



**Supporting policy, legal and institutional frameworks
for the reform of forest tenure in China's collective
forests and promoting knowledge exchange**

GCP/CPR/038/EC Working Paper: WP – 012 - E

Assessment of Forest Farmer Cooperatives in Zhejiang Province



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Assessment of Forest Farmer Cooperatives in Zhejiang Province

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**State Forestry Administration of China
Food and Agriculture Organization of the United Nations**

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1. Introduction

1.1 Description of the issue

1.1.1 Background

During the 30 years of opening up and reform period, China's economy developed rapidly and its development experiences drew wide attention from other countries and international organizations. FAO has long devoted to the economic development of rural areas of China for a long time, and hopes to summarize and extend the development experiences obtained in developed rural areas of China, for the benefit of the vast rural areas of China; and hopes it can be beneficial to the rural economic development in other developing countries. The continuous widening gaps between the eastern region and western region and between the wealth in rural area and urban area are not only economic problems, but also serious social problems. Governments and research organizations in various levels all search to solve the "three agricultural" problem. As an important tool to help small households to access big market, to promote the stability of rural area and agricultural development and to increase farmers' income, cooperatives are widely considered.

In China, collective forest accounts for 58% of the total forested area, the forestry "three stabilizations" in early 1980s' and the new round of collective forestry property rights reform have clarified the property rights of collective forest and defined the rights and responsibilities, and have greatly motivated forest farmers' initiative in managing the forests.

1.1.2 Necessity of the Study

Collective forests play a significant role in living standard of forest farmers in southern forest areas of China. During past 30 years, many changes have occurred in China's collective forestry property rights. Since the implementation of household responsibility system started in early 1980s', forest farmers become quite independent forestry producers, their status improve and income increase constantly. However, the small-scaled family forestry lacks development sustainability in forestry management,

thus it cannot fulfill the requirements in this new situation. Forest farmer cooperation organizations have become an important approach for small-scale family forestry to become incorporated into modernized forestry economy, therefore Forest Farmer Cooperatives (hereinafter referred to “FFCs”) emerged.

With the implementation of *Farmer Specialty Cooperative Law of the People's Republic of China* (hereinafter referred as *Cooperative Law*), FFCs have played a crucial role in improving the systematization level of forest farmer, strengthening their negotiation power in the market economy ,and altering their innate weak status. However, the development of FFCs is still in the primary stage and many problems need to be solved: (1) inadequate management of FFCs; (2) forest resource management needs to be improved; (3) lack of information services for FFCs; (4) supporting policies cannot meet real demands of forest farmers, etc. Therefore, it seems extremely necessary to study the FFCs in order to develop better policy tools to solve these problems.

1.1.3 Case Sites Selection

Located in the southeast coastal region of China, Zhejiang Province is a pilot province of collective forest reform and FFCs development in China. Its hilly land area accounts for 70.4% of the total land area, whilst the collective forest area accounts for over 95% of the forested area. Forest farmers are the main managers of collective forests, its forestry value has been ranked No.1 in China for last several decades. As a pilot, in 2004, Zhejiang Province issued the first cooperative regulations in China——Farmer Specialty Cooperative Regulations of Zhejiang Province (hereinafter referred as Regulations) As a result, FFCs vigorously developed and became an important model in forestry management of Zhejiang Province. By August, 2009, there were 1512 FFCs in Zhejiang Province, among which 93 were provincial level demonstration FFCs. The members of the cooperatives totaled 134,500, driving 924,000 farmer households and 270,000 ha of base, and their business areas involved production, processing and allocation of main forest products like flowers seeds and seedlings, bamboo and bamboo shoots, dried and fresh fruits, and silviculture. They

play an increasingly great role in organizing, educating and training forest farmers, information service, technique extension, brand development, market development, improving the forests and enriching the farmers, etc.

Located in the southwest of Zhejiang Province, Longquan is a forestry focus county. In recent years, Longquan actively explored the promotion of sustainable forest management and sustainable community development through forestry property reform and cooperative development, and has gained significant achievements in forestry property mortgage loans and FFCs development. Taking Longquan County as a study site, and selecting representative case sites like Xiaozhuangg Bamboo Shoots Specialty Cooperative, Nengfu Silviculture Specialty Cooperative, Longzhu Bamboo and Bamboo Shoots Specialty Cooperative and Shengyuan Camellia Oil Specialty Cooperative (hereinafter referred as Xiaozhuang FFC, Nengfu FFC, Longzhu FFC, Shengyuan FFC), the study would therefore be beneficial in summarizing the experiences and existing problems in the development of cooperatives, so as to provide experience reference for the cooperative development in other areas.

1.2 Literature review

1.2.1 Relative concepts of FFCs

(1) Cooperative

Cooperative is not a wholly new rural grass root organization, there are already many studies and practices on it in China and abroad. Statement on the Cooperative Identity approved in 100 Anniversary Conference of International Cooperative Alliance in September of 1995 states that: a cooperative is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise (He Guoping, 2005). Experts such as Eckhart (1997) regard the cooperatives are a result and outcome of the members to seek economic benefits. Yamada Sadaichi (2004) states that cooperatives can also be called cooperative organizations, including agricultural cooperative organizations (agro-cooperatives for short), life cooperative organizations, fishery cooperative organizations, forest

organizations, etc, among which agro-cooperatives are most representative.

During 1920s' to 1930s', cooperative idea of Pragmatism Old and New became the main idea of global cooperative theory. In the period, experts started to study the concrete cooperative organizations, and turned to be practical. Sapiro considered that agricultural cooperatives should be developed in accordance with the following 4 principles: (1). cooperatives should be organized based on different farm products; (2). cooperatives should realize the ordered selling by internal coordination to prevent the loss from the vast entering into the market in harvesting season; (3). cooperatives should be established from top to bottom and managed by experts; (4). directly accepting the members, establishing the centralized control system by signing long-term contracts (Zhang Xiaoshan, 1991).

(2) Forest Farmer Cooperatives

In foreign literatures, Forest Farmer Cooperatives (hereinafter FFCs) mainly refer to Forest Owner Cooperatives (FOCs). Rauch (2005) considers that FOCs are the organizations where forest owners collect the logged timber and sell it to the timber processing industry through cooperatives. These cooperatives differ with China's cooperatives based on certain forestry resource. FFCs are under the principle of voluntary, cooperation and mutual benefits, and based on family contract management, in order to maintain and realize common benefits, forest owners voluntarily invest to establish a new kind of mountain area forest cooperatives that deal with forestry production and forest by-products processing and allocation, so as to realize common development (Shen Jingwei, 2008).

1.2.2 Development of FFCs

(1) The developing stages of FFCs

Developing stages and features of FFCs vary from country to country.. Tang Jie, et al. (2009) and Wang Dengju, et al. (2006) divided the development of FFCs in China into three stages: the first was the self-willing cooperation stage in the early days of PRC; the second was the highly collective stage in people's communes period; the third was the re-organizing stage after reform and opening up. Ulrich (2005)

considered that the development of German forestry associations should not only ensure accomplishing the tasks effectively, but also guarantee the agreements with other relevant actors and validity of the resources they provide. Marius, et al. (2005) discovered from the research that the cooperation process of private forestry in Lithuania was very slow, but it developed moving forward in the long-term.

(2) Successful elements of the development of FFCs

The success of FFCs is affected by various elements. Blinn, et al (2007) conducted SWOT analysis on FOCs in U.S.A, and reckoned that if FFCs want to improve their availability, they should seek opportunities and counteract threats. Their successful elements include: enlarging the number of members to reinforce leadership and increasing self-willing assistance, improving sales work, developing better network. Hull and Ashton (2008) figured that the crucial point for the success of forestry FFCs is maximizing the control power and flexibility of forest owners, and emphasizing on recreational and environmental effects of forest.

With the economy development, the developing environment of FFCs has changed greatly; hence many FFCs have started to explore new models. Nilsson (1998) considered that FFCs separate primary and secondary processing to realize the innovation of development model. Primary processing is conducted in FFCs; secondary processing is accomplished by private enterprises. Michael (2006) considered that new FFCs can let the members gain equal invisible assets, such as brand value, et al., thus it ensures the success of sustainable brands, maintains stable relationship with channel distributors for the development of FFCs, and increase members' income.

(3) Development strategies of FFCs

The development of FFCs is the result of common efforts by each stakeholder, mainly including the following strategies (Tang Lufa, et al., 2007; Tang Jie, et al., 2009; Ling He, 2008; Xing Zuirong, 2006; Yang Yongjun, 2006; Wang Dengju, et al., 2006; Zhang Jinfeng, 2008; Zheng Shaohong, 2008): (1) correctly recognizing and understanding characters and roles of FFCs; (2) positively guiding, clarifying the

development idea of FFCs, confirming the development objectives; ③ strengthening government support; ④ reinforcing guidance and supervision on internal system development, regulating organizing and operating mechanism, strengthening the performance of FFCs functions; ⑤ fully promoting the development of FFCs in various types, practically protecting and guaranteeing legal benefits of farmers; ⑥ enhancing training and publicity, developing high quality FFCs management personnel; ⑦ fastening legislation process, identifying legal status of FFCs; ⑧ based on the industry, positively guiding the development of FFCs, promoting the cultivation and development of leading industry.

1.2.3 Stakeholders

(1) Government

As an external force for the development of FFCs, government regulates the development of FFCs by policies and regulations, which can hasten or reduce the development speed of FFCs. Xu Xuchu (2005), pointed out that administrative and political validity of FFCs can only be gained from the government. Zhang Xiaoshan (1991) considered that in the starting stage of market economy, government intervention is inevitable for the development of FFCs, but government intervention has potential risks, so after entering the right track, FFCs should focus on independence, which deals with the issue of government's position in FFCs development process. Xu Xiangyang, et al. (2007) proposed that government should adopt "quite passionate" attitude towards FFCs, handle well degree and time of the intervention. Mei Deping (2005) expressed that reducing over government intervention is as important as fully making government functions into play. Yuan Peng (2001) pointed out that government's role in FFCs should be reflected in the aspects like reinforcing legislation development, making economic support policies, providing public goods, so as to build up the external environment for the healthy development of FFCs.

(2) Farmers

Members are the foundation of existence and development of FFCs, therefore the

attributes of members such as quality, education level, cooperation incentive have important impacts on the management of FFCs. Howard (2006) found that when farmers can freely decide whether joining a FFCs, FFCs are not most effective, since with the increase of members, trade cost of each member constantly reduces, but the total trade cost of FFCs is increasing. Nikos, et al. (2009) found that members of FFCs are not homogenous, member preference structure is affected by the scale of FFCs and members' own attitude towards risks.

The most important factor for farmers to decide whether joining in FFCs is that whether joining a FFC can bring increased income for him. Howard (2006) reckoned that each farmer whether or not joins in FFCs depends on whether members' trade cost is lower than non-members' trade cost. In addition, farmers' joining a FFCs is also affected by farmer' own attributes and development prospect of FFCs. Huang Heliang, et al. (2008) considered that affecting factors mainly include: replacement of farmers' income by the development of other industries, employment replacement level, basic features of farmer households, and policy guidance of local forestry authorities. Guo Hongdong, et al. (2004) considered that affecting factors included: (1) individual features of farmer householders; (2) family features of farmers; (3) agriculture production features of farmers; (4) development features of local market; (5) features of local policy element; development features of local economy.

1.2.4 Operating mechanism of FFCs

The development of FFCs not only depends on external affecting factors like market mechanism, environment factor, etc, but also depends more on the operating mechanism of FFCs. FFCs mechanism mainly includes internal organization model and cooperation mechanism, etc. Huang Liping (2009) considered that FFCs organization model is affected by FFCs internal contract selection. Organization model should be selected properly after overall intensive analysis of comparative advantages of factor contract and goods contract, it is not simply seeking a tense and complicated organization model. Hong Yanzhen, et al. (2009) found that the operating model of “enterprise + forestry FFCs + farmers” is a suitable forestry operating model after

forestry property reform in Fujian Province.

Zhang Minglin, et al. (2006) used classic model of boxed pigs game to analyze game activity between different members of FFCs, and found that profit allocation and cost allocation are core contents of FFCs internal cooperation mechanism, they can promote the cooperation between different members when there is high additive profit and dynamic games proceeds, so as to promote further development of FFCs.

1.2.5 General Comment

Current researches on FFCs are mainly concentrated on concept definition, development strategies and introduction of successful experiences in China and abroad, but there is no intensive research on more aspects like internal operating rule, innovation mechanism, performance evaluation, economic analysis, etc. There are quite few researches in the way of case study, so the research takes case FFCs as research point, intensively analyzes the advantages and weaknesses of FFCs development, opportunities and challenges they face, and policy requirements of FFCs development, etc, which provides reference for the health development of FFCs in other areas, thus has relatively strong theoretical and practical significances.

2. Basic information

2.1 General information of province and counties

Zhejiang Province is located in the southern part of coastal Yangtze River delta in south east China, with the total land area of 101,800 km², accounting for only 1.06% of land area of China. The hilly land area accounts for 70.4% of total land mass collective forest area accounts for over 95% of forested area, forest farmers are main managers of collective forest, its forestry output value has ranked No.1 in China for last several decades. The province governs 90 counties, municipalities (districts), with the total population of 46.47 million. In 2008, its GDP per capita was 33,083 RMB, farmers' net income per capita was 9258 RMB, and disposable income per capita for urban residents was 22,727 RMB.

Longquan County is located in the southwestern part of Zhejiang Province, with

the total land area of 3059 km², among which forest land area accounts for 69.17% of the total area, hilly land area accounts for 27.92%, river valley plain only accounts for 2.91%, so there is a saying that “90 percent of hilly land, 5 percent of water, 5 percent of cropland”. It governs 8 townships, 8 villages, 3 streets with the total population of 284,000. In 2008, its GDP per capita was 16,677 RMB, Rural per capita net income was 5112 RMB, and disposable income of urban residents was 18,145 RMB(Fig. 2.1).

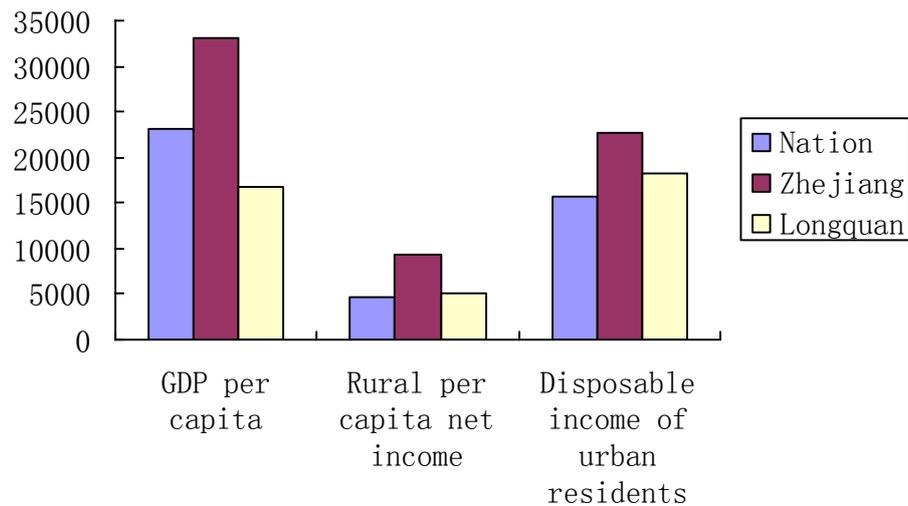


Fig. 2.1 The main economic indicators

2.2 Information of villages

Xiaozhuang Village at Jinxi Township, Bilong Village at Zhulong Township, Sicun Village at Badu Township, and Gongjian Village at Shangyang Township were selected as case villages (Table 2.1).

Table 2.1 Basic information of case villages in 2008

Village	house holds	Popula tion	Rural per capita		Land area (ha)	
			net income (RMB)	Total area	Arable land	Forest land
Xiaozhuang	133	494	5440	1017.9	34.87	975.47
Bilong	175	612	5007	3738.7	38.67	3700.00
Sicun	415	1687	5500	458.5	110.27	1348.27
Gongjian	123	536	5000	401.6	32.27	369.33

Source: case village survey.

2.2.1 Xiaozhuang village

Located in the northwestern part of Longquan County, Xiaozhuang Village is 32 km away from Jinxi Township, 16km away from Longquan County and 9km away from main trunk. Xiaozhuang Village has 133 households with the population of 494, the cropland area is 34.87 ha, and the forest land area is 975.47 ha, the net income per capita for farmers in 2008 was 5440 RMB. The main economic sources are mao bamboo and edible mushroom plantation.

2.2.2 Bilong village

Located in Zhulong Township which is on the northwestern boundary of Longquan County, Bilong Village is 30 km away from Zhulong Township and 80km away from Longquan County. Bilong Village has 175 households with the population of 612, the cropland area is 38.67 ha, and the forest land area is 3700 ha. Since it is in a remote location with poor transport facilities but rich forest resource, forest farmers are highly economically dependent on forest resource. The net income per capita for farmers in 2008 was 5007 RMB, due to the high price of agaric and mushroom in 2009, it is estimated that the net income per capita in 2009 is 14000 RMB.

2.2.3 Sicun village

Located at the southwestern part of Longquan County, Sicun Village at Badu Township is 24km away from Longquan County. It has 415 households with the population of 687, the cropland area is 110.27 ha, and the forest land area is 1348.77 ha. The net income per capita for farmers is 5500 RMB. Badu Township is a key bamboo production township in Longquan County, with the forest land area of 10,500 ha, among which mao bamboo forest area is 4600 ha, most of the bamboo forest is distributed in hills lower than 500m and gentle slopes with high soil quality, and the bamboo forest grows vigorously.

2.2.4 Gongjian village

Located in Shangyang Township, in the southwestern part of Longquan County, Gongjian Village is 10 km away from Shangyang Township, 47 km away from

Longquan County and 5km away from main arterial traffic. The village has 5 villager groups, totaling 536 persons in 123 households, the net income per capita for farmers in 2008 was 5000 RMB.

3. Forestry status

3.1 Forest tenure

In 1982, Longquan County started to carry out the national Forestry “three stabilizations” policy for the collective forest in the county integrating both collective and individual management, 72% of the collective forest was allocated to households, the double level forestry management mechanism with the basis of family management and integrating both collective and individual management was established. In 2006, Longquan County conducted the task of “extension of forest contracting period”, maintained the long-term situation of allocated privately farmed plots of hilly lands, and extended 50 to 70 years of contracting period of responsibility for the hills. In recent years, on the basis of “clarify hill boundary, clarify forest property right, making farmers assured” and extending forest contracting period, Longquan made deep-level reform and exploration in the forestry mechanism from the aspects such as guiding forest farmers to join in cooperation, forest resource transfer, forestry property mortgage loans, etc.

3.2 Types

The total land area in Longquan County is 305,900 ha, with the state-owned land area being 5907.6 ha and collective land area being 298,826.07ha, accounting for 98%. The forest land area is 265,633.47ha, of which state-owned forest land area is 5827.67 ha, accounting for 2.19% of the forest land area; collective forest land area is 259,805.80ha, accounting for 97.81% (Fig. 3.1). The forest stock volume is 14.556 million m³, and the mao bamboo stand amount is 69.163×10⁶ stems, forest cover is 84.2%. Forestry plays a significant role in the local economy.

Live forest stock volume: state-owned forest area is 437,135m³; collective forest area is 3,678,521m³; joint stock cooperative forest area is 282,329m³; 10,158,105m³

is privately owned by households, accounting for 69.79% (Fig. 3.2).

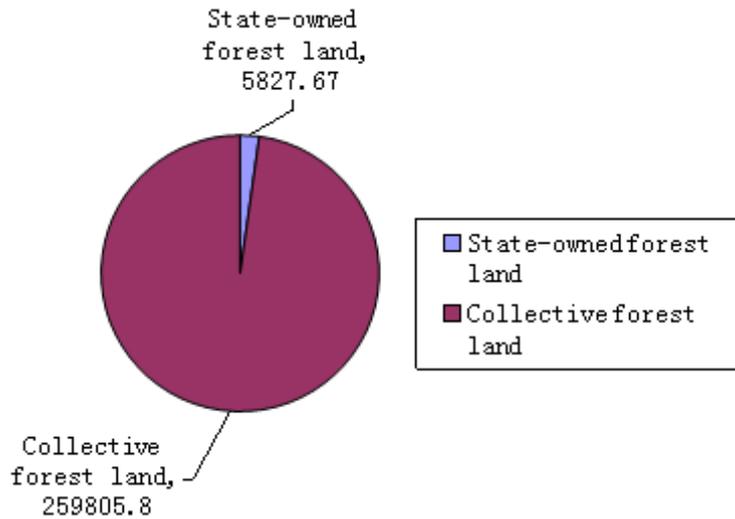


Fig. 3.1 Ownership structure of forest land in Longquan County

Source: Second Category Survey Report of Forest Resource in Longquan County (2008)

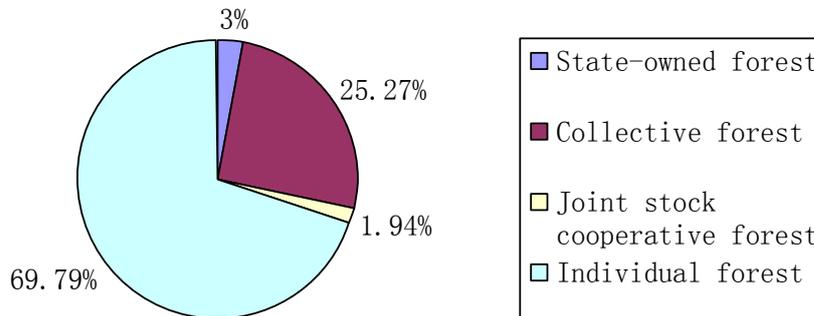


Fig. 3.2 Ownership structure of forest stock volume in Longquan County

Source: Second Category Survey Report of Forest Resource in Longquan County (2008)

3.3 Forest products

The main forest products of Longquan County include the primary industry products consisting of traditional forest products like timber and bamboo timber and non-wood forest products like bamboo shoots, vine, edible mushroom, and the secondary industry products including bamboo rubber, bamboo mat, craftwork, bamboo strip, bamboo summer sleeping mat, activated charcoal, paper box, bamboo

shoot can, wood board, etc.

4. The status of FFCs

4.1 Basic information of FFCs

4.1.1 Basic information of Zhejiang Province FFCs

There are 1512 FFCs in Zhejiang Province, of which 93 are provincial level demonstration FFCs. The total number of FFCs members amount to 134,500, and the FFCs have drave 924,000 farmer households and 270,000 ha of base. The business areas of FFCs involve production, processing and allocation of main forest products like flowers seeds and seedlings, bamboo and bamboo shoots, dried and fresh fruits, and silviculture. They play an increasingly great role in organizing, educating and training forest farmers, information service, technique extension, brand development, market development, improving the forests and enriching the farmers, etc. However, area distribution and development of FFCs is imbalanced, areas like Hangzhou and Taizhou started early with regulated operation and strong driving power, but Lishui is lagging.

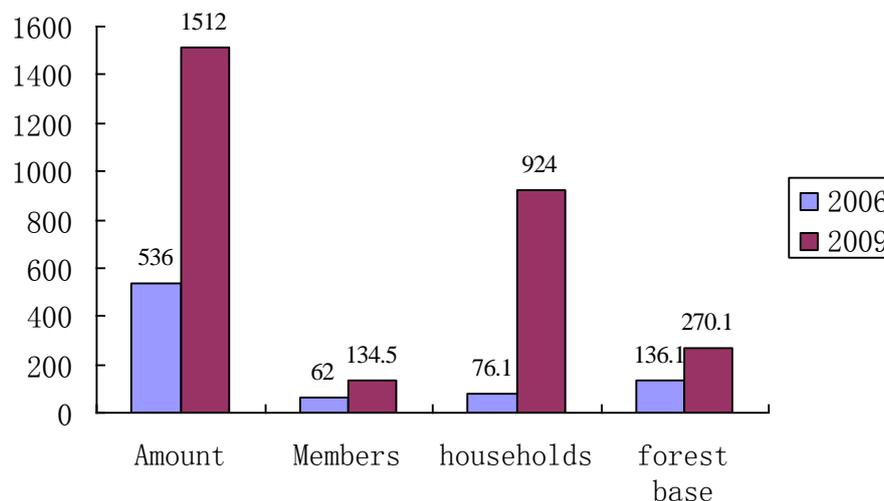


Fig. 4.1 FFCs in Zhejiang Province 2006-2009

Source: Zhejiang Forestry Department

4.1.2 Basic information of Longquan County FFCs Longquan County

The first FFC in Longquan County was Longquan County Bamboo Supply and Marketing Cooperative which was founded in 1997, but it did not operate normally. Just after 2006, FFCs developed rapidly. By the end of November, 2009, there were 47 FFCs in Longquan County, among which there were 2 for silviculture, 4 for seedling, 12 for bamboo and bamboo shoots, 19 for tea, 7 for camellia oil, and 2 for dried and fresh fruits.

4.1.3 Basic information of case FFCs

Due to the difference in creation time and operating products of the 4 case FFCs, they also have different features in the scale and management models of FFCs.

(1) Xiaozhuang FFC

Xiaozhuang FFC was founded in 2007 with 77 initial members, of which 5 were investor members who constituted the council of the cooperative, and 72 were non-investor members. In 2009, there were 132 members; currently it has 3 million RMB of assets, including 1.5 million RMB of fixed assets which consists of 1 million RMB of plant assets and 500,000 RMB of machine equipment, 1 million RMB of inventory; the households driven by the FFC developed from 132 in 2007 to 2100 in 2009; it owns “Xiaozhuang” brand, the famous brand in Lishui Municipality.

(2) Longzhu FFC

Longzhu FFC was founded in 2007, with 118 initial members and 500,000 RMB of registered capital, among which the top 5 investors invested 425,000 RMB, accounting for 85%. In 2009, its members rose to 500 households, which covers 2800 farmer households. The FFC now owns 1.5 million RMB of asset and 850 m² of plant; owns over 800 ha of pollution-free bamboo shoots production standardization base; its main products are “Longzhu” brand bamboo shoots products and “Zibao” brand camellia oil products; it is a Zhejiang Provincial FFC.

(3) Nengfu FFC

Nengfu FFC was founded in June 2007, with 13 initial members and 1 million RMB of registered capital. Zhejiang Nengfu Travel Products Co. Ltd is the leading

enterprise of Nengfu FFC. After development for several years, 1273 forest farmers of Bilong, Zhou diao and Baiyan Village, Zhulong Township invested in 7771.9 ha of forest resource, the cooperation mechanism of “leading enterprise + households + base” thus emerged. In 2009, the FFC sold 9150m³ of timber to Nengfu Company with 6.6 million RMB of sales income; the annual income per capita for the FFC members is 9600 RMB.

(4) Shengyuan FFC

Founded in January 2009 with 200,000 RMB of registered capital, Shengyuan FFC was organized and founded by officials of Gongjian Village, it has 28 members including 7 council members; the FFC once purchased 300,000 kg of spring bamboo shoots for storage, and sold them when market price was quite high, resulting in a gain of 100,000 RMB in profit; Shengyuan FFC is still in the beginning and trial operation stage, it has not produced any camellia oil.

Table 4.1 Basic information of case FFCs

Unit: 10 thousands RMB

FFC	Establis hed	Amount of funded staff	Members		Amount of promoted farmers (initial/now)	Capital	Sales amount
			Initial	Now			
Xiaozhuang	2007	5	77	132	132/2100	100	50/500
Nenfu	2007	5	13	1273	1273	100	0/660
Longzhu	2007	>100	118	500	1000/2800	80	150/350
Shengyuan	2009	7	28	28	120	20	60

Source: Case survey

4.2 Organizations and management of FFCs

These FFCs are still in the initial development stage with their own features, but organization and management need further improvement.

4.2.1 Xiaozhuang FFC

The registered asset of Xiaozhuang FFC in 2009 was 1 million RMB, which is wholly funded by the investment from 5 council members; each council member invested 20% in ways of capital investment and forestry property right evaluation

investment. Member meeting is the highest authority, which mainly solves important problems of the FFC. But only 8% of the members consider that: individual idea has quite big influence on the FFC. The FFC has established council including 3 members; the council president is the legal representative of the FFC. Meanwhile, it has 2 supervisors, who constitute the board of supervisors of the FFC, representing all of the members to supervise the work of the council and working staff.

4.2.2 Longzhu FFC

Longzhu FFC has 300 ha of self-base and 800 ha of driving base. The management mechanism is regulated, and it has certain secondary profit return mechanism, for instance, in 2007 and 2008, it returned the profit to shareholder members in the rate of 9.2 RMB/100 RMB. The Negotiation Mechanism of Cooperative Council regulates scale and procedure of negotiation; meanwhile, it sets strict financial management mechanism and food safety post responsibility mechanism. In 2008, it was awarded Zhejiang Provincial Demonstration FFC.

4.2.3 Nengfu FFC

Nengfu FFC has 1 million RMB of registered capital and complete organizational structure, it has 1 President holding 50% share, 1 General Manager holding 20% share, the other 3 shareholders holding 10% share respectively. General Manager is responsible for overall management, and sets 4 offices including administration, silviculture management, forest fire control and financial management offices, and 1 worker committee, dealing with daily businesses; it sets technical expert group, responsible for technical support of sustainable forest management; the FFC has 3 management offices in Bilong, Zhou diao and Baiyan respectively, and appoints specific staff to be responsible for field general management.

4.2.4 Shengyuan FFC

When registered to be founded, Shengyuan FFC decided to adopt joint stock mechanism, the cooperative council includes 7 persons, who hold all the shares of the FFC, while the biggest investor's share accounts for 50% of the total shares, the other

6 investors' shares account for 50%. Since the FFC is newly operated, its production is managed by the council President; members of congress has not been held to date, and there are no detailed records of the council conferences and supervisory committee conferences.

4.3 Operation and practices

As a new kind of farmer specialty cooperative organization, every year FFCs conduct forestry production and management activities, organize technical training, regulate quality and specifications of forest products, etc.

4.3.1 Conduct forestry production and management activities

The main function of Xiaozhuang FFC is purchasing bamboo shoots, fruits, vegetables, edible mushroom from members to process, store, transport and sell; Longzhu FFC established storeroom and refrigerating chamber to store bamboo shoots when there is temporarily over supply in the market, and sells them when demand exceeds supply in the market, so as to avoid yield increasing but income not increasing; Nengfu FFC organizes to purchase and sell forest planted by members. In 2009, it sold 9150 m³ of timber with 6.6 million RMB of sales income.

4.3.2 Organize forestry technical training

Every year, Xiaozhuang FFC cooperates with technical staff of forest station to organize the technical training for member households, including technical guidance and training in fertilization of bamboo forest, covering of bamboo shoots, humidity of dried bamboo shoots, etc; Most members of Longzhu FFC took part in 1 training in 2008, accounting for 75%; 12.5% of farmers took part in 2 trainings, and 12.5% of members took part in 3 trainings or more; 61% of Nengfu FFC members took part in 1 training, 27% if members took part in 2 trainings or more.

4.3.3 Regulate quality and specifications of forest products

Xiaozhuang FFC signs purchasing agreements with members, and raises relevant quality requirements for white bamboo shoots, dried bamboo shoots tail, fresh

bamboo shoots, requires the quality of bamboo shoots to meet national standard and the quality of dried arbutus to meet enterprise standard. With the precondition that integrating provincial, municipality and county forestry development plans, Nengfu FFC has gained great support from the local Environment Protection Bureau and Water Resource Bureau, and finally successfully passed FSC certification, which means that products from FFC forest have obtained the requisite “green permit” to enter international market

4.4 Effectiveness of current policies

Current policies effectively promote the growth of FFCs. The development of FFCs not only increases the income of farmer households and provides employment opportunities, but also meets the national requirements on Socialist New Rural Construction and thus greatly promotes local socialist new rural construction.

4.4.1 Forestry property right mortgage loan relieves capital bottleneck of FFCs

In 2006, the forestry property rights reform in Longquan County closely integrated rural finance service with forestry property rights reform by implementing preferential interest rate for forestry property right mortgage loans, and basic interest rate for small forestry property right mortgage loans lower than 20,000 RMB. Local finance offered interest subsidy for 50% of the basic interest rate of small forestry property right mortgage loans while also establishing a annual risk compensation fund with 5‰ of forestry property right mortgage loans residual, to provide risk compensation to financial organizations. Meanwhile, it built “center-organization” loan service platform including forestry property right management center, forest resource storage center, forestry property right trade center and forest resource survey and evaluation organization, so as to provide coordinated service for forestry property right mortgage loans.

In 2008, Xiaozhuang FFC gained 100,000 RMB of loan with 7 ha mao bamboo forest mortgage, which solved the capital difficulty in material purchase and sales, and built bamboo forest equipment operating road, which greatly reduced running cost of bamboo forest, and improved economic benefit of bamboo farm By paying

the forest farmers to get mortgage rights of forest property right certificates at the rate of 235.5 RMB/ha.a, Nengfu Company gained 6 million RMB of forestry property right mortgage loan in 2008 and 10 million RMB in 2009, and gained 25,000 RMB of interest subsidy for forestry property right loan, which greatly relieved capital shortage problem of company operation.

4.4.2 Financial and tax preferential policies reduce operating cost of FFCs

Tax preferential and subsidy policies of finance administrations reduce the operating cost of FFCs. For instance, Xiaozhuang FFC has got over 200,000 RMB of tax exemption in 3 years. The capital was used for expanding production, which promoted the development of FFC. In 2009, it gained 100,000 RMB of financial subsidy which was used for the establishment of a sales department in Wenzhou, which greatly reduced risk to FFC. In addition, government offered special capital support to specific FFCs, such as low yield forest improvement subsidy policy for camellia oil FFC and afforestation subsidy policy for silviculture FFC. In 2009, Longquan County government provided 5 million RMB of afforestation subsidy for Nengfu FFC. These external supporting policies have provided opportunities for the development of FFCs

4.4.3 Technical support strengthens development sustainability of FFCs

Technical support from governments in various levels and technical staff strengthens development sustainability of FFCs. The policy of bringing science and technology to countryside implemented by Zhejiang Provincial Forestry Department, and Longquan County's policy that extending scientific network to FFCs, provide FFCs with scientific training, technical guidance and study opportunities during the operating process. Technical staff of local forestry bureau and forest station always provided local FFCs members with technical training. The training content includes silviculture, tending, bamboo and bamboo shoots processing, etc, mainly in the ways of group courses for members, individual technical guidance, distributing publicity manuals, etc. During the forest certification process, Nengfu FFC got support from relevant local administrations. The entire certification plan especially forest

management plan making was accomplished with the assistance from Longquan County Forestry Bureau. It also received tremendous support from local environment protection certification from Environment Protection Bureau and Water Resource Bureau during local evaluation process of forest certification and finally successfully passed certification.

4.5 Main problems or difficulties

4.5.1 Comparatively High Difficulty in Financing

The state-owned commercial banks generally concentrate on financing for big industry and commerce enterprises, they lack acceptance for the cooperatives. The Agricultural Development Bank prefers to finance big and medium agricultural development projects. The financing requirements are very high, which require that the one-off financing volume should be more than 3 million RMB, however, except Nengfu FFC, the other 3 cooperatives although frequently having seasonal funding gaps, but these gaps are much smaller than 3 million RMB, therefore it is hard to reach the financing threshold of Agricultural Development Bank, thus they cannot get preferential loans from policy banks. Forestry property right mortgage loans solve the problem of high difficulties in cooperative financing to a certain degree, but in practical, since forestry property rights are distributed to forest farmers, the cooperatives do not really form close benefits community with the members, if the cooperative want to get forestry property right mortgage loans, they should pay expenses for using forest property certificates to forest farmers, which increases loan cost of the cooperatives.

4.5.2 Overall development stage of FFCs is quite low

The overall development stage of FFCs is quite low, and there is no reference of very successful experience, so FFCs should tirelessly explore during the development process, and they cannot avoid making many detours, which makes obstacles for the development of FFCs. In addition, low overall development stage will also result in low level of relevant government support policies, which impacts negatively on the

development of FFCs.

4.5.3 Hard to gain pointed policy support

Since government's support on FFCs is mainly based on overall development situation of FFCs, it is not very clear that what are the specific FFC's urgent problems during the development process, and there is no relevant support policy. Two bamboo shoots specialty FFCs wanted to enter big supermarkets, which will greatly improve brand recognition and product sales, but it needs nearly 500,000 RMB of entrance fee, which cannot be borne by FFCs, if government can issue relevant supporting policy on this issue, it will highly promote the development of FFCs.

4.5.4 Hard to attract excellent personnel to work in FFCs

FFCs are located in quite remote areas with inconvenient transportation, quite poor living condition, small development scale and low staff salary, so it is hard for FFCs to attract excellent personnel to work in FFCs during development process.

4.5.5 Unregulated internal management mechanism

Due to the short foundation time of Longquan FFCs, management staff of FFCs are not clear about internal management mechanisms of FFCs and do not possess high management quality, which result in unregulated internal management mechanism of FFCs.

5. The attitude, behavior, and views from different stakeholders

5.1 Government at different levels

5.1.1 Supporting policies of Provincial government

Provincial supporting policies based on the general situation of the province, including:

(1) In 2006, it started to implement provincial level demonstration FFCs affirmation, and allocated special fund from Provincial Forestry Department finance to subsidize provincial level demonstration FFCs.

(2) In 2009, it issued Zhejiang Province Temporary Measures on Registration of

Farmer Specialty Cooperatives by Forest Land Contracting Management Right Evaluation Investment, regulated if farmers have gained forest property right certificate they can join in FFC by forest property right evaluation investment.

(3) It held China Yiwu (International) Forest Product Expo since 2008, providing exhibition platform for the products of FFCs, and subsidized 10,000 RMB of exhibition expense to each FFC participant.

(4) It organized bamboo and bamboo shoots products “northeast travel” and “northwest travel” activities in 2009 and 2010 respectively, and offered capital allowance to the participating FFCs.

5.1.2 Supporting policies of local government

Relevant function administration in Longquan County provides the following supporting policies:

(1) Issued standard regulations on demonstration cooperatives, cooperated with the provincial level demonstration affirmation work of Zhejiang Provincial Forestry Department, and offered subsidy for demonstration based development also assisting the cooperatives to apply for supporting projects.

(2) In 2007, forestry property right mortgage loan policy was issued. FFCs can get loans with forest tenure certificates mortgage and benefit from loan interest subsidy preferential policy.

(3) Part of tax and expense was exempted, sales tax on the products in name of FFC was exempted, Industry and Commerce Bureau provided free registration service, and did not require annual survey.

(4) Provided FFCs with capital and material support. In 2009, it subsidized 5 million RMB for afforestation of silviculture FFCs, and provided free seedlings for low yield camellia oil forest improvement of camellia FFCs.

(5) In 2009, farmer mailbox service was opened. Farmers can communicate with government via farmer mailbox about their thoughts, ideas on government policies, and self-requirements on developing FFCs.

(6) Provides service of bringing science and technology to the countryside.

Extends science and technology network to FFCs, organizes FFCs members to conduct scientific and technology training, and provides study opportunities to FFCs, etc.

5.2 Village committees

Local Village Committees generally consider that the cooperatives can improve the organizational capabilities of forest farmers, increase income of forest farmers and improve local ecological environment. Therefore, Villager Committee members all support the development of the cooperatives, and provide assistance for the development of the cooperatives within their abilities.

5.2.1 Holding Positive Supporting Attitudes

As development of cooperatives has been advocated by the government in recent years, members of each Villager Committee have held positive supporting attitudes towards the establishment and foundation of the cooperatives. They reckon that the establishment and foundation of the cooperatives can stimulate village economy, promote the income of farmers, provide working opportunities for villagers, and promote both rural material progress and rural spiritual progress. Because forestry management benefit improves after the foundation of the cooperatives, villagers are active in production and management activities, the phenomena of playing Mahjong and running idle decrease a lot.

5.2.2 Offering Assistance for the Development of the Cooperatives

Villager Committee members offer a series of assistance for the establishment and foundation of the cooperatives, for Xiaozhuang FFC, they mainly coordinate the relationship between villager groups, farmer households and the cooperative, provide relatively preferential plant site for the cooperative development, coordinate the land needed for expanding the plantation scales, encourage the cooperative members to strengthen forest resource management based on cooperative regulations, actively cooperate with the cooperative to organize trainings, etc. Officials of Bilong Village help to coordinate the relationship between Nengfu Company and villagers, analyze

the advantages and disadvantages of participating in the cooperative, etc. Director of Bilong Villager Committee organized to found Shengyuan FFC, and expects to increase members' income by the development of cooperative camellia oil, and decrease members' economic dependence on timber resource, so as to promote the sustainable management of forest resource.

5.3 Farmers

5.3.1 FFCs members

(1) Willing to sell products through FFCs. The ultimate objective of FFCs is to ensure the income of forest farmers by collecting the forest products from members to sell; therefore it is extremely important whether members are willing to sell the products through FFCs. For instance, 91% of Xiaozhuang FFC members sell most of their forest products through FFC; in Nengfu, 96.2% of the members signed sales contract with FFC, in 2009, forest farmers sold 66% of logged timber to FFC.

(2) Have intention to invest in FFCs.

There is a sharp difference between the willingness to invest of members of different cooperatives. 77% of Xiaozhuang FFC members are willing to increase investment, but only 31% of Nengfu FFC members are willing to invest in FFC; in Shengyuan, only 12.5% of the members have quite strong intention to increase investment.

(3) Member meeting has certain effect.

Members' meeting is the highest authority of FFCs, which mainly solves important problems of FFCs and is a main channel for the members to take part in the management of FFCs. According to the survey in Xiaozhuang, 62% of forest farmers have taken part in FFCs member representative meeting, 50% of members consider that problem discussion is a main content during the meetings, 43% of members think the meeting has good effect in solving the problems; in Nengfu, only 46% of forest farmers have taken part in FFCs meeting or member representative meeting, and 28% of members even do not know there is a members meeting.

(4) Holding positive attitude towards development prospect of FFCs. In

Xiaozhuang, over 90% of members hope to maintain close relationship with FFCs; since Nengfu has passed FSC certification and explored Europe market, 88% of interviewed members consider FFCs have very good development prospect.

5.3.2 Nonmembers of FFCs

(1) Low cognition degree for FFCs. Since most businesses of FFCs aim at members, nonmembers do not have positive feelings of FFCs development, and FFCs lack requisite publicity, many nonmembers are not clear about characters and functions of FFCs, even do not know the existence of FFCs. In Xiaozhuang, over 66% of interviewed nonmembers do not know functions of FFCs; survey in Longzhu and Shengyuan also certify similar result.

(2) Weak willingness to join in FFCs.

In Xiaozhuang, only 11% of nonmembers are willing to join in FFCs, most of them are indifferent; in Longzhu and Shengyuan, nonmembers lack understanding of relevant policies and functions of FFCs, and are not enthusiastic to join in.

5.4 Forestry Associate of Longquan County

As the NGO representative, representative of Longquan County Forestry Associate considers:

(1) Government should support the development of FFCs. Government should support FFCs in aspects like policy, capital, news publicity, etc., improve their social status, develop forestry economy and increase income of forest farmers.

(2) Fully developing FFCs Federation, strengthening the cooperation between FFCs, and avoiding excess competition. FFCs are short of unique techniques with homogenous products which are easily to be simulated, thus resulting in fierce competition. Government and association should cooperate to coordinate and manage the establishment and management of each FFC.

(3) FFCs should regulate their development.

Government at various levels should adopt multi supporting polices to promote the development of FFCs, which results in many FFCs, some FFCs are not regulated, the quality of working staff is spotty and operation of FFCs is abnormal.

(4) FFCs are the direction of rural development.

Fully using national policies, organizing forest farmers to enter the market and promoting the commercialization of more forest farmer products cannot only improve the quality of forest farmers' products, but also increase value of forest farmer products, and promote the distribution of forestry techniques.

(5) Positively promoting the innovation of FFCs management mechanism. FFCs have become important mechanisms to improve scope of forestry and organizational abilities of forest farmers, and have become important organizing force to convert development model. Relying on the occasion that China supports “three agricultures” policy, Longquan County Forestry Associate is promoting the founding of FFCs association, advocating to build product criteria, assisting FFCs apply for provincial demonstration FFCs affirmation, and promoting FFCs to build product sales platform.

6. Problem analysis

6.1 Experiences and lessons: comparison of different FFCs

6.1.1 Experiences

(1) Issuing Supporting Policy in Time

Zhejiang Province issued the first “Regulations” in China in 2004, that establishes cooperatives as important mechanisms to improve the systematization level of farmers, and continues to support the cooperative development. In 2005, Provincial Party Committee and Provincial Government Administration Office jointly issued Ideas on Accelerating the Development of Farmer Specialty Cooperatives (Zhewei Ban [2005] No.73). In 2006, Zhejiang Provincial Forestry Department issued Affirmation and Monitoring Measures on Forestry Demonstration Specialty Cooperatives of Zhejiang Province, which promotes the standard and ordered development of the cooperatives by demonstration specialty cooperative development. The development of the cooperatives meets the requirements of the times and central policies. Owing to local government’s intensive support and assistance in media and policy, FFCs in Longquan County develop rapidly. In 2009, State Forestry

Administration issued Guiding Ideas on Promoting the Development of Farmer Forestry Specialty Cooperatives (Lingai Fa [2009] No. 190), Zhejiang Provincial Finance Department, Agriculture Department, Forestry Department, and Ocean and Fishery Bureau jointly issued Management Measures on Provincial Special Finance for Farmer Specialty Cooperatives (Zhecainong Zi [2009] No. 139), Zhejiang Provincial Industry and Commerce Administration Bureau and Forestry Department jointly issued Zhejiang Province Temporary Measures on Registration of Farmer Specialty Cooperatives by Forest Land Contracting Management Right Evaluation Investment, which provide the development opportunity for cooperatives.

(2) Fully Utilizing Sound External Development Environment

Since 2004, central No.1 document in each year attaches great importance in “three agricultures” problem. “Three agricultural” problem is not only the principle economic problem in current China, but also an urgent political problem of China. Central No.1 document of 2009 especially encourages the development of rural cooperatives, and hopes they can become grass roots economic unit of rural development. At present, FFCs of China are still in the initial development stage, governments in various levels and social parties all positively support the development of the cooperatives, create sound policy environment and media support for the development of the cooperatives, therefore each forest farmer cooperative fully utilizes sound external development environment to develop constantly. For instance, Xiaozhuang and Nengfu FFCs gained forestry property right mortgage loans; with the platform built by the government. Xiaozhuang and Longzhu attended agriculture expo, Zhejiang Province agriculture products northeast travel and northwest travel, etc; Shengyuan FFC got free high quality seedlings provided by Longquan County Forestry Bureau, etc.

(3) Complete Technique Distribution Network

In order to promote the development of agriculture and forestry industry, Longquan County has established complete technique distribution network (Fig. 6.1). This assured timely distribution and application of new techniques and new methods, promoted FFCs to gain and implement new techniques and methods in time. This

resulted in improve efficiency, forest farmers increase income and forest area develop.

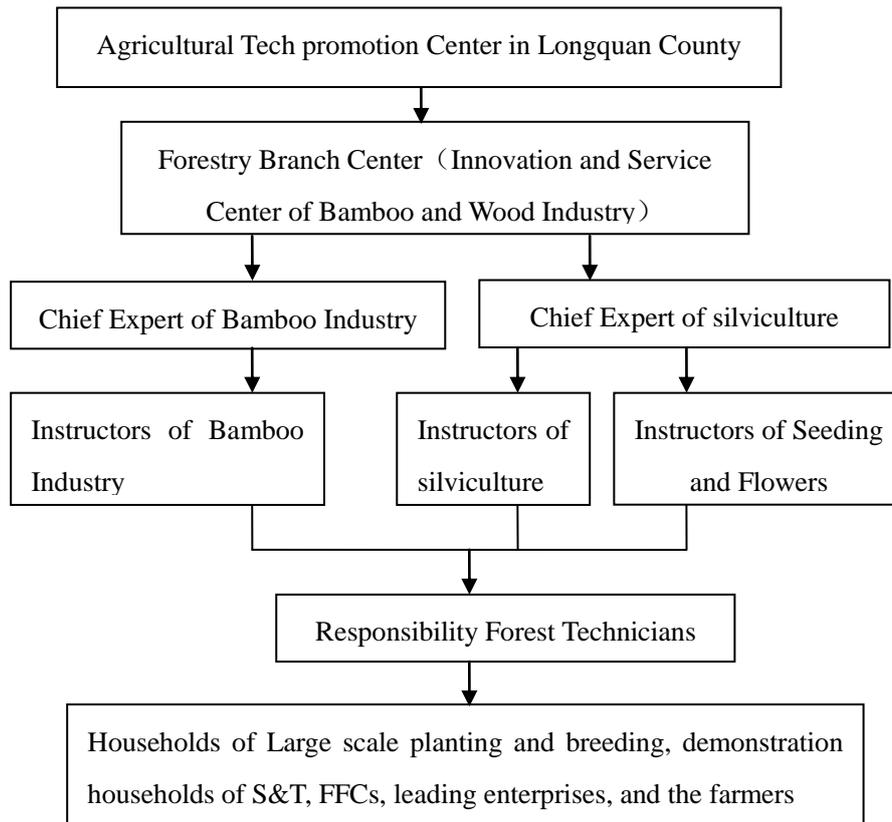


Fig. 6-1 The Extension Network of Forest Technology in Longquan County

(4) Establishing Benefits and Risks Sharing Mechanism

Members are the foundation for the existence and development of cooperatives. The development of the cooperatives is closely related with the support from members, so in the development process, the cooperatives should not only pursue their maximum benefits, but also attach importance to the benefits of members, and form benefits community with the members. Meanwhile, the cooperatives should actively encourage the members to participate in the cooperative management, and make the members fully aware of their importance to the cooperatives and enjoy the cooperative development benefits, and improves members' sense of group honor. Xiaozhuang FFC increased the purchase price for bamboo shoots; Longzhu FFC provides fertilizer in beneficial price, and conducts annual bonus; Nengfu FFC takes measures like returning profit from sales, paying medical insurance for the members, etc, which make the members experience the benefits from joining the cooperatives,

thus be more confident about the development of the cooperative.

(5) Achieving Sound Interaction of “Cooperative +Base + Households”

A base is a carrier and material basis of the cooperatives to conduct project implementation and technique extension. FFCs in Longquan County have linked 11,600 ha of base. The cooperatives are not only the economic bodies which are linked by market operation, organize standard production and develop market, but also the social service bodies that organize and provide techniques, information, etc. Xiaozhuang and Longzhu FFCs possess their own plants and equipment, and established bamboo shoots bases through models like farmer households' contribution, forest land transfer, etc. Nengfu and Shengyuan FFCs also established bases. For instance, Longzhu FFC owns 800 ha of forest base with harvest for both bamboo and bamboo shoots by various models like bamboo forest contracting, members contributing bamboo forest as shares, etc. With the promotion by the cooperatives, the scientific management level of bamboo forest improves; the annual sale reached 4.6 million RMB, winter bamboo shoots price increased from former 6-8RMB/kg to 12-16 RMB/kg, with the peak price of 160 RMB/kg. The cooperatives should pay attention to achieving sound interaction of “cooperative +base + households”, so as to effectively promote cooperative development, members' income increase and sustainable forestry management.

(6) Establishing Regulations, Improving Cooperative Management

Xiaozhuang, Nengfu and Longzhu FFCs have already established cooperative regulations, council discussion mechanism, financial management mechanism, food quality and safety responsibility, etc. The cooperatives ensure the product quality by regulations restriction and regulating the behavior of council members, ordinary members and staff; through platforms like agriculture expo, they extend brands and improve product awareness and market quota. Products in “Xiaozhuang” and “Longzhu” brands passed pollution-free product and forest product certification; gained Lishui Municipality green agricultural product base certification; Nengfu FFC has gained sustainable forest management certification.

(7) Founders should have adventurous spirit of entrepreneurs

Being lead by capable persons is an important factor for the development of FFCs. The founder of Xiaozhuang FFC started his business in his teens, and engaged in many industries successively, he owns well adventure spirit. The founder of Longzhu FFC formed an indissoluble bond with bamboo since his childhood; he traveled extensively to explore winter bamboo shoots market and cooperated closely with the scientific community to extend early harvest and high yielding technique of winter bamboo shoots, and finally made bamboo forest become a “wealth bank” for local residents.

(8) Advanced management concept

Nengfu FFC has advanced management concept and strong social responsibility, and conducts sustainable forest management certification. Following international advanced management concept, forest management plan takes into account the roles of sustainable forestry development, based on developing forest resource, motivated by scientific innovation, and maintaining the management guideline of “based on forest, ecological priority, diverse management, sustainable development”, improving forest quality and ecological environment, building FFCs into new forestry cooperative organizations with modern ecological concept and according with FSC guideline of sustainable development.

(9) Adopting brand strategy

Homogeneous agricultural products are usually in fierce competition, Xiaozhuang and Longzhu FFC registered “Xiaozhuang” and “Longzhu” brands respectively, and made their products pass pollution-free forest products and forest food certification and Lishui Municipality green agricultural product base certification, which greatly improves image of FFCs, and promotes the product sales of FFCs.

In summary, the development of FFCs in Zhejiang Province, cannot only be supported by policies, but also be inseparable from personal theirselve efforts. The experiences can be summarized in Table 6.1.

Table 6.1 FFCs experiences summary table

Experiences	Xiaozhuang	Nengfu	Longzhu	Shengyuan
Policy support	√	√	√	√
Fully utilizing sound external development environment	√	√	√	√
Complete technique distribution network	√	√	√	√
Establishing benefits and risks sharing mechanism	√	√	√	√
Achieving sound interaction of “cooperative +base + households”	√	√	√	√
Establishing regulations, improving cooperative management	√	√	√	
Founders should have adventure spirit of entrepreneurs	√		√	
Advanced management concept		√		
Adopting brand strategy	√		√	

6.1.2 Lessons

FFCs in Longquan County encountered some problems during the development process, which hinder further development and extension of the cooperatives in certain degree.

(1) Forest Farmers Lack Understanding of the Cooperatives

Due to lack of cooperative knowledge and understanding of the cooperatives, it has been found during field research that forest farmers’ understanding of the cooperatives can easily go to two extremes. Some farmers consider that the cooperatives have nothing to do with them, and cannot play any role, they do not have the intention to join and understand; while the others consider the cooperatives as government’s organizations in the village, they hope to get subsidy from the cooperatives and the cooperatives can solve the contradictions in the village. The cooperatives do not actively communicate and discuss with forest farmers, even for the cooperative members, most of them are not clear of the operating situation of the

cooperatives, In Xiaozhuang FFC, members that take part in the member meeting once a year only account for 62% of the total; 56% of the Longzhu FFC members responded that they did not know the financial situation of the FFC; 54% of Nengfu FFC members have never taken part in any meeting of the FFC.

(2) The Shares are Over Concentrated

In Xiaozhuang and Nengfu FFCs, the contributions of 5 council members form the total contributions, the top 5 council members of Shengyuan FFC also hold 70% of the shares. If the shares are over concentrated in council members, especially the first and second founders, then ordinary members do not own shares, they can not gain share profits according to contributions, so the members do not have strong awareness, and do not care the FFC businesses which do not deal with their benefits. Main members absolutely dominate the operating decision and daily management of the FFCs, ordinary members can not play their roles in supervision and suggestions.

(3) Few Financing Channels

The FFCs expressed that their biggest difficulty is capital shortage, mainly seasonal capital shortage, mainly resulting from the contradiction between the seasonal nature of forest product production and the perennial nature of downstream production of the FFCs. The enterprises have quite high capital demand in short period, but based on the external development environment, compared with normal economic bodies, the FFCs have high elimination rate and risk. The FFCs usually cannot get loan through normal loan procedure, they lack financing channel. While on the other hand, members, especially members of Xiaozhuang and Longzhu FFCs which expressed that they have quite big capital shortage problem, all have high investment demand, but the FFCs seldom consider using this convenient financing channel.

(4) Forestry Property Rights are Over Separated

Forestry property rights are over separated, if the FFC want to apply forestry property right mortgage loans, they normally should pay expenses for using forest property certificates to members and the evaluation is difficult. For instance,

Xiaozhuang FFC intended to get loans by forestry property right mortgage, but there are so many difficulties, although the evaluation was done a long time, the FFC had not yet received the loans. Although in some FFCs, some members contribute in forestry property rights, the range is small. Lots of forestry property rights are still scattered with members, which results that on one hand, this makes it hard for FFC to apply loans with forest property certificates, on the other hand, members do not have channel to invest their resources and capital.

(5) Unregulated operation

Xiaozhuang FFC does not distinguish between members and nonmembers when purchasing forest products in the village, all because of price protection. It does not conduct secondary profit return on trade amount or trade value, thus members do not have strong awareness and nonmembers are not willing to join in the cooperative. Although Longzhu FFC conducts secondary profit return on shares, but in agriculture equipment subsidy, it does not base this on trade amount or trade value. Except camellia oil seedling plantation, Shengyuan FFC has neither held members meeting nor conducted technical training, and it does not conduct camellia oil processing, etc.

(6) Unclear management objective

Shengyuan FFC does not have clear management objective or development strategy, the function of the council is not fully displayed or exercised, and the initiative of FFC members is not sufficiently utilized, which results in quite loose management of Shengyuan Camellia Oil FFC and quite a few obstacles in its development.

(7) Short of technique and superior seedlings, forest quality needs to be improved

Proper subsidy for barren mountain afforestation is important, FFCs and relevant government departments should play their own roles and carry out their own responsibilities, strengthen communication and cooperate to provide suitable superior seedlings for forest farmers, which not only improves the afforestation initiative of farmers, but also is beneficial to forest resource rehabilitation. In Nengfu FFC, unit area stock volume of arbor forest is 58.65m³/ha; unit area stock volume of plantation

forest is 61.35m³/ha. Unit area annual growth of arbor forest is 3.9m³/ha; unit area annual growth of plantation forest is 4.2m³/ha. The objective is by 2017, unit area stock volume of arbor forest will reach 67.5m³/ha; unit area stock volume of plantation forest will reach 76.5m³/ha. Unit area annual growth of arbor forest will reach 4.8m³/ha; unit area annual growth of plantation forest will reach 6.45 m³/ha. Achievement of these objectives is still lacking the necessary technical and superior seedling support.

Lessons from the operation of each FFC can be found in table 6.2.

Table 6.2 Lessons from the operation of each FFC

Lessons	Xiaozhuang	Nengfu	Longzhu	Shengyuan
Forest farmers lack understanding of FFCs	√	√	√	√
The shares are over concentrated	√	√	√	√
Few financing channels	√	√	√	√
Forestry property rights are over separated	√	√	√	√
Unregulated operation of FFCs	√		√	√
Unclear management objective				√
Short of technique and superior seedlings		√		

6.2 Incentives and disincentives for forest management by farmers' cooperatives

6.2.1 Incentives

(1) Favorable Macro Development Environment

Concerning macro environment, Cooperative Law and Regulations aimed at promoting and regulating the development of FFCs, ensure the legal benefits of FFCs and their members. In China, FFCs are in the rapid developing initial stage, government at various levels all positively encourage the development of the FFCs, provide various beneficial and supporting policies for the development of the FFCs, the supports gained by the FFCs are mainly governments' beneficial policies and

some technical training and information service, etc. In 2007, Longquan County issued forestry property right mortgage loan policy. After paying certain reward to forest farmers, the FFCs can obtain mortgage right of forest property certificate, and then apply for forestry property right mortgage loan. For example, Xiaozhuang FFC obtained 100,000 RMB of mortgage loan in 2007 and 2008 respectively. Nengfu FFC received 6 million RMB and 10 million RMB of forestry property right mortgage loans in 2008 and 2009 respectively. In addition, the government exempts value-added tax for the FFCs, which greatly decreases the burden on the FFCs, and improves development potential of the FFCs. Meanwhile, the governments strengthen technical and information support on the FFCs by bringing science and technology to the countryside. Governments build platforms, organize the FFCs to attend various trade fairs, encourage the FFCs to develop the market, etc. The implementation of these support policies provides favorable development environment for the FFCs.

(2) Great Potential in Market Demand

With the constant social and economic development and gradual improvement of standard of living, humans' consumption patterns gradually changed from subsistence to enjoyment demand, consumers demand for forest products continually increased, and the diversified processing and production of forest products further motivates consumer demand. Forest food and green food like bamboo shoots, dried bamboo shoots, and camellia oil meet humans' health consumption ideals and requirement.

Since 21st century, global market's requirements on the validity and sustainability of forest products have been increasingly high. In recent years, global public policies are becoming the driving force to support sustainable forest management and legal timber product trade. Many countries' green purchase policies were issued in succession, with the objective to address increasingly severe illegal forest product trade activities. Forest product processing enterprises should pass the global recognized third party certification if they want to occupy forest product markets in USA, EU, etc. Nengfu Company successfully got FSC forest certificate by FFC operation, builds foundation for product improvement and developing

international market, stands in a leading position in market competition, and also promotes sustainable management of local forest resource. FSC certification of Nengfu FFC is beneficial to ensure the sustainable management of forest resource, its products will be more easily recognized by the market, and the development prospect is vast.

(3) Evident Resource and Base Advantages

Each FFC is located in the key production area of main forest product and owns abundant forest resource and production base but local forest farmers have tradition and experience in managing relevant forest products. After the foundation of the FFCs, the profit of forest products increased and forest farmers are highly active in the management. Except Shengyuan FFC, each FFC owns independent brand and relatively stable sales channel. For instance, Xiaozhuang and Longzhu FFC organize production in “Xiaozhuang” and “Longzhu” brands respectively, their products are popular among the consumers with high quality and preferential price, and have quite high recognition in Lishui and Longquan. Nengfu FFC sets forestry leading enterprise as core member; the enterprise has quite high reputation and influence in global market. Except Shengyuan FFC, each FFC attaches importance in brand development and propaganda, gradually bringing brand advantage into play.

6.2.2 Disincentives

(1) Improper management mechanism

It is hard to carry out the regulations that industry and commerce administrations are responsible for; registration and founding of FFCs, and agriculture bureaus that are responsible for management. For example, some FFCs did not go through relevant procedures in agriculture bureaus after registering in industry and commerce administrations. Since 2009, forestry bureaus have become the administrative organizations of FFCs, however, till now Longquan County Forestry Bureau does not have special FFCs management organization and staff.

(2) Lack of forest farmers’ understanding of FFCs

Most members do not know the nature, functions and members’ rights and

responsibilities of FFCs; some members reckon that FFCs have gained many national preferential policies, which should be shared by the members. And for forest farmers living in remote mountain area, since they hear that they can get benefits by joining in FFCs, they also have intention to join in FFCs, but they are not clear about the enter and exit mechanism of the cooperatives.

(3) Loose contract relationship

The basic requirement for normal operation of FFCs is that members have close benefit relationship with FFCs. Only if the relationship is close, then members will be positive to take part in the management of FFCs and bear relevant responsibilities. But the contract relationship between FFCs and members is quite loose, and because a complete member joining mechanism has not been established, members have weak sense of belonging.

(4) Comparatively high difficulty in financing

The state-owned commercial banks generally concentrate on financing for big industry and commerce enterprises, they lack acceptance for FFCs. Agricultural Development Bank prefers to finance big and medium agricultural development projects, the financing requirement is very high, therefore FFCs cannot get preferential loans from policy banks. Forestry property right mortgage loan solves the problem of high difficulty in FFCs financing to certain degree, but since forestry property rights are separated, if FFCs want to get forestry property right mortgage loans, they should pay expenses for using forest property certificates to forest farmers, which increases loan cost of FFCs.

(5) Low standardization degree of the products

The products of FFCs are all biological forest products, the diverse individual production of biological products determines the great difficulty in implementing the standardization of forest products, which results in low quality and standardization degree of FFCs products and weak market competitive power of the products, it is hard to secure the long-term development and sustainable forestry management of the FFCs.

6.3 Support in policies and from institutions

6.3.1 Gradual improvement of law system

Since 2004, governments in various levels attach increasing importance on FFCs' role in current rural and mountain area economic and social development, issue and implement laws and regulations to regulate the construction and development of FFCs. In 2005, Zhejiang Province Regulations was implemented whilst in 2007, FFCs Law was implemented.

6.3.2 Constant strengthening of policy support

(1) Policies on regulating management. In order to regulate FFCs operation, policy support is constantly strengthened, a series of policies have been implemented successively, such as Zhewei Ban (2005) No. 73, Zhecanghai Zi (2005) No.73, Zhe Linchan (2006) No.81, Lingai Fa (2009) No.190, Zhecainong Zi (2009) No.139, Zhe Gongshangqi (2009) No.15, which regulate the management of FFCs and relevant resources, promote the regulated management of FFCs and optimum allocation and proper utilization of resource.

(2) Tax preferential Policies. Tax policies like Zhedishui Han (2006) No.466 and Zhe Shui (2008) No.81 exempt value added tax and stamp tax on the products FFCs produce and sell, which relieve the burden of FFCs.

(3) Policies on forestry property right reform. Policies including Li Wei (2006) No.14, Lizhengban Fa (2007) No.3, and Liyin Fa (2007) No.21 confirm that forest resource and forest property right certificates can be used for mortgage loan, which provide policy guarantee for FFCs to gain mortgage loan with forest property right certificates.

(4) Financial supporting policies. Zhecainong Zi (2009) No.139 reinforces provincial financial management on FFCs special fund, Longquan County provides FFCs with capital, seedling subsidy and loan interest subsidy, which strengthens development sustainability of FFCs.

6.3.3 Providing service and technical guidance

(1) Free registration and annual exemption service. Longquan County Industry Bureau provides free registration and annual exemption service for the founding of FFCs. Longquan County Forestry Bureau assists FFCs to apply project, and conduct forest resource survey and forest management plan setting.

(2) Creating condition to support FFCs to develop market. For instance, Zhejiang Provincial Forestry Department held China Yiwu (International) Forest Product Expo since 2008, forestry bureau in each area organized forestry enterprises and FFCs to take part in the expo, and provide service and capital support for participating organizations. Longquan County subsidized 10,000 RMB of exhibition expense to each FFC participant, which not only reduced economic burden of FFCs, but also provided external publicity platform for FFCs, and promoted the development of FFCs product market. In 2009 and 2010, Zhejiang Provincial Forestry Department organized Zhejiang forest product northwest visit and northeast visit respectively, and the FFCs benefited a lot.

(3) Science and technology service. Longquan County Forestry Bureau provides service of bringing science and technology to the countryside every year, extends science and technology network to FFCs, organizes FFCs members to conduct scientific and technology training, and provides study opportunities to FFCs, etc.

6.4 Access to information and information services

In 2009, government opened farmers mailbox, farmers can conveniently contact with government and relevant function administration via farmers mailbox.

Since 2008, China Yiwu (International) Forest Product Expo was held every year, which is the biggest forestry expo in Asia, and provides good platform for developing forest product market. Longquan County organized Xiaozhuang and Longzhu FFCs to take part in the expo, and provided capital support for participating organizations.

In order to further spread the influence of Zhejiang bamboo and bamboo shoot

products, in 2009 and 2010, Zhejiang Provincial Forestry Department organized Zhejiang forest product northwest visit and northeast visit with Heilongjiang and Shaanxi Provincial Forestry Department respectively, and provided FFCs with participation platform and participation capital subsidy, FFCs benefited a lot.

6.5 Other deficiencies

6.5.1 Emphasis on food safety needs to be improved

In order to fulfill the sustainable development of FFCs, many main FFCs forest food should participate in improving and controlling the product quality safety level. But since forest product production is separated, emphasis on food safety needs to be improved. Especially quality safety on common bamboo shoots like winter bamboo shoots and spring bamboo shoots and camellia oil.

6.5.2 Low application requirements for FFCs

The Cooperative Law only requests that the number of members should be at least 5, and over 80% of them must be farmers. Cooperatives can be founded just by members' investment that accord to the regulations. The application for FFCs has low requirements, which results in the uneven quality of FFCs, and it is hard to promote the development of mountain area and forestry.

7. Recommendations or options for the development of FFCs in the project province

7.1 Policy

7.1.1 Reinforcing training support, improving development ability of FFCs

The research found the principal restrictive factor for FFCs development is that forest farmers lack understanding of FFCs, and an important means to improve understanding is training. FFCs training is beneficial to improve forest farmers' correct understanding of FFCs; beneficial to promote the health development of FFCs; beneficial to improve the quality of FFCs core members and develop FFCs core

personnel; beneficial to strengthen grasp and understanding of national policies; beneficial to reinforce management and regulated operation of FFCs. Reinforcing training and education, distributing FFCs knowledge, and improving quality of FFCs managers and forest farmers. In the long run china should focus on the long-term training of FFCs managers and forest farmers. Government should establish training bases, conduct planned trainings in series, and implement cooperation education to vast forest farmers. FFCs training should be listed into government budget, and become a daily work with requirements, funds, and assessment (Xu Xuchu, et al., 2008).

7.1.2 Broadening financing channel, relieving capital bottleneck restriction

Government organizations should take the lead to motivate each party to provide capital support for the development of forest farmer cooperatives. Early in August 2008, Lishui Municipality government has issued Ideas on Accelerating the Development of Finance Industry (Lizheng Fa [2008] No. 55), further clarified preferential policy on forestry property right mortgage loan. Longquan County has also implemented forestry property right mortgage loan, a complete forest area finance service system with “wide coverage, multi organizations, multi kinds, multi models” is forming. But in reality, FFCs still have difficulties in financing, short-term capital shortage frequently occur. Broadening financing channel, relieving capital bottleneck: firstly, governments should strengthen to provide FFCs with capital subsidy in silviculture, low yield forest improvement, etc. Secondly, financial organizations should broaden FFCs loan business, provide convenience for loan business application or properly reduce requirements for FFCs loan. Thirdly, FFCs develop internal potential, fully utilize spare capital of the members, which can both increase the financing channels of FFCs and increase members’ capital income.

7.2 Legislation

Amending and improving FFCs Law. FFCs Law was newly issued, and greatly promotes the founding and development of FFCs, but it also reflects that the

registration requirements of FFCs are too low, resulting in the uneven development of FFCs. In order to regulate the development of FFCs, it is proposed to amend FFCs Law, properly increase FFCs entrance mechanism, and assure the regulated and ordered development of FFCs.

7.3 Governance and institutions

The essence of FFCs is self-service and democratic control (Xu Xuchu, et al., 2009). Self-service is that FFCs should base on the principle of serving members, and seeking for common benefits of all members. Members are producers and managers who engage in production and management of homogenous forest products or providing homogenous services, with the objective to improve scale benefit with cooperation and mutual assistance. Democratic control should be reflected in aspects such as willingness to join in or quit FFCs, equal member status, and implementing democratic management. Therefore, in consideration of control and organizational aspects, FFCs should strengthen internal mechanism development, regulate rules, member (representative) meeting mechanism, training mechanism, allocation mechanism, etc., and strictly implement relevant mechanism, practically let the members experience the rights, responsibilities and benefits to join in FFCs, emphasize their own member identity and care the development of FFCs.

List of the Project Publications

GCP/CPR/038/EC Working Paper

No.	Title
WP001C	安徽省林农合作组织研究报告
WP002C	福建省林农合作组织研究报告
WP003C	贵州省林农合作组织研究报告
WP004C	湖南省林农合作组织研究报告
WP005C	江西省林农合作组织研究报告
WP006C	浙江省林农合作组织研究报告
WP007E	Assessment of Forest Farmer Cooperatives in Anhui Province
WP008E	Assessment of Forest Farmer Cooperatives in Fujian Province
WP009E	Assessment of Forest Farmer Cooperatives in Guizhou Province
WP010E	Assessment of Forest Farmer Cooperatives in Hunan Province
WP011E	Assessment of Forest Farmer Cooperatives in Jiangxi Province
WP012E	Assessment of Forest Farmer Cooperatives in Zhejiang Province



The project “Supporting policy, legal and institutional frameworks for the reform of forest tenure in China’s collective forests and promoting knowledge exchange” supports the reform of forest tenure in China’s collective forests through strengthening policies, laws and institutions responsible for the management of collective forests in six pilot provinces. Funded by the European Union (EU) and implemented by the State Forestry Administration of China (SFA) and the United Nations Food and Agriculture Organization (FAO), the project will also promote the exchange of knowledge and experiences on forest tenure reform both within China and with other countries.

Website: <http://www.fao.org/forestry/tenure/china-reform/en/>