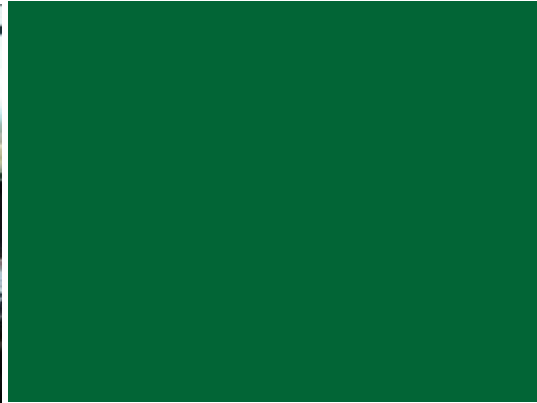


Supporting policy, legal and institutional frameworks
for the reform of forest tenure in China's collective
forests and promoting knowledge exchange

GCP/CPR/038/EC Working Paper: WP – 024 - E

Assessment of Forest Tenure Trade Centers in Zhejiang Province



The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The views expressed in this information product are those of the author(s) and do not necessarily reflect the views of FAO.

All rights reserved. FAO encourages the reproduction and dissemination of material in this information product. Non-commercial uses will be authorized free of charge, upon request. Reproduction for resale or other commercial purposes, including educational purposes, may incur fees. Applications for permission to reproduce or disseminate FAO copyright materials, and all queries concerning rights and licences, should be addressed by e-mail to copyright@fao.org or to the Chief, Publishing Policy and Support Branch, Office of Knowledge Exchange, Research and Extension, FAO, Viale delle Terme di Caracalla, 00153 Rome, Italy.

© FAO 2010

For more information, please contact:

Qiang Ma

Forestry Officer

Forest Policy & Economics Team (FOEP)

FAO

Viale delle Terme di Caracalla

00153 Rome, Italy

Email: qiang.ma@fao.org

Chunqian Jiang

National Project Coordinator

Project Management Office

Building 25, Hepingli 7 Qu, Dongcheng District.

100013 Beijing, China

Email 1: jiangchq@caf.ac.cn

Email 2: chunqian.jiang@fao.org

Hong Qi

National Project Director

Project Management Office

Building 25, Hepingli 7 Qu, Dongcheng District.

100013 Beijing, China

Email: sfa8608@126.com

Comments and feedback are welcome.

GCP/CPR/038/EC Working Paper: WP – 024 - E

Assessment of Forest Tenure Trade Centers in Zhejiang Province

**Center of Ecological Economic Research, Nanjing Forestry University
Forestry Department of Zhejiang Province**

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

Rome, 2010

Content

1. Introduction.....	1
1.1 Description of the issue.....	1
1.2 Literature Review (including existing policy, law and regulations).....	2
1.2.1 Research survey abroad.....	2
1.2.2 Domestic research survey	3
1.2.3 Comments	5
2. Objectives and Methods	6
2.1 Objectives	6
2.2 Methods.....	6
3. Basic information	7
3.1 Description of case studies.....	7
3.2 Information on investigated FTTCs	8
3.3 Overview of the trade of forest ownership and land use rights in pilot counties including status of forest asset assessment and forest tenure registration.....	10
4. The forms and operational procedures of forest tenure trade and/or transferability in pilot counties.....	12
4.1 The existing forms and procedures of forest tenure trade and/or transferability in pilot counties	12
4.2 The advantage and disadvantage of each form of forest tenure trade and/or transferability .	15
4.3 The importance of forest tenure trade centers in the total forest tenure trade	17
5. An analysis of performance and transactions of the FTTCs	18
5.1 Management system and operational procedure of forest tenure trade in FTTC	18
5.2 Transactions in FTTC and other service supplied.....	20
5.2.1 Transactions in the FTTC of Longquan	20
5.2.2 Transactions in the FTTC of Suichang.....	21
5.2.3 Transactions in the FTTC of Anji.....	22
5.2.4 Transactions in the FTTC of Dipu Town	23
5.3 The advantage and disadvantage of the transaction in FTTCs in comparison with other trade forms	24
5.4 The experience and lessons-learnt in the forest trade centers	24
6. An analysis of the perceptions of different stakeholders on FTTCs	25
6.1 Staff.....	25
6.2 Beneficiaries	25

6.3 Local governments at the township level and county forestry bureaus.....	26
6.4 Provincial forestry department.....	27
7. SWOT analysis of FTTC	28
7.1 Strengths.....	28
7.2 Weaknesses	28
7.3 Opportunities.....	29
7.4 Threats.....	29
8. Reformations and options to improve the operation of FTTCs based on policy, legal, financial and institutional aspects.....	29
8.1 Improvement of policy, legislation and system.....	29
8.2 Improvement of forest tenure trade system including hardware and software	31
8.2.1 Software system	31
8.2.2 Hardware system.....	32

1. Introduction

1.1 Description of the issue

CPC Central Committee's decision on accelerating the development of forestry (2003) indicated the new era of collective forest tenure system reform. By the end of 2009, 1514 million mu of forest lands' rights have been cleared in China, which account for 59.4% of all the collective forest lands. Among them, 1136 million mu of forest lands have been issued certificates of forest rights. Since 1980s of the last century to date, Zhejiang Province has experienced three stages of collective forest tenure system reform, i.e. forestry "Sanding" (stabilizing forest tenure, delimiting of hilly land allotted for private use and identifying forestry production responsibility system), improvement of forestry production responsibility system and extension of the forest land contract period. It has completed the reform of collective forest tenure's subject and formed a two-tier forestry management system based on HRS. By the end of 2009, 86545 thousand mu of forest lands have been issued certificates of forest rights and 1439 thousand contracts for "responsibility hill"¹ have been signed. Clear and assured forestry tenure provides the precondition for the secondary distribution of forest lands (i.e. forest tenure transferability).

However, such kind of forest tenure arrangement based on HRS caused forest land fragmentation, which limited the scale of forestry management and restricted the continuous improvement of forest land productivity. Proposal on comprehensively promoting collective forest tenure system reform issued by CPC Central Committee and State Council in 2008 pointed out that the achievement of modern forestry and increasing farmer's income relied on forestry investment and forest tenure transferability. The advance of forest tenure transferability and construction of markets for forest tenure trade is helpful to reduce forest land fragmentation, revitalize the forest resources and lead the forestry to develop in the direction of large scale, intensification and regionalization. Jia Zhibang, Director of State Administration of Forestry, considered that it is necessary to speed up the construction of platform for forest tenure trade, which combines the function of information issue, forest tenure transaction, forest tenure registration, law and policy consultation and providing other relating services. As an agent of forest tenure transferability, FTTC links the supply side and demand side of forest tenure trade and reduces the transaction cost of forest

¹ "Responsibility hill" here refers to mountainous forest lands under individual contracted responsibilities.

tenure transferability.

In this context, lots of provinces, cities and counties in China have established FTTCs. Regional and national FTTCs also appeared subsequently. Existing FTTCs have different titles and scales. And they are established in various levels, such as township, district, county and province. China Forestry Exchange is the first national and comprehensive FTTC for forestry resources trade. At present, 65 counties (cities or districts) in Zhejiang have set up Forest Tenure Management Centers and 49 counties (cities or districts) have established Forest Tenure Trade Centers.

FTTC has provided policy and service supports for the normative transferability of forest tenure. But how does the FTTC operate? How does the FTTC play its role in forest tenure trade? What are the elements impeding the development of FTTC? What is the forest farmer's perception on the FTTC? Are the existing laws, regulations and policies in accordance with the actual needs of forest farmer? Identifying and analyzing these questions are crucial to the sound development of FTTC. In view of this, the project team selected three counties and one town in Lishui City, Zhejiang Province, i.e. Longquan, Suichang, Anji and Dipu as pilot points to investigate the situation of forest tenure transferability and the FTTCs' operation. The project team intends to answer those questions found throughout the case studies.

1.2 Literature Review (including existing policy, law and regulations)

1.2.1 Research survey abroad

In some western countries which implement private ownership of land, private forest and community forest are sold through passage of title (Wang, 2001; Wu, 2001). Thus, foreign scholars study forest tenure transferability in a different perspective. One of their research focuses, i.e. factors affecting the change of forest land-use, is worth learning for us to maintain the forest land-use in the process of forest tenure transferability. Research of three typical private forests in the southeastern United States shows that the change of forest land-use depends on the population and income (Alig, Ralph J., 1986) . Research of substitution between agricultural land and forest land in the southern United States indicates that distinct responses of agriculture and agricultural management department to the development policies of nature reserve and the farm and the forest management system lead to the change of land-use (Alig, Ralph J et al, 1998) . By analyzing the urbanization process in Indiana State, it was found that urban expansion in the southern region of the state reduced the forest land

and farmland was abandoned and changed to private forest land during the urbanization process. It means that to what extent the forest land is changed to the urban land not only rests with population density, but also depends on the value of urban residential land and the industry aggregation level (Darla K. Munroe et al, 2003). Research of benefits and costs of forestry operation shows that the relationship between benefits of forestry operation and total costs of clearing forest tenure, operating the forest and changing the farmland to the forest land has a direct impact on the change of forest land-use (William F. Hyde et al, 2003) .

1.2.2 Domestic research survey

Since 1990s, domestic scholars have studied the issue of forest tenure transferability from various perspectives of economics, management and law, etc.. Their research basically corresponded with policies, laws and regulations promulgated by the state. Domestic research on forest tenure transferability can be roughly divided into three stages.

(1) The early stage of research (1993-1998)

Decision on several issues relating to the establishment of a socialist market economy system promulgated by CPC Central Committee in 1993 provided a policy basis for forest tenure system reform. At this stage, some counties and cities launched a pilot project of joint-stock cooperative system in forestry and the usufruct of Barren Mountain was auctioned. Forest tenure began to transfer. Some studies considered that forest resources should be transacted in the market based on its nature of commodity. They further discussed conditions for the formation of forest tenure trading market.

(2) The rapid growth stage of research (1998-2008)

In this phase, several laws and regulations were promulgated and implemented, including Forest Law (1998), Rural Land Contract Law (2003), CPC Central Committee's Decision on Accelerating the Development of Forestry (2003), Regulations on the Transferability of Contractual Right of Land (2005) and Property Law (2007), etc.. Decision on Accelerating the Development of Forestry indicated that it was necessary to impel reasonable transfer of forest tenure, create standard transfer procedure and strengthen the management of forest tenure transfer. It indicated the new era of collective forest tenure system reform. Property Law defined the contractual right of forest land as a kind of property right. It admitted and further emphasized provisions relating to the transferability of contractual right of land

prescribed in Regulations on the Transferability of Contractual Right of Land. Contract period of forest land has been extended to 70 years. Various social subjects are able to participate in the activities of forest tenure transferability through contracting, subcontracting, attornment, leasing, joint stock partnership and auction on the basis of a clear ownership and constant forest land use. Some provinces which had completed initial forest tenure reform gradually developed local laws and regulations in relation to forest tenure transferability.

During this period, scholars have considered and discussed the following topics:

Necessity and importance of forest tenure transferability Forest tenure transferability is an inevitable outcome of China's market economy. It is an important way to realize economic interest of forestry and symbolizes the development of scale and modern forestry (Fan, 2006; Kong, 2008) .

Policy and legal basis for forest tenure transferability There is no national legal norms to regulate the transfer of forest tenure. Provisions relating to the transfer of forest tenure scatter in different laws, administrative regulations, local laws and regulations and policy documents issued by State Council, State Administration of Forestry, local governments and local forestry administrative department. Scholars analyzed the existing policies, laws and regulations systematically and concluded the basis for forest tenure transferability (Xu, 2006) .

Selecting a pilot for case study on forest tenure transferability so as to find ways to transfer forest tenure Scholars discussed the forms of forest tenure transferability, probed problems in transferring forest tenure and provided corresponding countermeasures and suggestions. It can be summarized from the existing researches that the forms of forest tenure transferability cover contracting, subcontracting, attornment, leasing, joint stock partnership, mortgage and auction, etc.. Studies show that imperfect laws , nonstandard operational procedures, high transaction costs and unsound markets have hindered the transfer of forest tenure. It is necessary to formulate and optimize the existing policies, laws and regulations, construct the forest tenure trading market and establish supporting service mechanism (Xu et al, 2000; Tang et al, 2002; Xiao et al, 2004; Zhou, 2005; Lei, 2005; Lv et al, 2007; Shao et al, 2007).

Construction of the forest tenure trading market Scholars were mainly concerned how to reasonably construct the forest tenure trading market. They held

that the development of trading systems, cultivation of intermediary service organizations and reinforcement of forest resources asset evaluation were three key factors in construction of the forest tenure trading market (Ren et al, 2003; Shen, 2004; Xu et al, 2006).

Efficiency and transaction cost analysis of forest tenure trade from the perspective of economics. Scholars considered that allocation efficiency of the current forest tenure trading market was low. For forest farmers, forest tenure trade meant a high transaction cost and low profit. There was an urgent need to improve trading system, advance organizational innovation and create convenient intermediary service organizations for forest tenure trade (Yao et al, 2007; Wang, 2008).

(3) The phase of detailed and in-depth research (2008-present)

Proposal on comprehensively promoting collective forest tenure system reform issued by CPC Central Committee and State Council in 2008 pointed out that forest land contractor has right to transfer management right of forest land and ownership of forests in a variety of ways on a legal, voluntary and paid base. It also indicated that forest tenure transaction platforms should be established and improved, management of forest tenure transferability should be strengthened so as to regulate the transfer of forest tenure legally, forest tenure mortgage loan system should be improved and government-sponsored forest insurance program should be carried forward. Various regions in China hereafter tried to explore new models of forest tenure transferability and established FTTCs one after another. There were a number of innovative practices in terms of the form of forest tenure transferability, such as the pattern of forest tenure mortgage loans in Suichang.

In this phase, scholars began to use quantitative methods to study the supplying party's willingness to transfer forest tenure (Wen, 2008; Xie, 2009). In addition to continue to appeal to construct FTTCs (Kong, 2008; Li, 2008; Yao, 2008; Lv, 2009; Zhang, 2009), scholars turned their attention to the problems that emerged after the establishment of FTTCs, for example transactions of state-owned and collective forests were basically carried out in FTTC, while most transactions between forest farmers were carried out outside FTTC (Hu et al, 2008).

1.2.3 Comments

There is little systematic study of FTTC among existing research. In aspect of research methods, scholars usually used qualitative method while rarely studying

FTTC by quantitative analysis of the data. Even if there was quantitative research, its scope of the research was limited to forest tenure trade itself.

Therefore, the following issues need further study. Firstly, conduct cost/benefit analysis of FTTC so as to design related systems of FTTC from the perspective of efficiency. Secondly, define service objects and service contents of FTTC and reasonably set up its organizations and functions. Thirdly, properly arrange the distribution of FTTCs at different levels, especially at the township level.

2. Objectives and Methods

2.1 Objectives

This research is aimed to evaluate FTTC's existing achievements and experiences, analyze its shortcomings and problems, explore challenges and opportunities it may face in the future and finally provide recommendations to improve the FTTC's operation based on policy, legal, financial and institutional aspect.

2.2 Methods

(1) Theoretical study

It was used to analyze the necessity of forest tenure transfer and the mode and forms of forest tenure transfer.

(2) Empirical study

It was used to collect secondary information and first-hand data. Secondary information was collected at both central and local levels. At the central level, regulatory documents relating to forest tenure transfer enacted by the country were focused on. At the local level, materials were collected at provincial, municipal, and county levels so as to know the basic information of Zhejiang Province, Lishui City and Longquan County, such as socio-economic situation, overview of local forestry, historical records and existing state of forest tenure trade, policies and documents involving forest tenure transfer issued by local governments at various levels and forestry bureaus. First-hand data was obtained through investigation and field research. Questionnaire was designed to learn the fundamental state of forest tenure transfer, forest farmer's knowledge on FTTC and external factors affecting forest tenure transfer, etc. in Longquan. Field research was carried out in Longquan through

interviewing different stakeholders of forest tenure transfer so as to know their perceptions on forest tenure transfer and FTTC. Both non-structured visits and semi-structured interviews were used. Objects in semi-structured interviews included county forestry bureau, staffs of FTTC, local governments at the township level, villages and farmers, which in turn included small scale forest farmers, forest farmer cooperatives and forest related processing industries. Non-structured visits were applied to communicate with FTTC's staff and forest farmers in order to supplement information unacquirable or missed in semi-structured interviews and further verify information which had been acquired in semi-structured interviews.

(3) Method of comparative analysis

It was used to analyze the advantage and disadvantage of each form of forest tenure trade, and also the advantage and disadvantage of the transaction in FTTC in comparison with other trade forms.

(4) Method of SWOT analysis

It was used to analyze the internal and external environmental factors of FTTC, especially the challenges and threats to the FTTC.

3. Basic information

3.1 Description of case studies

Considering both principles of familiarity and representative, the project team selected the FTTCs in Longquan City, Suichang County, Anji County and Dipu Town located in Lishui City, the key forest zones in Zhejiang Province. Reasons for selecting these FTTCs are as follows:

Firstly, Longquan, Suichang and Anji are all key forest zones in Zhejiang Province and each is rich in mountains and natural resources. There are 3980,000 mu of forest lands in Longquan City which occupies 87.3% of the total land area. Among them, there are 550,000 mu of bamboo forests and 1600,000 mu of ecological forests. The city's forest volume is 14560, 000m³ and the forest coverage rate is 84.2%. Local peasants have 17.3 mu of forest lands per capita and 62% of per capita incomes are derived from forest related industries. There are 3320,000 mu of forest lands in Suichang County which occupies 87% of the total land area. Among them, there are 360,000 mu of bamboo forests, 1430,000 mu of commercial forests and 1890,000 mu

of ecological forests. The county's forest volume is 7300,000m³ and the forest coverage rate is 82.3%. Local peasants have 17 mu of forest lands per capita. There are 2075,000 mu of forest lands in Anji County which occupy 73.3% of the total land area. Among them, there are 1005,000 mu of ecological forests. The county's forest coverage rate is 84.2%.

Secondly, as less developed regions of Zhejiang Province, Longquan and Suichang have an urgent need to promote forest tenure trade, advance scale and intensive forest land management, improve the level and effectiveness of forest management and revitalize forest resources assets so as to push forward socio-economic development. The project team chose Anji, a more developed region as another pilot county to investigate the effect of different levels of economic development on the amounts and forms of forest tenure transferability and the construction of FTTC.

Thirdly, Longquan, Suichang and Anji have their own characteristics in the collective forest tenure reform and regulation and promotion of forest tenure transferability. Longquan is China's first model base for forestry reform and development testing in rural area. It has rich forestry reform experience and has made a number of exploration and innovation in regulating forest tenure transferability and accumulated some sound practices and experience. As a pilot county of forest resources transferability in Zhejiang, Suichang has made a number of exploration and innovation in regulating and promoting forest tenure transferability, especially in aspect of forest tenure mortgage loan. Anji County's innovation in joint-stock forestry management, especially the bamboo forest joint-stock cooperative, is worthy to be followed closely.

Fourthly, Dipu Town is chosen to observe the present operation status of FTTC at the township level with a view to provide references for the proper distribution of FTTCs at different levels of cities, counties and towns.

3.2 Information on investigated FTTCs

Longquan and Suichang have formed a FTTC network at the county and township levels. Anji has set up FTTCs at the county, village and township levels.

FTTCs in pilot counties have different names. FTTC in Longquan is called Forest Tenure Management Service Center. FTTC in Suichang is composed by three institutions, i.e. Forestry Management Service Center, Center for Forest Resources

Storage and Disposition and forestry agency named Green Valley Forestry Technical Services Co., Ltd. Forest Tenure Management Center, Forest Tenure Trade Center, Forest Resources Assessment Center and Forest Tenure Mortgage Loan Service Center constitute the FTTC in Anji. FTTC in Dipu Town is called Service Center for Forest Tenure Transferability.

In terms of organizations and functions, FTTCs in pilot counties have specialized organizations in charge of forest tenure registration, forest tenure trading, forest resources assessment and forest resources storage and disposition. Forest tenure registration involves initial registration of forest tenure, forest tenure alteration registration and mortgage registration after the transfer of forest tenure. FTTC's function of forest tenure trading means it can promote, intervene and organize activities of forest tenure trading, which include collecting and releasing supply-demand information of forest tenure trade, censoring forest tenure trade and recording trade contracts, organizing activities of public bidding, auction and nominal quotation and providing legal and policy advices for forest tenure trade. In addition, Longquan and Suichang have established a center for forest resources storage and disposition to pay off loans for borrowers by disposing their mortgaged forest resources when they fail to repay loans themselves.

Among three pilot counties, Suichang found differing aspects between FTTC's function of administrative examination and approval, and providing public service; and better handled the relationship between public service provided by FTTC and paid services provided by agency. Under the Forestry Management Service Center, Forestry Examination and Approval Center, Center for Forest Tenure Registration, Forestry Investment Information Center and Center for Forestry Science and Technology Service are established. Forestry Examination and Approval Center and Center for Forest Tenure Registration focus on administrative examination and approval. Forestry Investment Information Center and Center for Forestry S&T Service focus on public service. While forestry agency (Green Valley Forestry Technical Services Co., Ltd) provides paid services, such as assessing forest resources, handling forest tenure mortgage loans, public bidding, auction and nominal quotation. These services are separated from the free public service provided by the government. The work of forest resources assessment in Anji County has been consigned to Hangzhou Xinlin Assets Appraisal Corporation. However, the marketization of FTTC in Longquan is comparatively weaker.

In terms of their nature, FTTCs in pilot counties are administrative institutions subordinated to county forestry bureau and fully funded by financial appropriation. The number of their staffs is limited to the approved quantity. Forest Tenure Management Service Center in Longquan is authorized to have 9 approved staffs and it has 6 actual staffs. Forestry Service and Management Center in Suichang is authorized to has 15 approved staffs and its Center for Forest Resources Storage and Disposition has 6 approved staffs. FTTC in Anji is authorized to have 4 approved staffs and it has 4 actually.

3.3 Overview of the trade of forest ownership and land use rights in pilot counties including status of forest asset assessment and forest tenure registration

Clear forest property rights and its initial registration is the precondition for forest tenure trade. All the pilot points have experienced forestry "Sanding", improvement of forestry production responsibility system and extension of the forest land contract period. They have completed the reform of collective forest tenure's subject. 48425 certificates of forest tenure have been released and 40803 "responsibility hill" contracts have been renewed in Longquan. Release rate of certificate of forest tenure amounts to 95% and signing rate of contract 99%. 65285 certificates of forest tenure have been released and 31988 responsibility hill contracts have been renewed in Suichang. Its release rate of certificate of forest tenure has amounted to 97% and signing rate of contract 98%. 75933 certificates of forest tenure have been released and 53338 responsibility hill contracts have been renewed in Anji. Its signing rate of contract is 98.1%.

Paid transfer of forest tenure in pilot points began in 1980s. The main form of forest tenure transferability in the early 1980s was that forest farmer contracted collective forest land. After forestry "Sanding", cooperative forestation conducted by forest farmer and state/ village collective became the main form of forest tenure transferability. In 1990s, such forms of forest tenure transferability as subcontracting, attornment, leasing, joint stock partnership and auction continued to emerge. In recent years, there were also some new forms of forest tenure transferability, which included FFCs, trusteeship, joint-stock enterprises, mortgage and 'FanzuDaobao'.

According to its contents, forest tenure transferability in pilot points can be divided into transfer of forest land, independent transfer of forest land use rights and transfer of forest's ownership. From the 1990s to the beginning of this century, the

most common and the largest scale transfer of forest tenure was the transfer of forest land use rights. Most objects of forest tenure transferability were collective unified management mountains and farmers' "responsibility hill". The period for transferability was usually longer. Those who transferred out the forest tenure were always lacking in the key technology or ability to further develop forest lands and gained little profit from forest land operation, while those who transferred in the forest tenure usually held advantages in developing and managing forest lands and received considerable benefits during the period for transferability. In recent years, objects of large-scale transfer of forest land use rights were often collective unified management mountains. Forest tenure trade between forest farmers were mainly ownership transfer of mature forest located in "responsibility hill" and hilly land allotted for private use. The period for ownership transfer of forest was often shorter. Those who transferred out of forest's ownership had an urgent need of funds or they had manpower shortage or costs of harvest by themselves were too high.

In terms of the mode of forest tenure transferability, only the transfers of state-owned and collective forests are compulsively required to be carried out in FTTC. Farmers are encouraged to transfer their "responsibility hill" and hilly land allotted for private use in FTTC under a voluntary basis. In practice, most transfer of "responsibility hill" and hilly land allotted for private use are private transactions outside FTTC. And less of them are willing to change the registration of forest tenure because they worry that they cannot take back the forest tenure when the period for transferability expires. FTTC is less attractive to forest farmers, who are more concerned about the convenience and cost of forest tenure trade.

Pilot points have different practices in forest resources asset evaluation. Forest Resources Inventory and Planning Design Institute subordinated to the county forestry bureau undertakes assessments of forest resources in Longquan. It can only assess forest resources whose value are less than 1,000,000 Yuan because of its second-class qualification. However, forest resources are evaluated by forestry agency, i.e. Green Valley Forestry Technical Services Co., Ltd. or professional asset appraisal firm, i.e. Hangzhou Xinlin Assets Appraisal Corporation. No matter what kind of assessment agencies, they all collect assessment fees according to a certain percentage of the assessed value.

Concerning the current situation of forest tenure transferability in pilot points, by the end of 2009, 470,000 mu of forest lands in Longquan have been traded, among

which collective unified management mountains occupies 60 percent and “responsibility hill” and hilly land allotted for private use account for 40 percent. 464,000 mu of forest lands in Anji have been traded which occupies 22.3% of the total land area. Dipu Town has transferred 5715 mu of forest lands. From 2006 to the end of 2009, 11890 mu of state-owned and collective forest lands in Suichang have been traded by means of public bidding and auction. Up to January 2010, its forest tenure mortgage loans has amounted to 101.085 million Yuan.

4. The forms and operational procedures of forest tenure trade and/or transferability in pilot counties

4.1 The existing forms and procedures of forest tenure trade and/or transferability in pilot counties

(1) Contracting

Contracting here does not refer to the initial arrangement of forest tenure based on HRS. It means that forest farmers (especially large scale forest farmers) contract collective mountains managed by village collectives and share profits in proportion with the village collective or pay contracting fees to them

(2) Subcontracting

Subcontracting means that contractor subcontracts part or the whole of its forest land use rights to other forest farmers within the collective economic organizations. The contractual relation between the contractor and contractee remains the same. According to the subcontract, sub-contractor has the forest land use rights and pays subcontracting fees to the sub-contractee. Subcontracting does not need the consent of the contractee; however, subcontract has to be put on record by the contractee. Subcontracting is an important form of forest tenure transferability which accounts for a larger proportion in pilot points.

(3) Attornment

Attornment is when the contractor of forest lands transfers some or all of its forest land use rights and forest’s ownership to others in a certain manner and under some conditions. The assignees can be members of the collective economic organization or farmers outside of the collective economic organization. However, the transfer of forest land use rights shall be agreed by the contractee. The original

contractor will lose its forest land use rights after the attornment. The contractual relation between the original contractor and contractee shall be terminated and the registration of forest tenure will be changed. The assignee and contractee establish a new contract relationship. Attornment mainly applies to the transfer of mature forests in pilot points.

(4) Leasing

As the lessor, the contractor leases all or part of forest lands within the contract period to villagers or other social units or individuals who have better operation ability. The lessee pays rents for forest lands in installments or in one time to the tenant. The subject of forest land use rights has not changed. The contractual relation between the contractor and contractee remains the same. Leasing does not need the consent of contractee; however, rental contract has to be put on record by the contractee. It mainly applies to the transfer of forest land use rights in pilot points.

(5) Joint-stock partnership

Joint-stock partnership refers that a forest farmer quantifies the forest land into stocks and voluntarily unites to engage in forestry co-production and management or constitutes a joint-stock company or cooperative in order to develop forestry economy. Under this circumstance, forest land use rights have been transformed into stock ownership. There are two types of joint-stock partnerships in pilot points. The first one is FFC which is connected by the organization of production, product organization and market organization. The second one is the mode of stock-type operation established in the form of ‘forestry nanny’, including the trusteeship and stock-type enterprise. Trusteeship means that a forest farmer entrusts large-scale farmers to manage or set up rural forest farms and forest farmers share the profits in proportion with large-scale farmers. Stock-type enterprise means that farmers or a village collective provide forest lands and enterprise bears the fund. Also, they share profits according to their contributions.

(6) Mortgage

Forest tenure mortgage refers that the debtor pledges its forest land use rights and forest’s ownership to the loaner and the loaner has the priority to be repaid when the debtor fails to pay due debts. It is an important way of forestry financing.

Forest tenure mortgage loans are initiated in Suichang County, whose experience

has been learnt and practiced in Longquan and Anji. There are three patterns of forest tenure mortgage loans in pilot points, i.e. revolving loans with small sums offered to forest farmers, loans offered through pledging forest tenure and guaranteed loans. Revolving loans with small sums offered to forest farmers means the forest farmer pledges its certificate of forest tenure to the third person who guarantees for the loan offered by the bank to the forest farmer. The bank evaluates forest farmers' credit rating according to their personal reputation and the situation of their forest resources, on the basis of which the bank decides their loan limits and issues loan notes to them. Forest farmers can apply for loans by use of loan notes whenever necessary. A loan offered through pledging forest tenure means the forest farmer pledges its certificate of forest tenure directly to the bank so as to obtain loans. Guaranteed loans mean that Center for Forest Resources Storage and Disposition serves as the guarantor when forest farmers apply for loans from the bank, while the forest farmer pledges its certificate of forest tenure to the guarantor. Now, in addition to the Center for Forest Resources Storage and Disposition, the guarantor has expanded to FFCs, professional bonding companies and faithful farmers in the way of joint guarantee.

The maximum loan sum forest farmers can obtain is 30% -50% of the assessed value of their forest resources. Since forest tenure mortgage loans have to be based on certificates of forest tenure, for those which have not changed the registration after the transfer of forest tenure and gotten certificates of forest tenure, pilot counties take different alternative approaches. In Longquan and Suichang, those who transfer in the forest tenure can apply for forest tenure mortgage loans relying on standard contract or certificate of management rights received from the forestry bureau. In Anji, the content and the period of forest tenure transferability are marked on certificate of forest tenure to certify the behavior of transferability, at the same time, a new certificate of forest tenure is issued to the party who transfers in the forest tenure who can apply for forest tenure mortgage loans with this certificate.

(7) 'FanzuDaobao'

'FanzuDaobao' means village collectives lease forest lands from forest farmers (called Fanzu) and make unified plans and layout so as to transfer forest land use rights to large scale forest farmers or companies through the market by contracting (known as Daobao). At present, 'FanzuDaobao' has been a new way to eliminate forest land fragmentation and realize scale management forestry.

(8) Public Bidding, Auction and Nominal Quotation

Strictly speaking, public bidding, auction and nominal quotation are not the forms of forest tenure transferability, but means to achieve the transfer of forest tenure. Because after the transferee is determined through public bidding, auction or nominal quotation, the transferor and transferee still need to confirm their rights and obligations in the form of contracting, leasing or other forms described above. Public Bidding of forest tenure means the transferor invites nature persons, legal persons or other organizations to submit tenders and determines the winning bidder. Auction of forest tenure means the transferor issues auction notice and bidders bid publicly at the appointed time and place. The winning bidder is determined according to the bidding price. Nominal quotation of forest tenure means the transferor issues notice of nominal quotation and listed price is renewed according to bidder's quoted price. The winning bidder is determined according to the bidding result. Public bidding, auction and nominal quotation are mainly applied to the transfer of state-owned and collective forest tenure in pilot points. Public bidding and auction are more common. Public bidding, auction and nominal quotation of state-owned forest tenure must be approved by State Administration of Forestry. Public bidding, auction and nominal quotation of collective forest tenure must be agreed by more than two-thirds of representatives of villagers and then approved by the township.

4.2 The advantage and disadvantage of each form of forest tenure trade and/or transferability

Contracting applies only to the transfer of forest tenure between farmers (including farmers both within and outside the village) and the village collective. The transferors are generally village collective organizations and the transferees are large-scale forestry operators. Objects of forest tenure transferability are commonly mountains under collectives' unified management. The form of contracting can achieve scale management of forest lands in a certain degree and promote the development of forestry industry; however, its scope of application is fairly limited.

Subcontracting endows the transferee with the right to use forest lands, which means the transferee has the right to obtain profits from forest land operation during the subcontract period. Subcontracting usually occurs between farmers, including the transfer between farmers within the same village and the transfer between farmers from different villages. The transferor and transferee appoint their rights and

obligations in the contract (usually oral contract). They seldom change the registration of forest tenure. To farmers, subcontracting is a simple and convenient form of forest tenure transferability. But it lacks the normative procedures, which easily leads to disputes.

Attornment is the most thorough form of forest tenure transferability. It can increase forest farmers' income at once, but at the same time they lose permanent management rights on forest lands and usance profits. It poses a potential instability on forest farmers' long-term livelihood, especially for those who obtain the main income from forest land management. Thus, forest farmers should be encouraged to transfer the ownership of mature forests only and retain forest land use rights to prevent them losing forest lands.

Leasing not only makes the lessor gain forest land rents but also without losing forest land use rights but also lets the lessee utilize forest lands with little cost.

Joint-stock partnership is mostly advocated in pilot points. On the one hand, the form of joint-stock partnership changes forest land use rights into the capital and combine it with other forms of capital, which can realize scale management and form forest resources industry in a short term. The aim of 'decentralized forest tenure and centralized management' is achieved. On the other hand, the form of joint-stock partnership can effectively prevent social problems caused by forest farmers' loss of forest lands. Because forest farmers become shareholders on the basis of their contractual rights, which can maintain the long-term stability of contractual rights and also achieve 'social utilization' of forest lands. The typical practice of joint-stock partnership in pilot point is trusteeship. It helps to manage forest lands which cannot be looked after by the contractors who engage in trade or other affairs and increase the value of forest resources through centralized management.

Mortgage not only solves the difficulty in getting loans for farmers, but also greatly activates the forestry management system. It further expands channels of forestry investment and financing, effectively resolve the problem of fund input after the forest tenure transferability and promote the intensification of forestry management and the industrialized development of forestry. However, forest resources asset evaluation is the prerequisite to mortgage forest tenure, while the lack of both qualified evaluators and financial institution's positivity to participate in greatly restricts the development of forest tenure mortgage loans.

‘FanzuDaobao’ is an effective system innovation in pilot points in terms of improving efficiency of forest resource allocation and reducing transaction costs. On the one hand, large scale forest farmers or companies can more easily lease lumped and contiguous forest lands and gain relatively stable forest tenure, and thus facilitating intensive use and optimal allocation of forest land resources. On the other hand, the village collective can charge some management fees as funds for the village collective to increase collective income. But it must be executed under the farmers’ voluntary premise. It must be avoided that ‘Daobao’ happens before ‘Fanzu’. Besides, issues of equitable distribution of profits obtained through ‘FanzuDaobao’ and living guarantee of forest farmers after ‘FanzuDaobao’ need further regulation.

Public bidding, auction and nominal quotation are means of market operation of forest tenure transferability. The sound advantages of them are openness, transparency and rivalrousness. It can avoid black-box operations and allow more social subjects to participate in forest tenure transferability.

4.3 The importance of forest tenure trade centers in the total forest tenure trade

FTTC plays its role in the total forest tenure trade in the following areas. Firstly, it facilitates forest tenure trade by collecting and releasing supply-demand information of forest tenure trade and providing legal and policy advices for trading parties. Secondly, it’s involved in and organizes forest tenure trade. Since the transfer of state-owned and collective forests are compulsively required to carried out in FTTC, FTTC is responsible for receiving applications for forest tenure trade, censoring forest tenure trade and recording trade contracts. At the same time, for those forest tenure trades completed in the forms of public bidding, auction and nominal quotation, FTTC is in charge of organizing, examining and endorsing related issues. Thirdly, it administrates forest tenure mortgage loans in succession before, during and after it happens. Before a forest tenure mortgage loan happens, FTTC has to check on the effectiveness and legitimacy of forest tenure mortgaged. It supervises forest resources mortgaged together with financial institutions and acts as the guarantor during a forest tenure mortgage loan. And after forest tenure mortgage loan is completed and when borrowers fail to repay loans themselves, the Center for Forest Resources Storage and Disposition in FTTC pays off loans for them by disposing their mortgaged forest resources. Fourthly, it is consigned by forest farmers to evaluate forest resources and provides consultation assessment report, which is an important part of forest tenure trade. Fifthly, it regulates procedures of forest tenure trade, including forest tenure

alteration registration and mortgage registration after forest tenure trade.

5. An analysis of performance and transactions of the FTTCs

5.1 Management system and operational procedure of forest tenure trade in FTTC

In pilot points, only the transfers of state-owned and collective forests are compulsively required to carry out in FTTC. Farmers are encouraged to transfer their “responsibility hill” and hilly land allotted for private use in FTTC under a voluntary basis.

Forest tenure trade in FTTC involves the following procedures: the transferor applies for forest tenure transferability→committee in the village and town government examine and verify the application preliminarily→county forestry bureaus examine and verify the application (undertaken practically by FTTC)→FTTC accepts application for forest tenure transferability→investigation and assessment of forest resources that plan to be transferred→the transferor and transferee sign the contract of forest tenure transferability→FTTC examines and records the contract→FTTC examines and endorses forest tenure alteration registration→FTTC files off related materials. The applicant must provide the following materials: application form of forest tenure transferability, application form of forest tenure alteration registration, proofs of identification of trading parties, contract of forest tenure transferability and a detailed list of transferred contents, certificate of forest tenure which needs to change registration, consent paper of more than two-thirds of representatives of villagers when collective forests are traded, proofs of no forest tenure dispute and forest resources assessment report if needed.

Procedure for forest resources asset assessment is as follows: the principal submits an application filing→the principal and forest resources asset assessment institution sign an agreement of assessment and consultation→forest resource assets assessment institution inspects and evaluates forest resources→forest resource assets assessment institution provides consultation assessment report. The following application materials must be provided: proof of approved assessment and consultation issued by related department, proof of identification, certificate of forest tenure or contract of forest tenure transferability, economic and technical indicators of forest resources asset, historical data of production costs and financial statement relating to output and sale price.

Procedure for forest tenure alteration registration is as follows: the applicant submits a letter of application→neighbors' confirmation if metes and bounds of forests are changed→the applicant fills in application form of forest tenure alteration→the application is verified and approved by committee in the village, forestry station in township and town government→forest tenure registration authority, i.e. FTTC accepts the application and issues public notice of forest tenure alteration registration (notice period is 30 days)→FTTC retakes the original certificate of forest tenure and issues an altered one. The applicant must provide the following materials: letter of application, application form of forest tenure alteration, reasons for forest tenure alteration, original certificate of forest tenure and proof of identification.

If forest tenure is transferred in the form of mortgage, forest tenure mortgage registration is needed. Different patterns of forest tenure mortgage loans require different procedures. (1) Procedure for a revolving loan with small sums offered to forest farmers is as follows: the forest farmer submit an application→the bank evaluates forest farmer's credit rating and decides his or her loan limits→the applicant fills in application form of forest tenure mortgage registration→the forest farmer, the bank and the guarantor sign the counter-guarantee contract for forest tenure→the bank offers loans. (2) Procedure for loan offered through pledging forest tenure is as follows: the forest farmer submit an application and the bank agrees with the application→assessment institution evaluates forest resources and provides assessment report→the mortgagor, i.e. the forest farmer signs the loan contract with the bank→the mortgagor fills in application form of forest tenure mortgage registration and FTTC provides testimonial of forest tenure mortgage registration→the bank offers loans. (3) Procedure for guaranteed loan is as follows: the forest farmer submits an application→the guarantor (usually the Center for Forest Resources Storage and Disposition in FTTC) and the bank approve the application→assessment institution evaluates forest resources and provides assessment report→the guarantor signs the guarantee contract with the bank→the applicant fills in application form of forest tenure mortgage registration and FTTC provides testimonial of forest tenure mortgage registration→the bank offers loans.

Under the pattern of guaranteed loan, Center for Forest Resources Storage and Disposition in FTTC pays off loans for borrowers by disposing their mortgaged forest resources when they fail to repay loans themselves. Its specific procedure is as follows: the bank applies for forest resources storage and disposition→Center for

Forest Resources Storage and Disposition in FTTC verifies the forest tenure→Center for Forest Resources Storage and Disposition investigates and evaluates forest resources→Center for Forest Resources Storage and Disposition issues public notice→Center for Forest Resources Storage and Disposition signs the contract of forest resources storage and disposition with the bank→Center for Forest Resources Storage and Disposition pays off loans for borrowers→forest tenure registration is changed. The applicant must provide the following materials: application form of forest resources storage and disposition, examination report on legitimacy of forest tenure issued by forest tenure registration institution, investigation and verification report issued by Center for Forest Resources Storage and Disposition and proofs of no forest tenure dispute.

5.2 Transactions in FTTC and other service supplied

As mentioned above, only the transfers of state-owned and collective forests are compulsively required to be carried out in FTTC in pilot points. Farmers are encouraged to transfer their “responsibility hill” and hilly land allotted for private use in FTTC under a voluntary basis. In practice, most transfer of “responsibility hill” and hilly land allotted for private use are private transactions outside FTTC. And few of them are willing to change the registration of forest tenure. Thus, records of forest tenure trade in FTTC in pilot points mainly relate to the transfer of state-owned and collective forests and forest tenure mortgage loans.

5.2.1 Transactions in the FTTC of Longquan

From 2007 to the end of 2009, there were 7 transactions totally recorded in the FTTC of Longquan. Details are shown in Table 1. By the end of February 2010, forest tenure mortgage loans in Longquan had amounted to 188.53 million Yuan.

Table 1: Registration Table of Forest Tenure Transferability in the FTTC of Longquan (2007-2009)

Serial Number	Year	Ownership	Area of Transferred Forest Lands (Unit: Mu)	Period of Transferability (Unit: Month)	Form of Forest Tenure Transferability	Assessed Price (Unit: Yuan)	Strike Price (Unit: Yuan)
1	2007	Collective	171	12	Auction	588500	730000
2	2007	Collective	528	36	Nominal Quotation	1649100	182000

3	2007	State-owned	670	60	Auction	839000	1125600
4	2007	Collective	170	24	Auction	449200	427000
5	2008	State-owned	117	9	Nominal Quotation	185800	241800
6	2008	State-owned	70	6	Nominal Quotation	67300	93500
7	2008	State-owned	384.6	5	Attornment	512300	461000
Summation			2110.6				4898900

5.2.2 Transactions in the FTTC of Suichang

Details of transfer of state-owned and collective forest tenure in the forms of public bidding and auction in Suichang County from 2006 to the end of 2009 are shown in Table 2. By the end of January 2010, forest tenure mortgage loans in Suichang had amounted to 101.085 million Yuan. Details are shown in Table 3.

Table 2: Statistical Table of State-owned and Collective Forest Tenure Transferability in the Forms of Public Bidding and Auction in Suichang (2006-2009)

Serial Number	Year	Number of transactions	Area (Unit: Mu)	Strike Price (Unit: Yuan)	Assessed Price (Unit: Yuan)	Increase of Value	Memo
1	2006-May, 2007	19	4743	13328000			Before the establishment of FTTC
2	2007	9	1729	6082000	5700400	6.69%	
3	2008	7	1195	2286000	2289500	-0.15%	price of forests declines
4	2009	18	4223	963000	6321800	52.33%	
Summation		53	11890	31326000	14311800	25.70%	

Table 3: Statistical Table of Forest Tenure Mortgage Loan in Suichang (Up to January 2010)

Classification Criteria	Category	Number of Peasant Households (Unit: Household)	Amount of the Loan (Unit: Yuan)
Pawn	timber forest	892	62618000

	bamboo forest	461	32360000
	production forest	87	6107000
	others	0	0
Purpose	primary industry in forestry (planting)	891	62550000
	secondary industry in forestry (processing)	71	4985000
	tertiary industry in forestry (circulation)	62	4350000
	others	416	29200000
	among others: moving out of mountain area and shaking off poverty	2	100000
Pattern of Mortgage Loan	revolving loan with small sum	1379	79485000
	loan offered through pledging forest tenure	7	18130000
	guaranteed loan	36	3470000

5.2.3 Transactions in the FTTC of Anji

According to the records of forest tenure trade in 2009, there were 19 transactions totally and the area of transferred forest lands was 13600 mu. Details are shown in Table 4. By the end of January 2010, forest tenure mortgage loans in Anji had amounted to 102 million Yuan.

Table 4: Summary Table of Forest Tenure Transferability in the FTTC of Anji (2009)

Serial Number	Name of the Village	The Transferor	The Transferee	Area (Unit: Mu)	Period of Transferability (Unit: Year)
1	Hanghe	upper villager group & downward villager group	Hu Yuliang	88	32
2	Luxi	Luxi Village	Zhu Hailin	120	30
3	Banqiao	Banqiao Village	Tan Jia Shan Ecological Agriculture Development Co., Ltd.	429	50
4	Gaozhuang	Gaozhuang Village	Li Tingjian	180	28
5	Xiaoyuan	the third villager group of Xiaoyuan Village	Liu Tianming	74	30
6	Tonghang	Tanwai, Miaowu, Chejiaoling and Tangli villager group	Mei Hai Agriculture Co., Ltd.	2186	60
7	Dongshangai	Yangpengling villager group	Tian Yongping etc.	456	40

8	Hengshanwu	the seventh villager group	Bian Liangyong	180	40
9	Longba	6 villager groups of Dingdong, Dingxi etc.	Ren Yuanlin	1800	70
10	Jianshan		Lvcheng Yuanhe Company	76	50
11	Xiaoshu		Tan Jia Shan Ecological Agriculture Development Co., Ltd.	467	50
12	Xiaotang	Xiaotang Village	Li Xin	189	30
13	Guanyinqiao	Xiazhuangbian, Maotiangeng, Fengshuiling and Shiwanli villager group	Guishan Professional cooperatives of Tea	1578	50
14	Yinwan	Yinwan Village	Pan Yuanqing	170	30
15	Banqiao	Banqiao Village	Tan Jia Shan Ecological Agriculture Development Co., Ltd.	94	50
16	Huaguang Xiaoshu	Huaguang Village Xiaoshu Village	Tan Jia Shan Ecological Agriculture Development Co., Ltd.	1410	50
17	Baishuiwan	Waxiaonong villager group	Lvcheng Yuanhe Company	1312	50
18	Longba	Ren Yuanlin	Yan Lin Agricultural Development Co., Ltd.	1800	69
19	Banqiao	Banqiao Village	Tan Jia Shan Ecological Agriculture Development Co., Ltd.	991	50

5.2.4 Transactions in the FTTC of Dipu Town

According to the available data, there were 5 transactions totally in 2009 and the area of transferred forest lands was 3629.98 mu. Details are shown in Table 5.

Table 5: Summary Table of Forest Tenure Transferability in the FTTC of Dipu Town (2009)

Serial Number	Name of the Village	Area (Unit: Mu)	Peasant Households involved (Unit: Household)
1	Shuangxikou Village	785	1
2	Shuangxikou Village	219.98	28
3	Longba Village	1800	1
4	Nanbeizhuang Village	230	1
5	Hengtang Village	595	1
Summation		3629.98	

5.3 The advantage and disadvantage of the transaction in FTTCs in comparison with other trade forms

The advantage of the transaction in FTTCs is embodied in its role to promote, assist and ensure the forest tenure trade. It provides supply-demand information of forest tenure trade for trading parties. Transactions in FTTCs are more normative than those outside FTTCs. Its assessment on forest resources is comparatively fair and reasonable and also more convincing. It provides legal and policy advices for trading parties, which objectively reduces the possibility of disputes. Transactions in FTTCs are more open and transparent; especially in the transfer of collective forests through public bidding, auction and nominal quotation can avoid black-box operations and at the same time is helpful in increasing the value of forest resources.

The disadvantage of FTTCs is that it is less attractive to forest farmers. Because forest farmers are more concerned about the convenience of forest tenure trade and they consider direct negotiation between trading parties a better choice. That is why the number of transactions completed through the FTTC is limited.

5.4 The experience and lessons-learnt in the forest trade centers

The operation of FTTCs in pilot points demonstrates that FTTC has done a lot of work in promoting the increase of forest farmer's income, regulating forest tenure trade and dealing with forest tenure mortgage loans. The appearance of FTTC is helpful to revitalize the forest resources and change forest tenure into the capital. Forest tenure registration conducted by FTTC provides a more convenient and safer condition for private capitals to flow to forestry. FTTC designs systematic and complete rules of procedure for all steps in forest tenure trade, which ensures the orderly transaction of forest tenure in FTTCs.

But there also exist some problems in FTTC. Firstly, FTTCs in pilot counties have different names and they also differ in establishment of their organizations. It seemingly reflects that the various regions' understanding of FTTC are inconsistent, while in essence it indicates that they define the function of FTTC in different ways, i.e. service objects and service contents of the FTTC are not the same in different regions. The project team considers that the practice in Suichang County is in line with FTTC's future trends. It finds differing aspects between FTTC's function of administrative examination and approval and providing public service and better handles the relationship between public service provided by FTTC and paid services

provided by agency. (1) In addition to the necessary function of administrative approval, FTTC should facilitate and support the completion of forest tenure trade by providing related public services; (2) FTTC should separate such services as forest resources asset evaluation, forest tenure mortgage loan and organizing public bidding, auction and nominal quotation from free public services provided by the government and let forestry agencies provide paid services for trading parties. This kind of arrangement is proportionate to FTTC's nature of administrative institutions subordinated to the county forestry bureau. Secondly, comments on FTTC should not be constrained to its trading volume. More attention should be paid to its role to promote, assist and ensure the forest tenure trade. Thirdly, forest farmers's familiarity and understanding of FTTC should be improved. Some farmers even have not heard of FTTC, let alone transferred their forest tenure in FTTC. Therefore, it is necessary to increase the publicity of FTTC through various channels. Fourthly, since forest farmers are more concerned about the convenience of forest tenure trade, it is more practical and meaningful to establish FTTCs at the village level.

6. An analysis of the perceptions of different stakeholders on FTTCs

6.1 Staff

The FTTC has to solve two problems. The first one is how to guide forest farmers to transfer their "responsibility hill" and hilly land allotted for private use in FTTC. The second one is that FTTC has great financial pressure since it acts as the guarantor of forest tenure mortgage loans. Take Longquan City for example, it is one of the less developed regions of Zhejiang Province with insufficient fiscal strength and it is difficult for FTTC to guarantee for mortgage loans relying on 4 million Yuan funded by local government. It is suggested that a system of fund disbursement for forest tenure trade should be set up or the scope of guarantors be expanded.

The development of FTTC is related to the quantity and scale of forest tenure trade. FTTC should promptly adjust services it provides to meet the needs of new changes and trends of forest tenure trade.

6.2 Beneficiaries

(1) Small scale forest farmers

Forest farmers' knowledge on FTTC is jagged and some farmers even have not heard of FTTC. They obtain such services from FTTC as initial and alteration

registration of forest tenure, supply-demand information of forest tenure trade, legal and policy advices for forest tenure trade, forest resources assessment, forest resources storage and disposition, forest tenure mortgage loan. They suggest that it be necessary to increase the update rate of supply-demand information of forest tenure trade and realize information sharing within the city or county by establishing an interactive network of FTTCs at the county, township and village levels.

(2) Forest farmer cooperatives (FFCs) and stock-type forestry enterprises

These two groups are the most obvious direct beneficiaries from the FTTC. They obtain similar services from FTTC. But they concern more about how to get more operation funds through forest tenure mortgage loan after they transferred in the forest tenure. It creates conditions for scale management forestry. They hope they could obtain forest tenure mortgage loans more conveniently. Besides, they suggest that FTTC should do something to coordinate and promote forestry insurance because the current forest fire risk insurance cannot fully compensate their losses due to natural disasters.

(3) Forest related processing industries

Forest related processing industries transfer in ownership of forests or right to use forest lands, which cannot only reduce their production costs but also achieve self-sufficiency in raw material forests. They hope FTTC could better promote the market operation of forest tenure trade.

6.3 Local governments at the township level and county forestry bureaus

(1) Village collective

FTTC is greatly recognized by many village collectives in pilot points. Because collective forests are transferred in FTTC, this not only reduces the burden on the village, but also improves utilization efficiency of forest lands.

(2) Local governments at the township level

FTTCs at the township level rarely play their roles. Although there are electronic display screens in FTTCs at the township level, they only work when FTTCs are visited. Therefore, the necessity and feasibility study should be conducted before FTTCs are established at the township level. They suggested that the county forestry bureau should not simply set up a FTTC in every township. Proper redistribution of

FTTCs at the township level should be considered.

(3) County forestry bureaus

County forestry bureaus in pilot points pointed out the following problems. Firstly, governments and forestry departments are full of enthusiasm about forest tenure mortgage loans while financial institutions are not active. Because compared with common pawns, it is more complex to dispose mortgaged forests and bad debt may arise once mortgaged forests suffer from fire or pests. Financial institutions are reluctant to undertake such risks. To solve this dilemma, FTTC acts as the guarantor for forest farmers (borrowers). Center for Forest Resources Storage and Disposition in FTTC pays off loans for borrowers by disposing their mortgaged forest resources when they fail to repay loans themselves. FTTC undertakes all risks arising from forest tenure mortgage loans. Over time, financial institutions may loosen the examination of loans, even offer loans irresponsibly. FTTC will have great financial pressure due to the increasing loans. Secondly, there are few staffs equipped with forest resources assessment qualification in forestry departments. Thirdly, ecological forests are prohibited to be pledged, which greatly limits financing channels of forestry. However, once an ecological forest tenure mortgage loan is carried out in the future, such issues as who acts as the guarantor, how to deal with bad debts and what are financial institutions' attitude, all need to be treated carefully. Fourthly, it is necessary to find reasonable ways to solve the contradiction between trading parties because of the loss of harvest cutting rights due to the expansion of ecological forest.

Accordingly, they give the following suggestions. Firstly, more professional bonding companies should be encouraged to participate in the guaranteed loans and loans offered through pledging forest tenure be actively pushed forward. Secondly, staffs from forestry departments should have be well trained in forest resources evaluation and colleges should set up a new major named forest resources asset evaluation so as to bring up more professional talents. Thirdly, governments should try to explore reasonable ways to carry out ecological forest tenure mortgage loans in the context of maintaining forests' ecological functions. Fourthly, governments should guide trading parties to settle their dispute due to the expansion of ecological forest, such as transferor refunds, the purchase price or gives ecological compensation to the transferee.

6.4 Provincial forestry department

(1) Existing legislation restricts the widespread development of forest tenure mortgage loans. At present, the legal ground for forest tenure mortgage loans is Forest Law, Assurance Law, and Regulations on Registration of Forest Resources Asset Mortgage, which set strict scope and conditions for forest tenure mortgage loans. For example, ecological forest and collective forest land use rights base on HRS are forbad to be mortgaged.

(2) On the one hand, financial institutions are not willing to bear the risk of natural disasters in the mortgage period. On the other hand, it is not realistic for FTTC to act as the guarantor all the time. It suggests that government-sponsored forest insurance program should be promoted to disperse the risks of forest tenure mortgage loans. Zhejiang Province has set up a comprehensive forest insurance which covers the risks of fire, typhoon, torrential rain storms, floods, mudslide, frost, snow and glaze ice, etc.. Governments at the provincial and county level afford 45% of all insurance premiums.

7. SWOT analysis of FTTC

7.1 Strengths

The advantage of FTTCs is embodied in its role to promote, assist and ensure the forest tenure trade. It provides supply-demand information of forest tenure trade for trading parties. It designs systematic and complete rules of procedure for all steps in forest tenure trade, which ensures the orderly transaction of forest tenure in FTTCs. Transactions in FTTCs are more normative. Its assessment on forest resources is comparatively fair and reasonable and also more convincing. It provides legal and policy advices for trading parties, which objectively reduces the possibility of disputes. Transactions in FTTCs are more open and transparent which can avoid black-box operations. FTTC is helpful in revitalizing the forest resources and increasing the value of forest resources.

7.2 Weaknesses

The disadvantage of FTTCs is that it is less attractive to forest farmers. Its normative procedures sometimes are interpreted as factors to impede forest tenure trade. Forest farmers consider that these rules have increased the transaction time. At the same time, staffs in FTTC show little enthusiasm to actively provide services for forest farmers because transactions between forest farmers are basically free.

7.3 Opportunities

The project team found all forest farmers who work in the mountains are over the age of 45 in pilot points. Their children mostly have gone out for work. It means that the trend of forestry development in the future is intensive and scale forestry production. More and more forest lands will experience the change to high efficiency and large-scale management. And forest tenure trade is an important way to achieve appropriate scale management of forestry. It can be expected FTTC will play a greater role in promoting, assisting and ensuring the forest tenure trade.

7.4 Threats

Firstly, FTTC should try to find underlying reasons why forest farmers are not willing to complete forest tenure trade in FTTC. They do not know about or need the FTTC at all? Is it a better choice for forest farmer to transact their forest tenure outside FTTC? Is it necessary and how to guide forest farmers to transfer “responsibility hills” and hilly lands allotted for private use in FTTC?

Secondly, FTTC has to handle well the relationship between various participants during the process of forest tenure trade, such as forest farmers; forest farmer cooperatives; stock-type forestry enterprises forest related processing industries; and financial institutions.

Thirdly, the main challenge FTTC faces arises from the distinctiveness of forestry. The main purpose of primary industry in forestry is to acquire ecological benefits. With the development of the economy, there is a growing emphasis on improving the environment and the economic benefits of primary industry in forestry will increasingly be diluted. More and more forests will be classified as ecological forests. Primary industry in forestry may eventually become the environmental protection industry and absolutely lose its economic value. Since FTTC handles with transactions in primary industry in forestry, the necessity of FTTC’s existence will be challenged at that time.

8. Reformations and options to improve the operation of FTTCs based on policy, legal, financial and institutional aspects

8.1 Improvement of policy, legislation and system

(1) Further regulate various forms of forest tenure transferability; especially

those forms appear spontaneously in practice so as to create conditions for the FTTC's orderly and standardized operation.

1) Regulate forest tenure mortgage loan

Firstly, revise relevant laws and regulations with reference to practices and provisions in pilot counties in order to provide sufficient legal grounds for forest tenure mortgage loans.

Secondly, encourage the commercial banks and policy banks to participate in forest tenure mortgage loans so as to expand the scope of lenders. Form the basic framework of forest tenure mortgage loans composed by revolving loans with small sums offered to forest farmers, loans offered through pledging forest tenure and guaranteed loans. Provide appropriate patterns of forest tenure mortgage loans for different groups. Expand the scope of guarantors and FFCs, professional bonding companies and faithful farmers in the way of joint guarantee are encouraged.

Thirdly, further improve the insurance system for forestry, expand the coverage of forestry insurance sponsored by the government and establish Risk Compensation Fund for Forest Rights Mortgage Loans so as to disperse the risks of forest tenure mortgage loans.

Fourthly, try to explore reasonable ways to carry out ecological forest tenure mortgage loans in the context of maintaining forests' ecological functions. Center for Forest Resources Storage and Disposition in FTTC or other institutions act as the guarantor. In the event of bad debts, Center for Forest Resources Storage and Disposition accepts and stores mortgaged ecological forests and manages these forests the same as state-owned forests.

Fifthly, research the practice of applying for mortgage loans by certificate of forest operation rights or standard forest tenure trading agreement in pilot counties and promulgate specific regulations.

2) Regulate public bidding, auction and nominal quotation

Substantive and procedural rules for public bidding, auction and nominal quotation should be formulated with reference to Bidding Law, Auction Law, Law of the People's Republic of China Against Competition by Inappropriate Means and typical practices in various regions.

3) Regulate joint-stock partnership

Reasonably and specifically regulate FFCs that are still at an early stage of development with reference to Law of Peasant's Professional Cooperatives and Guidance on Promoting the Development of FFCs issued by State Administration of Forestry.

(2) Define the function of FTTC in a right way. In addition to the necessary function of administrative approval, FTTC's primary mission is to facilitate and support the completion of forest tenure trade by providing related public services. FTTC should separate such services as forest resources asset evaluation, and forest tenure mortgage loans, etc.. from free public services provided by the government and let forestry agencies provide paid services for trading parties. On this basis, FTTC's organizations should be set up reasonably and its name should be unified.

(3) Implement network interconnection of FTTCs at the provincial, city, county, township and village levels and achieve the goal of forest tenure supply-demand information sharing.

(4) Truly fulfill financial discount policy for forest tenure mortgage loan. Actively promote the Forest Comprehensive Insurance sponsored by the government to disperse the risks of forest tenure mortgage loans so as to facilitate various patterns of forest tenure mortgage loans.

(5) Accelerate the urbanization process and migrate rural population so as to significantly reduce the man-land ratio within the forestry. It is the most effective way to reduce and even eliminate forest land fragmentation, promote forest tenure transferability and realize scale management forestry.

8.2 Improvement of forest tenure trade system including hardware and software

8.2.1 Software system

In order to achieve standardized management of certificate of forest tenure, Zhejiang Provincial Forestry Department consigned Zhejiang Forestry College to exploit Forest Tenure Information Management System in August, 2009. This system has been officially put into operation. This management system covers the following functions: offering and receiving Certificate of Forest Tenure, examining and endorsing Certificate of Forest Tenure, inquiring information relating to forest tenure, entry of forest tenure application and responsibility mountain contract.

This system can basically meet the need of daily management of forest tenure trade. For most counties, it is a big challenge for them to enter all information, especially the information of forest cadastre into the system as required.

The establishment and operation of Forest Tenure Information Management System provides fundamental conditions for forest tenure trade. However, it is still an internal system within forestry departments and does not open to trading parties (including forest farmers). In the future, functions of this system should be expanded and it should be opened to all trading parties of forest tenure trade. Even the whole process of forest tenure trade can be completed reliant on this platform.

8.2.2 Hardware system

In line with the application of above mentioned software system, FTTCs in pilot counties are equipped with computers, networks, printers, electronic display screens and other hardware facilities.

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
WP013C	安徽省林权交易中心研究报告
WP014C	福建省林权交易中心研究报告
WP015C	贵州省林权交易中心研究报告
WP016C	湖南省林权交易中心研究报告
WP017C	江西省林权交易中心研究报告
WP018C	浙江省林权交易中心研究报告
WP019E	Assessment of Forest Tenure Trade Centers in Anhui Province
WP020E	Assessment of Forest Tenure Trade Centers in Fujian Province
WP021E	Assessment of Forest Tenure Trade Centers in Guizhou Province
WP022E	Assessment of Forest Tenure Trade Centers in Hunan Province
WP023E	Assessment of Forest Tenure Trade Centers in Jiangxi Province
WP024E	Assessment of Forest Tenure Trade Centers 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/>