cooperation with companies and agencies concerned to reduce to reduce intermediate circulation links; ⑥Improve the management and marketing capacity of FSCs to promote their sustainable development.

Interview with Mr. Cai, head of the Hongri FSC:

Current markets are unsound in function and many of them are laid idle. Charges imposed by markets will increase costs.

3.2.3 RIS Members

RIS is a nationwide Internet project initiated by the Ministry of Agriculture to provide rural areas with integrated services, including online marketing and purchase, training, consulting, charging, insurance, lending, postal service and logistics. Under the Project, 100 RISs will be established in each project county, thereby providing an agricultural data cloud as the basis for scientific cultivation. RIS members will receive accurate market information to find buyers directly, and also enjoy convenient information services. They have the following expectations:

①Improve the infrastructure and supporting facilities to promote the successful operation of RISs; ②Provide some market information for reference; ③Broaden marketing channels, and strengthen cooperation with companies and agencies concerned to reduce to reduce intermediate circulation links; ④Strengthen information communication among RISs; ⑤Improve the management and marketing capacity of RISs to promote their sustainable development.

3.3.4 Agricultural Enterprises

There are some enterprises related to local characteristic industries in the project area, such as farm product manufacturing, processing, circulation and marketing enterprises. For example, Ziyunshan Oil Tea Development Co., Ltd. is a farm product processing and marketing enterprise, and Hongri Agricultural Development Co., Ltd. in Shangrao City is a province-level leading agricultural industrialization enterprise that integrates production, purchase, marketing and tourism development. Some local enterprises have established long-term cooperation mechanisms with FSCs to develop made-to-order agriculture. In addition, some enterprises provide farmers with materials and skills training through FSCs. However, some enterprises have relatively narrow coverage and lack variety in services, focusing mainly on product purchase and marketing.

Enterprises are an important force of agricultural industrialization, and connect with farmers in two ways. First, some enterprises cooperate with FSCs to serve farmers more efficiently and cost-effectively. Second, some enterprises cooperate with farmers directly, and perform functions similar to those of FSCs, such as purchasing, processing and marketing farm products, providing materials, and establishing agricultural bases. Enterprises have the following expectations:

①Improve the infrastructure to create favorable conditions for production, circulation and marketing; ②Receive policy support to solve financial and technical issues; ③Establish brands to raise the awareness and added value of farm products; ④Extend the industry chain; ⑤Broaden marketing channels, and establish long-term cooperation with supermarkets, markets, FSCs and other market players.

➔ **Interview with the head of Hongri Agricultural Development Co., Ltd. in Shangrao City:**
Hongri Agricultural Development Co., Ltd. in Shangrao City is a province-level leading agricultural industrialization enterprise that integrates production, purchase, marketing, skills training, consulting and tourism development. While supplying high-quality mountain vegetables, the company has encountered the following issues: 1) increased transport costs due to inconvenient traffic; 2) unsmooth marketing due to failure to establish long-term, stable cooperation with major cultivators, farms and FSCs; and 3) financial and technical difficulty in processing farm products and offering added value.

3.3.5 Electronic and WeChat Businesses

The rapid growth of electronic and WeChat businesses provides a modern marketing channel for farm products. It is learned that more and more local farmers are using WeChat, QQ, and other social network apps to sell farm products, opening up the “Internet + farm product” age. Some local enterprises and major cultivators have set up online stores to sell farm products, and some young farmers do this via social network apps. Electronic and WeChat businesses overcome some shortcomings of traditional marketing channels, such as inconvenience and high circulation costs, but still have such issues as narrow coverage and inadequate quality control. Local electronic and WeChat businesses have the following expectations:

①Learn more operating knowledge about electronic and WeChat businesses; ②Receive training on marketing strategies; ③Obtain certification by agricultural bureaus; ④Broaden marketing channels, and establish long-term cooperation with farmers and enterprises.

3.3.6 Rural Brokers, etc.

Local industry development is inseparable from other middlemen in the industry chain, including rural brokers, individual businesses and small processing workshop owners, which provide technical services for industry development.

As a primary stakeholder, there are numerous and widespread rural brokers in the project area, who purchase farm products directly from farmers for resale to enterprises and other operators. Some of them have even become FSC organizers and managers.

There are also some individual businesses related to industry development, which purchase farm products from local farmers for processing to increase added value. Rural brokers, etc. have the following expectations:

①Receive skills training; ②Reducing intermediate costs in transport, processing, circulation, marketing, etc.; ③Broaden marketing channels, and establish long-term cooperation with supermarkets, markets and enterprises; ④Receive product testing, storage, processing and transport services at low costs.

➔ **Mr. Wang (fish merchant) in Gangkou Town, JETDZ:**
Our fish is purchased from nearby rural fish farms, and sold at the bazaar to earn a price difference. We bear some costs, such as fuel and equipment costs. We expect this market to improve our circulation efficiency.

3.3.7 Agricultural Bureaus

Since the Project involves heavy tasks of management and coordination, the Jiangxi PMO has established project agencies composed of staff from multiple departments to ensure successful project implementation, and developed relevant management systems. The preparatory work has been completed with high quality, laying a good foundation for project implementation.

The provincial department of agriculture, and the county agriculture bureaus are the IAs of the Project. They are not only responsible for project implementation, but have also to solve all technical, financial and other issues related to the Project. Therefore, the IAs have the following expectations:

①Fulfill the tasks and objectives of all stages of the Project through cooperation with all stakeholders; ②Help local farmers develop industries, and raise the awareness and added value of farm products; ③Improve the capacity and image of the staff; ④Draw on experience in farm product circulation from the Project for extension to other areas.

3.3.8 Other Government Agencies

The Jiangxi PMO has involved local agencies concerned in project management and supervision, such as poverty reduction offices, women’s federations, poverty reduction offices, and labor and social security bureaus. These agencies direct, support and serve local industry development, FSC development, and farm product production, circulation and marketing. Therefore, the government and agencies concerned have the following expectations:

①Further strengthen agricultural industrialization, and promote the economic restructuring of the project area; ②Improve production and living conditions of the poor, and maintain social stability and harmony; ③Promote local economic and social development, and improve the government image; ④Further organize farmers; ⑤Further strengthen cooperation among all agencies to support all-round support to farmers.

➔ **Organizational FGD in Huichang County:**
1) The women’s federation suggests that financial support for women should be strengthened, and training suited to women’s actual needs be offered; 2) The poverty reduction office suggests that more investment should be made in rural infrastructure, and that major households, FSCs and leading enterprises should drive farmers to increase income; 3) The labor and social security

bureau suggests that training be offered on different levels to further improve the production level of farmer; 4) The industry development office suggests that brand certification should be strengthened to improve product awareness; 5) The agencies concerned think that the Project will promote local industry and economic development, and expect the Project to be implemented as soon as possible.

Table 3-1 Primary Stakeholders and Demand Analysis

Stakeholder	Needs
Local farmers	①Improve the infrastructure, such as roads, and drainage and irrigation facilities; ②Receive agricultural, FSC, market management and other training; ③Join FSCs; ④Strengthen investment in processing, storage and other facilities, and improve product awareness and their bargaining power; ⑤Improve the service level of markets, and offer low booth and vehicle rents.
RIS members	①Improve the infrastructure and supporting facilities to promote the successful operation of RISs; ②Provide some market information for reference; ③Broaden marketing channels, and strengthen cooperation with companies and agencies concerned to reduce to reduce intermediate circulation links; ④Strengthen information communication among RISs; ⑤Improve the management and marketing capacity of RISs to promote their sustainable development.
FSC members	①Improve the infrastructure and supporting facilities for industry development to promote the successful operation of FSCs; ②Receive loans; ③Strengthen relevant skills training; ④Increase investment in farm product processing, storage and testing, extend the industry chain, and improve the added value and market competitiveness of farm products; ⑤Broaden marketing channels, and strengthen cooperation with companies and agencies concerned to reduce to reduce intermediate circulation links; ⑥Improve the management and marketing capacity of FSCs to promote their sustainable development.
Agricultural enterprises	①Improve the infrastructure to create favorable conditions for production, circulation and marketing; ②Receive policy support to solve financial and technical issues; ③Establish brands to raise the awareness and added value of farm products; ④Extend the industry chain; ⑤Broaden marketing channels, and establish long-term cooperation with supermarkets, markets, FSCs and other market players.
Electronic and WeChat businesses	①Learn more operating knowledge about electronic and WeChat businesses; ②Receive training on marketing strategies; ③Obtain certification by agricultural bureaus; ④Broaden marketing channels, and establish long-term cooperation with farmers and enterprises.
Rural brokers	①Receive skills training; ②Reducing intermediate costs in transport, processing, circulation, marketing, etc.; ③Broaden marketing channels, and establish long-term cooperation with supermarkets, markets and enterprises; ④Receive product testing, storage, processing and transport services at low costs.
Agriculture bureaus	①Fulfill the tasks and objectives of all stages of the Project through cooperation with all stakeholders; ②Help local farmers develop industries, and raise the awareness and added value of farm products; ③Improve the capacity and image of the staff; ④Draw on experience in farm product circulation from the Project for extension to other areas.
Government and other agencies concerned	①Further strengthen agricultural industrialization, and promote the economic restructuring of the project area; ②Improve production and living conditions of the poor, and maintain social stability and harmony; ③Promote local economic and social development, and improve the government image; ④Further organize farmers; ⑤Further strengthen cooperation among all agencies to support all-round support to farmers.

4. FPCS Analysis

The FPCS is critical to farm product circulation and the development of modern efficient agriculture. The FPCS mainly includes transport, marketing and consumption, and involves farmers, farm product circulation intermediaries, markets and consumers mainly. On this basis, this chapter describes the current situation of the FPCS, and analyzes the participation of farmers in circulation and marketing, the current local circulation patterns of farm products, farmers' perceptions of and attitudes to the FPCS, and the existing issues of the FPCS and countermeasures.

4.1 Current Situation of the FPCS

4.1.1 Farm Product Circulation Channels and Subjects

The FPCS in the project area is still small in scale, but is no longer suited to the future market development trend.

1. Diversified farm product circulation channels

The existing farm product marketing channels in Jiangxi Province are diversified, such as food control office, broker and distributor for food crops; wholesaler, broker, FSC and leading enterprise for navel orange; cotton processing enterprise, wholesaler, FSC, local textile mill and non-local market for cotton. In sum, farm products can usually be sold through the following channels:

1) Purchase enterprises: They are responsible for purchasing, storing and dispatching farm products, and some of them also deal with business operations and have established stable relations with producers, mainly including food control offices, supply and marketing cooperatives, and processing enterprises.

2) Tangible markets: These markets have fixed places and trading rules, and are usually open all the year round, mainly including integrated wholesale markets, urban and rural bazaars, and specialized wholesale markets.

3) Intangible markets: These markets do not have fixed places and trading rules, but can purchase farm products from producers timely for sale, so they are actually intermediary markets, mainly including urban and rural distributors, brokers and rural cooperatives. For example, the Qingpingle Navel Orange FSC in Huichang County, Ganzhou City sells navel orange through online stores, and villagers in Qiujia Village, Wencheng Town, Yushan County, Shangrao City sell red-bud taro through brokers.

4) Direct markets: Producers sell farm products to supermarkets, restaurants, schools and enterprises without any medium. For example, the Qingpingle Navel Orange FSC in Huichang County, Ganzhou City has established direct outlets at non-local wholesale markets.

It can be seen that though many farm product circulation channels exist, where important farm products like grain and oils are mostly purchased, circulated and sold by the state, while most other farm products are subject to market-based circulation. The proportion of circulation through FSCs and leading enterprises is relatively low, most products are still circulated through middlemen (brokers, purchasers, wholesalers, individual businesses, etc.) mainly, featuring small scale, many links and high costs, where farmers earn minimal profits and end consumers have to pay high retail prices.

2. Farm product circulation organizations

Currently, many farm product circulation organizations exist and are growing rapidly in China, mainly including state-owned farm product circulation organizations, and supply and marketing cooperatives. In the project area, scattered, small and rudimentary traditional circulation organizations are still dominant, featuring low level of organization, backward circulation modes, high circulation costs and low circulation efficiency. It can also be seen that the backward rural infrastructure (transport, communication, logistics, etc.) in the project area, and the slow development of rural e-commerce have restricted the modernization of rural circulation greatly. Farm product circulation organizations in Jiangxi Province mainly include state-owned farm product circulation organizations, supply and marketing cooperatives, farm product circulation FSCs, leading enterprises, and rural brokers.

1) **State-owned farm product circulation organizations**: These organizations are dominant in the circulation of grain and oils mainly. For example, grain can be sold by state-owned grain depots and their outlets, and cotton can be sold by state-owned cotton depots.

2) **Supply and marketing cooperatives**: These FSCs are an important bridge between urban and rural areas, industry and agriculture, and production and circulation, and deal with many types of farm products, mainly including cotton, linen and local specialties. Based on their financial, technical and information advantages, they have established an operating network of agricultural services, and product purchase and marketing. For example, cotton in Pengze County is purchased mainly by the Poyang Lake Cotton Market and Ganjin Cotton Co., Ltd., and the supply and marketing cooperatives in Pengze County have established distribution centers to sell agricultural materials at lower prices to reduce production costs.

3) **Farm product circulation FSCs**: These FSCs organize farmers for market entry to solve the difficulty of farm product marketing for farmers practically. There are 3,133 FSCs in the project counties, in which 1,207 are in the project area, accounting for 38.53%. For example, the Taibai Lake Cotton FSC in Pengze County is a province-level exemplary FSC, where the county agricultural material company provides cotton seeds, fertilizers, pesticides and training, and Ganjin Cotton Co., Ltd. purchases cotton higher than market prices, protecting farmers' interests effectively.

4) **Leading enterprises of farm product circulation**: The modern circulation industry is developing rapidly in Jiangxi Province, and a number of integrated agricultural production and marketing chain enterprises have emerged, such as Nature Oil Tea Co., Ltd. in Huichang County and Hongri Agricultural Development Co., Ltd. in Shangrao City. These enterprises have competitive edges in farm and sideline product processing and distribution, laying a good foundation for circulation optimization.

5) **Farm product circulation intermediaries, mainly including rural brokers**: Rural brokers usually deal with brokering activities in the "market + broker + farmer" pattern. In this pattern, a broker connects several to thousands of farmers, and plays a crucial role in farm product circulation. Rural brokers who grasp market information connect enclosed, scattered agricultural production with the open market, and promote rural cash flowing and farm product circulation effectively.

In farm product circulation, farmers play such roles as farmer, rural broker, individual business, middleman, FSC member, and leading enterprise employee. 95.7% of local farmers participate in the market value chain, 1.7% are brokers, and 2.3% are retailers.

Table 4-1 Role of Farmers in Farm Product Circulation

County	Subject of farm product circulation (%)			
	Farmer	Broker	Middleman	Retailer
Anyuan	96.4	2.4	0	1.2
Huichang	87.8	4.4	0	7.8
JETDZ	94.0	2.0	4	0.0
Jing'an	98.7	1.3	0	0.0
Longnan	97.5	0.0	0	2.5

Pengze	97.9	1.1	0	1.1
Taihe	96.8	2.1	0	1.1
Yushan	96.6	0.0	0	3.4
Total	95.7	1.7	0.3	2.3

Source: socioeconomic survey

4.1.2 Farm Product Market Construction

In the project area, farm product markets mainly include retail and wholesale markets, where wholesale markets with large trading volumes and wide coverage are dominant and growing, and various circulation organizations coexist, dealing mainly with spot trading.

95.0% of the respondents have a nearby farm product market, and 5.0% have none. Existing farm product markets in the project area are small, dirty, disorderly and weak in function, and cannot meet local demand. Farmers would rather sell farm products by the road than at booths.

Table 4-2 Current Situation of Local Farm Product Markets

County	Is there a farm product market (%)			
	Yes	%	No	%
Anyuan	83	100.0	0	0.0
Huichang	62	69.7	27	30.3
JETDZ	50	100.0	0	0.0
Jing’an	77	100.0	0	0.0
Longnan	80	100.0	0	0.0
Pengze	94	100.0	0	0.0
Taihe	95	100.0	0	0.0
Yushan	82	93.2	6	6.8
Total	623	95.0	33	5.0

Source: socioeconomic survey

There is no large or medium farm product market in the neighboring counties. See Table 4-3.

Table 4-3 Availability of Large/Medium Farm Product Markets in Neighboring Counties

City	County	Is there a large or medium farm product market in the neighboring county?							
		Neighboring county	Yes/no	Neighboring county	Yes/no	Neighboring county	Yes/no	Neighboring county	Yes/no
Jiujiang	Pengze	Wangjiang County	No	Hukou County	No	Dongzhi County	No	/	/
	JETDZ	Lushan District	No	Xingzi County	No	De’an County	No	Ruichang City	No
Shangrao	Yushan	Changshan County	No	Guangfeng County	No	Jiangshan City	No	Kaihua County	No
Yichun	Jing’an	Anyi County	No	Fengxin County	No	Yongxiu County	No	Wuning County	No
Ji’an	Taihe	Jinggang Mountain	No	Wan’an County	No	Ji’an County	No	Xingguo County	No
Pingxiang	Anyuan	Xiangdong District	No	Luxi County	No	/	No	/	/
Ganzhou	Huichang	Anyuan County	No	Xunwu County	No	Wuping County	No	Yudu County	No
	Longnan	Quannan County	No	Dingnan County	No	Lianping County	No	Heping County	No

Source: data provided by PMOs

4.2 Farmers’ Participation in Market Value Chain

Farmers’ participation in the market value chain is mostly limited to agricultural production, and rare in other aspects, such as circulation.

4.2.1 Circulation

1. **Current situation of farm product processing, storage and testing**

1) **Current situation of farm product processing**

A) **Processing equipment**: 90.7% of the respondents have no processing equipment. Existing processing equipment is mostly simple and small. Only developed FSCs and leading enterprises are capable of purchasing large processing equipment.

Table 4-4 Summary of Farm Product Processing Equipment

County	Is there any farm product processing equipment?			
	Yes	%	No	%
Anyuan	10	12.0	73	88.0
Huichang	14	15.6	76	84.4
JETDZ	4	8.0	46	92.0
Jing'an	5	6.5	72	93.5
Longnan	6	7.5	74	92.5
Pengze	7	7.4	87	92.6
Taihe	8	8.4	87	91.6
Yushan	7	8.0	81	92.0
Total	61	9.3	596	90.7

Source: socioeconomic survey

16.9% of the respondents would process farm products before marketing, in which only 2.7% do this often, while 83.1% never do this. It can be seen that local farmers rarely process farm products before marketing, and mostly sell primary farm products with low profit margins.

Table 4-5 Pre-sales Farm Product Processing

County	Pre-sales farm product processing (%)		
	Never	Occasional	Often
Anyuan	75.9	7.2	16.9
Huichang	54.4	45.6	0
JETDZ	94	6	0
Jing'an	85.7	11.7	2.6
Longnan	87.5	12.5	0
Pengze	84	13.8	2.1
Taihe	90.5	9.5	0
Yushan	97.7	2.3	0
Total	83.1	14.2	2.7

Source: socioeconomic survey

Among the respondents choosing "never", the main reason for this is the lack of processing equipment (76.7%).

Table 4-6 Reasons for Absence of Pre-sales Farm Product Processing

County	Reason for absence of pre-sales farm product processing (%)			
	No equipment	Unnecessary	Troublesome	No skill
Anyuan	47.6	52.4	0.0	0.0
Huichang	93.9	0.0	0.0	6.1
JETDZ	80.9	12.8	0.0	6.4
Jing'an	89.4	10.6	0.0	0.0
Longnan	89.7	0.0	0.0	10.3
Pengze	87.3	6.3	3.8	2.5
Taihe	91.9	2.3	0.0	5.8

Yushan	40.7	26.7	23.3	9.3
Total	76.7	14	4.2	5.1

Source: socioeconomic survey

➔ **Interview with the head of Shuixiba Village, Taojiang Xiang, Longnan County, Ganzhou City:**

The Shuixiba Aquaculture FSC has been established in our village to provide fishery services, and help farmers sell fish. Fish culture has risks and depends greatly on weather.

2) Current situation of storage and refrigeration facilities

94.4% of farmers have no nearby farm product storage and refrigeration facilities. It can be seen that the project area is short of such facilities. Local farmers usually store farm products in empty rooms, but can hardly preserve perishable products, such as fruit and vegetables.

Table 4-7 Summary of Farm Product Storage and Refrigeration Facilities

County	Availability of nearby storage and refrigeration facility (%)		
	Yes	No	Don't know
Anyuan	0.0	94.0	6.0
Huichang	0.0	88.9	11.1
JETDZ	0.0	90.0	10.0
Jing'an	0.0	90.9	9.1
Longnan	3.8	82.5	13.8
Pengze	0.0	94.7	5.3
Taihe	16.8	72.6	10.5
Yushan	1.1	95.5	3.4
Total	3.0	94.4	2.0

Source: socioeconomic survey

3) Current situation of farm product testing equipment

6.7% of farm products have been subjected to quality testing, and 93.3% not. In the project counties, farm products would be sampled for testing regularly, mostly at farm product markets and FSCs. However, due to the shortage of testing equipment and specialized technicians, farm product quality and safety testing is ineffective.

Table 4-8 Summary of Farm Product Quality Inspection

County	Farm product quality testing			
	Yes	%	No	%
Anyuan	12	14.5	71	85.5
Huichang	5	5.6	85	94.4
JETDZ	0	0.0	50	100.0
Jing'an	2	2.6	75	97.4
Longnan	2	2.5	78	97.5
Pengze	2	2.1	92	97.9
Taihe	5	5.3	90	94.7
Yushan	16	18.2	72	81.8
Total	44	6.7	613	93.3

Source: socioeconomic survey

2. Factors affecting farm product transport

1) Development of farm product logistics

62.7% of the respondents think that local logistics development is neither good nor bad, 21.9%

think it is good, and 15.7% think it is bad. In the project area, many rural roads are in poor condition, restricting logistics development greatly, and rural households are also short of means of transport.

Table 4-9 Local Logistics Development

County	Local logistics development (%)				
	Very bad	Bad	Neither, nor	Good	Very good
Anyuan	0	12.0	85.5	2.4	0.0
Huichang	0	40.0	60.0	0.0	0.0
JETDZ	0	10.0	80.0	10.0	0.0
Jing'an	0	10.4	83.1	6.5	0.0
Longnan	0	25.0	71.3	3.8	0.0
Pengze	0	4.3	13.8	81.9	0.0
Taihe	0	4.2	43.2	52.6	0.0
Yushan	0	15.9	81.8	2.3	0.0
Total	0	15.7	62.7	21.9	0

Source: socioeconomic survey

2) Farm product circulation costs

78.3% of the respondents think farm product circulation costs are high or too high, and 21.8% think such costs are normal. High circulation costs reduce farmers' actual income and also make it difficult for consumers to buy affordable farm products.

Table 4-10 Farmers' Perceptions of Current Farm Product Circulation Costs

County	Perceptions of farm product circulation costs (%)				
	Too high	High	Normal	Low	Too low
Anyuan	0.0	57.8	42.2	0	0
Huichang	16.7	82.2	1.1	0	0
JETDZ	24.0	44.0	32.0	0	0
Jing'an	24.7	46.8	28.6	0	0
Longnan	23.8	51.3	25.0	0	0
Pengze	0.0	95.7	4.3	0	0
Taihe	0.0	87.4	12.6	0	0
Yushan	10.2	52.3	37.5	0	0
Total	11.3	67.0	21.8	0	0

Source: socioeconomic survey

3) Transport impact on farm product prices

77.8% of the respondents think that the transport impact on farm product prices is very high, and 6.7%, 11% and 4.4% think it is high, neither high nor low, and low respectively. Generally, the respondents think that the transport impact on farm product prices is high, and that product marketing relies on marketing channels, roads and means of transport. However, due to the shortage of means of transport, most farmers do not transport products for sale, but rely heavily on brokers, FSCs or enterprises, so that they lack bargaining power and initiative.

Table 4-11 Transport Impact on Current Farm Product Prices

County	Transport impact on farm product prices (%)				
	Very high	High	Neither, nor	Low	No impact
Anyuan	7.2	79.5	13.3	0.0	0.0
Huichang	18.9	74.4	6.7	0.0	0.0
JETDZ	16.0	16.0	8.0	56.0	4.0
Jing'an	16.9	15.6	7.8	55.8	3.9
Longnan	7.5	91.3	1.3	0.0	0.0
Pengze	0.0	83.0	8.5	8.5	0.0

Taihe	0.0	77.9	13.7	8.4	0.0
Yushan	0.0	67.0	4.5	28.4	0.0
Total	6.7	77.8	11	4.4	0.2

Source: socioeconomic survey

➔ **Villager FGD in Xinda Village, Dujiang Town, Longnan County, Ganzhou City:**

Our FSC's products are sold to major markets and supermarkets in Guangdong mainly through unified purchase, simple sorting and processing, but with a small transport volume per time and high logistics costs.

Except transport costs, the factor that affects marketing most is product appearance, so cleaning, sorting and waxing is very important.

3. Product certification

Most local farm products have not been certified, only few products have been certified as "nuisance-free food" or "products of geographical indication", and no product have been certified as "organic food". Product certification is one of the indicators of farm product quality and safety, and there is still great room for local products in terms of certification. Most farmers think that products certified as green and organic food can be sold for higher prices, and are more likely to be accepted by middlemen and markets.

➔ **Mr. Cai, head of the Hongri FSC:**

We produce organic vegetables of over 10 varieties and sell them by mail. We have registered two trademarks, and our products have been certified. The certification process was complex and lasted 3 years. Existing markets are unsound in function, and many of them are laid idle, resulting in increased intermediate costs.

➔ **Interview with the secretary of Xinda Village, Dujiang Town, Longnan County, Ganzhou City:**

Farmers have now realized the power of terminal markets, and the benefits of FSCs, such as purchase of agricultural materials.

4. Farm product circulation channels

According to the Feasibility Study Report, about 70% of farm products are sold to middlemen, 10% to retailers, and 5% to bazaars (having to pay booth rental), and 15% self-sold on streets or near bazaars (not having to pay booth rental).

The main marketing channels of farm products are door-to-door purchase by trader (72.6%), FSC (39.1%), broker (20.5%), bazaar (19.2%), farm product market (13.7%), leading enterprises (1.8%), supermarket (5.2%), and peddling (3.5%). It can be seen that door-to-door purchase by trader is the principal farm product circulation pattern.

Table 4-12 Main Marketing Channels of Farm Products

County	Main marketing channel (%)								
	Bazaar	Farm product market	Door-to-door purchase by trader	Enterprise order	FSC	Supermarket	Peddling	Broker	Other
Anyuan	60.2	21.7	0.0	0.0	61.4	31.3	19.3	0.0	0.0
Huichang	25.3	33.3	72.0	0.0	40.0	2.7	14.7	0.0	0.0
JETDZ	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0

Jing'an	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0
Longnan	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0
Pengze	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0
Taihe	5.3	9.5	74.7	0.0	69.5	0.0	0.0	0.0	1.1
Yushan	35.2	28.4	69.3	0.0	29.5	2.3	8.0	2.3	2.3
Total	19.2	13.7	72.6	1.8	39.1	5.2	3.5	20.5	0.5

Source: socioeconomic survey

➔ **Interview with the secretary of Qiujia Village, Wencheng Town, Yushan County, Shangrao City:**

The main crops in this village are red bud taro (300 mu), early rice (10 mu), sugarcane (50 mu), corn and watermelon. Local or non-local rural brokers would purchase farm products from farmers at fixed times, sort them out roughly, and then load them for transport. Farmers accept this practice well, because it is easy to operate. Some farmers would transport farm products to the farm product market in the county town by tricycle for sale at higher prices.

Producers of different scales, financial strength and operating capacities would select different farm product circulation channels. Some producers sell products directly to end consumers, and some sell products to brokers or peddlers for resale to end consumers.

5. Market information sources

Price information of farm product markets is mostly from purchasers / middlemen / brokers / enterprises, neighbors, markets, and FSC pricing, accounting for 79.8%, 43.7%, 35.3% and 10.5% respectively. It can be seen that very few farmers would acquire information from the Internet.

Table 4-13 Main Sources of Farm Product Price Information

County	Main source of farm product price information (%)				
	Purchaser /middleman /broker /enterprise	Market	Neighbors	FSC pricing	Other
Anyuan	100.0	79.5	0.0	0.0	1.2
Huichang	41.1	56.7	35.6	17.8	4.4
JETDZ	100.0	0.0	100.0	0.0	0.0
Jing'an	100.0	0.0	100.0	0.0	0.0
Longnan	32.5	41.3	62.5	42.5	0.0
Pengze	94.7	33.0	19.1	0.0	0.0
Taihe	97.9	26.3	13.7	0.0	1.1
Yushan	78.4	29.5	53.4	21.6	0.0
Total	79.8	35.3	43.7	10.5	0.9

Source: socioeconomic survey

6. Factors affecting farm product circulation

1) Farm product circulation costs

Factors affecting farm product circulation costs mainly include traffic conditions, means of transport, logistics development, circulation, etc. Generally, farmers think that farm product circulation costs are high, and logistics development is not good, as detailed below.

Table 4-14 Farmers' Perceptions of Local Logistics Development

County	Local logistics development (%)				
	Very bad	Bad	Neither, nor	Good	Very good
Anyuan	0	12.0	85.5	2.4	0.0
Huichang	0	40.0	60.0	0.0	0.0
JETDZ	0	10.0	80.0	10.0	0.0

Jing'an	0	10.4	83.1	6.5	0.0
Longnan	0	25.0	71.3	3.8	0.0
Pengze	0	4.3	13.8	81.9	0.0
Taihe	0	4.2	43.2	52.6	0.0
Yushan	0	15.9	81.8	2.3	0.0
Total	0	15.4	62.7	21.9	0.0

Source: socioeconomic survey

78.3% of the respondents think that farm product circulation costs are high or too high, and 21.8% think such costs are normal. It can be seen that high circulation costs have affected the marketing of farm products to some extent, especially for perishable products, such as fruit and vegetables.

Table 4-15 Farmers' Perceptions of Farm Product Circulation Costs

County	Perceived farm product circulation costs (%)				
	Too high	High	Normal	Low	Too low
Anyuan	0.0	57.8	42.2	0	0
Huichang	16.7	82.2	1.1	0	0
JETDZ	24.0	44.0	32.0	0	0
Jing'an	24.7	46.8	28.6	0	0
Longnan	23.8	51.3	25.0	0	0
Pengze	0.0	95.7	4.3	0	0
Taihe	0.0	87.4	12.6	0	0
Yushan	10.2	52.3	37.5	0	0
Total	11.3	67	21.8	0	0

Source: socioeconomic survey

2) Factors affecting farm product circulation

The main factors affecting farm product circulation as perceived by the respondents are market information (66.1%), intermediate circulation links (44.1%), infrastructure (31.8%), and logistics (28.6%); other factors include storage and processing, brand awareness, product quality, and government guidance, accounting for 23.3%, 20.4%, 19.2% and 15.4% respectively.

Table 4-16 Farmers' Perceptions of Farm Product Circulation Factors

County	Factors affecting farm product circulation (%)							
	Infrastructure	Product quality	Logistics	Storage and processing	Brand awareness	Market information	Government guidance	Intermediate circulation links
Anyuan	47.0	0.0	71.1	0.0	63.9	32.5	0.0	4.8
Huichang	41.1	38.9	47.8	55.6	52.2	20.0	0.0	33.3
JETDZ	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0
Jing'an	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0
Longnan	28.8	0.0	28.8	65.0	22.5	72.5	26.3	22.5
Pengze	31.9	29.8	0.0	9.6	0.0	84.0	29.8	39.4
Taihe	29.5	51.6	4.2	7.4	2.1	72.6	28.4	29.5
Yushan	59.1	15.9	67.0	39.8	15.9	63.6	28.4	52.3
Total	31.8	19.2	28.6	23.3	20.4	66.1	15.4	44.1

Source: socioeconomic survey

In sum, farmers participate in the value chain on a low level, mainly due to the lack of skills, fund and information, high production costs, unsound FPCS facilities, poor traffic conditions, lack of farm product processing and storage facilities, lack of conditions for participation in value chain, and inability to assume market risks.

4.2.2 Marketing

1. **Marketing patterns**

52.4% of the respondents never transport products for marketing, 37.6% occasionally do this, and 10% often do this. It can be seen that most farmers would select purchase by brokers, which is time- and effort-saving.

Table 4-17 Summary of Farm Products Transport for Sale

County	Farm products transport for sale (%)		
	Never	Occasional	Often
Anyuan	8.4	72.3	19.3
Huichang	23.3	60.0	16.7
JETDZ	78.0	22.0	0.0
Jing'an	79.2	18.2	2.6
Longnan	55.0	30.0	15.0
Pengze	79.8	16.0	4.3
Taihe	61.1	25.3	13.7
Yushan	44.3	51.1	4.5
Total	52.4	37.6	10

Source: socioeconomic survey

➔ **Villager FGD in Xinda Village, Dujiang Town, Longnan County, Ganzhou City:**

Farm products are purchased by brokers door to door mainly, but irregularly, at prices of around 1.2 yuan/in (the guiding price fixed by the government is 1.35 yuan/jin).

Farm products are not transported for sale mainly because they can be sold without transport. Some respondents say that they lack necessary means of transport, and hiring vehicles for transport is too costly. Another reason is that farm products are purchased by brokers door to door, which is convenient and cost saving. In addition, some farmers sell products themselves due to poor traffic conditions, high transport costs and low purchase prices.

➔ **Interview with the head of Jiangzhai Village, Wencheng Town, Yushan County, Shangrao City:**

Except purchase by FSCs, red bud taro would also be purchased by local bosses from farmers. Red bud taro is of high market demand, and would be made into cans for export.

➔ **Interview with Ms Jiang in Jiangzhai Village, Wencheng Town, Yushan County, Shangrao City:**

Non-local purchasers would call two days in advance for purchase, usually with a truck load of about 10 tons.

➔ **Qiujia Village, Wencheng Town, Yushan County, Shangrao City**

Most farmers accept purchase by brokers, because this is easy to operate and does not lead to such issues as vegetable rotting. Some farmers sell farm products themselves for higher prices.

2. **Retail prices**

48.1% of the respondents think that farm product retail prices are normal, and 39.6% think such prices are low.

Table 4-18 Farmers' Perceptions of Farm Product Retail Prices

County	Perceptions of retail prices (%)				
	Too high	High	Normal	Low	Too low

Anyuan	0.0	20.5	69.9	9.6	0.0
Huichang	0.0	31.1	26.7	42.2	0.0
JETDZ	0.0	0.0	80.0	20.0	0.0
Jing'an	0.0	0.0	79.2	20.8	0.0
Longnan	11.3	8.8	31.3	48.8	0.0
Pengze	0.0	7.4	46.8	45.7	0.0
Taihe	0.0	2.1	41.1	56.8	0.0
Yushan	2.3	10.2	28.4	59.1	0.0
Total	1.7	10.7	48.1	39.6	0.0

Source: socioeconomic survey

3. Farm product marketability

In general, farm products are rarely unsalable, and most farmers would sell farm products through convenient channels. However, some farmers say that their products are unsalable due to market, price and traffic issues, and would rot in fields. Only 10.8% of the respondents say that their products were once unsalable.

Table 4-19 Farm Product Marketability

County	Farm product marketability (%)			
	Yes	%	No	%
Anyuan	10	12.0	73	88.0
Huichang	14	15.6	76	84.4
JETDZ	4	8.0	46	92.0
Jing'an	4	5.2	73	94.8
Longnan	13	16.3	67	83.8
Pengze	3	3.2	91	96.8
Taihe	7	7.4	88	92.6
Yushan	16	18.2	72	81.8
Total	71	10.8	586	89.2

Source: socioeconomic survey

➔ **Villager FGD in Celei Village, Wubei Xiang, Anyuan District, Pingxiang City:**

Almost all farm products in our villages are salable, but villagers also expect highly of market expansion.

➔ **Villager FGD in Zhoutou Village, Tangzhou Xiang, Taihe County, Ji'an City:**

In our village, even unsalable products would be consumed by farmers themselves, so no product would deteriorate.

The value of farm products should be realized through marketing. Once farm products become unsalable, farmers would suffer great losses. There are many reasons for this. First, farmers rely heavily on existing marketing channels and lack bargaining power, and farm products that can be preserved for later sale are limited to those unlikely to deteriorate, such as tealeaf and grain; second, local farmers mostly operate on a small scale, and can hardly guarantee output and quality, so they are often disadvantaged in face of middlemen and brokers; third, farm products are not processed and packaged properly, resulting in a low added value.

4. Farm product sales revenue

38.8% of the respondents think that their farm product sales revenue was good in last year, 47% think it is neither good nor bad, and 13.5% think it is bad. Some respondents think that sales revenue is not good because of low prices.

Table 4-20 Farm Product Sales Revenue in Last Year

County	Farm product sales revenue in 2013 (%)				
	Very good	Good	Neither, nor	Bad	Very bad
Anyuan	0.0	60.2	36.1	3.6	0.0
Huichang	0.0	20.0	66.7	11.1	2.2
JETDZ	0.0	14.0	72.0	14.0	0.0
Jing'an	0.0	5.2	75.3	16.9	2.6
Longnan	0.0	12.5	58.8	28.8	0.0
Pengze	0.0	69.1	19.1	11.7	0.0
Taihe	0.0	84.2	9.5	6.3	0.0
Yushan	0.0	23.9	58.0	18.2	0.0
Total	0.0	38.8	47	13.5	0.6

Source: socioeconomic survey

The means to increase sales revenue chosen by the respondents are developing marketing channels, and cooperating with enterprises or FSCs (76%); introducing techniques to improve product quality (69.8%); strengthening infrastructure construction to facilitate transport (56.9%); branding (55.3%), improving industrialization level (25.6%); and other (1.4%).

Table 4-21 Means to Increase Sales Revenue

County	Means to increase sales revenue (%)					
	Improving industrialization level	Branding	Developing marketing channels, and cooperating with enterprises or FSCs	Introducing techniques to improve product quality	Strengthening infrastructure construction to facilitate transport	Other
Anyuan	24.1	73.5	79.5	83.1	38.6	0.0
Huichang	12.3	92.6	67.9	54.3	24.7	4.9
JETDZ	16.0	10.0	86.0	86.0	86.0	0.0
Jing'an	9.1	6.5	90.9	93.5	93.5	0.0
Longnan	27.5	66.3	62.5	53.8	52.5	0.0
Yushan	69.8	65.1	73.0	50.8	60.3	3.2
Total	25.6	55.3	76.0	69.8	56.9	1.4

Source: socioeconomic survey

5. Farm product trading patterns

The existing trading patterns in farm product circulation in Jiangxi Province are spot trading, forward contract trading and futures trading, in which only spot trading is universally used. Spot trading means delivery and settlement on the spot, and is applicable to all farm products.

> ➔ **Villager FGD in Xiayang Village, Junmenling Town, Huichang County, Ganzhou City:**
> Navel orange is purchased by the FSC mainly on the spot at a wholesale price of 1.7 yuan/jin, but the market price is 3 yuan/jin.

4.3 Farm Product Circulation Patterns and Pros/Cons

4.3.1 Local Farm Product Circulation Patterns

A farm product circulation pattern means product and information movement from production to marketing through a certain combination to realize the commercial value of farm products. Since farm products are available in a great variety, and vary greatly in quality and property, there are various circulation channels. A farm product circulation pattern determines the behavior of the market players, and the depth, speed and breadth of circulation, and affects market and agriculture development directly or indirectly.

4.3.2 Current Situation and Pros/Cons of Different Circulation Patterns

There are roughly 6 farm product circulation patterns in the project area, namely: 1) "farmer + market"; 2) "farmer + rural broker + market"; 3) "farmer + wholesaler + market"; 4) "farmer + cooperative + market"; 5) "farmer + leading enterprise + market"; and 6) "farmer + cooperative + leading enterprise + market", in which the "farmer + rural broker + market" and "farmer + cooperative + market" patterns are dominant.

4.3.2.1 "Farmer + market" pattern

This pattern is a direct circulation pattern, where farm products are circulated from farmers to consumers directly. This is a typical pattern in traditional culture, in which farmers act as both producers and circulators. It can be divided into farmer self-sale, major household + market, and direct sale through sightseeing (leisure agriculture).

1. **Farmer self-sale**

Many local farmers set up booths on roads or occupy roads to sell farm products. Although both sides have little market information, they can close a deal at a price satisfactory to both. This sub-pattern is convenient, cost-effective and reliable, but it is unable to circulate farm products in large quantities.

This inefficient sub-pattern is just a rudimentary form of traditional farm product circulation, and does not meet the requirements of modern circulation based on the division of labor. For example, villagers in Shuixiba Village, Taojiang Xiang, Longnan County, Ganzhou City would set up booths on roads or occupy roads.

➔ **Interview with a villager in Qiujia Village, Wencheng Town, Yushan County, Shangrao City:**

Some farmers would choose self-sale on the market, but customers would pick the good and leave over the bad. This issue does not exist in case of purchase by local brokers.

➔ **Villager FGD in Changtan Village, Wubei Town, Anyuan District, Pingxiang City:**

The main issue in farm product circulation is pricing. When farmers transport farm products to the market, their prices would be forced down greatly, thereby harming their interests. In addition, when the market is in oversupply, farm products would become unsalable or even deteriorate.

2. **Major household + market**

In the "major household + market" sub-pattern, major households enter into the market for farm product circulation. Since major households have a certain bargaining power, financial strength and market insights, they can get out of control from brokers. However, their development is restricted by land circulation, financial and technical issues, etc. This sub-pattern is very rare in the project area. For example, a family with 8 members in Liantang Village, Renshou Town, Jing'an County, Yichun City contracts of 1,600 mu of paddy rice, and would process and sell it themselves, or sell it to middlemen or restaurants. However, the selling price is only 1.2 yuan/jin, while the market price is 1.25-1.26 yuan/jin, where the price difference is earned by middlemen.

3. **Direct sale through sightseeing (leisure agriculture)**

This sub-pattern promotes the local marketing of farm products through tourist sightseeing, and includes a number of forms, such as farmhouse trading, direct picking and marketing, and field marketing. Of course, the precondition is that sightseeing resources are available. This sub-pattern allows farmers to contact consumers directly for spot trading, but it is still running on a small scale.

4.3.2.2 "Farmer + rural broker + market" pattern

In the "farmer + brokers+ market" sub-pattern, farmers enter into the market through brokers.

This sub-pattern plays an important role in local farm product circulation.

Rural brokers are scattered and close to ordinary farmers, so they can reach remote rural areas that cannot be reached by other players, especially where cooperative economic organizations and leading enterprises are underdeveloped. Rural brokers have some market information, and would provide appropriate advice to farmers based on market demand, such as what to cultivate or breed, and how to improve the output and quality of farm products. However, rural brokers are highly speculative, as shown in that they would exclude remote areas in consideration of costs when product supply is abundant, sometimes they would force prices down for higher profits, and they purchase products at irregular times.

➔ **Qiujia Village, Wencheng Town, Yushan County, Shangrao City:**

Rural brokers have their own channels, and have now become middlemen between farmers and wholesalers. They purchase farm products from farmers, sort out them roughly, and package them for transport by non-local purchasers. Some local brokers would also hire vehicles for transport to purchasers. Most farmers accept purchase by brokers, because this is easy to operate and does not lead to such issues as vegetable rotting.

4.3.2.3 “Farmer + wholesaler + market” pattern

In this pattern, farmers enter into the market via wholesalers, which transfer farm products from the producing area in large quantities, and become the main carrier of farm product circulation. Since the wholesale market is open, farmers can enter into or withdraw from it at low costs, and their transactions with wholesalers are also one-time, where both sides are pursuing maximum profits.

In this pattern, both sides rely on each other on a low level, and entry and withdrawal costs are very low. Since the market is open, both sides affect market prices slightly. This pattern is relatively inefficient, and rarely chosen by local farmers. Due to the lack of means of transport and losses during transport, farmers prefer more convenient circulation patterns, such as broker, FSC and leading enterprise.

4.3.2.4 “Farmer + cooperative economic organization + market” pattern

In this pattern, farmers enter into the market via cooperative economic organizations, in which cooperative economic organizations established by farmers voluntarily become the tie between farmers and the market, but there is no formal contractual constraint between farmers and such organizations, so that farmers may take advantage of or “hitchhike” such organizations.

During farm product production and circulation, FSCs play a significant role in gathering and organizing scattered farmers and villages for market competition. This is a form of direct sale, and reduces circulation costs dramatically. In this pattern, FSCs are composed of farmers, and their profits are distributed among farmers, allowing farmers to spend more efforts on production, participate in competition and resist market risks more effectively.

➔ **Xianrun Fruit & Vegetable FSC in Xinda Village, Dujiang Town, Longnan County, Ganzhou City:**

The FSC cooperates with some enterprises in Guangdong, such as supermarkets.

➔ **Qingpingle Navel Orange FSC in Huichang County, Ganzhou City:**

Logistics system: 1) Our product is sold to Shandong and Anhui mainly, and is purchased by supermarkets and wholesalers through market booths; 2) We have also opened online stores; 3) When conditions permit, we want to export the product; 4) We have direct contacts with hotel; 5)

We accept orders from fruit companies in Fujian and Guangdong; 6) Non-local purchasers would come here to purchase our product.

1. e-commerce

Agricultural e-commerce is developing rapidly as a new pattern being tried out by some local farmers, FSCs and enterprises.

e-commerce has some advantages for farm product circulation: First, it will eliminate excessive intermediate links, shorten the circulation chain, reduce circulation costs, and enable producers to produce salable products by learning market needs quickly and accurately; second, it saves trading costs such as information search, booth, product display, price inquiry and bargaining costs; third, it helps improve the market pricing mechanism. Through e-commerce platforms, wholesale markets can be interconnected to form a nationwide market that accommodates numerous traders, reduces labor costs and human interferences, and ensures a high level of market transparency.

e-commerce changes traditional trading patterns by creating platforms for direct communication between producers and consumers, and reducing information asymmetry. It realizes remote trading and breaks through spatial obstacles. In this new circulation pattern, consumers may be united to form a buyer market to impose decisive influence on prices, and both sides can trade without temporal and spatial restrictions, thereby realizing transparent and much more efficient trading.

In the project area, this pattern is relatively rare, and only few FSCs do well in this respect, which sell farm products online and earn a lot. This pattern is more flexible than traditional ones, but is still at the exploration stage. These FSCs are still faced with some difficulties, such as too high courier freight rates and insufficient coverage for remote regions.

➔ **Interview with the head of Jiangzhai Village, Wencheng Town, Yushan County, Shangrao City:**

The Jiangqingping FSC in this village deals mainly with red bud taro, which is used to make extracted sugar. It purchases sugarcane from farmers, processes it into extracted sugar and packages it for sale. The investment in the processing equipment and the workshop is about 200,000 yuan. A brand has been registered for this product, and an online store established.

➔ **Qingpingle Navel Orange FSC in Huichang County, Ganzhou City:**

Our product is sold to Shandong, Henan, Anhui and Jiangsu Provinces mainly through direct outlets at non-local wholesale markets. We have begun to sell navel orange through online stores since November 2013, which has proven effective. From November 2013 to March 2014, we sold 100 tons. We also cooperate with the STO Express (a courier company) branch in Huichang County, with a freight rate of 12 yuan/10 kg (Jiangsu, Zhejiang and Shanghai) or 45 yuan/10 kg (other regions).

2. Farmer-supermarket direct circulation

In this pattern, supermarkets have direct contacts with farmers or FSCs. The former case is inefficient because farmers are scattered. In the later case, producers have a certain level bargaining power and risk resistance. This matter refers mainly to FSC-supermarket direct circulation, where farm products are supplied and purchased directly without any intermediate link, thereby reducing circulation costs.

This pattern has the following advantages: 1) minimizing the length of the supply chain, reducing circulation consumption and costs, and ensuring product quality through monitoring of the circulation process; 2) (from the perspective of farmers) minimizing market uncertainties that may affect cultivation, and avoiding blind production by farmers; and 3) (from the perspective of supermarkets) saving circulation costs, reducing product prices, improving product competitiveness, and benefiting consumers.

However, most ordinary members of a FSC are excluded from the decision-making level, and know little about its operating mechanism, decision-making system and profit distribution, so that many of them have doubt about the function of this pattern. This reflects that while farmers are further organized, there interests in production and circulation should be protected.

- **Villager FGD in Shuixiba Village, Taojiang Xiang, Longnan County, Ganzhou City:**

The FSC has an ecological vegetable base, which was established in 2013, and has direct contacts with 26 local supermarkets.

- **Guantian Fruit Cultivation FSC in Wentang Village, Guanchao Town, Taihe County:**

70% of products are sold to two supermarkets, and 30% are picked by tourists. No product is unsalable. Products harvested are either sold to the supermarkets or refrigerated at 0.03 yuan/jin per annum.

- **Interview with the head of Hongye Fruit FSC in Yushan County:**

The FSC sells fruit to tens of fruit stores in Yushan County, where fruit is packaged by farmers themselves or sold in the bulk form. The FSC also accepts orders from Shangrao City. The head is still considering cooperating with other cities.

4.3.2.5 “Farmer + leading enterprise + market” pattern

In this pattern, farmers enter into the market via leading enterprises, and produce farm products of designated varieties and quantities according to contracts, while leading enterprises purchase, process and add value to products ,and then resale them to downstream wholesalers and retailers. Such enterprises are usually farm product processing and marketing enterprises, and deal directly with farmers.

In this pattern, the relationship between farmers and leading enterprises is more stable than that between farmers and wholesalers. While farmers remain independent and autonomous, leading enterprises can give play to their advantages in processing and marketing, thereby alleviating the conflict between farmers and the market. In addition, one-time transactions between farmers and leading enterprises replace multiple transactions between farmers and wholesalers, thereby saving trading costs. In addition, processing by leading enterprises adds value to farm products and increases farmers’ income.

In this pastern, farmers and leading enterprises are bound by contracts, so that they can share market risks and farmers’ interests are protected. In addition, this pattern optimizes farm product circulation, and saves information search costs.

However, this pattern has some disadvantages. For example, the contractual relationship between farmers and leading enterprises is weak, and farmers rely heavily on enterprises, because individual farmers are disadvantaged as compared to leading enterprises, farm products are highly homogeneous, and leading enterprises are absolutely dominant due to their advantages in market information, product testing, etc. In addition, this relationship is unstable, because when market prices are higher than contractual prices, farmers tend to sell products to the market, thereby affecting purchase by leading enterprises; when market prices are lower than contractual prices, leading enterprises tend to purchase products from the market.

4.3.2.6 “Farmer + cooperative + leading enterprise + market” pattern

In this pattern, farmers connect to farm product circulation enterprises via FSCs, because leading enterprises have great advantages in scale, channels, etc. as compared to other subjects of circulation. In addition, it is inefficient for leading enterprises to deal directly with scattered farmers, so FSCs are just the core link in this pattern, combining leading enterprises with scattered farmers. This pattern simplifies the circulation chain, and more importantly, minimizes market risks for individual farmers.

This pattern is an improvement based on the “farmer + leading enterprise + market” pattern, where FSCs serve as the bridge between farmers and leading enterprises, organizing farmers for production and purchasing farm products in a unified manner.

FSCs perform the following functions: ①agreeing on output, and key quality and technical indicators with leading enterprises through orders, and assigning production tasks to individual farmers; ②providing production services; and ③inspecting and purchasing harvested farm products (together with leading enterprises), and distribute purchase prices to farmers. It can be seen that since FSCs serve as the intermediary between farmers and leading enterprises, the trading relationship is further stabilized.

This pattern has the following advantages: First, FSCs negotiate with leading enterprises on behalf of scattered farmers, saving their time and costs; second, FSCs have a stronger bargaining power than scattered farmers, and can acquire more interests for them; third, the trust among FSC members reduces default rate greatly.

However, since local FSCs are relatively small and weak, enterprises are still dominant in the project area. Therefore, FSC development should be further strengthened.

- **Villager FGD in Wulian Village, Furongdun Town, Pengze County, Jiujiang City:**

Villagers sell most farm products to the FSC because they trust it. In the past, a non-local purchaser did not appear when he had promised that it would purchase farm products at high prices. Ample water supply and sunshine are essential to cotton growth. The investment is less than 1,000 yuan/mu, and the output is 600 jin/mu (seed cotton). The cultivated area of cotton has been reduced in this year due to low prices (down to 4.1 yuan/jin in last year).

- **Interview with the head of Hongri Agricultural Development Co., Ltd. in Shangrao City / Hongri FSC:**

We produce flowers, vegetables, medicinal materials and drip irrigation equipment mainly. The company is responsible for marketing, and the FSC for production. We receive orders from Jiangsu, Zhejiang and Shanghai mainly. We produce organic vegetables of over 10 varieties and sell them by mail. We have registered two trademarks, and our products have been certified. The certification process was complex and lasted 3 years. Existing markets are unsound in function, and many of them are laid idle, resulting in increased intermediate costs.

- **Interview with the head of the Xinsheng Oil Tea FSC in Xiayang Village, Junmenling Town, Huichang County, Ganzhou City:**

The FSC cooperates with Ziyunshan Oil Tea Development Co., Ltd., which has built a tea oil production base in Huichang County, with a gross investment of 280 million yuan, a total building area of 20,000 m^2, an annual output of 20,000 tons of ecological tea oil, 100 tons of tea saponin and 120,000 tons of tea-seed cake, and an annual output value of 183.01 million yuan.

The FSC has created its own brand “Ziyunshan”, which is not widely known yet. The oil mill has not been set up due to fund shortage. The FSC is affiliated to Yuanfang Forestry & Aquaculture Co., Ltd., responsible for production, while the company is responsible for processing and marketing. It is still at the startup stage.

In sum, “farmer + market”, “farmer + supermarket”, e-commerce and direct sale through sightseeing are direct sale patterns, involving less circulation links, and realizing timely information communication. In the “farmer + cooperative economic organization (FSC or association) + market”, “farmer + leading enterprise + market”, “farmer + cooperative + leading enterprise + market” patterns, leading enterprises and FSCs circulate farm products in three ways: 1) direct sale: enter into supply and marketing contracts with customers and delivering products directly to consumers; 2) self-sale: delivering products directly to consumers through sales outlets in places of sale; and 3) agency: selling products through agents in places of sale.

4.4 Farmers’ Perceptions of and Needs for the FPCS

4.4.1 Farmers’ Perceptions of and Needs for Farm Product Circulation Infrastructure

95.6% of the respondents think it necessary or very necessary to construct storage and refrigeration facilities, indicating that local farmers have an urgent demand for storage and refrigeration facilities. In the project area, farm products have very short shelf lives due to unsound infrastructure, especially perishable vegetables, fruit and aquatic products.

➔ **Interview with a villager in Jiangzhai Village, Wencheng Town, Yushan County, Shangrao City:**

We expect that a warehouse or refrigerated warehouse be constructed. When wholesalers force down prices when purchasing farm products, some perishable products have to be sold at low prices. With a refrigerated warehouse, products can be stored until prices are acceptable.

➔ **Interview with a villager in Xiayang Village, Junmenling Town, Huichang County, Ganzhou City:**

In a past snowstorm, all navel orange was killed by cold, and farmers suffered great losses. They need a warehouse to store navel orange. When navel orange is harvested, wholesalers would force prices down to 1.6 yuan/jin, while market prices are up to 3 yuan/jin. Farmers can sell navel orange when market prices are high, thereby earning more money.

1. Farmers’ willingness to sell farm products after processing

81.3% of the respondents are willing to sell farm products after processing, 10.0% are not clear, and 8.7% are unwilling. Through sorting and processing, farm products can be classified and sold at different prices. For example, cleaning and waxing navel orange can increase its added value.

Table 4-22 Willingness to Sell Farm Products after Processing

County	Willingness to sell farm products after processing (%)		
	Yes	No	Not clear
Anyuan	81.9	1.2	16.9
Huichang	91.1	2.2	6.7
JETDZ	86.0	6.0	8.0
Jing’an	88.3	7.8	3.9
Longnan	91.3	0.0	8.8
Pengze	68.1	23.4	8.5
Taihe	66.3	24.2	9.5
Yushan	83.0	0.0	17.0
Total	81.3	8.7	10.0

Source: socioeconomic survey

2. Necessity of improved transport conditions

88.9% of the respondents think it necessary or very necessary to improve transport conditions, 10.7% think it is neither necessary nor unnecessary, and only 0.5% think it unnecessary. It can be seen that most farmers have the need for improved transport conditions. For example, the head of Shuixiba Village, Taojiang Xiang, Longnan County, Ganzhou City expects the logistics center to rent vehicles for transport by households dealing with fish culture to reduce transport costs and sell products at higher prices.

Table 4-23 Necessity of Improved Transport Conditions

County	Necessity of improved transport conditions (%)			
	Very necessary	Necessary	Neither, nor	Unnecessary
Anyuan	9.6	51.8	38.6	0.0
Huichang	0.0	70.0	30.0	0.0
JETDZ	12.0	70.0	16.0	2.0
Jing'an	11.7	71.4	15.6	1.3
Longnan	30.0	42.5	17.5	10.0
Pengze	0.0	97.9	2.1	0.0
Taihe	0.0	97.9	2.1	0.0
Yushan	4.5	40.9	42.0	12.5
Total	7.2	81.7	10.7	0.5

Source: socioeconomic survey

➔ **Interview with the head of Shuixiba Village, Taojiang Xiang, Longnan County, Ganzhou City:**

I think a refrigerated warehouse should be built at the market (for vegetable and fruit growers), and expect the logistics center to rent vehicles for transport by households dealing with fish culture. I also think that fish should be further processed to make more money.

➔ **Interview with the head of Qiujia Village, Wencheng Town, Yushan County, Shangrao City:**

Villagers would carry products to the farm product market in the county town by tricycle or sell products by the road. I expect villagers to cultivate crops on a large scale.

➔ **Interview with the head of the Taibai Lake Cotton FSC in Pengze County:**

The current difficulty is that the state's policy support for cotton is inadequate. The FSC applied for "National Exemplary FSC" successfully last year, and received a subsidy of 40,000 yuan. We expect that supporting facilities such as drying yards and vehicles, and financial and policy support be available.

3. Necessity of storage and refrigeration facilities

98.0% of the respondents think it necessary or very necessary to construct storage and refrigeration facilities, and 2.0% think it neither necessary nor unnecessary. It can be seen that local farmers have an urgent demand for storage and refrigeration facilities. For example, villagers in Jiangzhai Village, Wencheng Town, Yushan County, Shangrao City think that warehouses or refrigerated warehouses should be constructed by markets or FSCs, so that products can be sold when market prices are high.

Table 4-24 Farmers' Perceptions of Storage and Refrigeration Facilities

County	Necessity of storage and refrigeration facilities (%)			
	Very necessary	Necessary	Neither, nor	Unnecessary
Anyuan	6.0	89.2	4.8	0
Huichang	38.9	61.1	0.0	0

JETDZ	14.0	80.0	6.0	0
Jing'an	11.7	85.7	2.6	0
Longnan	29.9	70.1	0.0	0
Pengze	9.6	89.4	1.1	0
Taihe	10.1	86.1	3.8	0
Yushan	20.7	79.3	0.0	0
Total	17.9	80.1	2.0	0

Source: socioeconomic survey

92.2% of the respondents are willing to use low-price or free farm product storage facilities, and only7.8% are unwilling.

Table 4-25 Farmers' Willingness to Use Low-price or Free Farm Product Storage Facilities

County	Willing to use low-price or free farm product storage facilities (%)			
	Yes	%	No	%
Anyuan	75	90.4	8	9.6
Huichang	84	93.3	6	6.7
JETDZ	46	92.0	4	8.0
Jing'an	71	92.2	6	7.8
Longnan	72	90.0	8	10.0
Pengze	88	93.6	6	6.4
Taihe	76	96.2	3	3.8
Yushan	79	89.8	9	10.2
Total	591	92.2	50	7.8

Source: socioeconomic survey

➔ **Villager FGD in Qiujia Village, Wencheng Town, Yushan County, Shangrao City:**

Taro has a long shelf life of up to 5 months, and corn also has a long shelf life. Villagers are very blind and realistic, and would cultivate whatever is profitable. This is just like gambling. Taro prices fluctuate greatly from 0.5-0.7 yuan/jin to even 2-3 yuan/jin. We are eager for a refrigerated warehouse to store fresh vegetables. If the output is high, we can store them for later sale, and have the initiative when bargaining with wholesalers and purchasers. However, we are passive now in face of purchasers.

4. Necessity of farm product quality and safety testing centers

41.4% of the respondents think it necessary or very necessary to construct farm product quality and safety test centers, 46.0% think it neither necessary nor unnecessary, and 12.6% think it unnecessary. Farmers know little about quality and safety testing, and do not have awareness about it yet.

Table 4-26 Farmers' Attitudes to Farm Product Quality and Safety Test Centers

County	Necessity of farm product quality and safety test centers (%)			
	Very necessary	Necessary	Neither, nor	Unnecessary
Anyuan	0.0	49.3	50.7	0.0
Huichang	0.0	75.3	24.7	0.0
JETDZ	0.0	42.0	56.0	2.0
Jing'an	0.0	34.7	65.3	0.0
Longnan	11.5	48.7	39.7	0.0
Pengze	0.0	0.0	45.7	54.3
Taihe	0.0	11.1	60.0	28.9
Yushan	8.3	62.5	29.2	0.0
Total	2.4	39.0	46.0	12.6

Source: socioeconomic survey

➔ **Interview with the Director-general of the Huichang County Agriculture Bureau, Ganzhou City:**

Some farmers do not know how to spray pesticides at all. For example, an old woman sold vegetables on which a pesticide had just been sprayed, and someone died after eating. Therefore, publicity on farm product safety testing is very necessary.

➔ **Interview with the women's head of Jiangzhai Village, Wencheng Town, Yushan County, Shangrao City:**

Many villagers abuse pesticides, such as carbofuran, which is highly toxic, and would sell vegetables with pesticides on the market. This is very dangerous.

➔ **Interview with the head of Xinda Village, Dujiang Town, Longnan County, Ganzhou City:**

Farmers choose pesticides and fertilizers based on effect and price only, and don't care if they are prohibited or highly toxic. Some farmers rarely spray pesticides on vegetables for own consumption, while abuse pesticides on vegetables for sale. This at least demonstrates that farmers are clear about how pesticides should be used. They just lack public morality and safety awareness, which should be improved through publicity.

➔ **Interview with the head of Qiujia Village, Wencheng Town, Yushan County, Shangrao City:**

The county agriculture station would assign staff for testing, but pesticide testing is not regular. Testing is absolutely necessary for people's food safety.

55.4% of the respondents are willing to receive low-price or free farm product quality and safety test services, and 44.6% are unwilling and think that safety testing is unnecessary. Some special local farm products do not need safety testing, such as cotton in Pengze County.

Table 4-27 Farmers' Willingness to Receive Low-price or Free Quality and Safety Test Services

County	**Willingness to receive low-price or free farm product quality and safety test services (%)**			
	Yes	**%**	**No**	**%**
Anyuan	52	73.2	19	26.8
Huichang	78	86. 7	12	13.3
JETDZ	22	44.0	28	56.0
Jing'an	44	57.1	33	42.9
Longnan	61	76.3	19	23.8
Pengze	3	3.2	91	96.8
Taihe	25	26.3	70	73.7
Yushan	58	93.6	4	6.5
Total	343	55.4	276	44.6

Source: socioeconomic survey

➔ **Mr. Cai, General Manager of the Hongri FSC:**

The market is too disorderly and needs testing to operate normatively. As for food safety, I suggest that soil be improved through repeated limewater soaking to reduce pesticide residues. Although this is troublesome and time-consuming, this can ensure vegetable quality very well. Farm products on the market are produced at high pesticide and fertilizer consumption. For example, some greenhouse vegetables are cultivated through repeated fertilization, and lose original flavor though they look good.

4.4.2 Farmers' Satisfaction with the FPCS

1. Satisfaction with purchase prices

The fluctuation of farm product prices is affected by a variety of factors, and results in the fluctuation of farmers' income. When prices are lower than expectations, farmers' enthusiasm for production will be frustrated. 13.4% of the respondents are satisfied or very satisfied with purchase prices of farm products, 49.2% are dissatisfied or very dissatisfied, and 47.5% are neither satisfied nor dissatisfied. It can be seen that most farmers are not quite satisfied with purchase prices and think that prices are lower than expectations.

Table 4-28 Farmers' Satisfaction with Purchase Prices of Farm Products

County	Satisfaction with purchase prices (%)				
	Very satisfied	Satisfied	Neither, nor	Dissatisfied	Very dissatisfied
Anyuan	1.2	10.8	30.1	54.2	3.6
Huichang	0.0	0.0	27.8	72.2	0.0
JETDZ	4.0	2.0	68.0	20.0	6.0
Jing'an	0.0	2.6	61.0	28.6	7.8
Longnan	0.0	3.8	35.0	50.0	11.3
Pengze	0.0	0.0	57.4	42.6	0.0
Taihe	0.0	1.1	53.7	37.9	7.4
Yushan	0.0	3.4	54.5	37.5	4.5
Total	0.5	2.9	47.5	44.3	4.9

Source: socioeconomic survey

➔ **Mr. Deng in Bailu Village, Renshou Town, Jing'an County, Yichun City:**

I have 15 mu of farmland (600 orange trees), with annual income of about 30,000 yuan. The harvest time is November, and the purchase price is 1.1 yuan/jin. Middlemen purchase orange at a uniform price regardless of quality, so no one is willing to improve product quality. The biggest problem is the relatively low purchase price.

➔ **Villager FGD in Changtan Village, Wubei Town, Anyuan District, Pingxiang City:**

The main problem in farm product circulation is pricing. When farmers transport products to the market for sale, prices are suppressed greatly. In addition, in case of oversupply on the market, vegetables would be overstocked and deteriorate.

2. Satisfaction with purchase modes

48.0% of the respondents are satisfied or very satisfied with purchase modes, 33.2% are neither satisfied nor dissatisfied, and 18.9% are dissatisfied or very dissatisfied. According to interviews, local farmers are generally satisfied with purchase modes, but dissatisfied with purchase prices. For example, farmers in Guanchao Village, Guanchao Town, Taihe County sell paddy rice to the food control office at 1.27 yuan/jin (still higher than purchase prices offered by middlemen), while the price fixed by the state is 1.35 yuan/jin, because the food control office allege that product quality is bad.

Table 4-29 Farmers' Satisfaction with Purchase Modes of Farm Products

County	Satisfaction with purchase modes (%)				
	Very satisfied	Satisfied	Neither, nor	Dissatisfied	Very dissatisfied
Anyuan	0.0	0.0	78.3	21.7	0.0
Huichang	4.4	5.6	66.7	23.3	0.0
JETDZ	0.0	80.0	20.0	0.0	0.0
Jing'an	1.3	89.6	9.1	0.0	0.0
Longnan	10.0	3.8	41.3	23.8	21.3

Pengze	0.0	79.8	12.8	7.4	0.0
Taihe	0.0	52.6	12.6	29.5	5.3
Yushan	0.0	68.2	21.6	9.1	1.1
Total	2.0	46.0	33.2	15.4	3.5

Source: socioeconomic survey

3. Satisfaction with farm product circulation patterns

29.5% of the respondents are satisfied with farm product circulation patterns, 40.5% are neither satisfied nor dissatisfied, and 21.1% are dissatisfied. It can be seen that most local farmers are neutral about circulation patterns, and think that marketing through brokers and FSCs are a good choice for the moment.

Table 4-30 Farmers' Satisfaction with Existing Farm Product Circulation Patterns

County	Satisfaction with existing farm product circulation patterns (%)				
	Very satisfied	Satisfied	Neither, nor	Dissatisfied	Very dissatisfied
Anyuan	0.0	0.0	100.0	0.0	0.0
Huichang	0.0	44.1	0.0	55.9	0.0
JETDZ	0.0	20.0	20.0	32.0	28.0
Jing'an	0.0	19.5	20.8	32.5	27.3
Longnan	12.1	27.3	10.6	50.0	0.0
Pengze	2.1	47.9	45.7	3.2	1.1
Taihe	2.1	63.2	30.5	2.1	2.1
Yushan	2.3	11.4	56.8	29.5	0.0
Total	2.4	29.5	40.5	21.1	6.5

Source: socioeconomic survey

4.4.3 Farmers' Perceptions of and Needs for Farm Product Markets

1. Perceptions of farm product markets

95.6% of the respondents agree or strongly agree with the construction of farm product markets, 3.8% don't care, and only 0.6% disagree.

Table 4-31 Farmers' Attitudes to Farm Product Markets

County	Attitude to farm product markets (%)				
	Strongly agree	Agree	Don't care	Disagree	Strongly disagree
Anyuan	7.2	83.1	9.6	0.0	0.0
Huichang	33.3	60.0	4.4	2.2	0.0
JETDZ	6.0	84.0	6.0	4.0	0.0
Jing'an	10.4	83.1	6.5	0.0	0.0
Longnan	46.3	52.5	1.3	0.0	0.0
Pengze	7.4	90.4	2.1	0.0	0.0
Taihe	10.5	87.4	2.1	0.0	0.0
Yushan	39.8	60.2	0.0	0.0	0.0
Total	20.7	74.9	3.8	0.6	0.0

Source: socioeconomic survey

2. Needs for farm product markets

The functions expected of farm product markets are offering farm product demand and price information (68.9%), offering free or cheap booths (43.4%), offering storage and safety facilities (46.7%), regulating trading behavior (22.4%), distributing farm products (16.9%), and offering quality test services (7.0%) in turn. It can be seen that local farmers' most urgent need is demand and price information, followed by free or cheap booths, and necessary storage and safety facilities, as proven by interviews.

Table 4-32 Farmers' Expectations for Farm Product Markets

County	Expected role of farm product markets (%)					
	Offering free or cheap booths	Offering farm product demand and price information	Distributing farm products	Regulating trading behavior	Offering storage and safety facilities	Offering quality test services
Anyuan	100.0	51.8	4.8	54.2	53.0	1.2
Huichang	38.9	71.1	6.7	30.0	51.1	30.0
JETDZ	0.0	54.0	16.0	8.0	56.0	8.0
Jing'an	57.5	55.8	7.8	6.5	50.6	5.2
Longnan	30.9	57.5	15.0	22.5	40.0	3.8
Pengze	27.4	90.4	36.2	11.7	4.3	0.0
Taihe	75.0	97.9	27.4	8.4	34.7	0.0
Yushan	43.4	63.6	40.9	45.5	96.6	17.0
Total	100.0	73.1	14.7	24.3	45.3	6.3

Source: socioeconomic survey

➔ **Villager FGD in Wulian Village, Furongdun Town, Pengze County, Jiujiang City:**

The Project is good to farmers, because it imposes strict management requirements to prevent cotton deterioration. We will build a large warehouse to store the product for future sale.

➔ **Interview with the head of Qingpingle Navel Orange FSC in Huichang County, Ganzhou City:**

The trading center can attract navel orange growers and non-local wholesalers, so that we don't have to promote our product to other places and can have the initiative. We have also established an information service platform, and a full range of supporting facilities.

➔ **Interview with a villager in Xinda Village, Dujiang Town, Longnan County, Ganzhou City:**

I support the construction of a farm product market in the village. With such a market, I can sell vegetables more conveniently and at higher prices to earn more money.

➔ **Changtan Village, Wubei Town, Anyuan District, Pingxiang City**

A farm product market will be an effective marketing channel, and ensure that prices of our products are not forced down.

➔ **Villager FGD in Xinda Village, Dujiang Town, Longnan County, Ganzhou City:**

With a market, purchasers can purchase products directly and we don't have to transport products over long distances. It will also promote local employment and increase local tax revenue.

4.5 Existing Issues of the FPCS and Suggestions

4.5.1 Existing Issues

Farm product circulation has become a leading industry that drives the development of the whole national economy, but it still has some issues, such as backward infrastructure, unsmooth information flow, high consumption, and low efficiency.

The main issues in farm product markets are high circulation costs, many intermediate links, low added value, small circulation radius, serious circulation losses, and unsecured quality and safety, as chosen by 40.0%, 39.3%, 31.7%, 25.6%, 20.4%, 10.2% and 7.9% of the respondents respectively.

Table 4-33 Farmers' Perceptions of Issues in Farm Product Markets

County	Issues in farm product markets (%)						
	High circulation costs	Serious circulation losses	Small circulation radius	Low added value	Unsecured quality and safety	Many intermediate links	Other

Anyuan	71.1	8.4	49.4	0.0	0.0	0.0	0.0
Huichang	35.6	51.1	64.4	16.7	26.7	14.4	21.1
JETDZ	12.0	12.0	12.0	100.0	32.0	32.0	32.0
Jing'an	0.0	0.0	0.0	100.0	22.1	22.1	22.1
Longnan	16.3	17.5	56.3	15.0	3.8	47.5	0.0
Pengze	50.0	19.1	0.0	0.0	0.0	64.9	0.0
Taihe	63.2	10.5	5.3	20.0	0.0	74.7	0.0
Yushan	52.3	37.5	14.8	39.8	8.0	47.7	0.0
Total	40.0	20.4	25.6	31.7	10.2	39.3	7.9

Source: socioeconomic survey

The local FPCS is still unsound, and its main issues are:

1. Low added value of farm products and low level of participation in the value chain

Local farmers have a strong desire to participate in the value chain, but their current participation is mostly limited to production, and is low in processing, marketing, testing and circulation. Since existing markets are small and unsound in function, farmers would rather sell products by the road than in market booths. Most local markets lack storage and preservation facilities, do not offer market information and quality testing services, and cannot add value to farm products.

Farm product circulation is the whole process from the production of farm products to consumption through harvesting, processing, transport, storage, distribution, retail, etc. Farmers make little money from harvesting, and most of the output value is realized through processing, transport, storage, preservation, etc. In most marketing channels, farm products are sold in the raw state, except that retail stores make primary processing, and supermarkets clean, cut and package some products. In particular, farmers rarely process their products to increase added value when selling them. This is attributed not only to farmers' backward sales awareness, but also to backward storage and logistics facilities, so that middlemen prefer purchasing raw farm products from farmers.

➔ **Villager FGD in Xiayang Village, Junmenling Town, Huichang County, Ganzhou City:**

We have no machinery for packaging and processing navel orange, and just sell it in the bulk state. It is also sold by wholesalers in this state without further processing.

➔ **Villager FGD in Xinda Village, Dujiang Town, Longnan County, Ganzhou City:**

Except human factors and transport costs, the factor that affects marketing most is product appearance, so cleaning, sorting and waxing is very important.

2. Long circulation chain and too high trading costs

Since agricultural production is scattered, perishable products would suffer great losses during harvesting, processing, transport, storage, handling and distribution, and every link in the circulation chain would incur additional costs, such as market management fees, booth rental, wages, transport and packaging costs, resulting in high trading costs, which will eventually translate into high selling prices for end consumers. In addition, middlemen that exist in different links take certain market risks, so they will certainly pursue profits through price markup.

4.5.2 Suggestions

1. Improving farmers' skills through skills training

Local farmers' production skills are inadequate, and relevant training has little effect due to limited coverage, irrational contents and inappropriate modes. In addition, cultivation management and preservation level are low, and there are still disparities from the requirements of large-scale, standardized, commercialized, branded, industrialized modern agriculture, so that local farm products are of low output, poor quality, low grade and weak market competitiveness. Although some large-scale enterprises have been introduced, promoting local industry development, household cultivation is still dominant in the project area. The following suggestions are proposed: ①Strengthen relevant skills training to improve farmers' production skills, management level and market awareness; and ②Encourage farmers to join FSCs through publicity.

2. Strengthening the construction of farm product circulation infrastructure, improving post-production services, and increasing the added value of farm products

Currently, the project area is short of tractor roads and irrigation facilities, affecting agricultural production to some extent. Existing farm product storage, processing and transport facilities can no longer meet the demand for farm product circulation development, and most existing markets have no storage or refrigerated storage capacity.

Most local farmers sell farm products in the raw state without further processing, resulting in a low added value. Strengthening farm product processing will improve product marketability greatly, realize agricultural industrialization, promote local economic development, and increase farmers' income.

The following suggestions are proposed: ①Strengthen production infrastructure construction, mainly including tractor roads, drainage and irrigation facilities, drying yards, etc.; and ②Strengthen the construction of farm product sorting, processing, distribution, transport, storage, packaging and testing facilities.

➔ **Interview with a villager in Celei Village, Wubei Xiang, Anyuan District, Pingxiang City:**

Our village's main issue in farm product circulation is how to improve product diversity and build our own brand for improved marketability and competitiveness.

➔ **Interview with the head of the Hongri Agriculture & Forestry FSC:**

The FSC aims to increase farmers' income, and takes measures in material purchase and product marketing to reduce production costs, and increase farm product prices and added value through further processing.

3. Giving full play to FSCs to further organize farmers

Although there is a number of cooperative economic organizations in the project area, most of them do not operate very well in the production process due to financial and staff competency issues. In order to give full play to FSCs, farmers should be absorbed into FSCs, and receive assistance in material purchase, and product sorting, packaging, storage and marketing during production, circulation and marketing. FSCs must be unprofitable in order to protect farmers' interests and increase their income. Through packaging and storage by FSCs, farm product losses during circulation are reduced greatly, their quality ensured, and their added value increased.

5 FSC Analysis

5.1 Current Situation of Local FSCs

5.1.1 Main Types and Staffing

The task force visited 15 FSCs, including 14 cultivation FSCs and an aquaculture FSC, including two grain cultivation FSCs, 4 vegetable cultivation FSCs, one oil tea cultivation FSC, two navel orange cultivation FSC, 3 fruit cultivation FSCs, two cotton cultivation FSCs, and one aquaculture FSC. All the 15 sample FSCs have been largely established in accordance with the Law on Farmers' Specialized Cooperatives of the People's Republic of China. A FSC usually has 2-13 managers, mostly 5-10 managers.

Based on founder and manager composition, FSCs can be divided by those driven by village officials, by capable persons, and by village officials + capable persons. Among the 15 sample FSCs, 8 FSCs are driven by capable persons, accounting for 53.3%; 4 driven by village officials, accounting for 26.7%; and 3 by village officials + capable persons, accounting for 20.0%.

5.1.2 Profit Distribution Mechanism

1. FSC profit distribution mechanism

Among the 15 sample FSCs, 33.3% have established a profit distribution mechanism, but in only 4 FSCs, farmers participate actually in profit distribution, accounting for 26.6%. FSC members can receive free or preferential production materials, technical guidance, processing, marketing and other services, and a small proportion of members participate actually in profit distribution by means of rebate based on trading volume and dividend distribution based on shares.

2. Farmers' participation in FSCs and profit distribution

Local farmers join FSCs in the following modes mainly: ①receiving agricultural materials for free or purchasing at low prices, such as seeds and fertilizers; ②leasing land to the FSC to receive rental; ③becoming a FSC shareholder with land or other production materials to receive dividends; ④being employed at a FSC production base to receive income; ⑤attending FSC technical guidance and training for free; ⑥selling products through the FSC; and ⑦receiving rebates, as detailed below:

1) Getting agricultural materials for free or purchasing at low prices: Local FSCs can generally provide agricultural materials for free or at low prices in the following ways: ①The FSC purchases agricultural materials (pesticides, fertilizers, films, seeds, etc.) in a unified manner, and sells them to members at low prices; ②The FSC distributes production materials to farmers for free under certain programs or funds; ③The FSC offers production materials to farmers without payment before production, and settle relevant sums after harvesting. This mode is very popular because it ensures the quality of agricultural materials and reduces production costs of members.

2) Leasing land to the FSC to receive rental: This is a common practice in rural areas, where farmers lease land to a FSC or enterprise for use as a production base. Land rental is closely associated with land fertility, flatness and concentration, and flat, fertile, convenient and contiguous land can be leased at higher rates.

➔ **Interview with the head of Shuanghekou Vegetable FSC in Changtan Village, Wubei Town, Anyuan District, Pingxiang City:**

Our FSC has entered into a 5-year land lease contract with farmers at a rental rate of 1,000 yuan/mu per annum (equivalent to the value of 800 jin of paddy rice), so that they can receive a rental of 5,000 yuan/mu. This is also a form of equity participation.

3) Becoming a FSC shareholder with land or other production materials to receive dividends: Farmers can become FSC shareholders in many ways, including equity participation with funds, labor and land, where poor farmers mostly chose equity participation with land due to the shortage of funds and labor.

4) Being employed at a FSC production base to receive income: This mode is common in cultivation FSCs, such as tealeaf, vegetables and grain. The FSC makes jobs first available to its members, especially poor farmers. Since cultivation is highly seasonal, farmers' employment income varies from season to season. Such jobs are less attractive to local young male laborers, but more attractive to local women and old people, because women and old people can work here in leisure time while taking care of families and farmland. Poor households that have limited labor force usually do not choose this mode.

5) Attending FSC technical guidance and training for free: Most FSCs provide technical guidance and training to farmers for free. Local farmers have a strong demand for skills training. Although local agriculture bureaus, labor and social security bureaus, poverty reduction offices, women's federations and other agencies concerned would offer training every year, most trainees are FSC managers, and farmers can rarely attend such training. In fact, FSC training for farmers is mostly limited to irregular field guidance and consulting.

➔ **Villager FGD in Guanchao Village, Guanchao Town, Taihe County:**

Two of us have joined the Guantian Fruit Cultivation FSC, which employs a technician at 30,000 yuan to offer grape cultivation skills training to us every quarter.

6) Selling products through the FSC: Most FSCs help members sell products in a unified manner, because they have their own information sources and marketing channels. Through the sharing production and marketing information, FSC members can improve production efficiency. More importantly, most FSCs can purchase products higher than market prices, and farmers can elect to sell their products to FSCs, enterprises or brokers. In addition, some FSCs cooperate with enterprises to develop made-to-order agriculture, where enterprises usually purchase products from FSC members at protective prices. Farmers who are not FSC members can also sell products through the FSC, but the FSC would collect some fees.

7) Receiving rebates: 5 FSCs offer rebates to members, accounting for 33.3% of all FSCs. These FSCs are mostly composed of major households dealing with cultivation or aquaculture, and if they offer rebates or not depends on how well they operate.

➔ **Interview with the head of Shuanghekou Vegetable FSC in Changtan Village, Wubei Town, Anyuan District, Pingxiang City:**

Our FSC began to cooperate with Yifengyuan Green Industry Co., Ltd. in Pingxiang City in 2013, where the company invested 4.6 million yuan in the 320 mu core zone of the vegetable base for capital construction. Our FSC's sales were over 3 million yuan, and wages and expenses over 2 million yuan in 2013. Only local villagers with land can become members, and their income consists of labor remuneration, land transfer fee and dividend on land shares. The dividend was over 1,000 yuan/mu in 2013.

5.2 FSC Patterns and Pros/Cons

The 15 sample FSCs operate in the "enterprise + cooperative + base + farmer", and "cooperative + base + farmer" patterns mainly.

5.2.1 Enterprise + Cooperative + Farmer + Base

8 FSCs operate in the “enterprise + cooperative + base + farmer” pattern, accounting for 53.3%.

1. **Operation and features**

Through matchmaking by the FSC, the enterprise, base and farmers can link up and share interests, thereby solving difficulties in farm product production and marketing for farmers. In this pattern, the FSC is established by or derived from the enterprise. This integrated pattern ensures product quality and safety in the whole process from production to marketing, and connects the enterprise with farmers closely into an inseparable community. However, the enterprise is usually advantaged, and dominates pricing and profit distribution, while farmers are relatively disadvantaged.

A) Enterprise: The enterprise is responsible mainly for the supply of production materials, such as seeds, and product processing and marketing. The enterprise can utilize state supporting policies for FSCs in terms of finance, credit, taxation, land use, etc. to reduce operating costs. In some sense, the FSC is affiliated to the enterprise.

B) FSC: The FSC is responsible for linkup between the enterprise and farmers, and enters into production orders with the enterprise, and production contracts with farmers. It offers technical guidance on cultivation and aquaculture, purchases or roughly processes products, and delivers purchased or roughly processed products to the enterprise for further processing or market. FSCs operating in this pattern usually have their own trademarks, such as “Ziyunshan” for the Xinsheng Oil Tea FSC in Huichang County, and “Guantian” for the Taihe County Guantian Fruit Cultivation FSC.

C) Production base: Such bases are usually established and run by FSCs, and have many functions, such as supply seeds to farmers, employing FSC members and offering training venues.

D) Farmer: They are responsible for cultivation and aquaculture mainly. They can sell products to the FSC or themselves. Since the enterprise usually offers protective prices in purchase orders, farmers would usually enter into contracts with the FSC to evade market risks. Farmers are relatively disadvantaged, as reflected in their low autonomy and weak bargaining power in pricing and profit distribution.

Features: a. The FSC is often affiliated to the enterprise and weak in independence; b. The organizational structure of the FSC is similar to that of the enterprise, and manages the production base according to the standard production pattern; c. The FSC operates normatively and in a unified manner; and d. The base is financially independent, and offers rebates based on shares.

2. **Pro/con analysis**

Pros: ①This pattern enables farmers to increase income by means of land transfer, rental payment, employment and product purchase; ②This pattern plays an active role in improving the ecological environment and the infrastructure; and ③This pattern facilitates standard and professional production.

Cons: ①In this pattern, farmers’ interests can hardly be protected, because the enterprise would pursue maximum profits; and ②The FSC is highly dependent.

5.2.2 Cooperative + Base + Farmer

7 FSCs operate in the “cooperative + base + farmer” pattern, accounting for 46.7%, in which 3 operate well, one operates ordinarily, one operates poorly and two are dormant.

1. **Operation and features**

In this pattern, the FSC provides farmers with technical guidance and production services through the production base, and sells farm products for its members. The founder or organizer of the FSC is usually a capable person with a certain level financial and technical strength. The FSC establishes a production base on contiguous land leased from farmers.

Features: ①The main decision-maker and management principal of the FSC is usually a capable person; ②Members can work at the FSC's base; and ③Profits are distributed based on shares.

2. Pro/con analysis

Pros: ①The production base helps strengthen connections between the FSC and farmers; ②The FSC organizer is familiar with the local environment, resources and policies; and ③This pattern facilitates standard and professional production.

Cons: The production base has high operating and maintenance requirements.

5.3 Farmers' Perceptions of and Attitudes to FSCs

5.3.1 Farmers' Perceptions of and Attitudes to FSCs

1. Farmers' Awareness of FSCs

97.6% of the respondents are aware of FSCs, but only 57.7% join FSCs. Those joining FSCs mostly sell products or receive advice through FSCs. Only 29.9% of the respondents are aware or highly aware of FSCs, 37.9% are aware a little, and 31.1% are unaware or highly unaware. Local FSCs are underdeveloped, small in size and weak in function, so that most farmers have heard of such organizations, but don't know their specific functions.

Table 5-1 Farmers' Awareness of FSCs

County	Awareness of FSCs (%)				
	Highly aware	Aware	Aware a little	Unaware	Highly unaware
JETDZ	6.0	36.0	42.0	16.0	0.0
Pengze	4.3	13.8	56.4	14.9	10.6
Yushan	10.2	17.0	36.4	23.9	12.5
Jing'an	3.9	39.0	18.1	31.2	7.8
Taihe	5.3	12.6	41.1	33.7	7.3
Anyuan	2.4	31.3	37.3	27.7	1.2
Huichang	8.9	33.3	36.7	17.8	3.3
Longnan	8.8	28.8	27.5	18.8	16.3
Total	6.5	24.4	37.9	24.0	7.1

Source: socioeconomic survey

2. Farmers' participation in FSCs

57.7% of the respondents join one FSC, and 42.3% join none.

Table 5-2 Farmers' Participation in FSCs

County	Participation in FSCs (%)			
	One	Two	More than two	None
JETDZ	54.0	0.0	0.0	46.0
Pengze	39.4	0.0	0.0	60.6
Yushan	51.1	0.0	0.0	48.9
Jing'an	53.2	0.0	0.0	46.8
Taihe	63.2	0.0	0.0	36.8
Anyuan	44.6	0.0	0.0	55.4
Huichang	85.6	0.0	0.0	14.4
Longnan	68.8	0.0	0.0	31.2
Total	57.7	0.0	0.0	42.3

Source: socioeconomic survey

97.8% of the respondents joining no FSC are willing to join a FSC. According to interviews, they have joined no FSC because there is no FSC in the village or they are unaware of FSCs, and after being provided with relevant information, they are willing to join one, and expect some basic services from FSCs, such as offering market information, skills training, and purchasing agricultural materials.

➔ **Villager FGD in Shuixiba Village, Taojiang Xiang, Longnan County, Ganzhou City:**
We also want to join a FSC, because others who have joined a FSC have earned more money, purchased fertilizers and seeds at lower prices, and sold products directly to the FSC without worry. The FSC can also offer guidance in treating vegetable diseases.

3. Farmers' expectations for FSCs

It can be seen that farmers are highly willing to join FSCs. 88.5% of the respondents expect FSCs to offer technical guidance on cultivation and aquaculture, 81.2% expect FSCs to offer market information, 79.4% expect FSCs to develop the market, 74.1% expect FSCs to purchase production materials at low prices, and 23.1% expect FSCs to distribute dividends.

Table 5-3 Farmers' Expectations for FSCs

County	Expectations for FSCs (%)				
	Offering technical guidance on cultivation and aquaculture	Developing the market	Dividend distribution	Purchasing production materials at low prices	Offering market information
JETDZ	92	76	32	74	76
Pengze	92.6	84	17	76.6	83
Yushan	85.2	87.5	23.9	78.4	86.4
Jing'an	93.5	77.9	14.3	72.7	84.4
Taihe	94.7	84.2	15.8	82.1	85.3
Anyuan	84.3	68.7	18.1	69.9	78.3
Huichang	82.2	85.6	31.1	67.8	83.3
Longnan	82.5	70	32.5	73.8	80
Total	88.5	79.4	23.1	74.1	81.2

Source: socioeconomic survey

4. Necessity of FSC training

18.5% of the respondents think it very necessary to offer FSC training, 69.6% think it necessary, 11.2% think it neither necessary nor unnecessary, and 0.7% think it unnecessary. Generally, farmers think that FSC training is necessary. Since FSCs have close contacts with farmers, FSC training is also suited their practical needs, including cultivation and aquaculture skills training, farmer capacity building training, etc.

Table 5-4 Farmers' Perceived Necessity of FSC Training

County	Necessity of FSC training (%)			
	Very necessary	Necessary	Neither, nor	Unnecessary
JETDZ	16.0	60.0	20.0	4.0
Pengze	27.7	68.1	4.2	0.0
Yushan	23.8	68.2	8.0	0.0
Jing'an	16.9	59.7	19.5	3.9
Taihe	24.2	70.5	5.3	0.0
Anyuan	6.0	74.7	19.3	0.0
Huichang	21.1	70.0	8.9	0.0

Longnan	17.5	75.0	7.5	0.0
Total	18.5	69.6	11.2	0.7

Source: socioeconomic survey

Farmers' needs for FSC training are agricultural training and market information mainly, as chosen by 56.5% and 32.7% of the respondents respectively. The issues reflected most by farmers in the fieldwork are the lack of agricultural skills and the shortage of market information. Most farmers' agricultural production experience is from own knowledge, and exchanges with neighbors and major households, and their market information is from rural brokers and neighbors mainly. FSC training in these aspects will meet their needs.

Table 5-5 Farmers' Needs for FSC Training

City	Need for FSC training (%)				
	Agricultural training	Market information	FSC rules, management, etc.	Project publicity	Other
JETDZ	65.8	31.6	2.6	0.0	0.0
Pengze	51.1	32.2	7.8	6.7	2.2
Yushan	58.0	35.8	0.0	6.2	0.0
Jing'an	66.1	30.5	1.7	1.7	0.0
Taihe	44.4	33.3	8.9	7.8	5.6
Anyuan	68.6	20.9	6.0	4.5	0.0
Huichang	46.3	50.0	0.0	1.2	2.5
Longnan	63.5	20.3	0.0	16.2	0.0
Total	56.5	32.7	3.6	5.6	1.7

Source: socioeconomic survey

5.3.2 Perceptions of the Role of FSCs in Farm Product Circulation

1. Farmers' perception of the role of FSCs in the FPCS

FSCs can connect small-scale production with the big market in farm product circulation. 17.6% of the respondents think FSCs are very important in the FPCS, 63.9% think they are important, 13.9% think they are neither important nor unimportant, and only 4.6% think they are unimportant or very unimportant. According to interviews, some farmers think that FSCs are unimportant in the FPCS because they know little about FSCs and the FPCS.

Table 5-6 Farmers' Perceptions of the Role of FSCs in the FPCS

County	Importance of FSCs in the FPCS (%)				
	Very important	Important	Neither, nor	Unimportant	Very unimportant
JETDZ	16.0	52.0	16.0	8.0	8.0
Pengze	23.4	71.3	2.1	2.1	1.1
Yushan	26.1	59.1	14.8	0.0	0.0
Jing'an	16.9	50.6	16.9	7.8	7.8
Taihe	11.6	86.3	2.1	0.0	0.0
Anyuan	14.5	61.5	20.5	2.4	1.2
Huichang	20	62.3	14.4	3.3	0.0
Longnan	18.8	70.0	11.2	0.0	0.0
Total	17.6	63.9	13.9	2.9	1.7

Source: socioeconomic survey

2. Farmers' perceived functions of FSCs in the FPCS

The top 3 functions of FSCs in the FPCS are offering market information, reducing circulation links and realizing economy of scale, as chosen by 81.8%, 63.4% and 59.8% of the respondents respectively. Farmers are concerned about their own interests, and think that FSCs can bring them concrete benefits, such as reducing circulation costs, increasing production profits and purchasing agricultural materials at low prices. On the other hand, farmers expect FSCs to offer market information on prices, demand, etc. timely.

Table 5-7 Farmers' Perceived Functions of FSCs in the FPCS

County	Functions of FSCs in the FPCS (%)						
	Realizing economy of scale	Offering market information	Reducing circulation links	Improving farm product quality and safety	Implementing agricultural policies	Giving play to marketing subjects	Other
JETDZ	64.0	70.0	62.0	24.0	30.0	32.0	16.0
Pengze	60.6	90.4	67.0	10.6	19.1	29.8	5.3
Yushan	65.9	90.9	71.6	27.3	35.2	30.7	8.0
Jing'an	54.5	80.5	61	27.3	23.4	24.7	11.7
Taihe	54.7	90.5	58.9	15.8	20.0	25.3	8.4
Anyuan	69.9	74.7	56.6	18.1	37.3	24.1	9.6
Huichang	57.8	76.7	52.2	25.6	33.3	31.1	5.6
Longnan	55.0	80.0	70.0	32.5	28.8	26.3	5.0
Total	59.8	81.8	63.4	20.7	28.9	28.1	7.9

Source: socioeconomic survey

5.4 Existing Issues of FSCs and Suggestions

5.4.1 Existing Issues

Although local FSCs are developing well, they are still at the startup stage, and have the following issues:

1. **Farmers' awareness of FSCs is low.**

Local farmers' awareness of FSCs is low, especially in villages where there is no nearby FSC. Women's overall awareness of FSCs is lower than that of men. 6.5% of the female respondents are highly aware of FSCs, 24.4% are aware of FSCs, 37.9% are aware a little of FSCs, and 31.1% are unaware or highly unaware of FSCs.

Most local farmers have heard of FSCs, but know little about their functions. Farmers' ability to accept new things is bad, and they usually care about true benefits.

2. **Farmers' participation in FSCs is low.**

According to the survey, 57.7% of the respondents join FSCs, and 97.8% of those joining no FSC are willing to join a FSC. For some FSCs, members are just nominal, and do not participate in practical activities. Ordinary farmers can rarely participate in FSC management, and most FSCs have held no membership meeting.

Farmers' participation in FSCs is low because farmers do not have adequate capacity, and are short of funds, information and skills; some poor farmers are physically or mentally disabled; farmers cannot assume market risks and are more concerned about immediate interests; some FSCs do not operate normatively, and some FSCs monopolize techniques and funds.

3. **There is a shortage of management professionals, and service capabilities are poor.**

Since the project area is economically underdeveloped, over half of local laborers work outside, mostly young adult laborers, leaving behind elderly and poorly-educated laborers. Therefore, the project area is seriously short of professionals with technical and management expertise, so that many FSCs cannot function properly.

FSCs usually have low organizing capacity, as reflected in the high level of randomness in internal management. Local major households have some production skills or marketing experience, but lack expertise in FSC management and marketing. In addition, FSCs in poor areas are often small and short of capital, and are vulnerable to natural disasters or market fluctuations.

> ➔ **Interview with the director-general of the Taihe County Agriculture Bureau:**
> A main difficulty in FSC development is the shortage of management personnel, because all capable persons are working outside. A FSC without proper management has little use.

4. FSCs are underdeveloped, and their internal systems are unsound.

Most local FSCs do not operate normatively. Some exist in name only; some have no accounting or supervision function; some have no normative accounting system; some do not distribute profits, or fail to distribute profits at the percentage specified in the Law on Farmers' Specialized Cooperatives; and some are just like cooperative enterprises and have no articles of association.

FSCs are underdeveloped in general. Many FSCs operate based on personal credit and prestige only; in many FSCs, founders hold many shares, and ordinary farmers can hardly participate in management; many FSCs are short of technical and management professionals, and funds; many FSCs do not have sound internal systems, and their services are limited. These factors have affected farmers' enthusiasm to participate in FSCs to some extent.

5. Interest linkup of FSCs is loose.

Current, there are 31,700 FSCs in Jiangxi Province, with 1.512 million members, an increase of 30,000 and 1.48 million from the end of 2007, respectively. Although the number of FSCs in the project area is growing, and they do offer some services, their interest linkup with their members is loose. Some FSCs are even not cooperatives in nature.

Interest linkup mechanisms between farmers and leading enterprises or markets is loose. For local leading enterprises, a longstanding problem is the lack of a high-quality, stable raw material base, because no rational interest linkup mechanism has been established between enterprises and farmers. Although FSCs can serve as a bridge, most of local FSCs fail to do this. Many farmers are nominal FSC members, and their income is just land rental or employment income, so they are not mentally attached to FSCs.

5.4.2 Suggestions

1. Strengthen FSC publicity and training to improve farmers' awareness of FSCs.

In view of local farmers' inadequate awareness of FSCs, competent authorities should strengthen FSC publicity and training, including: ①developing an information disclosure, publicity and training program that runs through all stages of the Project (see the Community Participation Handbook for details), with focus on project and FSC knowledge in the early stage, FSC establishment, industry development, procurement, construction, production skills training, etc. in the intermediate stage, and FSC operation, profit distribution, financial management, etc. in the later stage; ②involving women, the poor and other vulnerable groups in FSC publicity and training; ③scheduling publicity and training in the slack season; ④conducting publicity and offering training at accessible places; ⑤offering training in a straightforward language, and using oral and graphic means where possible; ⑥making sure that over 80% of households are aware of project and FSC information, and over 30% of participants are women; and ⑦conducting sampling inspection on publicity and training regularly or irregularly, twice per annum at the preparation stage, and once per annum afterwards.

2. Improve the participation mechanism of FSCs, and empower farmers to join FSCs.

The following suggestions are proposed to improve farmers' participation in FSCs: ①ensuring that a certain percentage of FSC management staff members are women and poor residents; ②holding a village meeting or congress to screen FSC members and determine its development direction; ③holding a membership meeting to determine its organizational structure, articles of association, management systems, profit distribution, etc., and establish files; ④offering skills and management training on industry development and FSC operation to all members where possible; ⑤informing members of daily operations, and respecting members' choices and opinions; ⑥making job and training opportunities first available to members, especially female and poor members; ⑦disclosing contracts with enterprises and members; ⑧applying uniform prices to all members, and disclosing profit distribution regularly; and ⑨establishing a grievance redress mechanism for FSC members.

3. Establish FSCs suited to local conditions and market demand, and improve their service capacity.

The following suggestions are proposed for improved FSC operations: ①informing members of FSC establishment and industry selection for discussion; ②determining industries to be developed based on local conditions; and ③tailoring FSCs and services to farmers' needs.

4. Handle relations between FSCs and other subjects properly.

Since local FSCs are at a crucial stage of rapid development, the following issues should be handled properly in practice: ①guiding FSCs to develop normatively through policy regulation, demonstration, etc.; ②supporting FSCs to establish stable relations with leading enterprises; ③offering greater support to FSCs, and encouraging FSCs (especially exemplary FSCs) to undertake agricultural construction projects; ④handling relations between FSCs and other rural collective economic organizations, such as RISs, village collectives and agricultural associations; and ⑤handling relations with all departments concerned properly.

5. Improve interest linkup mechanisms of FSCs, and lay a solid foundation for agricultural industrialization.

FSCs combine enterprises and farmers into a stable interest community, preventing disputes effectively, and laying a solid foundation for agricultural industrialization. The following suggestions are proposed to improve interest linkup mechanisms of FSCs: ①improving the internal interest linkup mechanism of FSCs to give full play to the bridging role of FSCs between enterprises and farmers; ②establishing the FSC league to enhance connections among FSCs and reduce coordination costs; ③developing diversified cooperative economic organizations and interest linkup mechanisms together, such as FSC league, farm product marketing association, household farm and RIS; ④sticking to the "sharing of interests" and distributing profits rationally; ⑤offering adequate policy and financial support; ⑥introducing farmers into FSCs through equity participation to build a sense of belonging.

5.5 Participation of FSCs in Farm Product Circulation

5.5.1 Current Situation of Participation

In recent years, farm product circulation has been heading for large-scale production, and integrated production and marketing. In this process, FSCs have played a crucial role. In the project area, FSCs participate in farm product circulation in the following ways mainly:

1. Farm product processing

Most of the respondents do not process farm products before marking, mainly due to the lack of processing equipment. Some expensive equipment is unaffordable for individual farmers, while FSCs can solve this issue by purchasing equipment or cooperating with processing enterprises. For example, the Xinsheng Oil Tea FSC in Huichang County cooperates with Ziyunshan Oil Tea Development Co., Ltd., which has built a tea oil production base in Huichang County for further processing.

2. **Quality testing**

Most of the respondents say that their products have not been subjected to quality testing, mainly due to the lack of test equipment. They think that this is a responsibility of FSCs, enterprises or the government. Some local FSCs have also established farm product quality and safety testing and traceability systems. For example, the traceability system of the Qingpingle Navel Orange FSC in Huichang County, Ganzhou City is 80% funded by the company and 20% by municipal finance, and has been put into operation since 2011.

3. **Farm product storage**

For farm products, especially vegetables and fruit, storage and preservation is very important. Some local FSCs have storage facilities, such as the 200 m^2 refrigerated warehouse of the Hongri FSC in Yushan County.

4. **Trademark registration and certification**

Trademark registration can increase the value of farm products and create a brand effect. For example, the Xinsheng Oil Tea FSC in Huichang County develops oil tea products under the brand "Ziyunshan" in cooperation with Ziyunshan Oil Tea Development Co., Ltd., and has made great profits.

5. **Logistics**

Some local FSCs have their own vehicles, so that they can save logistics costs.

6. **Farm product marketing**

An important function of FSCs is to sell farm products to enterprises, supermarkets, wholesale markets, etc. timely. For example, vehicles produced by the Shuanghekou Vegetable FSC in Changtan Village, Wubei Town, Anyuan District, Pingxiang City are supplied to two local supermarkets and a large processing plant.

5.5.2 Role of FSCs in the FPCS

1. **Promoting the large-scale and orderly operation of farm products**

FSCs improve agricultural efficiency and realize an economy of scale by offering pre-, in- and post-production services to farmers. FSCs organize farmers, protect their interests, and improve their bargaining power, and resilience to market changes and risks.

2. **Strengthen the communication of market information.**

Local farmers generally lack market information, especially product prices, marketing channels, supply and demand, and early warnings, and are passive in trading. FSCs can truly connect farmers to the market, and help them avoid blind production by realizing "made-to-order agriculture". For example, the Shuanghekou Vegetable FSC in Changtan Village, Wubei Town, Anyuan District, Pingxiang City directs its members to adjust varieties of cultivation based on market demand and price fluctuation timely.

3. **Improve product quality, and increase added value.**

Local farmers generally care little about product quality testing, and think that this is a responsibility of FSCs, enterprises or the government. One of the functions of FSCs is to supervise and inspect product quality. In addition, FSCs increase the added value of farm products through further processing. For example, the Jinyuan Cultivation FSC in Pingxiang City has established the grape brand "Golden Sun", practiced standardized agricultural production, and made great profits from this.

4. **Change the disadvantaged position of farmers in markets.**

FSCs can further organize farmers, and purchase and sell their products in a unified manner, thereby changing farmers' traditional disadvantaged position.

5. **Implementing agricultural policies**

FSCs can implement government agricultural policies, including applying for subsidies with the government, constructing necessary storage facilities, purchasing necessary equipment, and applying preferential tax rates, such as exempting value-added tax for films, seeds, fertilizers and pesticides sold by FSCs to members, and exempting stamp duty for purchase and sale contracts for agricultural products and materials between FSCs and members.

5.5.3 Suggestions

1. **Improve laws and regulations.**

FSCs not only play a crucial role in the FPCS, but also promote rural economic development greatly. The state should support their development, and recognize their legal status. The Law on Farmers' Specialized Cooperatives promulgated on December 31, 2006 and the Regulations of Jiangxi Province on Farmers' Specialized Cooperatives on January 1, 2012. Laws and regulations should also be developed to regulate farm product circulation.

2. **Improve farmers' skills, and strengthen FSC publicity on farm product circulation.**

Improving skills is essential to farmers' survival through fierce market competition. FSCs may promote farmers' capacity building through the farmers' training centers established under the Project. Agriculture bureaus and other agencies concerned should conduct publicity and training on FSCs and farm product circulation among farmers.

3. **Strengthen information platform building and information services.**

Information asymmetry reduces farmers' profits in the farm product value chain and makes them disadvantaged in market trading. Information platform building under the Project will enable all participants of the value chain to receive market information timely. Farmers can have timely access to such information through Internet access or SMS. In addition, FSCs may also realize "made-to-order agriculture" by promoting their products via the Internet.

4. **Combine FSCs with farmer-supermarket direct circulation**

The advantage of farmer-supermarket direct circulation is that high-quality fresh farm products can be delivered directly to supermarkets, and distributed to households rapidly, thereby introducing modern logistics to extensive rural areas, realizing integrated production and marketing, and reducing farm product circulation costs.

6 Poverty Analysis

6.1 Local Poverty

6.1.1 Local Poverty

Jiangxi has a large rural population as an underdeveloped major agricultural province. At the end of 2012, Jiangxi had a population of 45.039 million, including a rural poor population of 3.28 million (based on the national poverty line of annual per capita net income of below 2,300 yuan), with a rural poverty incidence of 9.21%, higher than the national average of 8.5%. In 2012, Jiangxi's per capita net income of farmers was 7,827.82 yuan, slightly lower than the national average of 7,917 yuan.

In the project area, Huichang County has the largest rural poor population (88,700), and Qingyuan District has the smallest rural poor population (5,200); Huichang County has the highest poverty incidence (19. 84%), and Qingyuan District has the lowest poverty incidence (2.34%). Jiangxi has 21 state-level key counties for development-oriented poverty reduction, accounting for 21% of all counties (county-level cities, districts). Among the 9 project counties, Huichang County and Ganzhou City are state-level key counties for development-oriented poverty reduction. The 9 project counties have 44 project townships in total, with a total population of 1.27 million, including a poor population of 112,212, accounting for 8.8%, and a bottom (40%) poor population of 466,000, accounting for 36.7%. Among the project counties, Huichang County has the largest poor population (46,638), and Jing'an County has the smallest poor population (3,647); Yushan County has the largest bottom (40%) poor population (95,659), and Jing'an County has the smallest bottom (40%) poor population (15,666). See Table 6-1.

Table 6-1 Local Poverty Statistics

County	Gross population (0,000)	Rural poor population (0,000)	MLS population (0,000)	Poverty incidence (%)	Local poverty			
					Gross population (0,000)	Poor population[2]	40% bottom[3]	
							Net income[4] (yuan/ year)	Population
Jiangxi	**4503.90**	328	149.48	9.21	113.86	118746	/	/
Pengze	39.88	1.75	1.69	5.50	6.09	4948	3744	24878
JETDZ	15.87	0.76	0.16	3.14	7.69	4331	4117	29214
Huichang	51.77	8.87	1.90	19.84	21.86	46638	1961	80335
Longnan	32.11	2.54	1.08	9.64	5.39	6317	2636	21373
Taihe	56.03	2.25	1.85	5.06	20.97	15779	3600	85485
Jing'an	14.92	0.87	0.59	8.48	3.72	3647	3033	15666
Yushan	61.69	3.18	2.07	6.58	26.75	20745	4920	95659
Anyuan	38.37	0.58	0.62	4.71	17.53	5379	4617	66631
Qingyuan	22.15	0.52	0.53	2.34	17.39	4428	4146	40755

Source: data provided by PMOs

According to the Outline for Rural Development-oriented Poverty Reduction of China (2011-2020), and Some Opinions of the State Council on Revitalizing the Development of the Old Revolutionary Areas in Jiangxi Province (SC [2012] No.21), the provincial and local county governments have promulgated and implemented many public policies and action plans for poverty reduction and social relief.

In the project area, rural minimum living security (MLS), five-guarantee support, temporary

[2] Population with per capita income of less than 2,300 yuan is poor population.
[3] Bottom (40%) poor population means population below 40% of a county's per capita net income.
[4] Net income means 40% of a county's per capita income, namely (per capita net income *40%).

relief, rural medical assistance and housing assistance systems are in place for rural poor population. In addition, the local poverty reduction offices have implemented a series of initiatives for poor population development, including the Rain and Dew Program, whole-village advancement, poverty reduction through industrialization and resettlement, post-resettlement support, etc.

➔ **Interview with the head of the Taihe County Poverty Reduction Office:**

Taihe County has 25 poor villages. The main causes of poverty are remoteness, inconvenient traffic, shortage of resources and labor, and natural disasters. The main income sources of poor households are farming and outside employment.

➔ **Interview with the staff of the Huichang County Poverty Reduction Office:**

The main causes of poverty in Huichang County are frequent natural disasters, such as flood, frost and drought, which make the profitability of many industry projects for poverty reduction lower than expected, backward infrastructure, especially in remote rural areas, and low educational and skill levels.

6.1.2 Livelihoods of Poor Households

Local poor households are mostly self-sufficient, and deal mainly with traditional cultivation and aquaculture, while outside employment is not a main income source for them. In their income, farming accounts for 79.1%, and outside employment, MLS, transport and operations account for 11.5%, 3.7%, 2.9% and 2.9% respectively.

The main causes of poverty are illness, disaster, labor shortage, high educational and marriage expenses, etc. In addition to poor natural conditions and infrastructure, poor households mostly deal with traditional cultivation at a low output, and are short of young adult laborers and labor skills, so their income is generally low.

Table 6-2 Farmers' Income Sources

County	Main income source				
	Farming	Outside employment	Transport	MLS	Operation
Anyuan	86.4	13.6	0.0	0.0	0.0
Huichang	66.7	20.8	4.2	8.3	0.0
JETDZ	50.0	33.3	0.0	16.7	0.0
Jing'an	30.8	46.2	0.0	23.1	0.0
Longnan	34.6	11.5	26.9	0.0	26.9
Pengze	96.3	3.7	0.0	0.0	0.0
Taihe	74.2	22.6	0.0	3.2	0.0
Yushan	81.4	11.6	0.0	4.7	2.3
Total	79.1	11.5	2.9	3.7	2.9

Source: socioeconomic survey

➔ **Huichang County Poverty Reduction Office, Ganzhou City:**

Poor population lives on farming and outside employment mainly, and some of them rely on government subsidies due to illness, disability or laziness.

➔ **Liangting Village, Furongdun Town, Pengze County, Jiujiang City:**

This village has 1,1100 households with 4,100 persons, no minority resident, 2,600 laborers, in which about 1,000 work outside, 500 old people, 40 MLS households with 105 persons, 7 five-guarantee households, and 100 poor residents. The five-guarantee households are characterized by old age, loss of labor, no child, etc., while poor households by poor family conditions, severe illness, accidents, etc.

6.1.3 Participation of Poor Population in FSCs

1. Current situation

Statistics show that among the 198 poor respondents, 104 join one FSC, accounting for 52.5%, and 94 join none, accounting for 47.5%. In the project area, many FSCs exist, but their overall development is poor. Poor farmers are highly willing to join FSCs, but can do this only if they meet certain conditions, such as labor skills and physical conditions. For example, the condition to join the Guantian Fruit Cultivation FSC in Taihe County is capital (at least 10,000 yuan), or technical and management skills.

Table 6-3 Poor Farmers' Participation in FSCs

County	Poor Farmers' participation in FSCs				Total
	Joining one	%	Joining none	%	
Anyuan	6	27.3	16	72.7	22
Huichang	22	91.7	2	8.3	24
JETDZ	5	41.7	7	58.3	12
Jing'an	7	53.8	6	46.2	13
Longnan	21	80.8	5	19.2	26
Pengze	8	29.6	19	70.4	27
Taihe	13	41.9	18	58.1	31
Yushan	22	51.2	21	48.8	43
Total	104	52.5	94	47.5	198

Source: socioeconomic survey

2. Willingness

87.9% of the poor respondents think it necessary or very necessary to offer FSC training, and 12.1% think it is neither necessary nor unnecessary. Compared to ordinary farmers, poor farmers expect to participate in FSC operation and management to improve their skills and income through FSC training more strongly.

Table 6-4 Poor Farmers' Perceptions of FSC Training

County	Necessity of FSC training (%)		
	Very necessary	Necessary	Neither, nor
Anyuan	0.0	72.7	27.3
Huichang	54.2	41.7	4.2
JETDZ	0.0	66.7	33.3
Jing'an	23.1	30.8	46.2
Longnan	23.1	76.9	0.0
Pengze	11.1	85.2	3.7
Taihe	16.1	77.4	6.5
Yushan	34.9	55.8	9.3
Total	22.7	65.2	12.1

Source: socioeconomic survey

6.2 Poor Population's Perceptions of and Attitudes to FSCs

1. Project awareness

29% of the poor respondents are aware of the Project, 68.2% are aware a little, and 2.6% are unaware. It can be seen that most poor farmers are aware of the Project, but know little about details. Therefore, publicity on the Project should still be strengthened.

Table 6-5 Poor Farmers' Project Awareness

County	Awareness of the Project (%)				
	Highly aware	Aware	Aware a little	Unaware	Highly unaware
Anyuan	0.0	20.0	75.0	5.0	0.0
Huichang	0.0	20.8	79.2	0.0	0.0
JETDZ	0.0	8.3	83.3	8.3	0.0
Jing'an	7.7	7.7	84.6	0.0	0.0
Longnan	15.4	7.7	76.9	0.0	0.0
Pengze	3.7	25.9	63.0	7.4	0.0
Taihe	0.0	38.7	58.1	3.2	0.0
Yushan	12.8	30.8	56.4	0.0	0.0
Total	5.0	24	68.2	2.6	0.0

Source: socioeconomic survey

2. Support for the Project

98.5% of the poor respondents support the Project. Local farmers, especially poor farmers, expect the Project to be constructed as soon as possible to expand circulation channels and improve circulation efficiency, thereby increasing selling prices and income.

Table 6-6 Poor Farmers' Support for the Project

County	Support for the Project (%)		
	Yes	No	Don't care
Anyuan	100.0	0.0	0.0
Huichang	100.0	0.0	0.0
JETDZ	91.7	8.3	0.0
Jing'an	100.0	0.0	0.0
Longnan	100.0	0.0	0.0
Pengze	100.0	0.0	0.0
Taihe	100.0	0.0	0.0
Yushan	95.3	0.0	4.7
Total	98.5	0.5	1

Source: socioeconomic survey

98% of the poor respondents agree or strongly agree with the construction of the Project.

Table 6-7 Poor Farmers' Attitudes to the Project

County	Attitude to the Project (%)			
	Strongly agree	Agree	Don't care	Disagree
Anyuan	4.5	86.4	9.1	0.0
Huichang	58.3	33.3	4.2	4.2
JETDZ	16.7	83.3	0.0	0.0
Jing'an	7.7	92.3	0.0	0.0
Longnan	53.8	46.2	0.0	0.0
Pengze	25.9	74.1	0.0	0.0
Taihe	19.4	80.6	0.0	0.0
Yushan	27.9	72.1	0.0	0.0
Total	28.8	69.2	1.5	0.5

Source: socioeconomic survey

3. Willingness to get employed

96% of the poor respondents expect job opportunities generated by the Project. Due to low educational and skill levels, poor farmers can hardly get good jobs, and can only do odd or unskilled jobs. They generally think that the Project will make them rich.

Table 6-8 Poor Farmers' Willingness to Get Employed

County	Willingness to get employed			
	Yes	%	No	%
Anyuan	22	100.0	0	0.0
Huichang	24	100.0	0	0.0
JETDZ	12	100.0	0	0.0
Jing'an	12	92.3	1	7.7
Longnan	26	100.0	0	0.0
Pengze	26	96.3	1	3.7
Taihe	27	87.1	4	12.9
Yushan	41	95.3	2	4.7
Total	190	96	8	4

Source: socioeconomic survey

➔ **Interview with the head of Xinda Village, Dujiang Town, Longnan County, Ganzhou City:** As long as the job offered by the Project has a higher pay, I will certainly do it.

6.3 Participation of Poor Population in the FPCS and Perceptions

6.3.1 Participation

1. **Production**: Compared to other farmers, poor farmers rely more on traditional cultivation and aquaculture, and their participation in the market value chain is low. 93.4% of the poor respondents participate by means of own cultivation/aquaculture; in addition, "working at the industry base", "leasing land to FSC / enterprise for rental", "participation in production management", "participation in product processing", "participation in product marketing", and "equity participation in FSC / enterprise" account for 7.1%, 0.3%, 4.5%, 1.0%, 5.3% and 0.3% respectively. As reflected in interviews, most poor farmers just participate in cultivation and aquaculture, and few participate in product processing, marketing or any other link of the industry chain.

Table 6-9 Poor Farmers' Participation in the Industry Chain

County	Participation in the industry chain (%)						
	Own cultivation/ aquaculture	Leasing land to FSC / enterprise for rental	Equity participation in FSC / enterprise	Working at the industry base	Participation in production management	Participation in product processing	Participation in product marketing
Anyuan	90.9	0.0	0.0	27.3	0.0	0.0	0.0
Huichang	100.0	4.2	0.0	0.0	0.0	8.3	8.3
JETDZ	100.0	8.3	0.0	8.3	0.0	0.0	0.0
Jing'an	100.0	0.0	7.7	0.0	7.7	7.7	7.7
Longnan	73.1	0.0	0.0	0.0	26.9	0.0	0.0
Pengze	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Taihe	100.0	16.1	0.0	0.0	0.0	0.0	0.0
Yushan	100.0	0.0	0.0	18.6	0.0	0.0	0.0
Total	93.4	3.0	0.3	7.1	4.5	1.0	5.3

Source: socioeconomic survey

2. **Circulation and marketing**: A small part of farmers can also participate in farm product circulation and marketing as rural brokers, mainly because they know many wholesalers and distributors, and have more market information. However, these brokers are mostly capable persons, while poor farmers can hardly become brokers due to limited knowledge and skills.

6.3.2 Poor Population's Perceptions of and Attitudes to the FPCS

1. **Satisfaction with farm product circulation patterns**

38.3% of the respondents poor households are satisfied with existing farm product circulation patterns, 40% neither satisfied nor dissatisfied, 18.3% dissatisfied, and 3.3% very dissatisfied.

Table 6-10 Farmers' Satisfaction with Existing Farm Product Circulation Patterns

County	Satisfaction with farm product circulation patterns (%)			
	Satisfied	Neither, nor	Dissatisfied	Very dissatisfied
Anyuan	0.0	**100.0**	0.0	0.0
Huichang	100.0	0.0	0.0	0.0
JETDZ	33.3	0.0	50.0	16.7
Jing'an	30.8	15.4	23.1	30.8
Longnan	31.6	0.0	68.4	0.0
Pengze	48.1	51.9	0.0	0.0
Taihe	74.2	25.8	0.0	0.0
Yushan	14.0	60.5	25.6	0.0
Total	38.3	40	18.3	3.3

Source: socioeconomic survey

2. Perceptions of farm product circulation costs

76.3% of the poor respondents think that farm product circulation costs are high or too high, and 23.7% think such costs are normal. Most farmers think farm product circulation costs are high due to many intermediate links, including processing, transport and testing.

Table 6-11 Farmers' Perceptions of Farm Product Circulation Costs

County	Perceptions of farm product circulation costs		
	Too high	High	Normal
Anyuan	0.0	50.0	50.0
Huichang	0.0	100.0	0.0
JETDZ	33.3	33.3	33.3
Jing'an	15.4	38.5	46.2
Longnan	23.1	53.8	23.1
Pengze	0.0	92.6	7.4
Taihe	0.0	80.6	19.4
Yushan	7.0	65.1	27.9
Total	7.6	68.7	23.7

Source: socioeconomic survey

3. Necessity of training on the FPCS

91.9% of the poor respondents think training on the FPCS is necessary or very necessary, 6.6% think it is neither necessary nor unnecessary, and 1.5% think it is unnecessary. It can be seen that local poor farmers strongly expect the Project to make them rich, extend the industry chain, and improve their participation in the market value chain.

Table 6-12 Poor Population's Perceived Necessity of Training on the FPCS

County	Necessity of training on the FPCS (%)			
	Very necessary	Necessary	Neither, nor	Unnecessary
Anyuan	31.8	54.5	9.1	4.5
Huichang	25.0	70.8	0.0	4.2
JETDZ	8.3	83.3	8.3	0.0
Jing'an	7.7	84.6	7.7	0.0
Longnan	26.9	61.5	11.5	0.0
Pengze	11.1	88.9	0.0	0.0
Taihe	16.1	71.0	12.9	0.0
Yushan	30.2	62.8	4.7	2.3

Total	21.7	70.2	6.6	1.5

Source: socioeconomic survey

6.3.3 Poor Population's Needs for the FPCS and Perceptions

1. Needs for skills training

Farmers' skills relate directly to the progress of agricultural modernization directly, and their immediate interests. Local poor farmers have strong needs for industry, FSC and other management training, including:

1) Processing, storage and testing skills training: Local poor farmers are extremely short of processing, storage and testing skills. However, with the improvement of local industrialization level, mastering such skills will facilitate their participation and income growth.

2) FSC management and market management training: The Project will support FSC establishment and market construction. In order that farmers, especially poor farmers, participate more effectively, FSC management and market management training is absolutely necessary. As long as training in this respect is strengthened can farmers participate in management and supervision.

➔ **Jiangzhai Village, Wencheng Town, Yushan County, Shangrao City**

Training is offered 4-5 times per annum, covering cultivation skills mainly. Such training is too short and narrow.

➔ **Qiujia Village, Wencheng Town, Yushan County, Shangrao City:**

Training on vegetable cultivation and pest control has been offered 2-3 times at the meeting room of the village committee, which can accommodate 30-40 persons.

➔ **Xinda Village, Dujiang Town, Longnan County, Ganzhou City:**

Navel orange training has been offered 9 times, including 4 times by the agriculture bureau, 3 times by the agricultural development office and 2 times by the fruit bureau, and is fairly effective. The training in this year is focused on pest control, lasting one day per session, in the form of field guidance. Villagers are very enthusiastic about training, and receive a subsidy of 20 yuan per day. They would attend training even if there is no subsidy.

➔ **Liangting Village, Furongdun Town, Pengze County, Jiujiang City**

Our village is very close to the market. We receive training once or twice per annum. Cotton is usually cultivated by men.

2. Needs for circulation infrastructure

Local poor households have strong needs for circulation infrastructure:

1) Harvesting infrastructure

Currently, the project area is short of access and tractor roads, resulting in heavy losses of perishable products, such as fruit and vegetables, in the rainy season. In addition, due to the lack of drying yards, cotton is likely to riot or deteriorate.

2) Primary processing infrastructure

Poor farmers' income grows slowly. An important reason is backward farm product circulation facilities, so that farm products cannot fully realize their potential value. Since poor farmers mostly live in mountain areas where traffic conditions are poor and bazaars are far away, their products can hardly be sold. The construction of farm product markets will make it possible to organize scattered producers, guide them to adjust cultivation and aquaculture structure, and form production bases gradually, thereby increasing their income.

3) **Circulation infrastructure**

A) **Short-distance vehicle lease**: Local farmers generally lack vehicles, and have to choose simple and convenient sales mode, thereby increasing transport costs or making them rely more on brokers. They expect short-distance vehicle lease service to help transport farm products to destinations.

B) **Market information**: Local farmers have limited ability to obtain market information timely, and mostly obtain market information through middlemen, making them disadvantaged and passive in marketing. For this reason, making market information readily available to them is particularly important.

C) **Low-price or free booths**: Local farm products have difficulty in market access. Since market booths are expensive and usually have long lease terms, scattered farmers can hardly sell their products. Therefore, farmers, especially poor farmers, expect low-price or free temporary market booths to sell farm products when necessary. The construction of farm product markets will help sell their products faster.

➔ **Interview with an official of Shuixiba Village, Taojiang Xiang, Longnan County, Ganzhou City:**

Market booths are too expensive to be afforded by villagers. A good booth costs 10,000 yuan per annum. Villagers strongly support the construction of farm product market, and expect to lease booths there at preferential rates.

3. **Needs for joining FSCs**

Farmers, especially poor farmers, expect to join FSCs. Their needs are as follows:

1) **Helping farmers sell farm products**: Local poor farmers expect to join FSC, especially in places where FSCs operate well, because they see real benefits. Although they are willing to join FSCs, they are often excluded due to high thresholds, such as capital or technical and management skills.

2) **Resisting market risks**: Compared to other farmers, poor farmers have lower risk resistance, and are often disadvantaged in production and marketing. FSCs can unite scattered farmers, and make them rich together.

3) **Reducing capital costs**: Poor farmers expect to purchase production materials at lower prices through FSCs to reduce their capital costs. In addition, they can receive free technical guidance, and assistance in pest control and other aspects from FSCs. Therefore, poor farmers are extremely eager to join FSCs.

4) **Receiving skills training**: Poor farmers expect training on production, processing and testing skills from FSCs, so that they can participate in FSCs more effectively to improve productivity.

4. **Needs for job opportunities**

Compared to other farmers, poor farmers are more eager to receive direct or indirect jobs from the Project.

1) **Construction stage**: Local poor farmers expect the Project to generate more job opportunities for surplus rural labor and unskilled labor, especially poor farmers, to increase their income.

2) **Operation stage**: After the completion of the Project, some permanent or temporary jobs will be generated, such as security guard, cleaner and management staff, 30% of which will be first made available to local vulnerable groups, such as the poor, women and old people.

6.4 Analysis of Project Impacts on Poor Population

6.4.1 Positive Impacts

1. Improving farmers' participation in the market value chain and increasing their income

Local poor farmers most deal with farming in a scattered manner and on a small scale. Due to fund shortage, unsound supporting facilities, information asymmetry, etc., they participate in the market value chain on a low level. The Project will improve their participation and increase their income in the following ways:

1) Further organizing farmers: By joining FSCs, associations and other specialized cooperative economic organizations, farmers can be further organized to improve efficiency, reduce costs and risks, and increase income. Through such organizations, interest linkup and risk coordination mechanisms, and stable cooperative relations have been established between enterprises and farmers, enabling farmers to share benefits.

2) Offering market information conveniently: Since farmers have limited ability to obtain market information, providing them with market information through electronic information platforms under the Project can rationalize their production and increase their income.

3) Offering comprehensive market services: After the completion of the Project, better facilities, and low-price or even free booths will be available, allowing farmers to participate in market trading freely and improving their bargaining power. Poor farmers can earn more profits, and consumers can buy cheaper farm products.

4) Improving the profitability of farm products: After the markets are put into operation, local characteristic farm products will be promoted in diverse form, facilitating product branding. FSCs will further organize farmers for production, processing and testing, and increase the added value of farm products. In addition, the Project will generate some jobs at the construction and operation stages, which will be first made available to vulnerable groups (including local farmers) under equal conditions.

2. Improving the supporting infrastructure and industrialization level

The Project will improve the local supporting infrastructure required for industry development, including processing plants, training centers, warehouses and markets, thereby strengthening agricultural industrialization, extending the industry chain, improving the added value of farm products, and creating more development opportunities for poor farmers.

Local poor farmers generally rely on traditional cultivation and aquaculture, and most of their products are for own consumption. Although their living standard is improving with the support of the government, their income gap from ordinary farmers is broadening. Moreover, due to inadequate industrialization and the shortage of supporting facilities, their development is highly restricted.

Improving the supporting infrastructure will have the following benefits:

1) Extending circulation channels: Local characteristic industries and further processing will be developed, and circulation channels extended.

2) Improving industrialization level: The Project will extend the industry chain, increase added value and sales volume, and involve more farmers and enterprises in production, processing and marketing, thereby improving local industrialization level.

3) Resisting market risks: The Project will help establish and improve local social service systems, including the agricultural technique extension, information service, and supply and demand systems, thereby providing local farmers and other players with all-round services to reduce market risks and increase farmers' income.

3. Improving farmers' capacity and promoting local economic development

1) Improving farmers' labor skills and production management capacity: Compared to ordinary farmers, poor farmers have less production management skills. Practical skills, production management capacity, and trading and information system application capacity training will enable local poor farmers to master cultivation, aquaculture and production management skills, and obtain necessary information in order to participate in the market value chain more effectively.

2) Improving industrialization level, and generating jobs for poor farmers: A) The Project will improve farmers' production and living conditions, resistance to disasters, production, processing and marketing capacity, reduce poverty and income disparities, and promote social harmony and equality. B) Training will improve local farmers' overall capacity and production skills greatly, and enable more farmers to deal with modern production, thereby promoting their employment and participation in the Project; C) Investment under the Project will generate jobs directly, thereby absorbing surplus rural labor effectively. At the construction stage, the construction of the farm product markets and infrastructure will generate numerous jobs. At the operation stage, the markets will also generate numerous jobs, including material handling, sorting, transport, catering and accommodation, so that farmers can turn from farming to services. In particular, rural poor farmers, surplus labor and unskilled labor will benefit from this. D) After the completion of the Project, supermarkets, restaurants and enterprises will be attracted to purchase farm products. They have higher requirements for product quality, grade and standard, and are willing to pay more for this, thereby causing farmers to improve their product quality and earn more money.

3) Promoting local economic development: The construction of tangible farm product markets and intangible electronic information platforms under the Project will promote local industry restructuring, product circulation upgrading, and economic development significantly. The Project will also give play to local agricultural advantages, realize agricultural industrialization, and promote the development of local tourism, transport and other service industries.

6.4.2 Potential Risks

1. Market risks

Local farmers, especially poor farmers, have limited ability to obtain market information, and are faced with the risk of price drop at any time. Reduced or persistently depressed farm product prices will dampen farmers' enthusiasm for cultivation and aquaculture seriously, and affect the sustainability of the Project. After local industry restructuring, some villages will be very likely to be affected by market fluctuations due to invariable industry mix.

In addition, prices of labor, raw materials and equipment required for the Project may rise, thereby not only increasing the Project's construction and operating costs, and reducing the Project's benefits or operating profits, but also giving rise to some uncertainties and even affect project implementation as a whole.

2. Livelihood risks

Local poor farmers deal with traditional cultivation and aquaculture, and outside employment mainly, and have limited income sources, and their income level is lower than that of ordinary farmers. Some industries supported by the Project are characterized by long construction period and high initial investment, such tea oil tea, but take effect slowly, with almost no income in the first few years. For poor farmers who live on rural MLS only, initial investment and construction period will bring challenges to their livelihoods, and affect their enthusiasm for the Project.

3. Participation risks

The Project will involve benefit distribution. Since the project investment covers limited villages and FSCs, conflicts are likely to occur and cause adverse consequences.

The Project involves different stakeholders, so there are risks in benefit distribution and participation. If poor farmers are not treated equally in these aspects, their enthusiasm for the Project will be affected.

In addition, beneficiaries of different genders, educational levels and ideas have different understandings of the Project, and different participation levels, which may pose certain risks to the Project.

4. Technical risks

Local poor farmers are short of cultivation and aquaculture skills, so relevant skills training is very necessary. Inadequate skills mastery or training may affect the sustainability of the Project.

7. Social Gender Analysis

7.1 Local Women

1. Current situation of women's development in Jiangxi Province

1) Female population: According to the Statistical Yearbook 2013 of Jiangxi Province, at the end of 2012, Jiangxi had a female population of 21.8533 million, accounting for 48.52% of gross population, with a gender ratio of 106:100. Among the population aged 15 years or above, unmarried women accounted for 7.21% of gross population.

2) Women's employment and security: According to the Statistical Yearbook 2013 of Jiangxi Province, at the end of 2012, Jiangxi had an employed female population of 11.852 million, accounting for 46.38% of employed population; an urban employed female population of 1.789 million, accounting for 46.37% of urban employed population; a female population covering basic endowment insurance for urban employees of 3.13 million, accounting for 44.25% of insured population; a female population covering basic medical insurance for urban residents of 2.62 million, accounting for 51.81% of insured population; and a female population covered by rural MLS of 687,000, accounting for 45.23% of rural MLS population.

3) Women's education: According to the Statistical Yearbook 2013 of Jiangxi Province, at the end of 2012, among Jiangxi's female population of 21.8533 million, the female population at primary schools was 1.9585 million, accounting for 8.96%; that at regular high schools 1.2372 million, accounting for 5.67%; that at secondary technical schools 292,600, accounting for 1.34%; that at regular institutions of higher education 840,900, accounting for 3.85%; that at regular specialized secondary schools 152,600, accounting for 0.70%; and that at vocational high schools 128,700, accounting for 0.59%.

4) Women's political participation: According to the Statistical Yearbook 2013 of Jiangxi Province, at the end of 2012, there were 148 female deputies to the People's Congress at the provincial level, accounting for 24.30%; 129 female members of the Chinese People's Political Consultative Conference at the provincial level, accounting for 18.67%; and 26.27% of village committee members and 3.01% of village heads were women.

2. Local women's development

1) Age composition: 75.4% and 79.8% of the female and male respondents are aged 30-59 years; 7.6% and 8.9% aged below 30 years; and 15.7% and 12.6% aged 60 years or above.

Table 7-1 Age Distribution of Sample Women

Age	Male		Female		Total	
	N	%	N	%	N	%
Below 30 years	35	8.9	20	7.6	55	8.4
30-59 years	297	75.4	210	79.8	507	77.2
60 years or above	63	15.7	33	12.6	96	14.4

Source: socioeconomic survey

2) Education: 38.4% of the female respondents have received junior high school education, followed by primary school (30.4%), senior high school (23.2%), junior college or above (5.3%), and illiterate (2.7%). Women's overall educational level is lower than that of men. See Table 7-2.

Table 7-2 Educational Levels of Sample Women

Educational level	Male		Female		Total	
	N	%	N	%	N	%
Junior college or above	30	7.6	14	5.3	44	6.7

Senior high school / secondary technical school	95	24.1	61	23.2	156	23.7
Junior high school	148	37.6	101	38.4	249	37.9
Primary school	90	22.8	80	30.4	170	25.9
Illiterate	31	7.9	7	2.7	38	5.8

Source: socioeconomic survey

3) Occupation: 93.9% of the female respondents are farmers, while this percentage is 86.8% among the males. In addition, some local women do odd jobs in nearby areas. See Table 7-3.

Table 7-3 Employment of Sample Women

Occupation	Male		Female		Total	
	N	%	N	%	N	%
Farmer	342	86.8	247	93.9	589	89.6
Individual business	38	9.6	8	3.0	46	7.0
Civil servant	1	0.3	0	0.0	1	0.2
Employee of state-owned enterprise	0	0.0	0	0.0	-	0.0
Employee of private enterprise	0	0.0	0	0.0	0	.0.
Freelancer	6	1.5	6	2.3	12	1.8
Retiree	0	0.0	0	0.0	0	0.0
Student	6	1.5	2	0.8	8	1.2
Other	1	0.3	0	0.0	1	0.2

Source: socioeconomic survey

7.2 Analysis of Women's FSCs

7.2.1 Overview

In the project area, few FSCs are headed by women. The Jinyuan Cultivation FSC in Celei Village, Wubei Town, Anyuan District, Pingxiang City is an example.

1. Basic situation

Basic FSC information: The FSC was founded by Ms Chen in October 2010, with a registered capital of 2 million yuan. Its membership has expanded from 10 to over 100. The FSC operates well, and has its own brand "Golden Sun".

Causes of foundation: Ms Chen once worked at a bank, and has rich experience in market, business management and public policies, and extensive relations. She chose grape cultivation after repeated visits, because it was profitable. She registered the FSC with the support of the Celei Village Committee, and abandoned her job to concentrate on the FSC in order to realize her personal value.

Women's participation in FSCs: 1) The FSC has 6 female management staff members, accounting for 60%; 2) Women can work for the FSC during planting, harvesting and field management at 70 yuan/day per capita; 3) 1-3 FSC management staff members would be assigned to non-local visits every year, and at least half of them are women; 4) The FSC would offer cultivation training every year, and at least half of trainees are women.

2. FSC operation

Current situation: 1) The FSC has 10 management staff members, including 6 women; 2) The FSC operates in the "enterprise + cooperative + farmer + base" pattern; 3) The FSC has a base of over 200 mu; farmers applying for joining it should be able to work, or have cultivation management skills, capital or land; 4) Marketing: Farm products are sold to supermarkets, several major companies in Shenzhen, and for tourist picking; marketing is based on word-of-mouth; 5) Land transfer fee is 1,000 yuan/mu per annum, with a transfer period of 20 years; 6) The FSC has assigned the management staff to visit grape cultivation and marketing in other provinces at its own expense (over 20,000 yuan), and would organize cultivation and management training for farmers every year.

Difficulties in FSC development: 1) Natural conditions: Fruit cultivation is affected greatly by natural conditions, e.g., rainfall affects grape quality, price and marketability; 2) Lack of storeroom: Grape can only be sold upon harvesting, and cannot be refrigerated and preserved for later sale; 3) Restriction of women's development: The tradition that men handle external affairs and women internal affairs still prevails in rural areas, and women's ability to respond to emergencies is relatively weak.

Future development plan: 1) Expand cultivation to realize an economy of scale; 2) Organize nearby farmers to cultivate fruit together; 3) Introduce new varieties to increase unit output.

3. Pros and cons of women's FSCs

Women's FSCs are founded in a certain social, group and personal background. Their advantages and disadvantages are as follows:

Advantages: 1) Promote women's employment, and improve their economic and social status; 2) Train a number of professionals in cultivation and management, and promote local industry restructuring and agricultural industrialization; 3) Give play to women's patience; and 4) Create more communication opportunities for women, thereby promoting social stability.

Disadvantages: 1) Women are often disadvantaged in market development due to limited social skills; 2) Local women have limited knowledge and skills due to low educational levels; 3) Women have limited effort for FSCs because they have to do housework; and 4) Women accept new things slowly.

7.2.2 Women's Participation in FSCs

1. Women's participation in FSCs

139 female respondents have joined one FSC (52.9%), 47.1% of the female respondents have never joined any FSC, and none has joined two or more FSCs. 52.9% of the female respondents have joined FSCs, lower than that of the males (60.9%). However, women's enthusiasm and capacity of participation rises with time as they come to realize the importance of FSCs. See Table 7-4.

Table 7-4 Women's Participation in FSCs

Participation	Male		Female		Total	
	n	%	n	%	n	%
One	240	60.9	139	52.9	379	57.7
Two	0	0.0	0	0.0	0	0.0
More than two	0	0.0	0	0.0	0	0.0
None	154	39.1	124	47.1	278	42.3

Source: socioeconomic survey

2. Women's position in FSC management

Only 21.6% of FSC management staff members are women, while this percentage is 26.3% among the males. Among the 15 sample FSCs, 7 have female members in their management, accounting for 46.7%, but their percentages are very low and their role in FSC management is limited. See Table 7-5.

Women usually serve as accountants, cashiers and office clerks; in most FSCs, women just hold a position nominally, but have no function in practice.

Table 7-5 Distribution of Women in FSC Management

Position	Male		Female		Total	
	N	%	N	%	N	%
Management member	63	26.3	30	21.6	93	24.5
Supervisor	0	0.0	0	0.0	0	0.0
Ordinary member	173	72.1	109	78.4	282	74.4
Other	4	1.7	0	0.0	4	1.1

Source: socioeconomic survey

7.2.3 Women's Perceptions of and Attitudes to FSCs

1. Awareness of FSCs

6.3% of the female respondents are highly aware of FSCs, 22.6% aware, 39.2% aware a little, 27.0% unaware and 5.0% highly unaware. 28.9% of the female respondents are aware or highly aware, while this percentage is 32.4% among the males.

Table 7-6 Women's Awareness of FSCs

Gender	Awareness of FSCs (%)				
	Highly aware	Aware	Aware a little	Unaware	Highly unaware
Male	6.6	25.8	37.0	21.9	8.7
Female	6.3	22.6	39.2	27.0	5.0
Total	6.5	24.4	37.9	24.0	7.1

Source: socioeconomic survey

2. Women's willingness to join FSCs

99.1% of the female respondents are willing to join FSCs, while this percentage is 96.7% among the males. There is no significant gender difference in this respect.

Most of the female interviewees are very willing to join FSCs, because FSCs play an important role in the FPCS, and can minimize their risks in cultivation and aquaculture.

Table 7-7 Women's Willingness to Join FSCs

Gender	Willingness to join FSC			
	Yes		No	
	N	%	N	%
Male	149	96.7	5	3.3
Female	123	99.1	1	0.9
Total	272	97.8	6	2.2

Source: socioeconomic survey

3. Women's perception of FSC training

17.6% of the female respondents think that FSC training is very necessary, 69.9% think it is necessary, and 12.5% think it is neither necessary nor unnecessary.

Table 7-8 Women's Perceived Necessity of Training on the FPCS

Gender	Necessity of FPCS training (%)			
	Very necessary	Necessary	Neither, nor	Unnecessary
Male	19.2	69.4	10.3	1.1
Female	17.6	69.9	12.5	0.0
Total	18.5	69.6	11.2	0.7

Source: socioeconomic survey

4. Women's needs for FSC functions

91.8% of the female respondents expect FSCs to offer technical guidance on aquaculture, followed by offering market information (80.9%), developing the market (79.4%), purchasing production materials at lower prices (71.2%), and distributing dividends (23.5%). See Table 7-9.

Table 7-9 Women's Expectations for FSCs

Gender	Expectations for FSCs (%)				
	Offering technical guidance on cultivation and aquaculture	Market development	Dividend distribution	Purchasing production materials at lower prices	offering market information
Male	86.1	78.8	22.8	76.3	81.5
Female	91.8	80.3	23.5	71.2	80.9
Total	88.5	79.4	23.1	74.1	81.2

Source: socioeconomic survey

5. Women's perceptions of the role of FSCs in the FPCS

81.2% of the female respondents think that FSCs play an important or very important role in the FPCS, showing no significant gender difference.

Table 7-10 Women' Perceptions of the Role of FSCs in the FPCS

Gender	Perceptions of the role of FSCs in the FPCS (%)				
	Very important	Important	Neither, nor	Unimportant	Very unimportant
Male	17.6	64.2	13.5	3.2	1.6
Female	17.6	63.6	14.4	2.5	1.9
Total	17.6	63.9	13.9	2.9	1.7

Source: socioeconomic survey

The top 3 functions of FSCs in the FPCS as perceived by women are offering market information (83.1%), reducing circulation links (64.3%), realizing economy of scale (61.8%).

Table 7-11 Women' Perceived Functions of FSCs in the FPCS

County	Role of FSCs in the FPCS (%)						
	Realizing economy of scale	Offering market information	reducing circulation links	Improving farm product quality and safety	Implementing agricultural policies	Marketing farm products	Other
Male	58.4	80.8	62.8	22.1	28.5	28.5	8.2
Female	61.8	83.1	64.3	18.8	29.5	27.6	7.5
Total	59.8	81.8	63.4	20.7	28.9	28.1	7.9

Source: socioeconomic survey

7.2.4 Conclusion

Compared to men, local women show no significant difference in FSC awareness and attitude, showing that they are eligible for joining FSCs. Therefore, it is very necessary to absorb affected women into FSCs. For women's FSCs, capable and prestigious female leaders are the key. Since women are the main force of agricultural production in the project area, the government should offer assistance to women willing to found FSCs. In addition, at least 30% of management staff members and ordinary members of FSCs should be women, and their rights and interests fully protected.

7.3 Women's Participation in the FPCS and Needs

Women can play the same role as men in economic and social development. It is found that most laborers dealing with agricultural production are mostly middle-aged and elderly women.

Therefore, women play a crucial role in the FPCS, especially in the early stage, and their participation level will affect project implementation to some extent. Women's participation in the FPCS and their needs are analyzed as follows:

7.3.1 Women's Participation

Women participate in production and marketing in the FPCS mainly, including:

Women's participation in farm product marketing is shown in that some women purchase farm products as rural brokers. In this case, they usually do this together with their husbands, and deal mainly with bookkeeping and accounting, while men deal mainly with weighing and logistics.

Women may also sell farm products directly as retailers. Some women would carry their own farm products, such as vegetables and fruit, to markets, county towns or roadsides for sale. In some townships where there is no market or market booth rental is high, many women sell products by the road. The Project will meet local women's need for farm product trading platforms.

7.3.2 Women's Perceptions of and Attitudes to the FPCS

1. **Women's Satisfaction with the FPCS**

27.2% of the female respondents are satisfied or very satisfied with the FPCS, lower than that of the males (35.0%); 23.8% of the females are dissatisfied or very dissatisfied, lower than that of the males (30.1%). In addition, almost half of the females are neither satisfied nor dissatisfied with the FPCS.

Table 7-12 Women's Satisfaction with the FPCS

Gender	Satisfaction with the FPCS (%)				
	Very satisfied	Satisfied	Neither, nor	Dissatisfied	Very dissatisfied
Male	2.6	32.4	34.9	23.0	7.1
Female	2.1	25.1	48.9	18.3	5.5
Total	2.4	29.5	40.5	21.1	6.5

Source: socioeconomic survey

2. **Women's Attitudes to Farm Product Circulation Costs**

63.5% of the female respondents think that farm product circulation costs are high, while this percentage is 69.3% among the males; 25.9% of the females think that such costs are normal, while this percentage is 19.0% among the males; 10.6% and 11.7% of the females and males think that such costs are high. It can be seen that most of the respondents think farm product circulation costs are high.

Table 7-13Women's Attitudes to Farm Product Circulation Costs

Gender	Attitude to farm product circulation costs (%)				
	Too high	High	Normal	Low	Too low
Male	11.7	69.3	19.0	0.0	0.0
Female	10.6	63.5	25.9	0.0	0.0
Total	11.3	67.0	21.8	0.0	0.0

Source: socioeconomic survey

3. **Women's perceptions of factors affecting farm product circulation**

The top 3 factors affecting farm product circulation among the female respondents are market information, infrastructure and intermediate circulation links, as chosen by 62.0%, 38.4% and 38.0% respectively; the top 3 factors affecting farm product circulation among the male respondents are market information, intermediate circulation links and logistics, as chosen by 64.7%, 46.2% and 32.5% respectively. In storage and processing, brand awareness and intermediate circulation links, the percentages of males and females differ by 15.0%, 10.0% and 8.2% respectively, showing significant gender differences.

Table 7-14 Women's Perceptions of Key Factors Affecting Farm Product Circulation

Gender	Key factor affecting farm product circulation (%)							
	Infrastructure	Product quality	Logistics	Storage and processing	Brand awareness	Market information	Government guidance	Intermediate circulation links
Male	31.0	21.1	32.5	32.5	25.6	64.7	15.7	46.2
Female	38.4	25.5	28.5	17.5	15.6	62.0	22.8	38.0
Total	33.9	22.8	30.9	26.5	21.6	63.6	18.6	42.9

Source: socioeconomic survey

4. Women's Perceptions of Issues in Farm Product Circulation

The top 3 issues in farm product circulation among the female respondents are high circulation costs, many intermediate links and low added value, as chosen by 44.5%, 38.8% and 31.6% respectively; the top 3 issues in farm product circulation among the males are many intermediate links, high circulation costs and low added value, as chosen by 42.9%, 39.3%, 35.0% respectively. There are some gender differences in this respect.

Table 7-15Women's Perceptions of Issues in Farm Product Circulation

Gender	Issue in farm product circulation (%)					
	High circulation costs	Serious circulation losses	Small circulation radius	Low added value	Unsecured quality and safety	Many intermediate links
Male	39.3	21.8	27.7	35.0	14.5	42.9
Female	44.5	22.8	31.2	31.6	14.4	38.8
Total	41.4	22.2	29.1	33.6	14.5	41.2

Source: socioeconomic survey

5. Perceptions of subjects of farm product circulation

97.3% of the female respondents regard themselves as farmers in the FPCS, 1.1% as brokers, 0.4% as middlemen and 1.1% as retailers, while these percentages are 94.7%, 2.0%, 0.3% and 3.0% among the males respectively. There is no significant gender difference in this respect.

Table 7-16 Women's Perceptions of Subjects of Farm Product Circulation

Gender	Subject (%)			
	Farmer	Broker	Middleman	Retailer
Male	94.7	2.0	0.3	3.0
Female	97.3	1.1	0.4	1.1
Total	95.7	1.7	0.3	2.3

Source: socioeconomic survey

7.3.3 Women's Needs for the FPCS

A sound mechanism should be established to improve women's participation in the FPCS. This will improve women's capacity, give play to the advantages of the Project, and realize the economic and social benefits of the Project. Women's needs for the FPCS mainly include:

1. Needs for market information

Since women's educational levels are generally low, they are insensitive to market information, such as product prices and marketing channels, and are unable to adjust their cultivation structure based on price fluctuation and market demand, making them disadvantaged in production. Local women expect market information training and broader market information channels from the

Project.

2. Selling products through FSCs

In this link, women should be encouraged to join FSCs, especially marketing FSCs. Women should be trained on oral communication to enhance their confidence in marketing. In addition, women's FSCs (namely FSCs founded, run and managed by women) should also be developed appropriately to fully inspire their enthusiasm.

3. Receiving free booths

Middle-aged and old women are the main force of roadside product sale. They usually carry products by tricycle or on the back to bazaars or roadsides. This is adverse to the centralized marketing of farm products, and also affects public order. Many women say that farm product markets do not have enough booths or booth rental is too high to afford. They expect that large farm product trading centers be constructed, and some free booths offered to them for product trading. Each farm product market proposed under the Project will have a spot trading area for scattered farmers, which will be available for free.

➔ **Women's FGD in Changtan Village, Wubei Town, Anyuan District, Pingxiang City:**

We usually sell vegetables to the FSC directly. When there was no FSC in the past, we sold vegetables ourselves or through others, and did not know prices. Today, many women still sell vegetables at farm product markets or by the road. If the Project can provide free booths, we will sell vegetables more conveniently.

➔ **Women's FGD in Zhoutou Village, Tangzhou Town, Taihe County:**

Our village is close to the county town, and many villagers sell taro, potato, etc. there by the road. We don't know prices at all, and would usually ask friends or middlemen.

7.3.4 Conclusion

It can be seen that women can participate in the whole FPCS, which is consistent with the Bank's requirements for the protection of women's rights and interests. This ensures that different groups of people benefit equally, and is also an important way of improving women's status and capacity. Specifically, women participate in the production and marketing links in the FPCS mainly. Of course, women's whole-process participation will increase their income, and improve their confidence and social status.

Currently, there are still some deficiencies in women's participation, as reflected in women's inadequate education and weak labor skills. On the institutional level, women are still marginalized. Therefore, we should improve the women's participation mechanism actively and establish sound participation channels.

7.4 Project Impacts on Women

The Project will improve farm product circulation conditions, reduce women's labor intensity, and improve their market awareness, production skills and family status.

7.4.1 Positive Impacts

1. Creating job opportunities for women and increasing their income

FSCs will integrate female labor, especially middle-aged and old women, because most local male laborers work outside, and women are the main force of agricultural production. Among the existing FSCs, female laborers account for 60%-80% of labor force. The Project will support the establishment of FSCs and farm product trading centers, thereby giving play to female labor in the FPCS through farm product production, processing, storage, marketing and circulation. This will improve the FPCS, and make the Project more sustainable.

In addition, the Project generate some skilled and unskilled jobs at the construction and operation stages for local laborers, 30% of which will be first made available to local women, the poor and other vulnerable groups, thereby increasing their income.

- ➔ **Women's FGD in Shuixiba Village, Taojiang Xiang, Longnan County, Ganzhou City:**

We are willing to receive jobs from the Project, because we are poorly educated and our living standard is low. We cannot work outside like men, because we have to take care of our families. A job means more income.

- ➔ **Interview with the head of Jiangzhai Village, Wencheng Town, Yushan County, Shangrao City:**

Our village deals with red bud taro on a large scale, but most laborers are elderly women, because most young men are working in the county town. There are 3 FSCs in our village, with most members being women. They deal with cultivation and product packaging.

2. Improving women's production skills and management capacity through FSC training

Women are the main force of housework and agricultural production. However, in the project area, Few FSCs are led by women, and women's enthusiasm to participate in FSCs is inadequate. In most cases, women are dependent on their husbands or sons, and lack voice in family decision-making. In addition, women do not have independent thinking about agricultural production and farm product circulation due to low educational levels. For this reason, they may be unable to express their needs in the participation process.

The Project will further organize women and promote their participation through FSCs, so that they can receive market information easily and quickly, and resist market risks more effectively. FSC training will also improve women's production skills and reduce their production costs.

3. Improving women's family status and living standard

Through participation in different circulation links of farm products, women can earn more money and improve their family status. Through training on production skills, FSC management, and trading and information system application, women's capacity and thinking will be improved, thereby promoting gender equality both at home and in the public.

- ➔ **Women's FGD in Wencheng Village, Bingxi Town, Yushan County, Shangrao City:**

Our husbands are mostly working in the county town or the urban area, leaving us to do housework and farming at home. Food crops are for own consumption first, and the remainder is sold at the market. Young women would find a job at the FSC, usually dealing with pesticide and fertilizer application at the base.

4. Promoting women's progress through FSCs

Women's FSCs are small in number and underdeveloped, and involve a short industry chain. They are short of management professionals, and mostly dormant or semi-dormant. Although women participate in FSCs to a low extent, their participation in FSC meetings and training courses has improved their participation capacity and promoted rural harmony effectively. In addition, the Project will open their eyeshot and improve their development capacity quickly.

- ➔ **Villager FGD in Xiayang Village, Junmenling Town, Huichang County, Ganzhou City:**

We have joined the Xinsheng Oil Tea FSC in Huichang County, which has its own base and hires us for management at 14.5 yuan/mu per month. We are responsible for weeding, soil fertilization, pest control, etc. A couple usually manages 220 mu. Wages are paid monthly.

7.4.2 Potential Risks

Although women will benefit from the Project, they may also be exposed to some potential risks if gender sensitivity is absent in project design, implementation and management, mainly including:

1. **Women's FSC participation risks**

Local women participate in FSCs in two ways mainly: First, they participate in FSCs management, but to a low extent, where most FSC management staff members are men, and female staff members mostly deal with accounting, secretarial work; second, they participate in FSC employment, training, etc., where women usually do basic jobs, such as odd jobs paid on a daily basis. Women's participation rate should be ensured in the FSCs established under the Project.

2. **Ignorance of women's needs in the Project**

Since local women are of low educational levels in general, their ability to accept new things is weak, and they participate in family and public affairs on a low degree. As a result, their needs and suggestions are often neglected at the design, construction and operation stages. For example, female workers may be excluded, or their rights are not protected during construction.

3. **Ignorance of women's needs during farm product circulation**

Women are the main force of farm product marketing, such as vegetables, grain and fruit. For cultural and social reasons, their needs are often neglected during farm product circulation, such as needs for market information, marketing through FSCs, and free booths.

8. Ethnic Minority Analysis

8.1 Identification and Screening of Minority Population

1. Basis of identification

"Ethnic minority" means a unique and vulnerable social and cultural group[5] identified as follows:

a. Self-identified as members of an ethnic cultural group, which is recognized and respected by others;

b. Attached collectively to residential areas or ancestral territories with unique geographic characteristics in the project area, and also to natural resources in such residential areas;

c. Having traditional cultural, economic, social or political institutions different from those of mainstream society and culture; and

d. Often having a minority language different from the national or local official language.

2. Methods of identification

a. Field survey: learning the project area's population structure, ethnic composition, economic structure, distribution of minority population, etc.

b. Literature review: collecting statistical yearbooks, reports, annals, etc. on local population, ethnic groups, culture, customs, etc. to learn minority features and customs, and their differences from the Han people

c. Key informant interview (with heads of ethnic and religious affairs bureaus, etc.): learning local ethnic minorities, population, features, distribution, and ongoing ethnic minority development projects

3. Results

1) Ethnic minorities

Jiangxi is a province where minority population is scattered, and has 54 ethnic minorities, with a minority population of 152,000, accounting for 0.34% of gross population. 13 ethnic minorities have a population of over 1,000, including She, Hui, Mongolian, Miao and Manchu. At the end of 2010, Jiangxi had 8 minority Xiangs, 82 minority administrative villages and over 400 minority village groups.

The PMOs have identified minority population carefully in accordance with the Bank policy OP4.10 "Indigenous Peoples". Through identification, the project area has a gross population of 1,273,906, including a minority population of 1,713, accounting for 0.13%, composed of She, Hui, etc.

2) Distribution of minority population

On the basis of identification, the task force investigated the distribution of minority population by means of field survey and literature review with the assistance of the PMOs. It is found that there is no minority community in the project area.

Table 8-1 Identification of Local Minority Population

County	Townships	Population	Han population	Minority population	Ethnic minority	
					She	Other
JETDZ	3	76942	76437	55	12	43
Anyuan	5	175252	174990	262	176	86
Huichang	7	218577	217940	637	324	313
Longnan	3	53926	53863	63	22	41

[5] This policy has no lower limit, because the population of an ethnic minority may be very small, which would make them even more vulnerable.

Pengze	5	60903	60846	57	20	37
Jing’an	3	37162	37133	29	9	20
Yushan	6	267471	267251	220	87	133
Taihe	5	209714	209394	320	256	64
Qingyuan	7	173959	173889	70	0	70
Total	44	1273906	1271743	1713	906	807

Source: local statistical yearbooks, PMOs, and ethnic and religious affairs bureaus

8.2 Necessity of EMDP

Through ethnic minority identification and screening: 1) There is a very small minority population in the project area, but it is not a minority area; 2) The minority population is scattered, and there is no minority community in the project area; 3) All ethnic minorities show no difference from the Han people in terms of economic and social structure, production and living customs, language, social intercourse, marriage, religion, etc., and enjoy the same employment, remuneration, promotion and election rights; and 4) Minority and Han residents in the project area enjoy the same development rights, and benefit from the Project equally, and the Project will not pose any special risk to minority residents. Therefore, it is not necessary to prepare an EMDP for the Project.

9. Land Acquisition/Occupation Analysis

9.1 Overview

According to the Feasibility Study Report, the market infrastructure development component of the Project may involve temporary or permanent land use, where 9 large-scale markets for local characteristic farm products will be constructed, and their trading volume will account for over 80% of local output.

In order to identify local land acquisition and occupation to see if it is necessary to prepare a RAP and minimize involuntary resettlement, the task force identified potential land acquisition and house demolition impacts in the 9 project counties at the preparation stage. See Table 9-1.

9.2 Impact Analysis

According to the survey, all the 9 project counties involve the construction of farm product markets, where 9 farm product markets will be constructed under the Project. For the convenience of farm product circulation, all the 9 farm product markets will be located around county towns or in outskirts, and close to the logistics parks. The construction land for the farm product markets has been determined through adequate consultation with local residents and farmers.

The construction land for the farm product markets under the Project is as follows:

1) The proposed sites for the farm product markets are on unoccupied state-owned land, involving no affected population.

2) All farm product markets will be constructed on state-owned land, which had been converted into state-owned construction land by July 2011.

3) All land used for the Project was acquired during 2008-2011 by means of bidding, auction or listing, with no outstanding issue in land acquisition.

4) No grievance or appeal occurred during this period, so there is no need to prepare a resettlement due diligence report or RAP

Since Jiangxi is a major agricultural province, farm product circulation is essential to agricultural production, and local farmers have strong needs for farm product circulation and development, so they support land occupation for the farm product markets.

In sum, land acquisition and resettlement should be minimized during project construction. A RPF has been prepared for potential site change, land acquisition or house demolition at the construction stage to direct potential resettlement activities. When the Project will inevitably occupy any land, house or other asset, the local PMO should carry out relevant activities in accordance with the RPF. See the RPF for details.

Table 9-1 Summary of Land Occupied for Farm Product Markets in the Project Counties

No.	Project county	Name	Site	Land area (mu)	Land nature	Time of acquisition	Leveled or not	Mode of acquisition	Acquisition progress
1	Jing'an	Jing'an County Modern Farm Product Market	Jing'an Industry Park	102.2	State-owned	2011.6.16	No	Bidding	Government announcement issued
2	Pengze	Poyang Lake Cotton Market	Penghu Bay Industry Park, Pengze County	135	State-owned	2011.1.28	No	Bidding	Land title certificate issued
3	Huichang	Huichang County Modern Farm Product Market	Taiwan Industry Park, Huichang County	42	State-owned	2010.11.22	Begun	Listing	Land title certificate issued
4	Taihe	Taihe County Farm Product Trading Center	Beside Taihe Industry Park	80	State-owned	2010.8.18	No	Bidding	Land title certificate issued
5	JETDZ	Jiujiang International Aquatic Product Trading Center	West Jiujiang Port Area (beside Jiurui Highway)	73.67	State-owned	2008.6.20	No	Bidding	Land title certificate issued
6	Anyuan	Anyuan District Farm and Sideline Product Wholesale Market	Datian Village, Wubei Town, Anyuan District	80	State-owned	2011	No	Bidding, auction, listing	Land title certificate issued for 50 mu Government announcement issued for 30 mu
7	Yushan	Yushan County Farm Product Trading Center	Suburb of Yushan, Shuangming and Zhangcun Towns	47.22	State-owned	2008	No	Allocation	Land title certificate issued
8	Longnan	Longnan County Farm Product Market	Fukang Industry Park, Longnan County	105	State-owned	/	No	Allocation	Land title certificate issued
9	Qingyuan	Farm product distributing platform	Songxi Village Committee, Futan Town, Qingyuan District	80	Unused hilly land	/	No	/	/

Source: socioeconomic survey, PMOs

10. Training Need Analysis

10.1 Overview

In order to ensure that the training activities under the Project are carried out effectively as expected, the training needs of the affected population should be learned, including the PMO staff, RIS operation managers, farm product e-commerce operators, farm product market managers, family farm owners, and FSC managers.

The training need survey was conducted in the form of questionnaire survey, with 270 copies distributed in the 8 project counties in total, with 260 valid copies recovered, accounting for 96.3%.

Table 10-8 Distribution of Training Need Survey Samples

Group	Number of copies	Valid copies	
		N	Percent (%)
PMO staff	45	42	93.3
RIS operation manager	45	45	100.0
Farm product e-commerce operator	45	45	100.0
Farm product market manager	45	42	93.3
Family farm owner	45	45	100.0
FSC manager	45	41	91.1
Total	270	260	96.3

Source: training need survey

10.2 Existing Training Modes and Effects

1. Participation in FPCS training

46.5% of the 260 respondents have been trained, ranging from PMO staff (61.9%) to RIS operation managers (33.3%). Among the 121 trained respondents, 93.4% of the training courses are organized by the government.

Table 10-9 Training Participation

Group	Training participation			
	Yes		No	
	N	%	N	%
PMO staff	26	61.9	16	38.1
RIS operation manager	15	33.3	30	66.7
Farm product e-commerce operator	20	44.4	25	55.6
Farm product market manager	18	42.9	24	57.1
Family farm owner	19	42.2	26	57.8
FSC manager	23	56.1	18	43.9
Total	121	46.5	139	53.5

Source: training need survey

Table 10-10 Organizers of Past Training

Group	Organizer of training (%)				
	Government	Enterprise	School	Individual	Other
PMO staff	96.2	0.0	0.0	0.0	3.8
RIS operation manager	73.3	0.0	0.0	0.0	26.7
Farm product e-commerce operator	95.0	5.0	0.0	0.0	0.0
Farm product market manager	94.4	0.0	0.0	0.0	5.6
Family farm owner	100.0	0.0	0.0	0.0	0.0
FSC manager	95.7	0.0	4.3	0.0	0.0
Total	93.4	0.8	0.8	0.0	5.0

Source: training need survey

2. Training costs

84.3% of the respondents have received training for free, 15.7% have received partly self-paid training, and none has received fully self-paid training.

Table 10-11 Costs of Past Training

Group	Training costs (%)		
	Free	Partly self-paid, partly paid by organizer	Fully self-paid
PMO staff	84.6	15.4	0.0
RIS operation manager	100.0	0.0	0.0
Farm product e-commerce operator	75.0	25.0	0.0
Farm product market manager	77.8	22.2	0.0
Family farm owner	78.9	21.1	0.0
FSC manager	91.3	8.7	0.0
Total	84.3	15.7	0.0

Source: training need survey

3. Training time

As for training time, 87.5% of the respondents choose one week or less, 8.3% choose 1-2 weeks, 2.5% choose 2 weeks to one month, and only 1.7% choose over one month.

Table 10-12 Past Training Time

Group	Training time (%)			
	One week or less	1-2 weeks	2 weeks to one month	Over one month
PMO staff	92.3	0	7.7	0
RIS operation manager	93.3	6.7	0	0
Farm product e-commerce operator	85	10	0	5
Farm product market manager	77.8	22.2	0	0
Family farm owner	84.2	10.5	0	5.3
FSC manager	91.3	4.3	4.3	0
Total	87.5	8.3	2.5	1.7

Source: training need survey

4. Scope of training

In general, the top 3 items are farm product quality and safety (58.7%), basic FPLS knowledge (48.8%), and marketing (33.1%). The scope of training varies from group to group. For PMO staff, the top 3 items are basic FPLS knowledge (69.2%), farm product quality and safety (61.5%), and market management (28.9%). For RIS operation managers, the top 3 items are farm product quality and safety (66.7%), basic FPLS knowledge (46.7%), and farm product processing, packaging and storage skills (26.7%). For farm product e-commerce operators, the top 3 items are electronic trading and information system application (60.0%), marketing platform management (50.0%), and farm product quality and safety (50.0%). For farm product market managers, the top 3 items are farm product quality and safety (72.2%), market management (61.1%), and marketing platform management (50.0%). For family farm owners, the top 3 items are farm product quality and safety (57.9%), FSC operation management (57.9%), and basic FPLS knowledge (47.4%). For FSC managers, the top 3 items are marketing (56.5%), FSC operation management (52.2%), and farm product quality and safety (47.8%).

Table 10-13 Scope of Past Training

Group	Scope of training (%)										
	Marketing platform management	Farm product processing, packaging and storage skills	Farm product quality and safety	Basic FPLS knowledge	Electronic trading and information system application	Market management	Marketing	FSC operation management	Logistics operation and management	WeChat business	Other

PMO staff	23.1	26.9	61.5	69.2	19.2	28.9	11.5	19.2	11.5	15.4	7.7
RIS operation manager	20.0	26.7	66.7	46.7	6.7	13.3	13.3	13.3	0.0	0.0	0.0
Farm product e-commerce operator	50.0	40.0	50.0	45.0	60.0	30.0	45.0	15.0	25.0	40.0	5.0
Farm product market manager	50.0	44.4	72.2	38.9	11.1	61.1	44.4	27.8	16.7	11.1	0.0
Family farm owner	21.1	26.3	57.9	47.4	31.6	31.6	26.3	57.9	5.3	26.3	0.0
FSC manager	30.4	34.8	47.8	39.1	17.4	30.4	56.5	52.2	13.0	13.0	0.0
Total	31.4	33.0	58.7	48.8	24.8	32.2	33.1	31.4	12.4	18.2	2.5

Source: training need survey

5. Training effect

86.0% of the respondents think training is effective or very effective, 13.2% think it is neither effective nor ineffective, and 0.8% think it is ineffective.

Table 10-14 Effects of Past Training

Group	Training effect (%)				
	Very effective	Effective	Neither, nor	Ineffective	Very ineffective
PMO staff	53.8	42.3	3.8	0.0	0.0
RIS operation manager	53.3	40.0	6.7	0.0	0.0
Farm product e-commerce operator	40.0	30.0	30.0	0.0	0.0
Farm product market manager	33.3	50.0	16.7	0.0	0.0
Family farm owner	42.1	42.1	15.8	0.0	0.0
FSC manager	34.8	52.2	8.7	4.3	0.0
Total	43.0	43.0	13.2	0.8	0.0

Source: training need survey

Among the 139 respondents who have received no training, 72.7% think it that training on the FPCS is very necessary, and 20.9% think that it is necessary.

Table 10-15 Necessity of Training on the FPCS

Group	Necessity for training on the FPCS (%)				
	Very necessary	Necessary	Neither, nor	Unnecessary	Very unnecessary
PMO staff	75.0	12.5	12.5	0.0	0.0
RIS operation manager	76.7	13.3	6.7	3.3	0.0
Farm product e-commerce operator	76.0	24.0	0.0	0.0	0.0
Farm product market manager	75.0	25.0	0.0	0.0	0.0
Family farm owner	69.2	15.4	15.4	0.0	0.0
FSC manager	61.1	38.9	0.0	0.0	0.0
Total	72.7	20.9	5.8	0.7	0.0

Source: training need survey

10.3 Perceptions of and Attitudes to the FPCS

1. Necessity of real-time expert consulting

79.6% of the respondents need real-time expert consulting on the FPCS, 20.0% think it is neither necessary nor unnecessary, and only 0.4% think it is unnecessary. The percentages of the 6 groups thinking such consulting is necessary are all above 70%.

Table 10-16 Necessity of Real-time Expert Consulting

Group	Necessity of real-time expert consulting (%)		
	Necessary	Neither, nor	Unnecessary
PMO staff	88.1	11.9	0.0
RIS operation manager	71.1	28.9	0.0
Farm product e-commerce operator	82.2	15.6	0.0
Farm product market manager	85.7	14.3	0.0
Family farm owner	71.1	28.9	0.0
FSC manager	80.4	19.6	0.0
Total	79.6	20.0	0.4

Source: training need survey

2. Training costs

86.55% of the respondents think that FPCS training under the Project should be fully free, 12.4% think it should be fully self-paid, and 1.2% think it should be partly self-paid.

Table 10-17 Training Costs

Group	Training costs (%)		
	Free	Partly self-paid, partly paid by organizer	Fully self-paid
PMO staff	69.0	0.0	31.0
RIS operation manager	95.6	0.0	4.4
Farm product e-commerce operator	81.8	0.0	18.2
Farm product market manager	85.7	2.4	11.9
Family farm owner	93.3	0.0	6.7
FSC manager	92.7	4.9	2.4
Total	86.5	1.2	12.4

Source: training need survey

3. Willingness to attend training

96.5% of the respondents are willing to attend training on the FPCS under the Project, where the percentages of the 6 groups willing to attend such training are all above 90%.

Table 10-18 Willingness to Attend Project Training

Group	Willingness to attend training (%)		
	Yes	No	Depends
PMO staff	100.0	0.0	0.0
RIS operation manager	91.1	2.2	6.7
Farm product e-commerce operator	100.0	0.0	0.0
Farm product market manager	92.9	2.4	4.8
Family farm owner	97.8	0.0	2.2
FSC manager	97.6	0.0	2.4
Total	96.5	0.8	2.7

Source: training need survey

10.4 Training Needs of the Affected Population

1. Scope of training

For PMO staff, the top 3 items are basic FPCS knowledge (81.0%), farm product branding (64.3%), and farm product quality and safety (59.5%). For RIS operation managers, the top 3 items are basic FPCS knowledge (68.9%), marketing (55.6%), and farm product quality and safety (53.3%). For farm product e-commerce operators, the top 3 items are basic FPCS knowledge

(64.4%), WeChat business (53.3%), and electronic trading and information system application (53.3%). For farm product market managers, the top 3 items are farm product quality and safety (78.6%), market management (66.7%), and basic FPCS knowledge (61.9%). For family farm owners, the top 3 items are farm product quality and safety (71.1%), farm product branding (57.8%), and basic FPCS knowledge (57.8%). For FSC managers, the top 3 items are FSC management (68.3%), farm product quality and safety (58.5%), and marketing and basic FPCS knowledge (53.7%).

In general, the top 3 items are basic FPCS knowledge (64.6%), farm product quality and safety (60.4%) and farm product branding (50.0%). The scope of training should be determined in consideration of different target groups' specific needs in order to improve training effects and promote the realization of the project objectives.

Table 10-19 Selection of Training Scope

Group	Scope of training (%)											
	Basic FPCS knowledge	Farm product processing, packaging and storage skills	FSC management	Farm product quality and safety	Market management	Marketing	Farm product branding	Logistics operation and management	WeChat business	Electronic trading and information system application	Marketing platform management	Other
PMO staff	81.0	31.0	31.0	59.5	40.5	26.2	64.3	23.8	33.3	42.9	26.2	2.4
RIS operation manager	68.9	26.7	20.0	53.3	37.8	55.6	31.1	20.0	33.3	26.7	37.8	4.4
Farm product e-commerce operator	64.4	53.3	22.2	42.2	44.4	1.1	51.1	22.2	53.3	51.1	20.0	15.6
Farm product market manager	61.9	47.6	45.2	78.6	66.7	40.5	52.4	31.0	33.3	33.3	31.0	11.9
Family farm owner	57.8	44.4	42.2	71.1	40.0	51.1	57.8	28.9	24.4	31.1	26.7	11.1
FSC manager	53.7	48.8	68.3	58.5	36.6	53.7	43.9	22.0	36.6	31.7	36.6	17.1
Total	64.6	41.9	37.7	60.4	44.2	47.3	50.0	24.6	35.8	36.2	29.6	10.4

Source: training need survey

2. Training mode

The top ranking training modes are classroom instruction (75.8%), visit to similar bases or operators (63.8%), and field training (54.6%). The Project should offer diversified training modes for better training effects.

Table 10-20 Selection of Training Mode

Group	Training mode (%)					
	Classroom instruction	Field training	Remote video play	Visit to similar bases or operators	Probation at similar bases or operators	Other
PMO staff	64.3	42.9	33.3	71.4	45.2	0.0
RIS operation manager	66.7	53.3	28.9	51.1	31.1	0.0
Farm product e-commerce operator	86.7	42.2	22.2	53.3	31.1	4.4
Farm product market manager	85.7	54.8	35.7	64.3	42.9	0.0
Family farm owner	77.8	75.6	40.0	82.2	33.3	0.0
FSC manager	73.2	58.5	39.0	61.0	31.7	0.0
Total	75.8	54.6	33.1	63.8	35.8	0.8

Source: training need survey

Over half of the respondents (50.8%) accept both intensive and non-intensive training, 26.1% prefer intensive training, and 22.7% prefer non-intensive training.

Table 10-21 Selection of Training Frequency

Group	Training frequency (%)			
	Intensive training	Non-intensive training	Both acceptable	Other
PMO staff	16.7	19.0	64.3	0.0
RIS operation manager	26.7	28.9	42.2	2.2
Farm product e-commerce operator	48.9	13.3	37.8	0.0
Farm product market manager	14.3	23.8	61.9	0.0
Family farm owner	28.9	20.0	51.1	0.0
FSC manager	19.5	31.7	48.8	0.0
Total	26.1	22.7	50.8	0.4

Source: training need survey

3. Training timing

Most of the respondents (71.9%) think that training should be offered in the slack season, 25.0% choose any time, and only 3.1% choose the busy season.

Table 10-22 Training Timing

Group	Training timing (%)		
	Busy season	Slack season	Any time
PMO staff	0.0	50.0	50.0
RIS operation manager	11.1	66.7	22.2
Farm product e-commerce operator	2.2	75.6	22.2
Farm product market manager	2.4	76.2	21.4
Family farm owner	2.2	73.3	24.4
FSC manager	0.0	90.2	9.8
Total	3.1	71.9	25.0

Source: training need survey

As for training time, 57.7% of the respondents choose one week or less, 19.6% choose 1-2 weeks, 4.6% choose 2 weeks to one month, and 18.1% think it depends.

Table 10-23 Selection of Training Time

Group	Training time (%)			
	One week or less	1-2 weeks	2 weeks to one month	Depends
PMO staff	61.9	14.3	2.4	21.4
RIS operation manager	44.4	28.9	6.7	20.0
Farm product e-commerce operator	62.2	11.1	11.1	15.6
Farm product market manager	57.1	16.7	2.4	23.8
Family farm owner	62.2	22.2	0.0	15.6
FSC manager	58.5	24.4	4.9	12.2
Total	57.7	19.6	4.6	18.1

Source: training need survey

4. Training venue

As for training venue, 55.4% choose training center, 22.3% choose agricultural training school, 7.7% choose village committee and township government respectively, and 6.5% choose other.

Table 10-24 Selection of Training Venue

Group	Training venue (%)				
	Training center	Village committee	Township government	Agricultural training school	Other
PMO staff	59.5	4.8	7.1	23.8	4.8
RIS operation manager	48.9	8.9	11.1	17.8	11.1

Group	Training venue (%)				
	Training center	Village committee	Township government	Agricultural training school	Other
Farm product e-commerce operator	71.1	6.7	2.2	13.3	6.7
Farm product market manager	50.0	4.8	9.5	33.3	2.4
Family farm owner	48.9	11.1	8.9	28.9	2.2
FSC manager	53.7	9.8	7.3	17.1	12.2
Total	55.4	7.7	7.7	22.3	6.5

Source: training need survey

10.5 Existing Issues and Suggestions

According to the survey, potential trainees under the project include PMO staff, RIS operation managers, farm product e-commerce operators, farm product market managers, family farm owners, and FSC managers. The existing issues in training among the target groups are: ①Their training is organized mainly by the government, and their voluntary participation rate is low; ②Their training time is short, and training forms are not diversified enough; and ③They have a strong need for training, but have not attended sufficient training.

Their suggestions on training are as follows: ①Training should be scheduled in the slack season of farming, and offered at accessible places and in diversified forms; the scope of training should meet needs of different target groups; ②Strengthen information skills training in diversified forms to improve the target groups' IT application knowledge and skills; and ③Policy support for training should be strengthened, and free training offered where possible, thereby guiding the target groups to participate actively in FPCS construction and development.

11. Social Impact and Risk Analysis

11.1 Positive Impacts

1. Allow farmers to become rich through the construction of farm product circulation facilities and supporting infrastructure.

Farmers strongly expect to improve local roads, irrigation facilities and other infrastructure. The inadequate production and farm product circulation infrastructure, and the absence of effective management affect the sustainable development of agriculture and rural areas seriously, and add to farm product circulation costs. The Project will improve farm product production, circulation and marketing through the construction of farm product circulation facilities and supporting infrastructure, and create basic conditions for farmers' development.

2. Improve market services, provide convenience in production, processing and marketing, and protect farmers' interests.

Farmers strongly expect farm product market services, mainly including market information, vehicles, low-price or free booths, etc. First, farmers have limited sources of information on product supply/demand and prices, mostly brokers and neighbors, so they have an urgent need to obtain relevant information conveniently and timely. Second, farmers are short of means of transport, their existing means of transport are mostly carts and tricycles, and vehicle rental rates are high, so they expect vehicle lease service to help transport farm products to markets to sell for higher prices, other than being forced by brokers to sell for lower prices. Third, farmers expect to obtain low-rent or free booths at markets to sell farm products at relatively good prices. Fourth, trading markets will increase the added value of farm products and farmers' income.

3. Improve the self-development capacity of farmers through project publicity and training.

Local rural laborers are short of production and market management skills. The Project will improve the self-development capacity and subject awareness of farmers through project publicity and training.

4. Generate more job opportunities, especially for women and the poor.

The Project will generate job opportunities at the construction stage, so that local farmers, especially women, the poor and other vulnerable groups, can get employed and earn money. First, local farmers will have priority in road and market construction under the Project, where male workers are paid 100-200 yuan/day and female workers paid 80-150 yuan/day. Second, the development of local characteristic industries, such as oil tea, tealeaf, cotton, vegetable and fruit, will increase the demand for local labor and promote the employment of local surplus labor. Third, with the improvement of the local infrastructure and the development of local industries, the local investment environment will be improved, thereby generating more job opportunities. Fourth, farmers can improve labor skills and productivity through industrial development, thereby earning more money.

5. Further organize farmers, and improve farmers' market and brand awareness through normative FSC building.

Many local farmers are increasingly realize that if the state of being scattered persists, they can only live on selling primary farm products with low added value, low productivity and difficult market access. What truly adds value to farm products are further processing and subsequent links. Therefore, local farmers expect FSCs, family farms and major households to lead them to increase the market competitiveness of products, and extend the industry chain.

6. Enable farmers to benefit equally and promote the sustainable development of poor farmers.

Farmers generally benefit none or narrowly, and have no voice in FSCs. The Project will enable them to benefit equally by establishing joint-stock FSCs with benefit and responsibility sharing mechanisms, so that all members are entitled to dividends or rebates based on shares in a sustainable manner. The Project will promote the participation of farmers in FSCs, such as training, employment and management.

7. Expand marketing channels, increase unit output, and enhance farmers' resistance to market risks.

The Project will expand marketing channels for farmers in the following ways: First, farmers are organized through FSCs to improve bargaining power and resist market risks together. Second, farmers produce marketable farm products and increase the added value of products through unified production, purchase, management, harvesting, processing and marketing. Third, local farmers realize large-scale, industrialized, standardized production through FSCs.

8. Improve the capacity of FSCs, RISs, family farm owners, electronic and WeChat businesses, and other circulation players through training.

Most local FSCs are founded and driven by capable persons, major households or village committee members through their own capacity, social relations and prestige. However, due to insufficient human, material and financial resources, they often encounter financial or technical difficulties in development. In addition, FSCs rarely organize skills training on management, industry development, marketing, etc.

During project implementation, FSC managers and members will receive training on practical agricultural skills, FSC management, marketing, etc. to improve their capacity. In addition, leading enterprises, FSCs, major households, rural brokers and other players will be involved in project implementation to improve their management level.

9. Develop marketing channels of farm products and reduce circulation costs through e-commerce.

Some local enterprises and major cultivators have set up online stores to sell farm products, and some young farmers do this via social network apps. Electronic and WeChat businesses overcome some shortcomings of traditional marketing channels, such as inconvenience and high circulation costs. In addition, local RISs can provide agricultural information and services to improve the rural application level of modern IT, and solve production and daily issues for farmers.

In sum, e-commerce reduces intermediate links, makes direct trading between producers and consumers possible, and improves the circulation efficiency of farm products greatly.

11.2 Risk Analysis

1. Market risks

According to the Feasibility Study Report, the project counties develop 1-3 industries, where Pengze County (cotton) and JETDZ (aquaculture) develop one industry only, while the other counties develop 2-3 industries. Focusing on one industry can realize large-scale industrialization, improve market competitiveness, and make effective use of resources. However, a high level of specialization is associated with risks, including market uncertainties and unavailability of market information.

In many local areas, cultivation structure is unvaried, and farmers care only about immediate interests, which is very likely to result in an imbalance between supply and demand. In addition, labor, material and equipment prices required for industry development may rise, thereby increasing project construction and operation costs, and affecting the Project’s expected benefits.

2. Risks in infrastructure management, operation and maintenance

Due to the limited implementation period of the Project, the management and maintenance of the constructed public infrastructure will be necessary. If it is not managed and maintained properly, it will lose their functions. According to interviews with township and village officials, they think that infrastructure management is more important than construction.

3. Land utilization risks

According to the survey, the proposed market sites in the Project do not involve resettlement for the moment. If any collective or FSC land is involved, such land will be acquired through coordination and voluntary reallocation. In addition, some FSCs and enterprises supported by the Project may need to establish or expand production bases, which may be conducted by means of involuntary land transfer or equity participation with land. Land utilization may affect farmers’ production and livelihoods negatively, such as reduced land resources, reduced agricultural income and impoverishment. Potential resettlement at the construction stage should be conducted in consultation with farmers to protect their interests.

4. Training participation risks

In addition, training for PMO staff, RIS operation managers, farm product e-commerce operators, farm product market managers, family farm owners, and FSC managers is very likely to become a mere formality without any practical effect due to differences in capacity and training needs.

12. Information Disclosure and Public Participation

12.1 Information Disclosure and Public Participation at the Preparation Stage

Since August 2013, the provincial department of finance, development and reform commission, and department of agriculture have conducted a series of surveys and public consultation activities together with government agencies concerned. In addition, the feasibility study, SA and EIA agencies disclosed project information, and conducted free, prior and informed public participation and consultation at the preparation stage.

This report has been prepared based on questionnaire survey, FGD, key informant interview, stakeholder discussion, and other public participation activities. See Table 9-1.

1. Disclosure of information related to the Project

Project preparation began in 2009. The Jiangxi Provincial Government applied for the Project in December 2012, and the Project was approved by the National Development and Reform Commission, and the Ministry of Finance for inclusion in the National Plan for World Bank Financing during Fiscal Years 2014-2016 in July 2013.

In October 2013, a working meeting on the Project was held at the provincial department of agriculture.

In March 2014, the provincial development and reform commission, and department of finance issued the Notice on Fund Allocation for the Project (JPDRC [2014] No.286) to promote project implementation.

In April 2014, the provincial development and reform commission, and department of agriculture held a preparatory meeting for the Project in Nanchang to prepare for the Project.

Figure 12-1 Disclosure of Project Information

2. Field visits

In September 2013, the Bank pre-identification mission held a FGD, and visited some candidate sites.

In November 2013, the Bank identification mission visited JETDZ, Pengze County and Guixi City.

In June 2014, the Bank preparation mission visited Jiangxi.

In August 2014, the task force conducted fieldwork in the project area to learn production and living conditions, and collect comments and suggestions.

In December 2015, the Bank TA mission held at meeting at the provincial department of agriculture.

Figure 12-2 FGDs of Bank Project Identification and Support Missions

3. Questionnaire survey

In August-September 2014 and December 2015, the task force conducted a questionnaire survey in 19 villages in the 8 project counties based on multi-stage random sampling. The SA questionnaire survey has a sample size of 800, with 657 valid copies of the questionnaire recovered, accounting for 82.1%, including 394 males, accounting for 60%; 263 females, accounting for 40%; and 198 poor persons, accounting for 30.1%.

4. Key informant interview

In August-September 2014 and December 2015, the task force conducted key informant interviews with agriculture bureaus, poverty reduction offices, ethnic and religious affairs bureaus, women's federations, land and resources bureaus, and other agencies concerned, and key informant interviews with township and village heads, FSC heads, heads of leading enterprises, rural brokers, agricultural technicians, etc. to collect stakeholders' comments and suggestions on the Project.

5. In-depth interview

In August-September 2014 and December 2015, the task force conducted in-depth interviews with 232 persons in 19 villages, including 86 women, accounting for 37.1%; and 60 poor residents, accounting for 25.9%, to learn production and living conditions, the Project's potential impacts on them and potential risks, and comments and suggestions on the Project.

6. FGD

In August-September 2014 and December 2015, the task force held 38 FGDs (involving the poor, women and other vulnerable groups), including 21 village group FGDs with 231 residents (including 73 poor residents, accounting for 31.6%), and 19 women's FGDs with 89 women (38.5%), to learn production and living conditions, farm product circulation, project awareness, willingness to participate in the Project, and attitudes to, needs for, and comments and suggestions on the Project.

7. Organizational discussion meeting

In August-September 2014 and December 2015, the task force held 8 organizational discussion meetings with agriculture bureaus, poverty reduction offices, women's federations, civil affairs bureaus, ethnic and religious affairs bureaus, labor and social security bureaus, land and resources bureaus, house demolition offices, and other agencies concerned in the 8 project counties, to collect basic information of the project area, women's development, relevant policies, ongoing projects, and comments and suggestions on the Project.

Table 12-1 Information Disclosure and Public Participation Process

No.	Method	Time	Venue	Participants	Remarks
1	Disclosure of Project Information	Oct. 16, 2013	Provincial department of agriculture	Provincial department of agriculture, development and reform commission, department of finance, Dahua Consulting Group, PMOs	Assigning project preparation tasks to the agencies concerned of the project counties
		Mar. 19, 2014	Website of the provincial development and reform commission	All local residents	The Notice on Fund Allocation for the Project (JPDRC [2014] No.286) was issued to promote project implementation.
		Apr. 11, 2014	Nanchang	Jiangxi PMO, county PMOs, local development and reform commissions and agriculture bureaus	Completing project preparation as soon as possible, reporting project preparation, and disclosing relevant information
2	Field visit	Sep. 2, 2013	Nanchang, Jing'an	Bank pre-identification mission, provincial department of finance, development and reform commission, department of agriculture, local agencies concerned	The Bank pre-identification mission held a FGD, and visited some candidate sites.

			Nov. – Dec. 2013	Nanchang; JETDZ, Pengze County, Guixi City	Bank identification mission, finance professors, provincial department of finance, development and reform commission, department of agriculture, local agencies concerned	The Bank identification mission visited JETDZ, Pengze County and Guixi City.
			Jun. 2014	Nanchang; Le'an, Taihe and Huichang Counties	Bank preparation mission, finance professors, provincial department of finance, development and reform commission, department of agriculture; local agencies concerned	The Bank preparation mission visited Jiangxi.
			Aug. – Sep. 2014	8 project counties	the task force	The task force conducted fieldwork in the project area to learn production and living conditions, and collect comments and suggestions.
			Dec. 2015	Nanchang	Provincial department of agriculture, development and reform commission, department of finance, Dahua Consulting Group, PMOs	The Bank TA mission held at meeting at the provincial department of agriculture.
3	Questionnaire survey		Aug. – Sep. 2014, Dec. 2015	Project villages and villagers' homes	Local residents	The SA questionnaire survey has a sample size of 800, with 657 valid copies of the questionnaire recovered, accounting for 82.1%, including 394 males, accounting for 60%; 263 females, accounting for 40%; and 198 poor persons, accounting for 30.1%.
4	Key informant interview		Aug. – Sep. 2014, Dec. 2015	Project villages	Heads of county agencies concerned	Collecting stakeholders' comments and suggestions on the Project
5	In-depth interview		Aug. – Sep. 2014	Project villages and villagers' homes	232 villager representatives	Learning production and living conditions, the Project's potential impacts on them and potential risks, and comments and suggestions on the Project
6	FGD	Ordinary	Aug. – Sep. 2014, Dec. 2015	Project villages, village committees	21 village group FGDs with 231 residents (including 73 poor residents, accounting for 31.6%)	Learning production and living conditions, and attitudes to, needs for, and comments and suggestions on the Project
		Women	Aug. – Sep. 2014, Dec. 2015	Project villages, village committees	19 women's FGDs with 89 women (38.5%)	Collecting women's suggestions, and learning their needs and attitudes
7	Organizational discussion meeting		Aug. – Sep. 2014, Dec. 2015	Aug. – Sep. 2014, Dec. 2015	Provincial and county agencies concerned	Collecting basic information of the project area, women's development, relevant policies, ongoing projects, and comments and suggestions on the Project

12.2 Outcomes of Public Participation

At the preparation agency, the IAs conducted free, prior and informed public participation and consultation in the project area together with the task force and the EIA agency to collect local residents' attitudes, needs and suggestions, and also communicated with local agencies concerned, including ethnic and religious affairs bureaus, women's federations, agriculture bureaus, land and resources bureaus, civil affairs bureaus, labor and social security bureaus, statistics bureaus, township governments and village committees in order to optimize the project design, enhance the Project's benefits, and minimize its risks. The results of these public participation activities are as follows:

1. Project awareness

Among the 657 respondents, 596 are aware of the Project, accounting for 90.7%; 61 are unaware, accounting for 9.3%. Among the 596 respondents aware of the Project, 73.9% are aware a little, 16.9% are aware, and 4.2% are highly aware.

Table 12-2 Project Awareness

County	Aware		Unaware	
	N	Percent (%)	N	Percent (%)
JETDZ	43	86.0	7	14.0
Pengze	85	90.4	9	9.6
Yushan	74	84.1	14	15.9
Jing'an	71	92.2	6	7.8
Taihe	90	94.7	5	5.3
Anyuan	80	96.4	3	3.6
Huichang	86	95.6	4	4.4
Longnan	67	83.8	13	16.3
Total	596	90.7	61	9.3

Source: socioeconomic survey

Table 12-3 Project Awareness Levels

County	Highly aware	Aware	Aware a little	Unaware	Highly unaware
JETDZ	2.0	8.0	88.0	2.0	0.0
Pengze	3.2	25.5	68.1	3.2	0.0
Yushan	10.8	20.3	68.9	0.0	0.0
Jing'an	3.9	7.8	79.2	9.1	0.0
Taihe	3.2	26.3	68.3	1.1	1.1
Anyuan	2.5	8.8	77.5	10.0	1.2
Huichang	4.4	17.8	76.7	1.1	0.0
Longnan	7.5	26.9	65.6	0.0	0.0
Total	4.2	16.9	73.9	4.7	0.3

Source: socioeconomic survey

2. Support for the Project

98.5% of the respondents support the Project, 1.4% don't care, and only 0.1% do not support the Project.

Table 12-4 Support for the Project

County	Support		Not support		Don't care	
	N	Percent (%)	N	Percent (%)	N	Percent (%)
JETDZ	50	100.0	0	0.0	0	0.0
Pengze	94	100.0	0	0.0	0	0.0
Yushan	85	96.6	0	0.0	3	3.4
Jing'an	77	100.0	0	0.0	0	0.0
Taihe	95	100.0	0	0.0	0	0.0
Anyuan	83	100.0	0	0.0	0	0.0
Huichang	89	98.9	1	1.1	0	0.0
Longnan	74	92.5	0	0.0	6	7.5
Total	640	98.5	1	0.1	9	1.4

Source: socioeconomic survey

3. Willingness to attend training

a. Training on the FPCS: 90.5% of the respondents think that training on the FPCS is necessary or very necessary. Most farmers know little about the FPCS, especially in respect of market information, logistics development, etc., so they think that relevant training is necessary.

Table 12-5 Willingness to Attend Training on the FPCS

County	Very necessary	Necessary	Neither, nor	Unnecessary	Very unnecessary

JETDZ	12.0	80.0	6.0	2.0	0.0
Pengze	24.5	71.2	4.3	0.0	0.0
Yushan	28.4	63.6	6.8	1.2	0.0
Jing'an	15.6	77.9	5.2	1.3	0.0
Taihe	16.8	71.6	9.5	2.1	0.0
Anyuan	21.7	67.5	9.6	1.2	0.0
Huichang	32.2	60.0	5.6	2.2	0.0
Longnan	28.8	57.5	11.2	2.5	0.0
Total	23.0	67.5	7.9	1.6	0.0

Source: socioeconomic survey

b. FSC training: 18.5% of the respondents think that FSC training is very necessary, 69.6% think it is necessary, 11.2% think it is neither necessary nor unnecessary, and 0.7% think it is unnecessary. Most local farmers think that they can receive training on production skills, field management, pest control, etc. from FSCs, thereby increasing the output value of farm products.

4. Willingness to get employed

a. Construction stage: 92.7% of the respondents are willing to get employed under the Project, especially women, the poor and other vulnerable groups. Some farmers are unwilling to get employed under the Project because they are satisfied with their current jobs. It is advised to make 30% of unskilled jobs generated at the construction stage first available to local women, the poor and other vulnerable groups.

Table 12-6 Willingness to Get Employed at the Construction Stage

County	Willing		Unwilling	
	N	Percent (%)	N	Percent (%)
JETDZ	47	94.0	5	5.6
Pengze	83	87.4	12	12.6
Yushan	85	96.6	3	3.4
Jing'an	72	93.5	5	6.5
Taihe	83	88.3	12	12.6
Anyuan	80	96.4	3	3.6
Huichang	85	94.4	5	5.6
Longnan	74	92.5	6	7.5
Total	609	92.7	48	7.3

Source: socioeconomic survey

b. Operation stage: After project completion, especially after the establishment of FSCs under the Project, some permanent or temporary jobs will be generated, such as security guard, cleaner and management staff, 30% of which will be first made available to local vulnerable groups, such as the poor, women and old people. Local farmers are willing to do such jobs, because they can earn money while taking care of families.

12.3 Public Participation Plan

In order to ensure successful and sustainable project implementation, and minimize negative impacts, a sound public participation mechanism should be established through all stages of the Project, in which existing village organizational and activity forms (e.g., village congress, village group meeting), and village officials, villager representatives and cooperative economic organizations will be utilized to involve villagers in information disclosure, publicity, design, land use, construction and other activities of the Project. See Table 9-7.

12.4 Grievance Redress

All PMOs have appointed persons to accept grievances and appeals specially, and their contact information will be disclosed in the project villages before project implementation. The following grievance redress mechanism has been established for the Project:

- **Stage 1**: If a local resident is dissatisfied with this report, he/she may file an oral or written appeal with the village committee; in case of an oral appeal, the village committee should keep written records, and give a reply within 15 working days.

- **Stage 2**: If the appellant is dissatisfied with the disposition of Stage 1, he/she may file appeal with the township government, county PMO or Jiangxi PMO level by level, which should make a disposition within 15 working days.
- **Stage 3**: If the appellant is dissatisfied with the disposition of Stage 2, he/she may apply for arbitration with a competent authority in accordance with the Administrative Procedure Law of the People’s Republic of China.
- **Stage 4**: If the appellant is dissatisfied with the arbitration award, he/she may file a suit in a civil court in accordance with the Civil Procedure Law of the People’s Republic of China.

Table 12-7 Public Participation Plan

Stage	Item	Activities	Modes	Participants	Agencies	Remarks
Preparation	Project publicity	1) Introducing the Project 2) Collecting information from agencies concerned 3) Learning the Project's potential positive and negative impacts on farmers 4) Collecting stakeholders' attitudes, needs and suggestions	Online disclosure, media, participatory observation, FGD, in-depth interview, key informant interview	Agriculture bureaus, women's federations, civil affairs bureaus, social security bureaus, ethnic and religious affairs bureaus, etc.	PMOs, social experts	Free, prior and informed consultation
	Project mobilization	1) Reporting villagers' issues and concerns to village committees and PMOs 2) Determining the participation mode of women and the poor	Face-to-face communication, written report, summary material, FGD	Village committees, villagers, including women, the poor, etc.	PMOs, social experts	Assisted by agencies concerned
	Current situation of FSCs	1) Information on existing FSCs and FSC leagues 2) Development of existing FSCs, advantages and issues 3) e-commerce and product marketing of FSCs 4) Farmers' participation in and benefits from existing FSCs, especially women and the poor	Key informant interview	FSCs (agriculture bureaus), FSC heads	PMOs, social experts	Assisted by agencies concerned
	Current situation of the FPCS	1) Current situation of the existing FPCS; 2) Farm product markets and needs 3) Farmers' participation in the FPCS, especially women and the poor 4) Farm product quality and safety testing, processing, etc., and traceability system building 5) Market information, especially electronic information	key informant interview	Agriculture bureaus, leading enterprises, villagers, including women, the poor, etc.	PMOs, social experts	Assisted by agencies concerned
implementation	Preparation and establishment of FSCs and FSC leagues	1) Willingness to join FSCs and expectations, especially women and the poor 2) Expectations for industry development 3) Determining villagers' participation in industries and FSCs 4) FSC establishment, operation and supervision, especially women's FSCs 5) Cooperation of FSC leagues and farm product marketing associations	1) Village meeting 2) Village congress 3) Villager participation in project implementation	1) PMOs 2) FSCs 3) Villagers, including women, the poor, etc.	PMOs	Assisted by agencies concerned
	Preparation and establishment of RISs	1) Willingness to join RISs and expectations, especially women and the poor 2) RIS establishment and operation, especially RISs established by women	Villager participation in project implementation	1) PMOs 2) RISs 3) Villagers, including women, the poor, etc.	PMOs	Assisted by agencies concerned
	Publicity and training	1) Training on basic knowledge on farm product circulation 2) Training on FSC establishment, management and marketing	Brochure, slogan, leaflet, training, etc.	1) PMOs 2) FSCs 3) RISs	PMOs, FSCs, RISs	Assisted by agencies concerned

		3) Training on trading and information system application 4) Market awareness training and publicity 5) Publicity on RIS establishment and participation 6) Training on rural e-commerce 7) Training on farm product branding		4) Family farms 5) Farm product e-commerce operators 6) Farm product market managers 7) Villagers, including women, the poor, etc.		
	Market infrastructure construction	1) Job opportunities generated during construction related to the farm product value chain 2) Project supervision	1) Direct participation in project implementation 2) Face-to-face communication, written report, etc.	1) PMOs 2) FSCs 3) Villagers 4) Construction agency	PMOs	Assisted by agencies concerned
Operation	Participatory M&E mechanism	1) Internal supervision mechanism 2) External M&E	FGD, interview, questionnaire survey	1) Agriculture bureaus 2) M&E agency 3) Villagers	Agriculture bureaus, M&E agencies	Assisted by agencies concerned
	Grievance redress	Establishing a grievance redress mechanism	1) Appeal Form 2) PMO appeal acceptors 3) Contact information of acceptors 4) Collection of comments and suggestions	1) PMOs 2) Agencies concerned 3) Villagers	Agriculture bureaus	Assisted by agencies concerned

13. Social Action Plan and Implementation

13.1 Social Action Plan

1. Actions to enhance the Project's social benefits

1) Improving farm product circulation facilities and supporting infrastructure

Improving farm product circulation facilities and supporting infrastructure will help improve farmers' production and living conditions. Therefore, the following suggestions are proposed:

①Discuss required infrastructure through participatory methods (e.g., issue tree) at a village congress or group meeting.

②Strengthen the construction of farm product circulation facilities and supporting infrastructure, including: A) constructing farm product markets, trading centers, and sorting, processing, storage and transport facilities; B) building brands for FSCs and farms; and C) establishing a farm product quality and safety testing and traceability system.

③Follow up with safety and technical education to ensure that farmers adapt to new farm product circulation facilities properly.

④Hand over storage, processing and marketing facilities to FSCs, and be responsible for supervision, management and maintenance.

2) Promoting farmers' capacity building and strengthening skills training

During project implementation, relevant training on production skills, market management, FSC establishment and management, etc. should be strengthened to improve farmers' awareness and capacity. Therefore, the following suggestions are proposed:

①Develop an information disclosure, publicity and training program that runs through all stages of the Project.

②Offer training on production skills, farm product processing, storage, marketing, safety testing, etc. based on local needs, including: A) offering skills training in diverse forms and on diverse levels, such as classroom training, field guidance, workshop, observation and technical exchange; B) scheduling training properly to avoid the busy season and housework time; C) offering training at accessible places, giving special care to remote farmers; D) tailoring training to local needs, giving priority to urgent needs; E) selecting training modes based on local conditions (oral, video, poster, brochure, etc.), and using local languages where possible; and F) conducting sampling inspection on publicity and training regularly or irregularly, twice per annum at the preparation stage, and once per annum afterwards.

③Motivate farmers to participate in the Project, including: A) electing FSC management staff and ordinary members democratically by means of village congress, group meeting, etc., paying particular attention to needs of women and the poor; and B) establishing joint-stock FSCs to solve financial difficulty for the poor.

④Make sure that 80% of households are covered by project and FSC publicity, and at least 30% of trainees are women and the poor respectively.

⑤Set a number of examples in agricultural techniques to play an exemplary role.

⑥Select training time, venue, mode and scope based on needs of different groups (PMO staff, RIS operation managers, farm product e-commerce operators, farm product market managers, family farm owners, and FSC managers), and strengthen relevant policy support.

3) Further organizing farmers and improving their subject awareness

Through normative FSC construction and training, farmers can be further organized. Therefore, the following suggestions are proposed:

①Give play to the organizing capacity of village committees to offer skills training and organize farmers for production.

②Involve farmers in industrial development by supporting existing and new FSCs.

③FSCs are an important carrier of organizing farmers for production and improving their subject awareness, and should: A) establish a joint-stock system to involve the poor, women and other vulnerable groups; B) offer skills and management training to members, and strengthen organizational building; and C) establish an open and transparent interest sharing mechanism to enhance the sense of belonging of farmers.

④Develop market circulation players actively, including circulation and processing enterprises, and distributors.

4) Improving market services and circulation efficiency

Market services are software for market facilities, and are equally important for improving circulation efficiency. Therefore, the following suggestions are proposed:

①Strengthen market information services and information system building, including: A) tailoring market information to farmers' needs; B) disclosing information by convenient means, such as mobile phone, TV and broadcast; C) disclosing information in straightforward ways; D) disclosing information timely and practically; and E) offering pertinent market information training.

②Improving farm product quality and safety test services, and establishing a traceability system to improve the market competitiveness of farm products.

③Offer transport services to facilitate farm product distribution.

④Make a certain percentage of booths freely available to local vulnerable groups at the trading centers constructed under the Project.

5) Strengthening e-commerce development

Selling farm products through electronic and WeChat businesses, and RISs will reduce circulation links, and broaden circulation channels. Therefore, the following suggestions are proposed:

①Strengthen training on basic knowledge, operation and marketing strategy for electronic and WeChat businesses.

②Strengthen farm product certification and branding to improve product awareness.

③Establish a farm product quality and safety, and traceability system to ensure product quality and safety.

④Establish RISs to provide farmers with electronic trading platforms.

⑤Offer market information, strengthen information communication among farmers, FSCs and enterprises, and establish an interest linkup mechanism.

⑥Strengthen cooperation with e-commerce outlets (e.g., rural Taobao service stations) to expand farm product circulation channels.

⑦Encourage different circulation players to connect efficiently, and promote the building of modern farm product distribution platforms to improve circulation efficiency.

6) Promoting women's participation in the Project

In order to ensure that women participate effectively in the Project, and that their needs are incorporated into the project design, the following suggestions are proposed:

①Consider women's needs and suggestions at the design stage.

②Make sure that 30% of unskilled jobs generated by the Project are first made available to women and other vulnerable groups, and that men and women receive equal pay for equal work.

③Encourage women to provide catering and other services to construction workers at the construction stage.

7) Paying attention to women's needs in farm product circulation

At the construction stage, attention should be paid to women's needs in farm product circulation. Therefore, the following suggestions are proposed:

①Offer FPCS training in consideration of women's needs, so that such training: A) is not offered in women's housework time; B) is preferably offered in villages because women have to do housework; and C) is offered in ways that women can understand and accept, such as field demonstration.

②Women can sell farm products through and receive job opportunities from FSCs.

③Make booths freely available to women at the trading centers constructed under the Project.

2. Actions to evade or reduce market risks

1) Evading market risks

The FPCS has certain risks. Therefore, the following suggestions are proposed:

①Establish an efficient and agile market information system, and strengthen market demand and price forecast, including: A) predicting price trend timely, and disclosing information to farmers by various means; B) providing accurate demand information timely, and establishing a comprehensive online information service system; and C) giving decision-making advice to farmers timely.

②Establish a farm product market risk adjustment fund and improve it gradually; fix rational protective prices for farm products.

③Develop and extend fine varieties to improve the disaster and pest resistance of crops, and control the output and variety structure of crops.

④Accelerate the construction of farm product circulation infrastructure and supporting facilities, strengthen cooperation with distributors, and broaden the market.

⑤Select industries based on local conditions, and extend the industry chain accordingly.

⑥Develop intermediaries, further organize, and master market information timely to respond to market risks.

⑦Establish a risk sharing mechanism between farmers and FSCs to ensure the normal operation of FSCs.

⑧Construct farm product processing, storage and testing facilities, establish relevant systems, and strengthen the development and application of e-commerce platforms.

2) Reducing risks in the operation, management and maintenance of farm product circulation facilities

The improper operation and management of the public infrastructure constructed under the project may prevent the project objectives from being realized. Therefore, the following suggestions are proposed:

①Define the operation and management responsibilities for completed farm product circulation facilities in the Project Implementation Handbook.

②Develop village-level public infrastructure operation and management measures.

③Strengthen supervision and management capacity at the county, township and village levels on the basis that “whoever benefits should be responsible for management and maintenance”.

④Organize professional operation and management, and supervision teams.

⑤Select projects based on local industry development plans to avoid repeated construction.

⑥Keep improving management level, learning advanced skills, and introducing high-level management talent.

3) Reducing risks in land acquisition and management

In order to avoid or reduce risks in land acquisition and management, the following suggestions are proposed:

①Minimize land acquisition or house demolition during project implementation, and carry out such activities in strict conformity with the RPF if unavoidable.

②Ensure that the FSCs supported under the Project enter into fair land management and equity arrangements with farmers on a voluntary basis.

③Make sure farmers have the option to join production bases.

④Promote short-term, transparent land lease through written contracts, so that poor farmers can withdraw from FSCs freely, especially when their family members return home.

⑤The Bank and the Jiangxi PMO should review all land lease and management programs in advance when FSCs have to build production bases through land consolidation.

⑥Make sure that equity arrangements in which farmers offer or transfer land to FSCs as shares are not supported.

Table 13-1 Social Action Plan

Item	Target population	IAs	Time	Actions	Funding source	Monitoring indicators
A—Actions to enhance the Project's social benefits						
1. Improving farm product circulation facilities and supporting infrastructure	1.2739 million people in 44 townships, 9 counties, 6 cities, including a poor population of 112,212 and 601,114 females	PMOs, agriculture bureaus, poverty reduction offices, industry development offices, township governments, village committees, etc.	2017-2021	①Discuss required infrastructure through participatory methods (e.g., issue tree) at a village congress or group meeting. ②Strengthen the construction of farm product circulation facilities and supporting infrastructure, including: A) constructing farm product markets, trading centers, and sorting, processing, storage and transport facilities; B) building brands for FSCs and farms; and C) establishing a farm product quality and safety testing and traceability system. ③Follow up with safety and technical education to ensure that farmers adapt to new farm product circulation facilities properly. ④Hand over storage, processing and marketing facilities to FSCs, and be responsible for supervision, management and maintenance.	Project public infrastructure and service budget	①Process of survey on needs for farm product circulation facilities, and survey results ②Ownership of public infrastructure, and responsibility of operation and maintenance ③Frequency and men-times of safety education and skills training on arm product circulation facilities ④Construction and ownership of markets, and party responsible for operation and maintenance
2. Promoting farmers' capacity building and strengthening skills training	1.2739 million people in 44 townships, 9 counties, 6 cities, including a poor population of 112,212 and 601,114 females	PMOs, agriculture bureaus, poverty reduction offices, industry development offices, township governments, village committees, etc.	2017-2021	①Develop an information disclosure, publicity and training program that runs through all stages of the Project. ②Offer training on production skills, farm product processing, storage, marketing, safety testing, etc. based on local needs, including: A) offering skills training in diverse forms and on diverse levels, such as classroom training, field guidance, workshop, observation and technical exchange; B) scheduling training properly to avoid the busy season and housework time; C) offering training at accessible places, giving special care to remote farmers; D) tailoring training to local needs, giving priority to urgent needs; E) selecting training modes based on local conditions (oral, video, poster, brochure, etc.), and using local languages where possible; and F) conducting sampling inspection on publicity and training regularly or irregularly, twice per annum at the preparation stage, and once per annum afterwards. ③Motivate farmers to participate in the Project, including: A) electing FSC management staff and ordinary members democratically by means of village congress, group meeting, etc., paying particular attention to needs of women and the poor; and B) establishing joint-stock FSCs to solve financial difficulty for the poor. ④Make sure that 80% of households are covered by project and FSC publicity, and at least 30% of trainees are women and the poor respectively. ⑤Set a number of examples in agricultural techniques to play an	Project training budget	①Information disclosure, publicity and training program; ②Forms, frequency, scope, language and men-times of training ③Farmers' awareness of and participation in FSCs, and needs and suggestions of women and the poor ④Farmers' choices of training time, venue and mode, and evaluation of training effect ⑤Suitability of training for production and living conditions ⑥Men-times and percentage of women and poor residents trained; ⑦Men-times and percentage of examples in agricultural techniques, and their role ⑧Numbers and percentages of the 6 groups

				exemplary role. ⑥Select training time, venue, mode and scope based on needs of different groups (PMO staff, RIS operation managers, farm product e-commerce operators, farm product market managers, family farm owners, and FSC managers), and strengthen relevant policy support.		
3. Further organizing farmers and improving their subject awareness	1.2739 million people in 44 townships, 9 counties, 6 cities, including a poor population of 112,212 and 601,114 females	PMOs, agriculture bureaus, poverty reduction offices, industry development offices, township governments, village committees, etc.	2017-2021	①Give play to the organizing capacity of village committees to offer skills training and organize farmers for production. ②Involve farmers in industrial development by supporting existing and new FSCs. ③FSCs are an important carrier of organizing farmers for production and improving their subject awareness, and should: A) establish a joint-stock system to involve the poor, women and other vulnerable groups; B) offer skills and management training to members, and strengthen organizational building; and C) establish an open and transparent interest sharing mechanism to enhance the sense of belonging of farmers. ④Develop market circulation players actively, including circulation and processing enterprises, and distributors.	Project FSC construction budget	①Records of village congress and skills training ②Equity participation and income distribution of FSCs ③Number of farmers and poor farmers joining FSCs ④Frequency, men-times and scope of FSC training ⑤Establishment of FSCs and FSC leagues ⑥Number and role of intermediaries
4. Improving market services and circulation efficiency	1.2739 million people in 44 townships, 9 counties, 6 cities, including a poor population of 112,212 and 601,114 females	PMOs, agriculture bureaus, poverty reduction offices, industry development offices, township governments, village committees, etc.	2017-2021	①Strengthen market information services and information system building, including: A) tailoring market information to farmers' needs; B) disclosing information by convenient means, such as mobile phone, TV and broadcast; C) disclosing information in straightforward ways; D) disclosing information timely and practically; and E) offering pertinent market information training. ②Improving farm product quality and safety test services, and establishing a traceability system to improve the market competitiveness of farm products. ③Offer transport services to facilitate farm product distribution. ④Make a certain percentage of booths freely available to local vulnerable groups at the trading centers constructed under the Project.	Project budget	①Farmers' awareness and use of market services ②Farmers' satisfaction with market services ③Planning and summary of market services ④Number and use of free booths
5. Strengthening e-commerce development	1.2739 million people in 44 townships, 9 counties, 6 cities, including a poor population of 112,212 and 601,114	PMOs, agriculture bureaus, poverty reduction offices, industry development offices, township governments, village committees, etc.	2017-2021	①Strengthen training on basic knowledge, operation and marketing strategy for electronic and WeChat businesses. ②Strengthen farm product certification and branding to improve product awareness. ③Establish a farm product quality and safety, and traceability system to ensure product quality and safety. ④Establish RISs to provide farmers with electronic trading platforms. ⑤Offer market information, strengthen information communication	Project budget	①Farmers' awareness and use of market services ②Frequency, men-times and scope of e-commerce training ③Planning and summary of market services ④Number of RISs, and farmers' comments on RISs ⑤Farm product certification and

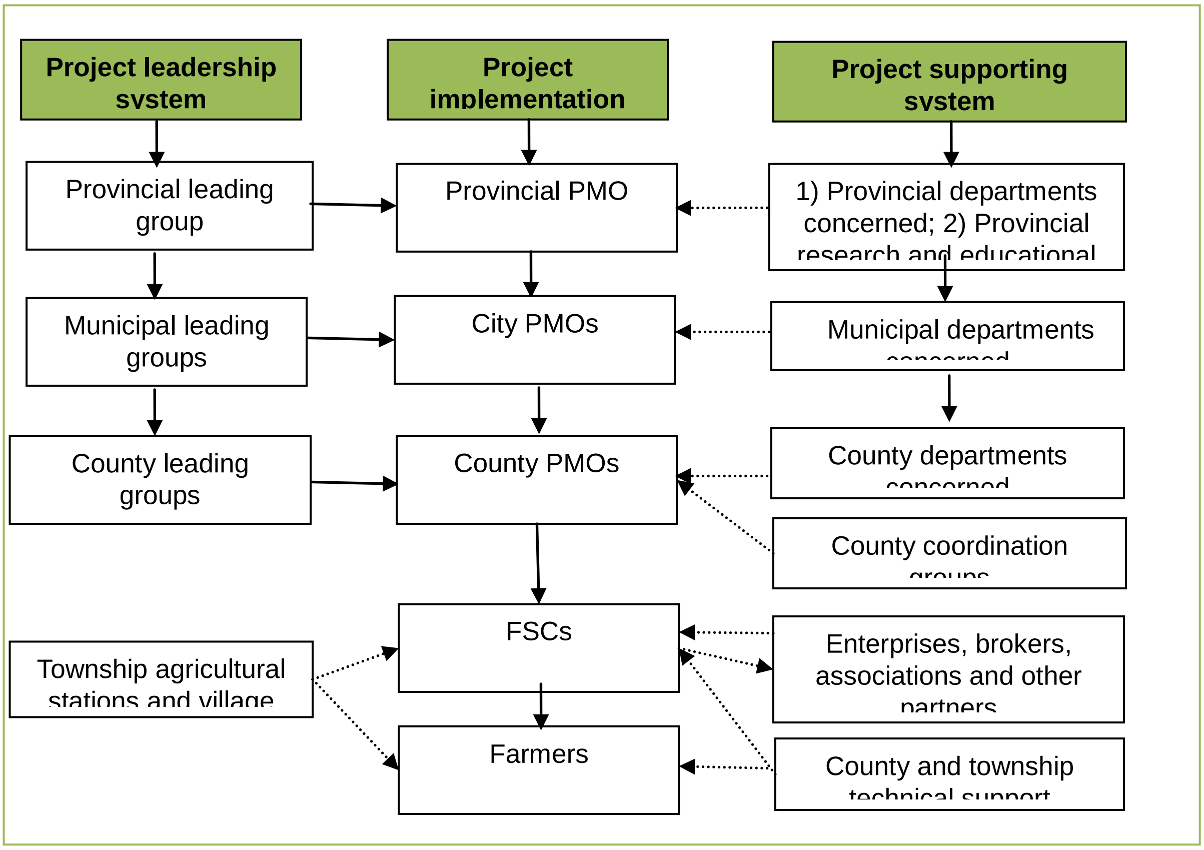
	females			among farmers, FSCs and enterprises, and establish an interest linkup mechanism. ⑥Strengthen cooperation with e-commerce outlets (e.g., rural Taobao service stations) to expand farm product circulation channels. ⑦Encourage different circulation players to connect efficiently, and promote the building of modern farm product distribution platforms to improve circulation efficiency.		qualifications received ⑥Cooperation in e-commerce
6. Promoting women's participation in the Project	601,114 females in 44 townships, 9 counties	PMOs, women's federation, township governments, village committees, etc.	2017-2021	①Consider women's needs and suggestions at the design stage. ②Make sure that 30% of unskilled jobs generated by the Project are first made available to women and other vulnerable groups, and that men and women receive equal pay for equal work. ③Encourage women to provide catering and other services to construction workers at the construction stage.	Project budget	①Number of women's FGDs at the design stage and suggestions ②Percentage of unskilled jobs offered to local women ③Number of women offering services at the construction stage
7. Paying attention to women's needs in farm product circulation	601,114 females in 44 townships, 9 counties	PMOs, women's federation, township governments, village committees, etc.	2017-2021	①Offer FPCS training in consideration of women's needs, so that such training: A) is not offered in women's housework time; B) is preferably offered in villages because women have to do housework; and C) is offered in ways that women can understand and accept, such as field demonstration. ②Women can sell farm products through and receive job opportunities from FSCs. ③Make booths freely available to women at the trading centers constructed under the Project.	Project budget, women's federation special funds, agricultural special funds	①Time, venue and mode of FPCS training; number of women trained; gender-sensitive measures taken ②How women sell farm products ③Number and percentage of female FSC employees ④Number of free booths and availability of women's bulk trading area
B—Actions to evade or reduce market risks						
1. Evading market risks	1.2739 million people in 44 townships, 9 counties, 6 cities, including a poor population of 112,212 and 601,114 females	PMOs, agriculture bureaus, poverty reduction offices, industry development offices, township governments, village committees, etc.	2017-2021	①Establish an efficient and agile market information system, and strengthen market demand and price forecast, including: A) predicting price trend timely, and disclosing information to farmers by various means; B) providing accurate demand information timely, and establishing a comprehensive online information service system; and C) giving decision-making advice to farmers timely. ②Establish a farm product market risk adjustment fund and improve it gradually; fix rational protective prices for farm products. ③Develop and extend fine varieties to improve the disaster and pest resistance of crops, and control the output and variety structure of crops. ④Accelerate the construction of farm product circulation infrastructure and supporting facilities, strengthen cooperation with distributors, and broaden the market. ⑤Select industries based on local conditions, and extend the industry	Project budget	①Industry and project information disclosure and sharing ②Records of industry and market knowledge training ③Public participation activities for industry development ④Amount of infrastructure investment and percentage to project investment ⑤Construction of supporting facilities and institutional building ⑥Number and role of intermediaries ⑦Risk sharing between FSCs and farmers

				chain accordingly. ⑥Develop intermediaries, further organize, and master market information timely to respond to market risks. ⑦Establish a risk sharing mechanism between farmers and FSCs to ensure the normal operation of FSCs. ⑧Construct farm product processing, storage and testing facilities, establish relevant systems, and strengthen the development and application of e-commerce platforms.		⑧Building and role of information release platforms
2. Reducing risks in the operation, management and maintenance of farm product circulation facilities	1.2739 million people in 44 townships, 9 counties, 6 cities, including a poor population of 112,212 and 601,114 females	PMOs, agriculture bureaus, poverty reduction offices, industry development offices, township governments, village committees, etc.	2017-2021	①Define the operation and management responsibilities for completed farm product circulation facilities in the Project Implementation Handbook. ②Develop village-level public infrastructure operation and management measures. ③Strengthen supervision and management capacity at the county, township and village levels on the basis that “whoever benefits should be responsible for management and maintenance”. ④Organize professional operation and management, and supervision teams. ⑤Select projects based on local industry development plans to avoid repeated construction. ⑥Keep improving management level, learning advanced skills, and introducing high-level management talent.	Funds raised by project villages / FSCs	①Ownership of rural infrastructure, and responsibility of operation and maintenance ②Development of operation and management measures for public infrastructure ③Preparation and implementation of the Project Implementation Handbook ④Establishment of operation and management teams ⑤Industry planning of local governments ⑥Use of project management talent
3. Reducing risks in land acquisition and management	1.2739 million people in 44 townships, 9 counties, 6 cities, including a poor population of 112,212 and 601,114 females	PMOs, agriculture bureaus, poverty reduction offices, industry development offices, township governments, village committees, etc.	2017-2021	①Minimize land acquisition or house demolition during project implementation, and carry out such activities in strict conformity with the RPF if unavoidable. ②Ensure that the FSCs supported under the Project enter into fair land management and equity arrangements with farmers on a voluntary basis. ③Make sure farmers have the option to join production bases. ④Promote short-term, transparent land lease through written contracts, so that poor farmers can withdraw from FSCs freely, especially when their family members return home. ⑤The Bank and the Jiangxi PMO should review all land lease and management programs in advance when FSCs have to build production bases through land consolidation. ⑥Make sure that equity arrangements in which farmers offer or transfer land to FSCs as shares are not supported.	Project budget (domestic counterpart funds)	①Information on land acquisition and house demolition ②Activities of FSCs/enterprises related to land management (land lease, equity participation, etc.)

13.2 Implementation Schedule

1. IAs

The following IAs have been established for the Project, composed of leaders of agencies concerned. These IAs are at agricultural authorities of different levels, responsible for project management and implementation. The technical support system is composed of staff members from agencies concerned, and relevant domestic and overseas experts.



Note: - - -► denotes a coordination or guidance relationship; ——► denotes a leadership or management relationship, and ·········► denotes a consulting and supporting relationship.

Figure 13-1 Organizational Chart

In order to conduct project preparation and implementation properly, project leading groups and PMOs have been established in all project counties. The powerful organizational structure ensures the fulfillment of the project objectives and the participation of stakeholders.

Table 13-2 IAs in the Project Counties

City	County	PMO	Contact	Tel
Jiujiang	JETDZ	Jiujiang Fuhe Construction & Investment Co., Ltd.	Li Jinfeng	13979208178
	Pengze	Agriculture & grain bureau	Peng Shanze	13507061039
Shangrao	Yushan	Agriculture & grain bureau	Hu Qingzu	13177527273
Yichun	Jing'an	Agriculture & grain bureau	Fu Yaoping	13607050627
Ji'an	Taihe	Agriculture & grain bureau	Liu Xinhua	13707067757
	Qingyuan	Agriculture & grain bureau	Li Xingye	13576620667
Pingxiang	Anyuan	Agriculture & grain bureau	Duan Jiaolan	13807996839
Ganzhou	Huichang	Agriculture & grain bureau	Guo Heping	13803573325
	Longnan	Agriculture & grain bureau	Tang Wenlin	13870718036

2. Capacity building

Since 2013, the PMO staff has attended training courses organized by the Bank, covering feasibility study, project design, financial analysis, EIA, SA, etc.

Table 13-3 Participation of IAs in Training

No.	Time	Venue	Participants	Scope
1	November 20, 2013	Provincial PMO	PMOs	Project preparation
2	December 3-5, 2013	Jing'an	PMOs	Project objectives and scope
3	February 18, 2014	Provincial PMO	PMOs	Project preparation
4	April 11, 2014	Provincial PMO	PMOs	Project preparation
5	June 10-11, 2014	Provincial PMO	PMOs	Experience from ADB TA projects
6	June 24-28, 2014	Le'an, Taihe, Huichang	PMOs	Environmental, procurement and market planning
7	July 9-10, 2014	Provincial PMO	PMOs	Project progress, FSR revision
8	December 13-14, 2014	Provincial PMO	PMOs	Project progress, FSR revision
9	December 7-17, 2015	Provincial PMO	PMOs	Project progress, FSR revision

3. Schedule

The SA implementation schedule has been drafted based on preparation and implementation progress, and may be adjusted as the case may be.

a. Preparation stage: project disclosure, stakeholder identification, social impact analysis, SA report preparation, etc.

b. Implementation stage: internal supervision and external M&E

c. A SA summary report will be submitted to the Bank within half a year after project completion.

Table 13-4 Implementation Schedule

Stage	Task	Duration
Preparation	Project information disclosure	2013.7-2014.8
	Stakeholder identification and social impact analysis	2014.8-2014.9
	Public participation	Whole process
	SA report preparation	2014.9-2016.12
	SA report disclosure	2017.6
	SA report approval	2017.6
	M&E	Submitting the first M&E report (including baseline survey) during June-December 2017, and a M&E report semiannually during implementation (2017-2021)
After completion	Summary evaluation	Submitting a SA summary report within half a year after project completion

13.3 M&E

M&E is an important way to ensure that the Project is implemented as planned, and the Social Management Plan is implemented properly. M&E is also an important error-correcting and participation mechanism for the Project. In view of this, an M&E mechanism has been established for the Project, including internal supervision and external M&E.

Internal supervision is conducted by the PMO on project implementation progress, the implementation of the Social Management Plan, progress of information disclosure and public participation, fund use, the implementation of rules and regulations, etc. An internal supervision report will be submitted semiannually.

The PMO will appoint an independent M&E agency to conduct external M&E on the implementation of the Social Management Plan. The external M&E agency will conduct regular M&E, give advice, and submit M&E reports to the Bank semiannually. A SA summary report will be submitted within half a year after project completion.

Appendixes:

Appendix 1: Distribution of Questionnaire Samples

Appendix 2: Survey Agenda of the Task Force

Agenda of Sub-team A

Date	Venue	Activity
August 18	Arriving in Nanchang City	/
August 25	Arriving in Jing'an County, Yichun City	/
	Jing'an County, Yichun City	Interviewing agencies concerned and visiting proposed sites
August 26	Liantang Village, Renshou Town, Jing'an County	Village head interview, villager FGD and women's FGD
	Huangpu Village, Zaodu Town, Jing'an County	Village head interview, villager FGD and women's FGD
	Bailu Village, Xiangtian Xiang, Jing'an County	Village head interview, villager FGD and women's FGD
August 26	Arriving in JETDZ	/
August 27	JETDZ	Interviewing agencies concerned and visiting proposed sites
	Tuanhu Fish Farm, Gangkou Town	Village head interview, villager FGD and women's FGD
August 28	Arriving in Nanchang City	/
August 29	Returning to Nanjing	/

Agenda of Sub-team B

Date	Venue	Activity
August 18	Arriving in Nanchang City	/
August 21	Arriving in Yushan County, Shangrao City	/
August 22	Yushan County, Shangrao City	Interviewing agencies concerned and visiting proposed sites
	Yushan County Agriculture Bureau	Interview with the head of Hongri Agricultural Development Co., Ltd. / Hongri FSC
	Yushan County Agriculture Bureau	Interview with the head of Hongye Fruit FSC in Yushan County
August 22	Jiangzhai Village, Wencheng Town, Yushan County, Shangrao City	Village head interview, villager FGD and women's FGD
August 23	Qiujia Village, Wencheng Town, Yushan County, Shangrao City	Village head interview, villager FGD and women's FGD
	Wencheng Village, Bingxi Town, Yushan County, Shangrao City	Village head interview, villager FGD and women's FGD
August 24	Arriving in Huichang County, Ganzhou City	/
August 25	Huichang County, Ganzhou City	Interviewing agencies concerned and visiting proposed sites
August 26	Xiayang Village, Junmenling Town, Huichang County, Ganzhou City	Village head interview, villager FGD and women's FGD
	Lingang Village, Wenwuba Town, Huichang County, Ganzhou City	Village head interview, villager FGD and women's FGD
	Yanhu Village, Zhulan Xiang, Huichang County, Ganzhou City	Village head interview, villager FGD and women's FGD
August 27	Arriving in Longnan County, Ganzhou City	Interviewing agencies concerned and visiting proposed sites
August 28	Xinda Village, Dujiang Town, Longnan County, Ganzhou City	Village head interview, villager FGD and women's FGD
	Shuixiba Village, Taojiang Xiang, Longnan County, Ganzhou City	Village head interview, villager FGD and women's FGD
August 29	Arriving in Nanchang City	/
September 1	Provincial department of agriculture, department of labor and social security, ethnic and religious affairs bureau, etc.	Organizational FGD

September 2	Returning to Nanjing	/

Agenda of Sub-team C

Date	Venue	Activity
August 18	Arriving in Nanchang City	/
August 26	Arriving in Taihe County, Ji'an City	/
August 26	Taihe County, Ji'an City	Interviewing agencies concerned and visiting proposed sites
August 27	Wentang Village, Guanchao Town, Taihe County	Village head interview, villager FGD and women's FGD
	Guanchao Village, Guanchao Town, Taihe County	Village head interview, villager FGD and women's FGD
	Zhoutou Village, Tangzhou Town, Taihe County	Village head interview, villager FGD and women's FGD
August 27	Arriving in Anyuan District, Pingxiang City	/
August 28	Anyuan District, Pingxiang City	Interviewing agencies concerned and visiting proposed sites
	Celei Village, Wubei Town, Anyuan District	Village head interview, villager FGD and women's FGD
	Changtan Village, Wubei Town, Anyuan District	Village head interview, villager FGD and women's FGD
August 29	Arriving in Nanchang City	/
September 1	Nanchang City	Organizational FGD
September 2	Arriving in Pengze County, Jiujiang City	Interviewing agencies concerned
September 3	Liangting Village, Furongdun Town, Pengze County, Jiujiang City	Village head interview, villager FGD and women's FGD
	Wulian Village, Furongdun Town, Pengze County	Village head interview, villager FGD and women's FGD
	Taibai Lake Development Zone, Pengze County	Interview with the head of Taibai Lake Cotton FSC
September 4	Returning to Nanjing	/

Appendix 3: Public Participation Photos













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质量胜市场，品

来宾身体健康、万事如意、工作顺利!


赣南脐橙











 

Appendix 4: FGD and Interview Minutes

Date	**August 28, 2014**
Venue	Shuixiba Village, Taojiang Xiang, Longnan County, Ganzhou City
Organizer	Longnan County Agriculture Bureau
Participants	Hohai University, Longnan County Agriculture Bureau, village head, villager representatives, including women and the poor
Topics	Local farmers' needs for, perceptions of and attitudes to the Project; local industry development; FSC development, and farmers' participation in the value chain
Key points and results	1) Project awareness, and needs for, perceptions of and attitudes to the Project; 2) Local industry development; FSC development, and farmers' participation in the value chain; 3) Potential impacts of the Project, countermeasures and comments; 4) Local farmers' comments and suggestions on the Project, etc. 

Date	**August 22, 2014**
Venue	Jiangzhai Village, Wencheng Town, Yushan County, Shangrao City
Organizer	Yushan County PMO
Participants	Yushan County PMO, Hohai University, women's representatives
Topics	Local women's needs for, perceptions of and attitudes to the Project
Key points and results	1) Project awareness, and needs for, perceptions of and attitudes to the Project; 2) Women's roles and family decision-making mechanism; 3) Women's resources, and decision-making and control powers; 4) Women's participation in the market value chain; 5) Potential impacts of the Project on women, countermeasures and comments; 6) Local women's comments and suggestions on the Project, etc. 

Appendix 5: Photos of Proposed Market Sites


Proposed market site in Pengze County


Proposed market site in Jing'an County


Proposed market site in Huichang County


Proposed market site in Huichang County


Proposed market site in Qinhe County


Proposed market site in Qinhe County


Proposed market site in JETDZ


Proposed market site in JETDZ

Proposed market site in Anyuan District 	Proposed market site in Anyuan District 
 Proposed market site in Yushan County	 Proposed market site in Yushan County
 Proposed market site in Yushan County	 Proposed market site in Yushan County
 Proposed market site in Longnan County	 Proposed market site in Longnan County

Appendix 6: Basic Information of Surveyed FSCs

No.	County	Name	Village	Mode	Operation	Division of labor	Registration	Organizational structure	Equity participation and profit distribution	Business
1	Taihe	Guantian Fruit Cultivation FSC	Wentang Village, Guanchao Town	Cooperative + farmer + base	Excellent	FSC: unified materials supply, technical guidance and marketing Farmers: working at the base; grape cultivation	October 2011, capital 1.51 million yuan	Managers: 2, all men Members: 5, all being the head's relatives and friends	Cash or land; 70% of profits to the FSC founder, and 30% to members	Grape cultivation, management and marketing
2	Taihe	Fumin Paddy Rice Cultivation FSC	Guanchao Village, Guanchao Town	Cooperative + farmer + base	Poor	FSC: unified purchase of materials, management and marketing Farmers: paddy rice cultivation and management; working at the base	January 2014, capital 6.8 million yuan	Managers: 5, all men Members: 5, both members and managers	Hiring workers at 100 yuan/day per capita during the peak season	Paddy rice cultivation, management and marketing
3	Taihe	Baihecheng Potato Cultivation FSC	Zhoutou Village, Tangzhou Town	Cooperative + farmer + base	Dormant	FSC: unified purchase of potato, field management, pest control, marketing Farmers: unified cultivation and management	August 2009, capital 1.2 million yuan	Managers: 6, all men Members: 300, all being local villagers	Potato growers may join it voluntarily, but are not entitled to profits.	Potato seeding, fertilization and marketing
4	Anyuan	Jinyuan Cultivation FSC	Celei Village, Wubei Town	Enterprise + cooperative + farmer + base	Excellent	FSC: operating like a company, offering technical services, grape management and marketing Farmers: working at the base; grape cultivation	2010, capital 2 million yuan	Managers: 10, incl. 6 women, head being a woman Members: over 100	1,000 yuan/mu of land per annum, contract term 20 years; profits distributed every year or every two years	Grape cultivation, new variety introduction, and marketing
5	Anyuan	Shuanghekou Vegetable FSC	Changtan Village, Wubei Town	Enterprise + cooperative + farmer + base	Excellent	FSC: operating like a company, offering technical guidance, organizing farmers for large-scale production Farmers: working as required by the FSC	2008, capital 4.3 million yuan	Managers: 4, incl. 1 woman Members: 370	Land transfer: 1,000 yuan/mu per annum, contract term 5 years; member's income: remuneration + land transfer + land dividend; pay at the FSC base: 100 yuan/day for males and 80 yuan/day for females	Vegetable breeding, management, training and marketing
6	Yushan	Hongri Agriculture & Forestry FSC	Yufeng Village, Huaiyu Xiang	Enterprise + cooperative + farmer + base	Ordinary	FSC: operating like a company, offering free training, purchasing materials, transport and marketing Farmers: purchasing materials from the FSC, cultivating vegetables under the direction of the FSC; working at the base	2007, capital 3 million yuan	Managers: 8, incl. 2 women, being accountant and cashier Members: over 100	Capital and land; profit distribution based on shares; land transfer fee 400 yuan/mu per annum; pay: 1,000 yuan/month for males and 800 yuan/month for females	Vegetable and medicinal plant cultivation
7	Yushan	Chunyuan Vegetable FSC	Wencheng Village, Wenchen	Cooperative + farmer + base	Dormant	FSC: purchase, marketing, technical consulting service Farmers: cultivating vegetables for	August 2010, capital 3.2	Managers: 3, all men Members: over 30	Capital and land; no profit distributed yet	Seed supply, technical guidance and

			g Town			selling to the FSC	million yuan			marketing
8	Yushan	Hongye Fruit FSC	Jiangzhai Village, Wenchen g Town	Enterprise + cooperative + farmer + base	Excell ent	FSC: purchase, processing, marketing, skills training Farmers: working at the base, selling products to FSC	2008	Managers: 10, incl. 3 women Members: over 500, incl. 6 technicians	Farmland converted into cash	Fruit cultivation, training and marketing
9	Huicha ng	Xinsheng Oil Tea FSC	Xiayang Village, Junmenlin g Town	Enterprise + cooperative + farmer + base	Excell ent	FSC: purchasing materials for members, introducing new techniques, offering skills training and consulting services Farmers: cultivation, management; selling oil tea to the FSC	December 2011, capital 11.7546 million yuan	Managers: 10, all men Members: 125	Capital The FSC hires farmers for management at 14.5 yuan/mu per month. A couple usually manages 220 mu. Wages are paid monthly.	Oil tea cultivation and marketing
10	Huicha ng	Qingpingle Navel Orange FSC	Huichang	Enterprise + cooperative + farmer + base	Excell ent	FSC: technical guidance, marketing Farmers: working as required by the FSC for selling to the FSC	December 2008, capital 3.6 million yuan	Managers: 13, incl. 2 women Members: 108	The head holds 80% of shares, 5 other members hold 15%, and ordinary farmers hold 5%.	navel orange cultivation, processing and marketing
11	Longna n	Xianrun Fruit & Vegetable FSC	Xinda Village, Dujiang Town	Cooperative + base + farmer	Good	FSC: unified management, guidance and training, marketing Farmers: cultivating navel orange as required by the FSC for selling to the FSC	2008	Managers: 9, all men Members: 70	Profits (excluding costs and 10-15% management fees) distributed based on shares, 5,000 yuan per share and one share per household (the head hold 1/3 of shares)	Navel orange cultivation, processing and marketing
12	Longna n	Hongtai Vegetable FSC	Shuixiba Village	Cooperative + base + farmer	Good	FSC: unified planning, seed supply, intensive management and marketing Farmers: cultivating vegetables as required	2010; capital 600,000 yuan	Managers: 5, incl. 1 woman Members: 100	Land; 300 mu vegetable base	Vegetable cultivation and marketing
13	Longna n	He'entang Aquacultur e FSC	Xiangtang Village	Cooperative + base + farmer	Ordina ry	FSC: promoting local economic development, and offering support Farmers: raising grass carp	July 2011	Managers: 2, incl. 1 woman Members: 11	Capital; over 250 mu of fishpond	Grass carp culture
14	Pengze	Dafeng Cotton FSC	Wulian Village, Furongdu n Town	Enterprise + cooperative + farmer + base	Good	FSC: purchasing materials, guidance, pest control, marketing Farmers: cultivating cotton as required by the FSC for selling to the FSC	2010; capital 5 million yuan	Managers: 10, all men Members: 1,000	Land; cooperating with Dafeng Cotton Co., Ltd. on a commission basis for processing, packaging and transport	Cotton cultivation and marketing
15	Pengze	Taibai Lake Cotton FSC	Taibaihu Town	Enterprise + cooperative + farmer + base	Good	FSC: purchasing materials, guidance, pest control, marketing Farmers: cultivating cotton as required by the FSC for selling to the FSC	July 2009, capital 2.44 million yuan	Managers: 13, all men Members: 700	Land (1 mu of land is equivalent to 1,000 yuan); rebates paid at the year end, up to 400 yuan per household, with a 1,000 mu standard cotton base and a transit warehouse	Cotton cultivation and marketing