



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

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Assessment of Forest Farmer Cooperatives in Anhui Province



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Assessment of Forest Farmer Cooperatives in Anhui Province

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1. Introduction

1.1 Description of the issue

In the past three decades, the forest tenure system in China's collective forest areas has undergone many changes. In the early 1980s, with "Three Fixes policy" (stabilization of the present ownership structure of hills and forests, and allocating hillsides to farmers for private use, setting up the forest production of responsibility system), a part of forestland use right began to transfer to farmer households. However, a lack of clear and secure forest farm managerial rights and tangible benefits from the forestlands have led to a fragmentation pattern in forestland distribution. Other contributing factors include a lack of access to decision-making; combined with the great variations in terms of the nature of forestlands and the desired values from the forest by farmers have led to a fragmentation pattern in forestland distribution. This has affected forest management and furthermore, has resulted in severe forest degradation. In 1987, the Chinese government promulgated a series of policies to encourage large-scale forest management, but the household-based managerial system still plays an important role. Besides, the problem of forestland fragmentation has not been solved effectively, which has restricted the sustainable development of collective forests in China to a certain extent, and even restricted the development of entire rural economy the increase in farmers' income. Meanwhile, it has had a negative effect on the sustainable management of forest resources, allocation efficiency and the like.

The reform of forest tenure system in collective forests has changed throughout the country since 2003. On the basis of household-based managerial system, this reform has provoked a package of corresponding reforms, including the construction of the Forest Farmer Cooperatives (FFCs). The enactment of People's Republic of China Professional Farmer Cooperatives Act (Cooperatives Act) in July 2007 indicates that the FFCs may be one of the main forest managerial entities and will promote the communication between government and forest farmers, both at the central and local levels. On August 18, 2009, the National Forestry Bureau issued the

"Guidance on promoting the Development of the FFCs", which would encourage, support, protect and guide the forest farmers' cooperative economic organizations to develop successfully, both at the level of policy and system.

Nevertheless, it should be clearly recognized that the development of the FFCs in China is still in its infancy. Some problems remain to be resolved, including (1) inexperience of the FFCs; (2) poor forest management; (3) deficient access to information and the lack of effective information services; (4) disconnect between the actual needs of forest farmers and the existing policies and supportive means. Consequently, to solve these problems, it is essential to improve relevant policies and rationally use policy instruments.

1.2 Literature Review

Since the contract management of forestlands in the form of property right was granted to farmers, how to construct the corresponding system of the FFCs has become the main concern of academia, government, and even international organizations. On the national scale, the reform of household contract management of collective forest lands is being executed, but because the number of the FFCs is rather small and their history is rather short, their benefits and flaws still remain to be seen. There are few empirical studies on the FFCs. In the existing studies, a lot of experts intend to transplant the performance and problems of farmers' cooperative economic organizations in a narrow sense of agriculture into the FFCs, arguing that the FFCs is only one type of farmers' cooperative economic organizations whose members have much in common and seek the same goals. This ignores the distinction between forestry and agriculture in the sense of professional classification. Domestic studies on the FFCs are mainly as follows.

1.2.1 Necessity and inevitability of appearance of the FFCs

The main reason why experts accept the FFCs' existence is that this kind of cooperative could solve forestland fragmentation brought on by household-based contracted managerial system and meets the demand for scale management under the background of market economy. Cooperative economy is the inevitable choice for

forest farmers in the market economy. It is an important way to solve the problem of “Three Forests” (i.e. forest farmer, forestry and forestry area), and to increase the forest farmers’ revenue (Gao Liying, Wang Aimin, etc., 2007). In order to eliminate the contradiction between small household and big market, the FFCs emerged (Cheng Yunxing, 2004). Wang Dengju, Li Weichang analyze at length that household-based management is the main limitation of the forestry business model and point out: due to the small scale and scattered pattern, forest pest control and forest road construction are difficult to implement, so new technologies are difficult to disseminate. Consequently, it is difficult to improve forest management, resulting in waste of labor. Because of the funding constraints, it is difficult to form high-quality products to create the brand, so competitiveness of products is weakened. Due to challenges accessing information, individual farmers have no ability to cope with the ever-changing market, thus lowering the ability to withstand market risks. Owing to lack of joint efforts in dealing with market rivals, the forest farmers are always in a weak position in the process of negotiations (Wang Dengju, Li Weichang, etc., 2006). Kong Xiangzhi interprets more clearly: the establishment of various types of the FFCs is an effective way to help individual households to solve some problems in management. These families have no ability to solve them effectively or economically, nor does the government. It is significant to enhance the degree of organization for forest farmers and to promote the process of forestry organization and industrialization (Kong XiangZhi, 2009). Zheng Shaohong illustrates the inevitability of the FFCs from the angle of area comparison of cooperative-managed forestlands before and after the reform in Fujian Province (Zheng Shaohong, 2008).

1.2.2 Definition and classification of the FFCs

Experts generally believe that the present farmers’ cooperative economic organizations find it difficult to achieve the traditional cooperative standards, and cannot fully comply with the principles in "Cooperatives Act" , which entered into force on July 1, 2007(Kong Xiangzhi, Chen Danmei, 2008). Therefore, experts have different interpretations of definition from different categories. According to both the

completeness of an organization and the close relationship between organization and its members, Wang Dengju, Li Weichang, etc. divide the FFCs into two major categories: associations and cooperatives (Wang Dengju, Li Weichang, etc., 2006). Based on this, Huang Liping includes joint-stock cooperatives in the FFCs, according to the standard that a new style cooperative shares both cooperation and stock shares each other (Huang Liping, 2009). According to cooperative behavior, there are other experts who expand the scope of cooperatives and divide the FFCs into household-based cooperative forest farm (collective management style and stock management style), joint-stock cooperative forest farm, forestry professional and technical associations, forestry professional cooperative economic organizations, and cooperative organization that is to meet the demand for forest farmers to apply for a loan (Kong Xiangzhi, He Anhua, 2009). Xu Xiangyang points out that the style that corporations and farmers found a joint base also can be served as one of the FFCs (Xu Xiangyang, 2007).

1.2.3 Studies on operational status of the FFCs

Most experts believe that the development of China's FFCs is at the initial stage, so there are some common problems. Cheng Yunxing states that after the reform of forest tenure system there existed two deficiencies. First, household management is on a small scale, limiting the rate of labor productivity and product improvement, and capital investment is also limited because of small forestland sizes. Second, farmers conduct separated operations, leading to a lack of coordination (Cheng Yunxing, 2004). Shen YueQin, XU Xiuying summarize the characteristics of the FFCs in Zhejiang province as follows: a rather short history of establishment; majority of primary industry, and fewer secondary and tertiary industries; late start, but rapid development of cooperatives, and with a certain radius; relatively weak economic strength and members' income (Shen Yueqin, XU Xiuying, 2005). Kong Xiangzhi, He Anhua features China's FFCs as follows: First, the FFCs are generally on small-scale, decentralized and with single services. There are not many cooperation organizations for unified operation. Second, there are not severe competitions between the FFCs

members. Third, there is a lack of democracy in management, because decision-making power falls in the hands of a few. Fourth, the development of good FFCs in the mode of operation has been closer to a new cooperative in the United States. Fifth, the contradictions between small farmers and big market, small farmers and the large enterprises have been eliminated relatively effectively (Kong Xiangzhi , He Anhua, 2009).

As to the FFCs operating problems and their causes, many experts analyze from the angle of China's laws, policies, managerial systems and organizational operating mechanisms. They find that it is the deficient law, inadequate policy support, imperfect managerial system, as well as unreasonable allocation mechanism that chiefly caused the poor running of the FFCs (Wang Dengju, Li Weichang, Guo Guangrong, 2006; Tang Jie, Xu Shanshan, 2009). Some experts, through empirical studies, try to identify the factors that affect the farmers' participation in the FFCs and find out the reasons for the formation of current shareholding cooperative forest farms and various associations. A research on sample of households in Fujian Province shows that the factors affecting farmers' participation in FFCs include: the development of other industries that can take an income replacement for farmers; employment replacement level; basic characteristics of the farmers and the local forestry policy orientation (Huang Heliang, 2008). In the analysis of development of different types of the FFCs, Kong Xiangzhi, etc. conclude that the high opportunity cost of cooperation prevented the development of farmers' small-scale voluntary organizations; the demand for funds, management and social capital needs promote the rapid development of joint-stock cooperative forest farm; and the external effects help the government guide the establishment of various associations (Kong Xiangzhi, Chen Danmei, 2008).

1.2.4 Studies on operational mechanism of the FFCs

Many experts hold consensus that there exist managerial and distributing problems in the FFCs internal operation (Shen Yueqin, XU Xiuying, 2005; Wang Dengju, Li Weichang, etc., 2006; Tang Jie, Xu Shanshan, 2009). However, only Kong

Xiangzhi and Chen Danmei use the theory of cooperative to do FFCs system research on the FFCs operating mechanism. In their book "Dialectics of Integration and Sub - Collective Forest Tenure System Reform in Fujian Province and the Development of Cooperative Economic Organizations" they conduct theoretical and empirical research on the FFCs from the points of view of establishment mechanisms, ownership structure, benefit distribution mechanisms, and decision-making mechanism. They hold the following points. (1) According to the identity of the founder, operational mechanism of the FFCS is divided into three: being led by the influential people in rural areas; being generally organized by government institutions; being driven by leading enterprises. The establishment of mechanisms in which multi-posted elites are the forest farm leaders takes two advantages of both the elites and government support into consideration. To provide a good external environment is the real core in establishment and development of farmer-led FFCs. (2) No matter which type the FFC is, even joint-stock cooperative economic organizations which have a higher degree of market shares, there must be common property problems--- tenure and managerial rights which are almost ubiquitous. Therefore, it is necessary for the major shareholders to have a high degree of involvement in the cooperative business, resulting in a lack of professional management. (3) In terms of allocation mechanism, the distribution of dividends is based on stock shares in household-based cooperative forest farms, including joint-stock cooperative forest farms. This phenomenon contrasts with the existing basic principles of international practice because it is more like the economic partnership. (4) In the decision-making mechanism, due to the practice of equity FFCs alienation, the "one vote per person" is giving way to the "one share one vote". It is adaptive to scarce capital which is the current situation of China's rural areas. But based on the fact that the majority of forestry cooperative economic organizations are largely dependent on external forces, together with the "free rider" ideas held by their members, this mechanism is leading to the centralization of decision-making power, as reflected in some organizations in which the leader dominates the daily control power.

1.2.5 Studies on solutions

In response to the problems of the FFCs, researchers have put forward various solutions. To guide farmers to join the FFCs, the government must step up investment and policy support. The legislative process must be sped up to clarify the legal status of FFCs. It is also essential to improve the managerial system and cultivate high-quality management personnel, in order to strengthen the guidance and supervision within the mechanism and standardize the operation of the organization mechanism (Wang Dengju, Li Weichang, Guo Guangrong, 2006; Tang Jie, Xu Shanshan, 2009). Kong Xiangzhi holds the view that only the adherence to the principle of "managed by farmers, controlled by farmers, benefit farmers" can encourage diverse forms of development. Only the adherence to the combination of market operation and government-led approach would establish truly operational and effective FFCs (Kong Xiangzhi, 2009). Shen Yueqin and XU Xiuying propose more specific measures, including setting up demonstration of the FFCs, introducing the model prospectus, and promoting its normative operation and management (Shen Yueqin, XU Xiuying, 2005). With an analysis of necessity and danger of government intervention during the development of the FFCs, Xu Xiangyang proposes some measures about the scale and time of government intervention, and requirement of government intervention privileges through legislation (Xu Xiangyang, 2007).

The foregoing analysis shows that current domestic research on the FFCs focuses on the interests of farmers and the positive effects on forestry development, as well as operating conditions and policy proposals, including empirical research on willingness of farmers and a variety of operating conditions of the FFCs. However in general, such research may be too broad and superficial because of time constraints, too few studies as well as research perspectives and methods.

2. Basic information

2.1 General information of province and counties

2.1.1 Anhui province

Anhui Province, situated at the middle and lower reaches of the Yangtze River is one of the key provinces in the southern collective forest region of the People's Republic of China. The total land area of the entire province is 207.2475 million mu. Of this, the forest land area reaches 66.0525 million mu, accounting for 31.87%; the forest area reaches 54.0105 million mu, accounting for 81.87% of the forest land area among which the natural forest and the artificial forest occupy 41.71% and 58.29% respectively. The percentage of forest cover is 26.06%. The live standing timber's total storage is up to 162.5835 million cubic meters, among which the forest storage is 137.5541 million cubic meters, accounting for 84.60%. The area division of the collective forest can be seen on the Table 1.

Table 1 The Area Division of Anhui Province' s Collective Forest Area

The names of cities and counties	The collective forest area(ten thousand mu)	Proportion (%)	The number of famers(household)	Proportion (%)	Area of per household
the whole province	6293.52	100	7985940	100	7.88
Nanpian	5164.64	82.06	3798776	47.57	13.60
Beipian	1128.88	17.94	4187164	52.43	2.93
Chuzhou	129.86	2.06	482000	6.04	2.69
Maanshan	13.73	0.22	99600	1.25	1.38
Huangshan	1084.78	17.23	327898	4.11	33.08
Xuancheng	1010.91	16.06	550821	6.90	18.35
Tongling	53.3	0.85	90407	1.13	5.90
Anqing	872.23	13.86	885026	11.08	9.86
Wuhu	107.32	1.71	128900	1.61	8.33
Caohu	178.5	2.84	369450	4.63	4.83
Chizhou	767.42	12.19	306674	3.84	25.02
Liuan	946.59	15.04	558000	6.99	16.96

2.1.2 Huangshan County

The Huangshan County is situated at the southern part of Anhui Province with the total land area of 2.462 million mu, and its forest area is up to 1.928 million mu which accounts for 78.3% of the total land area. The area of forest land is 1.751 million mu. The storage of live standing timber is 6.265 million cubic meters, and the forest storage is 4.16 cubic meters per mu. The percentage of forest cover is 74.3%.

The total population of the entire district is 163,000, in which the number of forest famers is 125,000.

The area of mao bamboo forest is 245,000 mu while the number of standing bamboo is 41 million.

The collective forest area of the entire district is 1.74 million mu (including the area of state-owned substitute management mountain farm is 70,000 mu), occupying 90.2% of the forest land area. The storage of live standing timber is 5.324 million cubic meters, occupying 85% of the whole district. The area of the collective forest land managed and organized totally by the collective economic organization is 116,000 mu. The private mountain area of forest famers is 83,000 mu. The responsible mountain area is 1,364,000 mu. The forest farm management area of non-public ownership system is 107,000 mu.

The forestry cooperative economy organization of Huangshan County can be divided into two kinds. One kind is called the stock cooperation forest farm. There are 208 stock cooperation forest farms in total with an area of 223,000 mu, which is managed by 15,000 famer households. The number of those forest farms operated by villages and teams is 82, the number operated jointly is 105, and the number operated by household is 21. The other kind is called specialized cooperative. There are in total 9 such cooperatives (1 forest tourism class and 8 planting classes) with a total area of 15466 mu, a total of 791 cooperative members and 789 farmer households. The present specialized cooperatives make the forest land property of collective forest farm quantified to stocks distributed to farmer households; change systems according

to the request of ‘Farmer Specialized Cooperative Law’ and ‘Registration Administration Act of Famer Specialized Cooperatives’; and receive the legal person business license of farmer specialized cooperatives verified and registered by the industry and commerce administration department.

2.2 Information of villages

2.2.1 Wenxiang Village

Administrative organization: In the early 1960s, Wenlou Village (production brigade) was established by means of separating the paddy fields owned by Wenlou and Xianfu. Since 1969, the immigrants from the Taiping Lake has led to an explosive growth of population in Wenlou Village, the total number of immigrants amounting to 1174 persons in 384 households. In 1972, the village was divided into Wenxiang and Xiangfu Villages. In March 2008, the village-combining policy which aimed at saving administrative operating cost merged Xiangfu Village with Wenlou Village.

Social economy: Wenxiang Village now has 17 groups of villagers, in which there are 522 households with 1,818 residents and 1,200 laborers (780 migratory workers to urban areas), and in 2008, the net income for an average farmers reached 5,000 yuan. For that, the former Xiangfu held 5 farming teams, 152 households with 518 residents and 360 laborers (280 migratory workers to urban areas), and the net income for average farmers reaching 6,800 yuan.

Land resources: The total area of land the village holds is 26,163 *mu*, in which the ploughed land accounts for 2,483.25*mu* (1.37*mu* per person, irrigated land being 0.8*mu* per person); the water area occupies 1,975.95*mu* and the forest land is 18,112.5 *mu* (the bamboo hill taking up 1299*mu*).

Forestry income: In 2008, the gross forestry income of the whole village was 800,000 yuan, in which 270,000 yuan came from selling pine oleoresins, 250,000 yuan from “returning farmland to forest” as a subsidy, 140,000 yuan from the income of the forest farm, 50,000 yuan from the subsidy for public-welfare forest, 60,000 yuan from selling tender bamboo shoots and 30,000 yuan from the short-distance transportation of products related to forestry.

Financial balance: Apart from the 30,000 yuan from the financial transfer, the Wenlou forest farm earns income from selling over 100 m³ of woods annually. Besides, the sand farm submits 6,000 yuan yearly and Xianfu FFC submits 50 yuan per cubic meter according to the cutting quota.

The village's yearly fixed expenditure is from 70,000 to 80,000 yuan, the extra part of which can be filled in by the project surplus. 8 cadres in the village need 55,000 yuan as their salary.

2.2.2 Taoyuan Village

Administrative organization: Under the background of “Village-dismissal and Town-combination” policy from 2008, the former Shoukou and Taokeng villages merged into Taoyuan Administrative Village, the former Taoyuan's office building bought as the new office site.

Land resources: The whole land has 81.2 km², in which the forest area is over 120,000 *mu* with 60 *mu* per person; the state public-welfare forest that conserves water and soil of Yangtze River occupies 10,177 *mu*; the tea plantation is 2,970 *mu*, the ploughed land 1,080 *mu*.

Social economy: The administrative village has 19 groups of villagers, 22 natural villages and 501 farmer households (the number is over 700 in Taokeng), and about 400 farmers as migratory workers.

Income constitution: The net income of the farmers reach over 5,000 yuan per person, and according to the statistics from the sampled households, the income proportion is: 30% woods, 40% tea-leaves, 10% forestry by-products and 20% labor income. The income of the farmers depends heavily on the mountain land and the larger the team's area the higher the income .

Financial balance: The total financial income of the village in 2008 was 230,185 yuan, 28,000 yuan of which was from the financial transfer, about 122,000 yuan from the project surplus, 62,000 yuan of the forestry income, 11,759 yuan from house-renting, 5,000 yuan from the management fee submitted by the village-owned enterprises and 1,260 yuan from the income interest.

The major expenses involved are as follows: The wages of the village cadres plus the pension of the 16 Five-guarantee households accounted for 70,000 yuan; the bill for meetings (mainly in terms of meals) was 50,000 yuan in 2008 and 30, 000 yuan in 2009.

2.2.3 Group III of Dilixi Village

Villagers' Group III, adjacent to Huiyi Villagers' Group of Taoyuan Village, is affiliated to Dilixi Village which is rich in mountain forest resources. The village is similar to Taoyuan Village in per-capita forest resources and means of livelihood of the farmers.

Today in Villagers' Group III there are 109 persons in 24 households. Over the years, about 7 or 8 villagers have been working as employed labourers outside the village, accounting for about 10% of the total labour force, which is obviously different from many other villages where a great deal of labour force seeks a living elsewhere.

Per-capita farmland in the group is 1.3 *mu*, and all the farmlands are irrigated fields for rice and cole. The crops are used as fodders besides human food. Each household raises 2 pigs on average, one of which is for sale. The pigs constitute the major source of income at the end of the year.

The farms on the mountains, covering the area of over 5000 *mu*, are divided into seven parts. Except for the planted forest of approximately 200 *mu*, the rest is natural secondary forest. The dominant trees are maples, oaks, pinewoods and weed trees. The group possesses no public welfare forest.

The tea mountains, after the farmlands were allocated to every household, were distributed according to the labour force at that time, and as a result, per-capita tea land is nearly one *mu*. In the tea farmer household, the income, mainly coming from tea and timber, is about 3000 Yuan per capita. The ratio of tea income to timber income has been about 50% to 50% in the past two or three years, and was about 7 to 3 previously.

3. Forestry status

3.1 Forest tenure

- (1) Freehold mountains.
- (2) Responsibility mountains.
- (3) The collective retention forest land.
 - The forest farm operated by administrative village.
 - The forest farm operated by village groups.
- (4) Others
 - the forestry specialized cooperatives
 - ✓ The transformation's forming of collective forest farm
 - ✓ Farmer's forest-land contracting for buying stocks
 - circulation of forest tenure private transfer of user rights on forestry land

The forest tenure situation of the whole district can be seen in the Table 2.

3.2 Types

3.2.1 Single Household Management

After the implementation of the "Three Forestry Regulations", the single household operation mode became the dominant forestry operating type and over 80% forest is operated in this way. The number of mountain forest operated by single households is over 20 in the groups which are abundant in forest resources and over 8 in those lacking in forest resources. After as long as 30 years' history of separated operation, except those circumstances under which the farmers buy a share with their mountain unwillingly with external influence, the farmers prefer the single household operation. The reasons are as follows:

- a. It is easy to make decisions
- b. The farmers have different opinions
- c. Great differences exist between resources of the farmers.
- d. The farmer has the flexibility to work as he likes.

The farmers were surveyed on achieving scale operation through mutual

exchange of forest and land. They have the common belief that it will centralize the lands and thus making operation easier. However, exchange of forest and land has never happened after corresponding land was allotted to individual households, because of the difference in the area, soil depth, vegetation and orientation. In addition, human relations and intensity of development make it more difficult. The farmers admit that they have not considered it a big problem, nor have they thought about solving it. They are even afraid to be seen as people too particular about minor issues if they ask others for exchange.

As to partnership, the farmers ask: who will operate the land because the area of their lands is different?

The farmers also say no to buying a share with their forestland from the cooperative. They don't want to join the cooperative and just want to operate on their own.

Therefore, under the current policy framework, single household operation will be the major form of forestry operation in the future.

3.2.2 Transference of Forest lands among Farmers

Few farmers have surrendered or partly surrendered the forest land managerial right. The farmers give the following explanation:

- a. the next generation would have nothing to live on if the land is sold
- b. the farmers think they can make money on the land like any one else, and they would have nothing to do if they sell the land.
- c. the one who sells the land passed down from the forefather will be laughed at.
- d. the money earned by selling the land will soon be used up, while that earning through the forest will be continuous.

3.2.3 Mutual Help between Farmers

Mutual help in the form of temporary hands or labour exchange is the major means to deal with lack of labour and serious seasonality of productive activity, which is common in bamboo felling and transport, lumber short-distance transport (two persons are necessary instead of one), and lumber (bamboo) loading, requiring short

fragmentary periods of time. Especially when the transport truck arrives, the shorter the time to load the goods, the higher the price is. The farmer farmers explain that:

a. Employing the temporary labour force is not profitable.

b. Although forestation campaign is seasonal, the farmers always act according to their capability without hiring temporary hands. In the villages rich in resources, the average area of forestation is about 3 to 4 *mu* annually for each household, and about 20 *mu* at the most. The farmers prefer to pay the labour force than arranging food, cigarettes and wine for the temporary hands.

c. The farmers prefer to do the work themselves because they have nothing to do if otherwise, and they have no specialty skills to work elsewhere.

d. Helping others to fell the lumber is equal to the work of the temporary hands. Two men are necessary to carry the lumber which is usually longer than 10 meters.

Both temporary hands and labour exchange may reflect the richness of social resources in the villages. However, as labour costs rise and farmers' savings increase, such actions occur less and less frequently, which are replaced by hired hands.

3.2.4 Partnership

Partnerships cannot logically involve fewer than 2 persons mainly forms in two situations. The first is when the farmers purchase the forest managerial right (because of capital restraint) of the villagers' group and possibly invite other villagers to join in partnership after obtaining forest contracting rights. Secondly, according to the policy of forestry scale management, the unbroken piece of forestation covering a certain area is the prerequisite for obtaining forestation project subsidies, which means that the farmers whose forest lands are adjacent to each other are encouraged to join in the partnership so as to meet the lowest standard of the policy. It is also true to forestation on barren mountains.

Joint management of farmers and companies usually appears due to massive investment in the early stage of developing natural forest and fairly high transaction expenses of obtaining the cutting quota. Some companies or institutions take advantage of the ease and convenience in obtaining projects, and get in contact with

the farmers with the help of the government, then get the right of joint management by means of profits sharing after the forestation.

Case 1: Shangwenlou Villagers' Group planted bamboo in the area of 156 *mu* in its mountain farm. In 2006 the forest farm was sold at the price of 60,000 yuan (which was worth 120,000 yuan according to Wang Yuansheng) to three villagers who could manage it for 50 years. In 2009, although the bamboos were poorly tended, the farm was still estimated to be worth 200,000 yuan.

The village cadre's explanation for selling the forest land is the difficulty of its management. In 2008, Wang Yuansheng's partner Wang Meng (28, a villager of the same group) sold his forests to Wang Yuansheng at the price of 60,000 yuan. The following are his reasons.

- 1) Economic factor: he lacks of money in building his house;
- 2) Partnership factor: He finds it difficult to cooperate with other farmers.

Xu Chengzhong, a partner of 44 in Longgang Villagers' Group, lives in Yongfeng Street. He is the owner of a vegetable store.

Wang Yuansheng, a partner of 37, head of Shangwenlou Villagers' Group, lives in Yongfeng Street. He is a taxi driver.

The forest land is far away from the village, so the villager Zhan Xiaoba (who, raises three buffalos, can protect the forests while herding buffalos, and the cabin can serve as a shelter for Zhan Xiaoba as well as a cowshed) was employed to attend to it.

Case 2: Ni Lianhe, male, 42, a villager of Hongqi Group, contracted two mountain farms respectively in March and November of 2007, and the area amounts to 360 *mu*. In 2007, he began forestation and planted paulownia and bamboo. He is prepared to consult the experts about the fertilization and reclamation of bamboo.

Considering the limits of capital and human resource, he wanted to invite the villager in his group to combine their lands and plant trees, and he will distribute dividends in accordance with their stock shares. From 2009 he began to encourage the villagers in his group to hold a share. There were 2 households out of 11 who had the willingness to participate. The common thought among the farmer shareholders is that

the project should have profits in the shortest time and run the least risk.

Mr. Ni considers it not good to join in the cooperative like Xiangfu FFC, because in this large cooperative his own targets are hard to hit and too many people will have different opinions. According to him, the most suitable number of participants should be three or four because in this case it is easy to solve the problem of capital and human resources and agree on the decisions.

Case 3: Failure of Joint Management of Fangjialing Villager's Group and the Trading Corporation— Transfer of the mountain farms

There are 78 persons in 24 households (there were 88 persons in 17 households at the time of Three Forestry Regulation) in this group, among whom about 20 persons work outside their village, accounting for 40% of labor force. Per-capita irrigated land is 1.3 *mu*, per-capita non-irrigated land is 2 *mu*, and more than 40 *mu* farmlands return the grain plots to forestry. The area of mountain farm is 3700 *mu*, 60 % of which is covered with natural forests; in 1981 the mountain lands were allocated to households according to the population and labour force (the standard of labour force is the one can take part in collective labour. The population and labour force are equally taken into consideration.) The tea farms of 270 *mu* were also allocated to every household according to population at the time of Three Forestry Regulation.

Farmers' income constitution: tea leaves 70%, forestry 15%, subsidiary occupation 15%

Joint Management of Mountain Farms: During the period of eliminating barren lands in 1990, Fangjialing group jointly managed mountain lands of 1800 *mu* (including barren lands of 700 *mu* and lands of 1100 *mu* covered with natural forests) with Taoyuan Trading Corporation. The farmers provided mountain farms while the corporation provided cutting quota and funded the road construction of forest area. The contract term is 30 years. After deducting the labor wages, the farmers will have 30 % benefits while the corporation will have 70 %; and the villager will be paid if he works on the mountain farm; the villages elected 3 persons as a group (The head of

the villagers' group is the leader of supervisors, the other members were recommended by all the family heads of farmer households) to supervise the corporation.

In 1994 the cooperation ceased. The main reason is the trading corporation's financial problem of forestland management. This corporation could no longer operate.

The trading corporation's debt during 1991 to 2006 amounted to 220,000 yuan (including interests). In 2005 at the farmers' meeting held by the villagers' group, the farmers agreed to take back the natural forest lands and pay for the 220,000 yuan. But they disagreed to establish the cooperative on this basis. They hope to allocate the mountain farms to every household. So at last the negotiation ended with failure. Till 2006, the debt added another 10,000. At the time of forestry reform, on the behalf of the trading corporation the local government charged 270,000 for the lands, the head of the villagers' group advanced the expenditure and ceased the contract.

Transfer of Mountain farms: After taking back the mountain farm, the villager's group organized bidding. Three took part in the bidding. The base price was 630,000 yuan while someone won the bidding at 720,000 yuan. The final sale price was 920,000 yuan.

Case 4: Project of Joint Household Forestation and Improvement of Forests Quality of Dakeng Group in Taoyuan Village

There are 86 persons in 20 households in this group. There were roughly 5200 *mu* mountain and forest lands at the time of forestry reform.

Income constitution: tea 60%, lumber 20%, bamboo 10%, firewood (charcoal) 10%

Joint Forestation of households: during 1987-1988, joint household forestation began. The main reasons given by farmers are:

Joint household apply for forestation project and get the forestation subsidies, every household gets 45 yuan per *mu*.

New stimulation of joint households: Forestry Promotion Project

- The current forestry promotion project can be approved only when the area is larger than 30 *mu*, and the subsidy for firs of per *mu* is 350 yuan, for bamboo 750 yuan. The farmers think the best area is about 10 *mu* because the farmer can only afford this quantity, otherwise they can't tend the trees well.
- Some characteristics of this promotion project are; Joint household application, joint household examination and approval, joint household refinement of the mountain; single household cutting and forestation
- Joint household operation is to meet the demand of the policy, so the farm whose area is larger than the requirement of forestry policy still doesn't appear.

3.2.5 Village-organized Forest Farm Management

Wenlou Forest Farm: this farm is actually operated by the village committee and its area is more than 1600 *mu* (the statistics is 1657.5 *mu*, jointly managed by village and group). The mountain farms are allocated to group and to household, and are generally contiguous. The ratio of selling income between local government and farmers is 7:3, and the cost and fee will be deducted from the 70% of the local government, then the rest belongs to village committee.

After the implementation of Three Forestry Regulations, Wenlou Forest Farm still operated collectively and the village clerk held the concurrent post of forest farm leader. After a new round of forest reform, the forest farm retained its original managing mode. Part forest lands and lumbers (including bamboo) are transferred to individuals in the way of contracted management.

In 2007 forest lands of 400 *mu* were contracted to villagers and the explanation from the local government was that the individual wanted to contract and the local government funds were scarce. We believe the fact is that the returns from the forest farm were not good and the collective found it hard to control the resources.

Huione and Huitwo forest farms are respectively built to cater for the government's preference to scale economy and win policy favors (such as cutting quota, forestation subsidies and so on). In the middle of the 1990s the village

converted the remote reserved mountains (of 1869 *mu* and 1067 *mu* respectively) allocated to household into forest lands.

3.2.6 FFC Management

The new forestry reform of March, 2006 granted property permits to the mountain and forest allocated at the time of the implementation of Three Forestry Regulations. The former Xiangfu Forest Farm was transformed into FFC, that is, Xiangfu FFC.

In July, 2008 it was decided to transform Huione Forest Farm into FFC at the shareholders' meeting and the regulations were passed, but the farm met troubles when they applied for examination and approval, up to now they are still making efforts in the Industrial and Commercial Bureau.

On July 30th, 2009 Huhuagu, the head of Group III of Delixi in Wushi, organized 13 households in his group who had their forest rights in hand to form a FFC on a voluntary basis.

Table2 Statistics of Forestland Property Rights 10000mu, mu

unit	total	Before the forest reform （in the course of three forestry regulation）								total	After the forest reform （in the course of three forestry regulation）							
		Private hilly land	Responsibility Hilly land	Private hilly land			Private hilly land				Private hilly land	Private hilly land	Collective reserved forestland			others		
				Sum	Village land	Group land	Sum	Exchange of Property rights	cooperative				Sum	Village land	Group land	Sum	Exchange of Property rights	cooperative
Huangshan district	167	8.3	141.9	8.3	8.3	8.3	8.3	8.3		167	8.3	129.2	11.6	6.6	5.5	17.9	16.4	1.5
Yongfeng	72558	10028	52098	7681.1	7681.1	7681.1	7681.1	7681.1		72558	7681.1	40117	9373.9	5628.7	3745.2	15386	7801.1	7584.9
Wenxiang	16922	2338.7	12150.3	1858.5	1858.5	1858.5	1858.5	1858.5		16922	1858.5	9706.6	2909.8	1661.4	1248.4	2447.1	162.2	2284.9
Former Wenlou	7932.4	1667.1	4427.3	1379.8	1379.8	1379.8	1379.8	1379.8		7932.4	1379.8	3664.2	2726.2	1661.4	1064.8	162.2	162.2	
Former Xiangfu	8989.6	671.6	7723	478.7	478.7	478.7	478.7	478.7		8989.6	478.7	6042.4	183.6		183.6	2284.9		2284.9
Taoyuan	9.39	0.24	8.97	0.24	0.24	0.24	0.24	0.24		10.948	0.24	8.97	0.088	0.088		1.65	1.46	0.19
Former Shoukou	5.1	0.18	4.82	0.18	0.18	0.18	0.18	0.18		5.434	0.18	4.82	0.034	0.034		0.4	0.21	0.19
Former Taokeng	4.29	0.06	4.15	0.06	0.06	0.06	0.06	0.06		5.514	0.06	4.15	0.054	0.054		1.25	1.25	

3.3 Forest products

- Log
- Lumber
- Wood-based panel(plywood MDF PSL LVL)
- Bamboo
- Bamboo shoots
- Firewood
- Pine gum
- Edible fungus

3.4 Management and institutions

On the part of management institutions, the province sets up the forestry department. The entire 17 municipalities of the province and most parts of counties (cities, districts) all set up forestry bureaus; areas below counties altogether set up the basic unit as forestry station. The province, the city and the county set up headquarters of forest protection and fire protection, and built up the technology extension center (station); areas below counties set up the wood and bamboo checkpoints, the forest plant quarantine station, the forest police station (sub-bureau, branch), the forest public security local police station. The main management functions: (1) forestation and greening, (2) forest resource management, (3) forestry plan and finance, (4) forestry science and technology's extension and training, (5) forestry legal system.

4. The status of FFCs

4.1 Basic information of FFCs

4.1.1 Xiangfu FFC

Xiangfu FFC is “transformed” on the basis of the original Xiangfu Forest Farm, taking the opportunity of village-combining (merging of Wenlou Village with Xiangfu Village) and pursuing the government special policy for cooperatives.

Time of Establishment: On March 16th, 2008, the establishment conference was held.

Business Registration: The Industrial and Commercial Bureau issued the business license on July 1st. The name of the FFC is Xiangfu FFC, Huangshan District, Huangshan City.

Total Members: 512 persons in 152 households. All the members are villagers of Xiangfu Village, which consists of all investors of Xiangfu Forest Farm.

Registered Capital (sum of members' contribution): 4,570,000 yuan (2,285 *mu* of forestry asset, the price of which is fixed by the villagers themselves)

Legal Representative: Sun Wenxian (Male, born in 1949, Secretary of Party Committee of Xiangfu Village. He was also the former Head of Xiangfu Forest Farm as well as the President of Xiangfu FFC. He took up office as the village secretary for more than 30 years, and died of heart attack in the middle of December, 2009, one week after we had left the village.) After Sun Wenxian passed away, Wang Chunlong succeeded him in the post of the President.

Directors and Supervisors: 9 directors: Xia Wenming (Xiangyang Group), Tao Ruihe, Du Yulong (Bangshang Group), Wang Chunlong, Zhang wenjiang (Xiakang Group), Sun Yizu, Sun Jinan (Gaoan Group), Wang Xuenian, Sun Wenxian Wangjia Group); 5 supervisors: Wang Jiannian, Shen Shaofeng, Tang Yun, Sun Xuecheng., Huang Erbao; 1 cashier (Wang Chunlong) and 1 accountant (Cao Xiaolong).

Location: 1st floor of Xiangfu Office building, Wenxiang Village, Yongfeng Township, Guangshan District.

Management Scope of the FFC: As described in the business license, the FFC provides its members with services of forest management, sales and transportation as well as technology and information concerning forest production and management. As described in the sixth item of the cooperative constitution's general rule:

(1) Carry out diversified forestry industrial services, including policy service, technology service and marketing service.

(2) Organize services of forestry production, management, sales and

transportation, including forestation, intermediate improvement cutting and the production, transportation and sales of woods.

(3) Purchase and take up forest tenure according to the law and enlarge business scale.

Area of the FFC' forestland: According to statistics in 2006, when the forest tenure reform was taking place (standing crops are estimated): the total area of forest farm is 2,285 *mu*, in which firs occupy 2,080 *mu*, bamboos hold 140 *mu* and non-commercial forest is 400 *mu*, which accounts for 18%. Standing crops of firs are up to 35,000 cubic meters and 16.6 cubic meters per unit area. The amount of bamboo is up to 15,000; 107 per cubic meter.

4.1.2 Wenlou FFC

The so-called Wenlou FFC is initiated by Ni Lianhe, the villager of Wenlou Village, Hongqi Group. After having contracted 2 mountain farms, he considered attracting farmer households of his own group to invest shares. It is now under operation.

4.1.3 Huimin FFC

Time of Establishment: Formally established in July, 2008.

Business Registration: Up to now, the FFC has not completed the business registration (From the Industrial and Commercial Bureau's viewpoint, the legal entity of property right of forestlands should be the farmer households as the FFC members, rather than the forestry farm. Besides, the transformation requires the change in forest tenure permits).

Total Members: 30 households, all the villagers of Huiyi Group.

Registered Capital: The forest resource of Qingxihe Forest Farm of 1,859 *mu*, Huiyi is regarded as the registered capital, whose estimated value is 1,183,000 yuan.

Legal Representative: Wang Changfa, the head of Huiyi Group as well as the head of Qingxihe Forest Farm, Huiyi.

Board of Directors and Supervisors: 3 directors: Wang Changfa (president), Wang Mingda, Zhang Xiaoping; 3 supervisors: Wang Changsheng (chief supervisor),

Wang Lesheng, Zhang Xianming; Zhang Songjing as accountant and Wang Changlong as cashier.

Location: the Original Huikeng Primary School (the school was discarded when combined for centre school).

Management Scope: The description of the sixth item of the Cooperative's constitution's general rule is accordant with Xiangfu FFC.

Area of the FFC: 1,869 *mu*. According to the data of forest tenure permit issued on August 13th, 2007,

Management plan of the FFC:

- Carry out forestry quality improvement project. The total planning area is 540 *mu*, in which low-production and low-efficiency natural forests under transformation occupy 460 *mu*. It is planned to transform the remaining 1,000 *mu* natural secondary forest into multi-species forest (firs, bamboos and sasanqua).
- Complete building of tractor-ploughing road of the trunk road in two years.
- Make use of gradual hilly lands to build summer retreat.

4.1.4 Jingyang FFC in Wushi Township

Jingyang FFC established by 13 households of Villagers' Group III of Dilixi Village, Wushi Township on the voluntary basis, in the method of investment of converting forest hill into shares and induced by the special government policy to the FFC.

Time of Establishment: The establishment meeting was held in the villager Hu Keyi's home on July 30th, 2009. All the settlers (13 family representatives) attended the meeting.

Business Registration: The business license was issued by the Industrial and Commercial Bureau on October 23rd. The name is: Jingyang FFC, Wushi Township, Huangshan District, Huangshan City.

Total Members: 58 persons who are actually counted as 13 households. All the members are villagers of the Villagers' Group III of Dilixi Village.

Registered Capital (sum of members' contribution): 500,000 yuan (forestry land of 351 *mu*, 27 *mu* per household).

Legal Representative: Hu Huagou (head of the group).

Directors and Supervisors: 3 directors: Hu Huagou (president), Chen Fagen (also the accountant), Hu Guangrong (also the cashier). 5 supervisors: Hu Jingrong (chief supervisor), Wang Yingchun, Hu Pinghuai, Hu Guanglai and Hu Keyi.

Location: Villagers' Group III of Dilixi Village, Wushi Township, Huangshan District.

Management Scope of the FFC: The description of the business license and the sixth item of the Cooperative's constitution's general rule are accordant with Xiangfu FFC.

Area of the FFC's forestry lands: natural secondary forest of 351 *mu*. Dominant species include *Liquidambar formosana*, Chinese oak, pine and weed tree. All the forests are commercial ones.

Management plan of the FFC:

- Complete activities of cutting, clear-cutting and forestation in 3 to 4 years, in the hope of planting firs in all the forestry lands of 351 *mu*. Public bidding both in and out of the cooperative is planned to be conducted as part of the activities.
- Provide selling services for woods and other forestry productions.
- Absorb other forestlands in the group in the business scope of the FFC activity.
- Provide the members of the cooperative and other villagers with forestry technology training, etc.

4.2 Organizations and management of FFCs

4.2.1 Organizations of FFCs

FFCs' organization and management are mainly realized by systems and regulations, defining the rights and responsibilities of FFC members', directors and supervisors. Judging from the setting-up of FFCs' organizations and structures, all sample-districts' structures are basically consistent, which are mainly made of

members, member congress, council and board of supervisors.

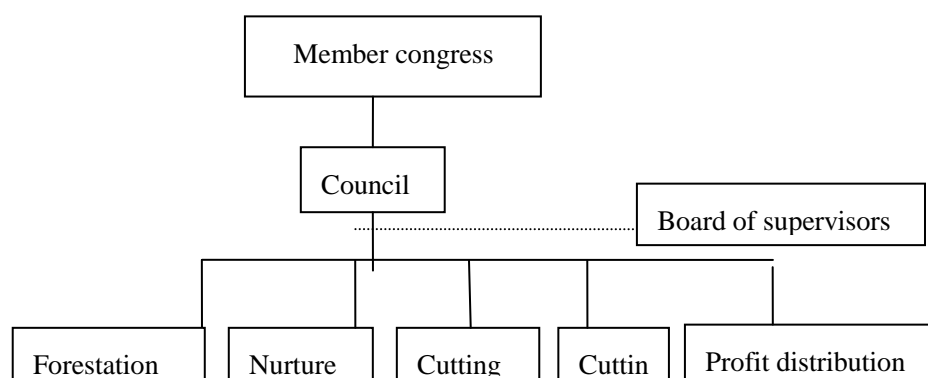


Chart1 FFCs’ organizations and structures

4.2.2 Management of FFCs

The rights of FFC members include: the attending of member congress, the possession of voting right, the right to elect and be elected; making use of service and production operation facilities provided by FFCs and sharing FFCs’ earnings. Simultaneously they can have the supervisory right, and advance questions, criticism and suggestions based on the FFCs’ work; they can draw back from FFCs according to regulations. The duties include the deference of regulations, all rules and systems, the provision of mountain farms for FFCs according to the stipulation, the participation of FFCs’ every production activity, as well as the maintenance of FFC members’ common interests, not harming other members’ interests.

The member congress is the highest authority organization of FFCs, composed of all FFC members. It has rights of considering and revising regulations, appointing and dismissing the personnel, investing standard systems, as well as the related financing aspects.

The council is responsible for the member congress, making FFCs’ development plans, organizing members to carry on the production or training, and managing FFCs’ property and finance. Especially, the director is set up, as the legal representative of the FFC.

The board of supervisors mainly leads a role of surveillance, which supervises

situation of production and operation, and the execution of the member congress's resolution as well, is responsible for the financial verification and supervision. The main supervisor is also appointed in the board of supervisors.

4.3 Operation and practices

4.3.1 Xiangfu FFC

The operation of the FFC, theoretically, should be in accordance with the FFC Provisions, but it turned out that there were differences between the stipulations and the functions.

Meetings and decision-making: Since the FFC was founded, decisions were largely made at the meetings of the Administrative Committee and the Supervisory Board. By the account of director of the Administrative Committee, which was supported by the members on the two committees, the agenda of the meetings and decisions were, in general, proposed by director of the administration, and discussed by all the attendants. The meeting of shareholders (that is the General assembly) would be held when assessment of the invested forests and woods was concerned. Such important affairs as profits distribution were given publicity to the shareholders.

The discussions at the Administrative Committee meetings took the form of “individual proposal group discussion”, and the decisions were given by means of hand-raising and signature of agreement on the memorandum. So did the Supervisory Board. The Administrative Committee met five or six times a year, discussing affairs concerning logging, price-settings, sales, and finance, etc.

By the accounts of some members of the FFC, several membership (i.e., villager meetings) meetings were convened, one for the foundation of the FFC, three times in 2008, mainly telling all the members the conditions of business running and tree-logging, etc.

Organization and management of production was implemented within the framework of the Administrative Committee and the Supervisory Board. Such production activities as forestation, tendering of saplings and tree-felling were conducted by public bidding among the FFC members, the bid base being decided by

both the Administrative Committee and the Supervisory Board. The FFC members participated in the bidding, often forming working teams headed by some experienced members. All production activities were managed by contract implementation.

Forest-fire prevention : Forest-fire prevention was actualized by painting watchwords in all the natural villages and hiring propagandists to enhance the public consciousness of fire prevention. Fire-breaking zones were also constructed with the aids from the Forestry Bureau, 25-metre-wide belts of paulownia/princes trees and oil-tea camellia trees planted with the financial aid of 350 yuan. Fire-fighting organizations were also set up. The FFC acted as the functioning unit and fire-prevention societies were founded, the running fees would be collected at the standard of 10 yuan per year from the perennial households to purchase fire-extinguishing equipment, the deficient amount supplemented by the FFC. Education of fire-prevention was reinforced among children and teenagers, and more management and care was given to people who are mentally retarded..

Constructions of forestland roads: Constructions of forest area roads were focused to promote bamboo production due to the fact that shipment fees for workers (locally called carriers) are comparatively higher, three yuan for shipment of bamboos per 50 kilograms on roads but 5 yuan per 50 kilograms without roads. The digger, while constructing rough roads in the forestland, was hired for 25 yuan per metre, the remuneration standard for woods-clearing and road-building was 6000 yuan per *mu* for oil-tea camellia trees, and 6 yuan per metre for others. Road constructions were generally sponsored by the special fund from the Forestry Bureau.

Timber Sales: The timber prices were set by the two committees according to the market after the timbers were cut and carried out, and graded by means of bidding. Take the year of 2008 for instance, the timber price was set at 770 yuan per m^3 , but was adjusted to 650 yuan due to the Financial Crisis. Every May or June timber dealers come to the forestland to trade, and the FFC sold the timbers to those who offered higher prices.

Profits Distributions : How profits were to be distributed among the

shareholders was decided at meetings of the two committees. The profit distribution meeting of the FFC was held on the evening of January 22, 2009, at which director of the Administrative Committee and the Supervisory Board, the accountant and the cashier were present. The agenda of the meeting was information-collection of firs-felling in 2008, and the decisions as to the 2008 profits distribution and the payment to the managing staff.

Banking accounts were being applied for all the members of the FFC so that dividends for 2010 could be put into the account.

Planning and Budgeting: Annual plans were made generally after the Spring Festival with minutes though no written drafts.

4.3.2 Operation of Huimin FFC

Decision-making process: the board of directors doesn't have the principal decision-making power during the running of the cooperative. Instead, it is the director-general who determines the routine affairs. As is said by the villagers, vital matters are determined through discussion in the Assembly (such as election, payment, sales prices, forestland transfer, etc.), while slight matters are determined by the director-general himself (such as forestation area, the organization of production activities, etc.).

Meeting system: although the cooperative provisions have clearly identified the meeting system, the members of FFC and the village cadres only see all the matters as two kinds, the major ones and the minor ones. They hold that only major matters and not minor ones need to be discussed through meetings, and they seem to pay little attention to what the regulation dictates. Their opinions are as follows:

- The distribution of profits is of great importance. The proportion of the distribution has always been decided according to the higher authorities' directive. We just execute them, and are used to it.
- Assembly of FFC members shall be held for the discussion of profound matters such as wages (cost of labor), wood sales prices, gross income, stock rights transfer (members of FFC are not willing to have them transferred to

people out of their village, fearing that the controlling of the stock rights by people out of their village and the stock rights transfer might equal to withdrawal from the cooperative.), election;

- Things that cannot be dealt with by several people (such as the board of directors and the supervisor) are all great matters, which will be submitted to great assembly of FFC members.
- At present many decisions are being made based on feelings and customs, whereas, it would be better to set rules as soon as possible.

Right to vote: the rights to vote are distributed by household. In Wang Changfa's opinion, it is supposed to be fairer to vote by the number of stock shares. He thinks that it'd be better to collect the stock shares into several people's hands.

Managing personnel's salary: the salary system should be implemented in case of conflict among members of the group. In the forest farm period, the managing personnel's salary system adopted the fixed amount pattern, but later it was naturally canceled because forest farm's benefits were poor, and the forestation was not carried out. The farmers don't think they deserve the payment.

Now managing personnel's salary system is on the basis of the number of days, that is, one day's pay for one day's work. The standard of salary is calculated in accordance with the local average salary level, fifty to sixty yuan per day (which has risen to eighty-five yuan in 2009). The group leader has got forty days of work recorded. Due to the poor benefits of the forest farm and both the fixed amount salary system and the time-keeping salary system were difficult to manage, which resulted in the members complaining a lot.

Inviting bids: the standard of salary of forest production should have been decided by the bids, but it's not feasible since the successful bidder only employs part of the villagers. Thus, it seemed unfair when the salary level had to comply with the local ones.

The organization and management of production: At the end of 2007, an improvement plan of secondary forest of 50 *mu* was approved, but due to the time

limit only 30 *mu* were improved. In 2008, secondary forests of more than 50 *mu* were added according to the plan, the total forestation area has reached more than 480 *mu*, among which there were fir forest of 292 *mu*, bamboo forest of 192 *mu*. The cost of forestation and tending is about 700 yuan per *mu*.

Income distribution: Profits were shared at the end of 2007 and 2008, 50% of which were distributed for the labor payment of the tending and cutting of forest, the rest of which were shared as bonus. From 2009, the bonus will be shared according to the regulation, and the payment for labor should be determined by the market. After the establishment of the cooperative, the income distribution has shift from payment according to the amount of work to payment according to the amount of stocks.

The existing major problems in the development of FFC

(1) The farmers don't understand the policy of limiting the reproduction of the secondary natural forest

- Why can we cut since it's not a public welfare forest (there is no public welfare forest in this group)?
- As the mountain farm of our group is almost covered with useless shrubbery and the purpose of cutting is improvement, which should be definitely a good deed and wealth for the next generation.
- With the forestation guarantee deposits handed in, cutting will definitely go with forestation.

(2) The cost of forestation is much higher (500 yuan per *mu* for firs), especially in terms of the cost of manpower, while the hacker's payment is 80 to 100 yuan per day.

(3) There is not adequate funding to build roads in the forest area, and the projects conducted for the low production timber forest are few.

(4) Due to poor publicity of the cooperative, the forest farmers have incomplete comprehension of the FFC's operation.

4.3.3 Jinyang FFC

Decision-making process: Faced with major matters such as road repairing,

forestation, the choice of labors, the wage prices etc., the cooperative will hold a member meeting which requires the participation of every household. After the meeting, the decision will be implemented by Hu Huagou (director-general), Director Chen Fagen (accountant), Hu Guangrong (cashier).

In the process of management on FFC, the main decision-making rights lie in the hand of director-general. Generally, major matters (including election, road building, forestation and etc.) are determined by members' meeting, and operated by the Administrative Committee (e.g. to further fix the standard for payment, the sales prices, and contracting out of project). In practical operation, it is determined by the director-general himself, and he should notify the other two directors in advance.

Meeting system: although the cooperative's regulation has clearly identified the meeting system, from the communication with its members, the village cadres and other farmers, it is easily found that they only classify matters into two kinds, the major ones and the minor ones. They hold that only major matters instead of minor ones need to be discussed at the meetings, and they seem to pay little attention to what the regulation dictates.

Right to vote: according to the regulation, the rights to vote are distributed according to population, but it's not realistic in practical operation. Thus, distribution by household replaced it.

Wage administration: It has not been definite yet because the FFC has no income and is still in its infancy.

Inviting bids: The bid inviting system is going to be carried out in all projects, open to the community. The problem is that there are only as few as 13 members. Therefore only through practice can they find a way to make it work.

Organization and management of production: After its establishment in Oct, 2009, the cooperative built roads of three to four km (tractor road) by December with total investment of 2, 5000 yuan.

After that, they planned to reproduce the forest, but they haven't got the replies from the forestry station and the local government. They plan to finish the forestation

in three to four years.

Income distribution: There has been little profit due to the short time in operation. The income distribution has been contracted in the regulation where 8% will be accumulation fund, 5% will be public welfare fund, 80% will be distributed according to the amount of stocks, and the rest 7% will be the development fund.

4.4 Effectiveness of current policies

(1) Based on the market, it aims to make sustainable development plans on the forest land operated by FFC, serving as the model for the local farmers.

(2) The FFC acts as the demonstration in enhancing the operating effectiveness in forest land by taking advantage of its considerable influence and strong organization skills.

(3) By introducing the modern system of public bidding for projects and other management approaches into forestry management, the FFC succeeds in applying scientific administration to quality control, price regulation, and supervision of the products.

(4) The advantages of FFC in forest management (the interview results):

- The FFC enjoys a brand effect which is embodied in its priority to acquire project through connections.

- The FFC is granted the value added tax exemption and business certificate for direct timber selling. Producers and purchasers get involved in a direct sales process, which yields higher profits.

- With respect to single household operation, it is easier for the FFC to attain cutting quotas and various projects, such as forest road construction or low-yield forest stand improvement project.

- Holding the share respectively, the members have a good charge of forests through mutual supervision.

- A special Fire Protection Association comes into existence owing to the efforts of FFC, the management strength of which grows noticeably.

(5) The advantages of FFC in forest management (the sequencing result of sampled

households):

- Unified management and quality assurance;
- Manifold projects;
- Make up for laborer shortage in single household operation;
- Strength in mode of distribution compared to that of forest land;
- Solutions to cutting down trees stealthily;
- Professional training for technicians;
- Strong negotiation and presentation skills in selling activities;
- Great profits.

4.5 Main problems or difficulties

The main problems in the development of FFCs:

- The problem of scale: The total area of nine FFCs only amounts to 15,466 *mu* and the number of their members is 791 and most of them are transformed from the former collective forest farms. The scale is rather small in terms of the number of members and fixed assets. FFCs cannot have a significant influence as the stimulation to increase the collective forest farm operation profits.
- The problem of management: FFCs just take their initial steps, so some management system and regulations are not perfect, and some responsibilities and rights are not clear. Their members can't actually be kept informed, vote, be engaged in or supervise the management of FFCs.
- The problem of combination: forests and mountains were allocated to every household, so there arose the problems concerning how to evaluate the members' forestlands and related resources when concentrated FFCs were set up. On this issue the members can't arrive at consensus, which makes the combination more difficult.
- The problem of capital. The FFC need some starting funds and afterwards tending, administration, infrastructures and expended reproduction all need massive capital investment, while the farmers are reluctant to invest again.

At the same time, from the financing aspect, there is still a process for FFCs to be accepted and understood by financial departments.

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

5.1 Government at different levels

Main problems existed in FFCs:

The first one is a managerial problem, showing from the ambiguity of their interior management and regulations, and failure to realize the managing rights of their members.

The second one lies in finance. Most of the existing FFCs distribute around 70% of the profits to their own shareholding members, removing 20% of the accumulation and public welfare funds, according to the provisions, only 10% left to be used as development funds, which is far from sufficient for various funds needed in running the cooperatives effectively, including funds for startup, tending, infrastructure construction and expanding reproduction. In the initial stage, however, it is difficult for their members and others to be financially contributive.

Combination of the farmers is the third main problem. How to persuade forest farmers to combine their forests at hand and become the shareholder of a FFC is difficult, and the chief barrier is the inability to obtain consistency on the price of lands and trees when assessed.

Currently, the only realistic way is to first reform the unassigned stocks and forests gradually, to promote standardized management of cooperatives through training and projects, to support their development by project funding, and then to attract forest farmers to combine their assigned forests together step by step. Under the present circumstances of restrictions of forestry policy and inconspicuous performance of cooperatives, forest farmers show little obvious enthusiasm for working collaboratively.

5.2. Village committees

(1) Profit and supervision is the key.

FFCs are transformed from forest farms and in a way are also products in response to the government's initiative. If forests had been already in farmers' hands, they would do their own business rather than join in FFCs, mainly due to their lack of credibility in forest farms and FFCs as well. If there are enough projects available, development on production would conceal conflicts, which reveals the importance of profit and supervision.

(2) FFCs cannot be expanded blindly.

Now the government has great interest in developing cooperatives, and both villages and towns have development indexes. Nevertheless, these farmers are not willing to put their forests into cooperative production, which highlights their pessimistic views on cooperatives. On the assumption that the standard of size for forestation subsidy should be lowered to a certain point, such as to 10-30 *mu*, or restrictions on timber cutting be loosened, individual households will support cooperatives. Attracting farmers to join in cooperatives via policy inclination will probably lead to many conflicts once failed, and thereby it is advisable to develop another cooperative after one has grown to its maturity. And this process is supposed to be carried on totally voluntarily, or it will not be efficient.

(3) FFCs should concentrate their efforts and attention on democratic decision-making, and be in close touch with farmers.

As is the same situation in the management of forest farm, group leaders of FFCs are mostly the decision-makers. At this rate dissatisfaction of other members would occur, so democracy is needed and collective wisdom should find its way into practice.

(4) The position of head of FFC should be held concurrently by cadres.

One holding two positions concurrently can facilitate work make it easier to lead and negotiate, and reduce expenditure effectively.

5.3 Farmers (FFC members and non-members)

FFC members feel supportive on establishing FFCs. This is mostly because, compared with forest farm, FFCs bring dramatically increased profit to them, provide

relatively greater priority which they have experienced by themselves when competing for governmental projects, and FFCs act as a model and driving force for single household forestry. But when asked whether they are willing to submit their own forest lands (private hilly lands and hills in personal responsibility) to FFCs to manage, even after being promised a satisfactory distribution amount using the cooperative in 2008 as minimum standard, all of them give a negative answer without thinking.

Reasons for refusal on one hand and unwillingness to participate in FFC unanimously point to credibility. The former refers to organization, and the latter is related to individual farmers. The seemingly conflicting answers reflect members' disappointed and desperate feeling toward the present cooperatives. Actually, this kind of response can be validated by farmers' reluctant acceptance in the form of "voluntary" and further requests for cooperatives' administration, which are listed as follows:

- Satisfied with the profit, yet suspicious of its persistent existence, and believing that qualifications to exist in the long run rely on its ability to obtain projects and cutting quotas.
- Basically resting assurances of financial affairs, but feeling a need to publicize the account regularly in accordance with constitutions.
- Having an expectation of 2%-3% annual profit increase.
- Having a relatively higher expectation on the leaders' ability to solicit projects.
- Demanding to extend the road and improve infrastructures in the forest areas.
- Striving for cutting quota and the project of improving low-yield forests (bamboo)

Suggestions for FFCs' operation:

- Working out feasible plans for interior administration, including full disclosure and democratic supervision.

- formulating supporting policies, including projects supporting (improvement of the low-yield forests and constructing of the roads) and policy inclination (forestation subsidy and interest-free loan)

Non-members deem that single household forestry operation presents the following problems:

- Managing business individually causes higher cost, and it is difficult to supervise when hiring other people to manage.
- Forest lands allocated to every forest farmer are not adjacent to each other, and therefore difficulties lie in administration without practical large scale.
- Forestry projects take the area of forest lands as one of the requirements. It is hard to apply for combination and costly to solicit projects.
- No other ways but to wait for cutting quotas assigned from villages, lack of flexibility.

Non-members have access to benefits of the FFC operation, such as forest fire prevention, technology extension and competitive advantage on winning projects and timber sales. Meanwhile, they argue that most of the benefits of the FFCs can be acquired by “public goods”. Technology can be learned, fire prevention work can be covered by that of protected regions around, and timber trading can be surrogated by cooperatives incidentally. However, they refuse to blend their own forest lands in cooperative operation, and their reasons are consistent with answers from FFC members.

5.4 Other stakeholders such as consumers of environment service

The Water Department thinks the cooperative operation could consolidate the separated forest lands and enhance the forest’s effect of conserving water sources and preventing water loss and soil erosion. At the same time, it is beneficial to tending and making use of the forest resources.

The Agricultural committee thinks that the separated operation of farmers make it hard to generate scale benefits. There are 79 FFCs in the district, among which there are tea, mushroom cooperatives whose style is “production at home and services in the community”, and there are cooperatives which consolidate farmlands. But the total

benefit is not great and effect is not significant. These cooperatives can't exert as little as 10% of their expected effect. FFCs are newly formed organizations, and their development will be harder because of the long production cycle and weak dependency on market. So the agricultural committee suggests:

- Develop the existing FFCs. The better and more standardized the cooperative becomes, the more attractive it will be for the farmers to convert their mountain lands or money into the stocks of the FFC. At the same time, all kinds of cooperatives, such as the ones which can provide the technology on forestation and cutting, the processing, shipment and selling of lumbers and bamboos, will be established on the basis of household-based forestry management
- At the budding stage of FFCs, agricultural committee will grant them necessary projects and political supports, mainly in the form of increasing the financial input, which can be used to train, award the model FFCs and push the development of FFCs.

The Local bureau of finance suggests that first consideration and approval should be put on the FFC project from the provincial level and even national level. And the requirements for application should conform to the actual demand of FFCs, for example the number of FFC projects should be at least 100, otherwise a lot of FFCs still can't get the financial support.

The Local bureau of industrial and commercial and bureau of tax think, as local government sections, they should only fulfill their duties according to the laws of the country, and that they should not operate outside the mandate of their job description. But bureau of industry and commerce admits that there is a legal barrier to the transformation from a joint-stock forest farm to a FFC, because instead of forest farms, the property right entities should be the farmers who buy the stocks with their property rights of forest lands and will be the members of FFCs.

6. Problem analysis

6.1 Experiences and lessons: comparison of different FFCs

6.1.1 Difference between single-household operation and forest farm operation

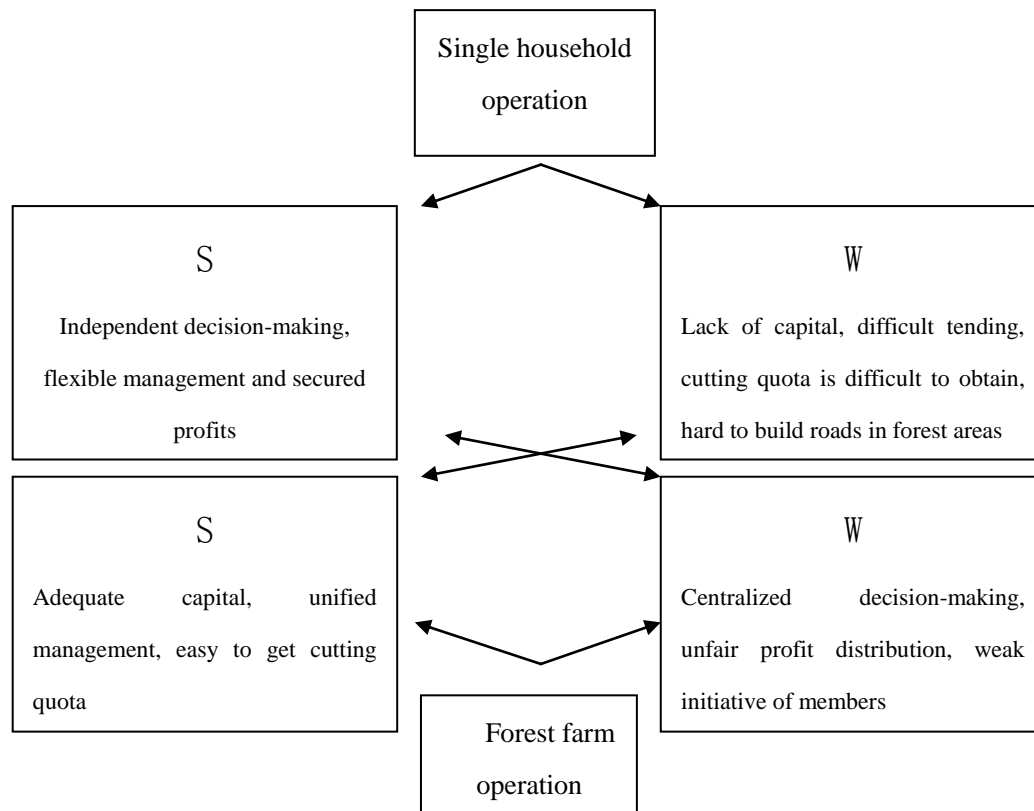


Table 3 Comparison chart of strengths and weaknesses of single household operation and forest farm operation

6.1.2 Similarities and differences of FFC operation and forest farm operation

(1) Similarity of FFC operation and forest farm operation

Personnel arrangement: The organizing structure and personnel arrangement of FFCs is basically similar to that of forest farms. Compared with forest farms, the managerial mechanism and system of FFC is more favorable to the democratic decision-making and supervision.

Establishment methods: The establishment of FFCs and joint-stock forest farms is both driven by policies. The establishment of joint-stock forest farm is out of the combination of political goal, project fund and financial subsidy. While the establishment of FFC is driven by the state guidelines and supported in the aspects of project and infrastructure, science and technology promotion, independent forest management plan and fiscal levies.

Capital and activities: The operating assets and activities are almost the same.

Investment is mainly in the form of “assistance”, and the benefits are mainly from forestry.

(2) Difference between: FFCs and forest farms

Table4 Comparison of FFCs and forest farms

items types	Property structure	Decision making operation	Business content and business scale	Profit distribution	Government intervention
FFC	Convert the property right of forest lands to stock shares	Democratic decision-making and supervision, Provisions, administrative committee and supervisory board, member assembly, one person one ticket	Mixed farming Relatively large scale	Deducting development fund, accumulation fund and public welfare fund etc, 70% of the rest of benefits are distributed among members	Less Apportion from government of all levels and free-tax policy
Joint-stock Forest farms	The property right and managerial right of forest lands belong to collective economic organization	Decision-making power is centralized in the hands of village carders and even one person	Single-crop farming Relatively small scale	Its member don't have direct benefits; the profits are often used to make up for the village financial deficit or belong to the village carders	Heavy apportion from government of all levels

6.1.3 Comparison between FFC operation and single-household operation

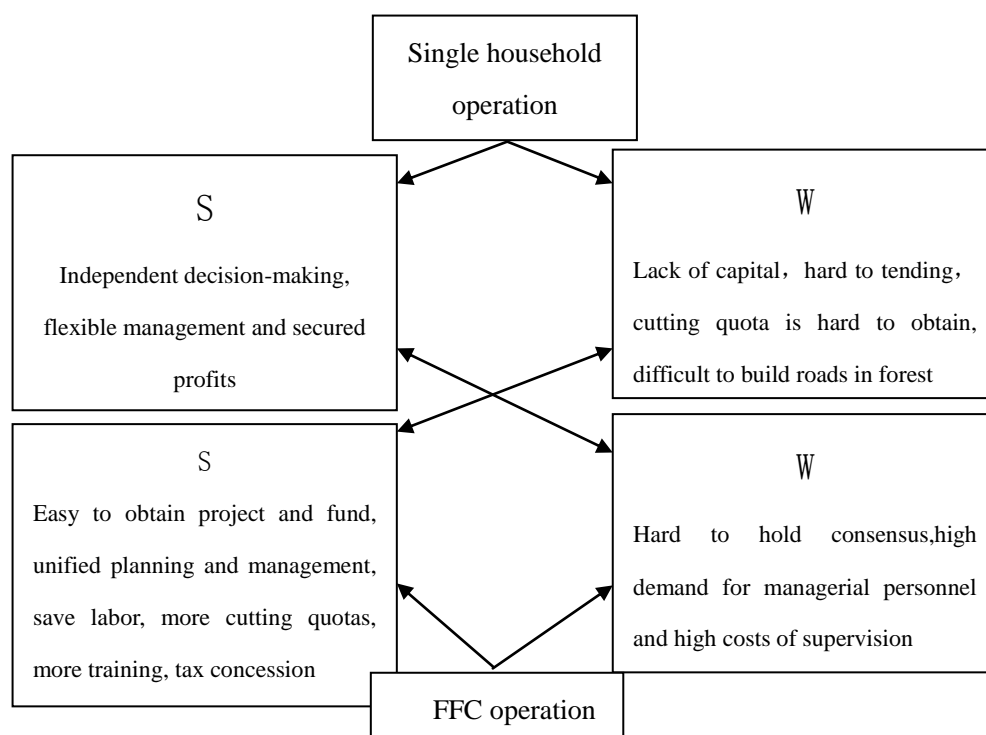


Table 5 Comparison between FFC operation and single-household operation

After making comparisons between the household management and joint-stock forest farms, between joint-stock forest farms and cooperatives, and between the household management and cooperatives, it seems safe to draw the following conclusions:

(1) Whether farmer households choose to cooperate or to join an organization depends on the profit margin, and it is crucial to guarantee their minimal expected profit.

(2) Whatever the modes of operation are adopted, farmer households are concerned about their gains only.

(3) The operation of present FFC influences farmers' decision to cooperate and join in cooperatives. It is particularly important, therefore, to analyze the gap between the guidelines for FFC and the actual operation and that between the guidelines and the institutions provided for by Cooperative Act.

6.2 Incentives and disincentives for forest management by farmers' cooperative

6.2.1 Incentives

(1) To facilitate the import of forest planning and improve its enforcement.

There are many problems with the management style of traditional collective forest farms, whereas the effect of the import of forest planning and forest intensive management is obvious. The result of investigation in such FFCs as Xiangfu FFC shows that while the forestry cooperative economic organizations transformed from “forest farms” gradually remove the system defects, they still preserve the traditional advantages. At the very beginning, there was a clear development planning focused on forest management. It is not only the guide to action but also the programmatic document for its members’ will unity and confidence boost. It is also the basis of looking for investment projects and drawing up annual plans. To some degree, the structure and system of FFCs guarantee the planning implementation.

(2) Be favorable to the enlargement of the forest management scale and settlement of the problem of forestland fragmentation

It is true that it is inefficient for individual farmers to manage forestlands. When interviewed, farmers list many difficulties they’ve met, which focused on getting cutting quota, management and protection. In fact, under the condition that farmers manage and protect separately, especially at present the household population on average is small, the phenomenon of rural laborers’ by-business is evident, the percentage of forestry income is rather low, and the forestry policy tightly controls cutting amount, farmers’ preference for forest management decreases. So it is inevitable for them to look for other sources of livelihood.

In terms of forest management, FFCs effectively solve the problem of labor efficiency; especially play an obvious role in forest management and gaining government project.

To some degree, the policy on FFCs solves the following problems: under the current policy, forestation and renovation project on low production forest both have certain scale constraint (the minimum); due to farmers’ small forest scales, high degrees of fragmentation, diversified management patterns and great difference, it is far from the requirement of individually applying for cutting permit, thus they can

only use average distributed cutting quota in surface which is hard to guarantee the sustainable income, and to farmers who strongly depend on forest the income is instable.

(3) Be favorable to the construction of forestry infrastructures and the promotion of forest collective management level.

With the increase of labor cost, forest infrastructures, especially the construction of forest road has an obvious effect on the decrease of forest development cost. Individual farmers are within the limitation of investment ability, it is hard for them to carry out infrastructure construction. Even if they have the ability; the externality of infrastructure can allow other farmers take the advantage. Its nature of quasi-public goods decides its difficulty for individual farmers to do something. Therefore, forest management efficiency is affected.

Based on the policy inclination to FFCs derived from forestry scale management-orientation, in order to make it more advantageous to get infrastructure construction subsidies, the local government provides financial support and combines the rural labor with FFCs, which to some extent solves the problem that puzzles forestry development. It also plays a positive role in reducing the cost of cultivation and development of forestry resources, increasing the level of forest intensive management and farmers' forestry income.

(4) With lower market transaction cost to get more benefits.

Government's expectation on FFCs mainly lies in solution to the contradiction between small farmers and big market. Through the organization of scale efficiency in market transaction, the government tries to lift the inferior position of farmers in market competition, and then improve their systematic level and competitiveness. In fact, in timber marketing link, an individual farmer has weak power and is usually inferior to others in market competition. FFCs have the right of self-production and marketing, they can reduce market transaction cost to get more benefits.

6.2.2 Disincentives

(1) The deficiency of organization and management is easy to cause

conflicts.

The ideal FFCs are based on the extensive participation of farmers. Rules of cooperatives should give the members more complete rights to know the truth, to participate, to express and to supervise. However, it is just the beginning so the implementation of cooperatives' internal management system and rules is usually lacking in effective supervision. Furthermore, FFCs were transformed from collective forest farms so that its formal rules will be eroded by the traditional ones. Due to lack of supervision and participation, patriarchal decision making and over claim on residual for economic interests are brought about. Responsibility-power-benefit is clear on paper while actually it is not clear in practice. Members haven't participated in management yet. Due to its short history, and the fact that establishment is not based on the farmers' own ideas, the local reality and their understanding of cooperatives, there are many reluctant factors in farmers' willingness, which will lead to conflicts and loss of benefits.

(2) The operation of FFCs is similar to collective forest farms, which takes the risk of following suit.

The current enthusiasm for FFCs shows the rallying point of policy and farmers', (especially the organizational system's) responsiveness. But why it is difficult to find out a normative cooperative that we expect, not a forest farm-transformed one is still a question. The enthusiasm indicates that it is in great demand, profitable and it is really good news. Actually, the future of forest farms depends on system innovation. It is hoped that the FFCs can provide a platform for the innovation, not a policy inclination which will give chance to the old system.

(3) In order to avoid managerial risk, it is a good strategy for FFCs to revise the management and reinforce democratic decision and supervision.

Compared with single household-based management, FFCs have the advantage of forest management in scale management, unified administration and project competition. However, how long the advantage will last depends on both external and internal factors. The external factors refer to the opportunity and degree of policy

inclination. At present, some preferential policies are required to help FFCs to be on the right track. It is more important to help FFCs to gradually improve their managerial ability. From the internal standpoint, cultivation of administrators' managerial ability and the perfection of democratic decision and supervision system is the key to resolve the managerial risk of economic cooperatives.

6.3 Support in policies and from institutions.

Xiangfu FFC:

(1) Project support, which seems to be the main motivation of the establishment of the FFC. The transformation of the bamboo forest of 150 *mu* in 2008 depended on the support of project funds, including 15,000 yuan from aid-agriculture fund set up by the Council of Agriculture, together with 10,000 yuan subsidy from the bamboo industry enriching project of the township government. The remaining is collected by the FFC itself.

(2) Becoming the demonstration village for bamboo forest advancing project.

(3) Acquired the self-marketing right of wood and bamboo.

(4) The value added tax in the marketing link of wood and bamboo is remitted.

(5) Credit support: Huangshan District Guarantee Center provides credit guarantee for small amount loan.

(6) Got 10,000 yuan as infrastructural subsidy for forest road.

(7) Financial support will be rendered in the form of reward rather than subsidies, with a reward of 4,000 yuan.

(8) Draw up the forestry operation scheme separately, and list the cutting plan independently. Extend the limitation on commercial forest cutting and utilization in the way of cutting age and cutting method.

(9) Becoming the demonstration cooperative of provincial farmer cooperatives of Anhui Province in May, 2009.

(10) Free training. Members of the FFC can participate in the provincial special cooperative training, financial management training, etc, which are organized by the Council of Agriculture.

Huiming FFC:

The government promises to build a road for the forest area of Huimin FFC after its establishment, and render proper afforesting subsidy.

Improvement plan for secondary forests: The improvement plan for secondary forests of 50 *mu* was approved in the end of 2007, and actually 30 *mu* have been renovated. In 2008, an additional plan of more than 50 *mu* have been approved. By the end of 2009, the forestation area up to more than 480 *mu*, in which firs forest amount for 292 *mu*, bamboos for 192 *mu*.

Jinyang FFC:

- Forestry Bureau of Huangshan District, along with Dilixi Village government promised to finance the FFC with road a building subsidy of the forest-land. The village government promised to support 1,000 yuan, and the Forestry Bureau promised to support 5,000 yuan. All the money was paid in advance by Hu Huagou.

- Villagers want to plant trees after the roads are built, but there's no response from the forestry station and the Township government.

6.4 Access to information and information services

- (1) Television: policy issue, market information.
- (2) Network: policy issue, policy consultation, market information.
- (3) Propaganda slogan: policy, law, fire protection and so on.
- (4) Technical training: forestry production technology, cooperatives' management.
- (5) Villagers' conference.

6.5 Other deficiencies

(1) There are risks in management, because the signs of "collective management" on the level of co-operation are obvious. Most of the FFCs came into being from collective forest farms. The operation is regulated by a fairly standard and basically unified "Regulations of the Professional Forestry Cooperatives" adopted by the cooperative members assembly. The actual operation and internal management, however, still adhere to the methods of the collective forest farm management; the

members of the FFC have a fairly low level of participation. The supervision is not effective so rights are often concentrated in the hands of the executive heads of villages, which breed corruption and the risk of excessive use of the right of residual claim. In the early stages and when the benefits chain is short and unstable, various types of contradictions were not obvious; with the further development of the FFCs, the lack of participation and supervision from the members will directly result in following the same old disastrous road of collective economy.

(2) Government policy plays a vital role in the formation of the FFCs. Most of the existing FFCs are formed under the guide of policy, and the Government favorable policies on the scale of forest management playing the role of catalyst. In the further development of FFCs, in addition to ensuring a fair policy and offering necessary financial and policy supports, the government should also bring the drawing up and operating the internal management system (aiming at improving the democratic awareness of farmers and helping farmers to participate in the supervision and management of FFC) into the government intervention schedule.

(3) The FFC obviously relies on government projects instead of the construction of internal management system and market capacity. In the above-mentioned cases, organization members and villagers summarize that they mainly benefit from preferential policy and free-charged support for projects. Their demand for policy mainly features "stretch out". In addition to "running for" projects, the expectation from the organization is to get more profits. Leadership, to a large extent, is the ability of "running". The internal management system construction and the protection for the members' rights become less important.

6.6 Potential

6.6.1 Management

- The constitution of property right is in the main form of making forest land in stocks, laying a good foundation for FFC members to exercise rights;
- The goal of taking member-serving as objective provides a larger space for the FFCs' development.

- The standard ‘regulations’ entitle the FFC members to rights and duties, forming mutually-restricted rights and management structures at the same time, which is the important basis of making democratic policy and supervising management and is the initial foundation of FFCs’ inner management system development;
- The management organization and the decision-making mechanism provide the platform of the modern management ideas and methods.

6.6.2 Forest management

- The unified plan and management is the important basis of realizing the forest’s sustainable management;
- The scale-expanded forest management is advantageous for new technology utilization, infrastructural facility development and the level for forests’ intensive management;
- The exemplary function of FFCs radiates the peasant households’ forest management.

6.6.3 Market development

- The transaction scale has the large potential of reducing transaction cost;
- The product development based on market and the value-chain promotion plan;

6.6.4 Others

- The positive expansion plan of FFCs;
- Provide all kinds of training for FFC members and other villagers, etc.

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

7.1 Policy

In the year of 2009, ‘The Development Opinion of The Farmer Forestry Specialized Cooperatives released by Huangshan county’s forestry bureau advanced

some proposals: from now to 2015, the whole county strives for 100 forestry specialized cooperatives (FSC) and cultivates 10 demonstration cooperatives; they should give inclination to the forestry specialized cooperatives' project arrangement; concerning the tending and intermediate cutting of middle-age forest and young-age forest as well as forest's main cutting, they should give privilege on the arrangement of quota target; concerning the collection of forestation fund, they should give the favorable policy. The county-wide topic training of the forestry specialized cooperatives can be held by the county government. The government can organize the county-wide responsible people of the forestry specialized cooperatives to learn altogether 'Farmer Specialized Cooperative Law', and give concrete instructions of the forestry specialized cooperatives' demonstration regulation, the registration means, setting-up procedure, policy support and so on.

In the policy execution, the Huangshan County positively explores the organization mode of the forestry cooperative economy which is adapted to the area's characteristic and demand, and encourages forest farmers to make a few collective forest land property kept by the collective economic organization quantified into stocks that are distributed to villagers. The county sets up the cooperatives according to the principles of 'dividing stock shares instead of mountains' and 'dividing benefit instead of forest', and makes decision and manage the cooperative members themselves based on their will. The whole county's present 9 forestry specialized cooperatives mostly are in this mode which is formed by the transformation of original collective forest farms.

During the cultivation of the famer forestry cooperative economy organization, the concrete countermeasures, made by Huangshan County's forestry bureau according to the present forestry specialized cooperatives' existing problems concerning scale, management, fund and organization difficulty of mountain forest for household contract, mainly include:

Firstly, they organize the forestry specialized cooperatives adopting the principle of 'from the easy to the difficult'. Concerning the aspects of forest product sale,

processing, transportation, storage, purchase of production materials, technology related with production and operation, they launch the cooperation from one aspect or several aspects and gradually lead the forestry specialized cooperatives transferred from pure technology service and purchase of agricultural products to supply of production materials, product processing, sales and other comprehensive service. They unceasingly expand the service domain in order to sharpen their ability to compete in the market and to enhance the ability to manage market risk. They strive to transfer the ‘loose cooperatives’ to the ‘tightly knit cooperatives’, and to develop the forest specialized cooperatives into the economic interest community in which they should share benefit and risk with famers.

Secondly, they organize the development mode of ‘company + base + farmer household’ linking with the industrial development. Through connection with industries, the mode can excellently solve the market-linking problem, effectively solve the problems of insufficient funds, policy, information, technology and so on, and carry on the second assignment of the earned profit by industry development for cooperative members, while improving the forest farmers’ enthusiasm toward joining the cooperatives.

Thirdly, there should be the concrete and operational measures supporting policies for the forestry specialized cooperatives.

(1) Provide project funds reasonably to create the conditions for the development of FFCs.

It is necessary to encourage FFCs to undertake forestry construction projects, such as forestry infrastructure investment, technological innovation, technology promotion, etc., to get special funds so that the FFCs can achieve better growth. Currently FFCs are in the initial stage of development and relatively weak, so it would be very favorable for their growth if they can obtain funds. Scale operation of forestry requires a lot of money which is hard to collect only by members’ contributions. Thus, getting project funds is very important for the development of FFCs.

The first point is to establish a special account in the financial sector for the

special support funds for the FFCs, include it into the budget to support the FFCs to carry out technical and managerial training, forestry infrastructure (mainly roads) construction, forestry demonstration projects and loan discounts, etc.

The second point is, according to the principles of the GSP, to carry out the project management method to the special funds, that is, to establish a set of strict, targeted application, approval and evaluation mechanism in order to ensure the proper use of the special funds.

(2) Further reduce taxes, especially the forestry fees, and raise the level of forestry revenue

Compared with agriculture, the Government adopts a policy of discrimination towards collective forestry which has undertaken the duty of safeguarding the territories with minimal expenses (subsidy for public welfare forests). There should be balance of gains and losses of public welfare forests and commercial forest logging restrictions. Therefore, eliminating the policy differences between agriculture and forestry is a key point in the design of supporting policies.

The government should follow the ways of managing state-owned forests and attracting investments in many places and adopt equal policies in all the aspects such as the forestry charge, logging quota, etc.

(3) Supply market information and training through many channels to offer more opportunities for the development a FFC.

In the early stage, relatively small in scale, a FFC has a poor risk resistance capacity. It greatly relies on the information of all aspects: policies, technologies, human resources and market, etc. while it is not strong enough to get information on these aspects. Therefore, relevant divisions should provide services such as collecting, sorting out and publishing information. Meanwhile, for the forest products involving advanced technologies, it is a must to provide the appropriate knowledge and skills training for the management staff.

(4) Improve forestry policy; release the control of the commercial forest, including the logging of non-commonweal natural forest.

The policy goals of commercial logging quota management system are to realize ecological benefits (social goals) when the forestry managers pursue economic interests (private goals). From a social perspective, the policy is understandable. Both FFC leaders and farmers fully understand the policy and they agree on the probability of excessive use of forest resources if the restrictions are completely lifted. But they object to the strict control of commercial forest logging and the policy of banning or lift a little non-commonweal natural forests every now and then for they believe these policies will seriously affect the farmers' income and the reformation process of low-yield forests. Therefore, on the premise of deregulation, it is necessary to realize the transition from a quota system to the approval system as soon as possible.

(5) Aim at different cooperation methods beneficial to large-scale forest management, and promote the common development in fair competition.

Cooperation is a method adopted by people or organizations to achieve the same goal, help each other or take action together; cooperation is a historical category. FFC, however, is a product of modern society; it is an organization pattern for production and management that appears when the commodity economy develops to a certain stage. Case studies show that a tendency of diversification appears in the cooperation forms of farmers. Though they have slight differences in the degree of systematization, normalization and size, these forms are of equivalent importance to resolve the plight of forest fragmentation and achieve forestry scale operations. Therefore, the supportive policies should be made under the principles of equality and fair competition in which various forms can seek common development.

7.2 Legislation

According to the spirit and stipulation of 'Farmer Specialized Cooperative Law', 'Registration Administration Act of Famer Specialized Cooperatives' and 'Anhui Province's Implementation Means of < Farmer Specialized Cooperative Law in People's Republic of China>', they strengthen the instruction of the farmer forestry specialized cooperatives' development from the aspects of members, organization structures, regulation formulation, management scope, internal rules and regulations,

and so on.

Take regulations of three cooperatives as the basis, which are named Xiangfu, Huimin, and Jinyang, and there's certain disparity between the situation of present forestry specialized cooperatives embodied on the aspects of property right structure, management structure as well as benefit distribution and the requirements of 'Farmer Specialized Cooperative Law'.

(1) As to the composition of property rights, the cooperatives *Cooperative Act* aims to arrange are "based on the household-based management system and mainly include the producers and sellers of agricultural products of the same type, the service providers and users of agricultural products, and FFCs allied voluntarily and operated democratically". However, a provision in FFC Guidelines stipulates that "the FFCs should grant each member the permits used for recording his/her registered share-holding mountain forest and the amount of his/her contributions and gained bonus". This indicates that the law expects to set up the cooperative organizations where households take charge of production and cooperatives are responsible for providing service, while FFC is formed by farmers' holding shares of mountain forests.

The principle of the *Cooperative Act* "the membership is granted and resigned on a voluntary basis" also signifies an important difference between FFC and ordinary companies. However, the guidelines state it clearly that shares are not allowed to be transferred or withdrawn and instead can be purchased at auction by the FFC at the market price of that year. This difference rests with the specific share-holding investment.

(2) Refer to the members' rights and obligations. The provisions for rights in FFC Guidelines are almost the same as in *Cooperative Act*. Their difference is as follows: the law provides that except for the bureaus managing public affairs, all the citizens, juridical persons and other organizations can be members of FFCs, while the guideline limits the membership to the commune members who hold a certain shares of the cooperative and imposes on the members far more obligations as well. Among

those obligations, the responsibilities of “providing mountain fields to one’s own cooperative” and of “shouldering the deficit of one’s own cooperative” not only reflect the limitation caused by villagers’ share-holding investment but also violate the legal regulation that the obligation FFC members should undertake is limited to the recorded amount of contribution in their accounts and to their accumulation funds.

Currently the Huangshan County’s measures towards the collective forest farms’ cooperative transformation make some certain exemplary function. If trying to develop the mountain forest of household contract into cooperatives, there’re difficulties whether with respect to theory or with respect to practice. In theory, the basis of developing the mountain forest of household contract into cooperatives is the forest land’s contract and operational right which is a non-currency investment method. Therefore, the following problems caused by that such as the value assessment, drawing back form cooperatives and the cooperatives’ right of stock-share mountain forest have already surpassed the present cooperatives’ theory category. In practice, land-contract and operational right circulation cooperatives which are concerned with the circulation and cooperative problems, are at present at the exploring stage in agriculture and forestry, not yet worthy of experience attraction.

(3) Refer to the administrative organs. FFC Guidelines have provided for far more thorough and comprehensive rules than Cooperative Act. For example, the law requests that the conference for FFC members should be held at least once a year while the guidelines require biannual conferences. The law instructs that the chairperson of the board is a compulsory organ while either the board of directors or that of supervisors is an alternative institute. However, the guidelines clearly demand that the two boards should be composed of a certain number of directors or supervisors and elaborately list the responsibilities of directors and supervisors. These differences demonstrate villagers’ expectation and demand of the FFC management and its interaction with them.

(4) Refer to the profit distribution. The Cooperative Act states that “with the deficit being made up and the accumulation fund being drawn, the remaining surplus

of the year is available for the profit distribution at FFC. Surplus is returned according to the proportion of the trade volume of FFC to that of its members and is no less than 60% of the total amount of the available.” However, the guidelines provide that after 10% of accumulation fund and 10% of public welfare fund are deducted from the surplus of the year, the 70%-80% of the remaining surplus would be returned to the share-holders and its 30%-20% is for the expansion fund.

From FFC’s origin and development demonstrate that its management and profit distribution do not fully comply with FFC guidelines. Under the guidelines, for example, both the board of directors and that of supervisors tend to be overstaffed and to pool minds and adopt checks and balances could lead to a more reasonable management mechanism. The actual practice of FFC management, however, is that the board chairperson makes a decision alone and then a couple of people discuss it. The FFC’s future relies on the chairperson’s wit and charisma, thus easily leading to autocratic management and stagnant development. What concerns FFC members is the year-end profit sharing, and as they have no deep understanding of their rights the protection of their interests is inadequate. For example, the majority of members never demand to check the finance of the cooperative and as a result their supervisory rights are seldom effectively implemented.

From the synthesis analysis above, the adjusting object of present cooperative law and the present forestry cooperatives have big differences with respect to the property rights structure. The question of how to research and formulate the laws and regulations of adjusting forest land contract and operational rights circulation and cooperative economic organization, based on the realistic demand, should be the main task for the revision and perfection of the cooperative laws.

As for the cooperatives organized by farmers themselves, the forest tenure certificate belongs to every farmer, so the cooperatives don’t conform to the legal rules during examination of cutting plans, hoping the laws would be revised.

7.3 Governance and institutions

More than 160 years’ cooperation movement history in the western developed

countries and especially the developing countries indicates that the cooperative economy organization is one kind of government-leading institutional innovation. In our nation, the collective forest tenure institutional reform of government-leading mode, and the role played by the government in the forestry cooperative economic development turns out more and more remarkable.

The Huangshan County government pays more attention to the construction of the farmer cooperative economic organization, requiring the forestry department, the industry and commerce department, the finance department, the banking department, the tax affairs department and so on to strengthen communication and coordination. Thus positively providing every service for the forestry specialized cooperatives, enlarging the supporting strength of the credit aids, the tax preference, the industry policies and cutting policies, as well as promoting the cooperatives' development.

This project's research indicates that the government should guide the farmers to set up the cooperative economy organization through the policy benefits at the startup stage of the forestry cooperative economy organization. After the cooperative economy organization possesses some certain development strength, the government should reduce the intervention and strengthen the standard management of the cooperatives.

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/>