

Forest Tenure Transfer and Assessment of Dayi County

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Abstract According to analysis of basic situations and achievements of forest tenure transfer in Dayi County, this paper points out problems in the assessment of forest tenure transfer in Dayi County, including few specialized organizations and personnel of forest tenure transfer value assessment, outmoded forest tenure assessment operating specifications, low charges of forest tenure assessment, and weak awareness of forest tenure assessment. In line with these problems, it presents ideas of increasing specialized forest tenure assessment organization, strengthening training of specialized forest tenure assessment personnel, promoting guiding price of forest tenure transfer, and energetically developing forest tenure transfer market. It is hoped to promote development of forest tenure transfer in Dayi County.

Key words Dayi County, Forest tenure transfer, Assessment, Development recommendations

1 Introduction

The forest tenure transfer is the development trend and inevitable path for reform of China's forest tenure system. On the legal, voluntary and compensated principles, the transfer of forest land, use right and ownership is a legal property transaction action. The forest tenure transfer is an economic action of transferring ownership of forest and use right of forest land and woods to another party freely or with compensation within certain period on the condition of not changing the purpose of forest land and ownership of forest land and woods, in accordance with legal provisions through bidding, auction or agreement^[1]. Kong Fanbin *et al.* believe that government, market and farmers are three major problems to be focused on in the future collective forest tenure transfer^[2]. Zhan Hongde contends that relevant legislation should remove restrictions on transfer and mortgage to make the forest tenure transfer better suit demands of forestry economic development^[3]. Jiang Wenhu *et al.* consider that problems in the management of forest resource asset assessment have seriously obstructed development of relevant assessment industry^[4]. Fan Xibin *et al.* put forward and establish the triple forest tenure (forest land property right, wood property right and forest landscape property right) structure and triple forest tenure transfer system^[5]. Man Baizhong *et al.* point out that only wood assets have accounting condition in the accounting of forest resource assets and the specific implementation is unsatisfactory^[6]. In China, there are many researches on forest tenure transfer and value assessment, but most researches still remain at the theoretical analysis stage and do not provide meaningful guidance. Dayi County is a key forest reform county in Sichuan Province and also one of the top 100 counties of national forest tenure reform. With deepening of China's collective forest tenure re-

form and gradual improvement of forestry factory market, the smooth implementation of forest tenure transfer and assessment in Dayi County will play a more and more important role in its forestry production.

2 Basic situations of Dayi County

Dayi County, located in the western part of Chengdu plain, covers an area of 1 327 km² and has the population of 510 000. Dayi County has a total area of 8 557.45 hm², including 5 160.19 hm² forest land, accounting for 69% of the total area. In the forest land, wood land accounts for 80% (4 101.63 hm²); sparse wood land takes up 0.1% (18.99 hm²); shrub land 13% (633.63 hm²); young afforestation land 2% (62.43 hm²); seedling nursery land 0.00% (0.23 hm²); non-stocked land 6.9% (343.27 hm²). In the wood land, timber forest accounts for 85% (3 469.75 hm²), economic forest takes up 7% (278.69 hm²) and bamboo grove accounts for 8% (326.53 hm²). In August 2007, Dayi County was included into the pilot counties of collective forest tenure system reform by Sichuan Province and cities. The reform involves 12 townships, 88 villages, 1 116 communities, 28 300 forest farmer households, and 112 000 people. In the whole county, it made clear of collective forest tenure of 43 700 hm², registered 110 500 pieces of forest land, issued 50 700 copies of forest tenure certificates, concluded 25 830 contracts, and completed filing of 3 127 forest tenure files, realizing 95% of the rate of making clear right, rate of survey registration, rate of successful conciliation of conflicts, rate of issuing forest tenure certificate, and satisfaction of forest farmers.

3 Current situations of forest tenure transfer in Dayi County

3.1 Basic conditions of forest tenure transfer in Dayi County

To encourage farmers to transfer forest land in the way of not transferring the ownership, such as buying shares, cooperation and mortgage loan, Dayi County stipulates that the unit price of forest

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land transfer shall be not lower than the public welfare forest compensation standard. It has also issued *Measures for Management of Forest Tenure Transfer in Dayi County*, set up forest tenure transaction service platform, and handles the transfer registration. This is of great significance to promoting overall development of state-owned forest land and collective forest land. On August 1, 2008, Dayi County successfully held the auction of forest tenure transfer, which is the first time in Chengdu City. According to data of forest

tenure transfer in Dayi County, the one-time transfer with area up to 200 hm² only accounts for 5%, the one-time transfer with area less than 70 hm² accounts for 75%; the one-time transfer with period of 40 to 50 years takes up 22%, the one-time transfer with period shorter than 20 years takes up 29%; the transfer before 2009 accounts for 73.5%, as listed in Table 1. This indicates that most transfers happen before 2009, it is mainly small-scale transfer, and the transfer period is 10 to 50 years.

Table 1 Proportion of scaled transfer area

Item	Index	Area//10 ⁴ hm ²	Land//Pcs	Area proportion//%	Land proportion//%
Transfer scale	≥0.020 (10 ⁴ hm ²)	0.23	10	21.20	5.0
	0.007 - 0.020 (10 ⁴ hm ²)	0.47	40	43.12	20.0
	≤0.007 (10 ⁴ hm ²)	0.39	150	35.78	75.0
Transfer period	40 - 50 years	0.63	44	57.80	22.0
	30 - 40 years	0.23	36	21.20	18.0
	20 - 30 years	0.13	62	11.93	31.0
	< 20 years	0.10	58	9.17	29.0
Transfer stage	Before 2009	0.92	147	84.40	73.5
	After 2009	0.17	53	15.60	26.5

3.2 Achievements of forest tenure transfer in Dayi County

3.2.1 Great development of forest specialized cooperatives. Dayi County seriously implements supporting policies of forest reform. It has prepared *Zoning of Classified Operation of Forest, Ecological Tourism Planning, and Modern Forestry Development Model Park Planning*. For forest land with area larger than 66.67 hm², it allocates 2% construction land, to promote large scale, standardized and intensive operation of forestry. It plans to build 4 modern forestry model parks, to provide scientific basis for centralized development of forestry. Besides, it energetically develops specialized cooperatives. In Dayi County, 7 forest specialized cooperatives have been built, driving about 1 600 farmer households and operating forest land up to 2 000 hm².

3.2.2 Great development of economy in forest region. The forest reform speeds up transfer of forestry factors, strengthens forestry vigor, and expands autonomous management right of forest tenure holder. For example, Mou Lianghui, villager of Dayi County, returned hometown when suffered from global financial crisis. In October, 2008, branch secretary of the village told him that forest tenure certificate can be secured for loan, transferred and inherited in accordance with laws. Encouraged by the branch secretary, Mou Lianghui planted 7 000 cryptomeria seedlings on 2 hm² forest land contracted by his family. He estimated that the total value of these cryptomeria seedlings will be more than 160 000 yuan in 16 years later, which enhances his confidence of getting rich through developing forestry. At the same time, he planted elephant taro on his 1.33 hm² contracted forest land. The income was expected to reach 40 000 yuan in two years. In 2009, he transferred 26.67 hm² forest land of other villagers legally and organized more than 20 villagers to plant trees. Afforestation investment needs 5 250 yuan/hm², so 26.67 hm² needs investing 150 000 yuan, but 23.33 hm² fir trees can receive 1.8 million yuan profit. Calculating 16 years, the annual profit amount up to 110 000 yuan, which

is like a "green bank", so it is better than working outside. He also prepares to raise ecological chicken and green goose, which only provides manure for forest and increase cultivation income, but also absorbs more than 30 nearby farmers to work, achieving the objective of "finding jobs without leaving home and getting rich without cutting trees".

3.2.3 Significant improvement of farmers' living conditions. Bayi County has established management methods for collective construction land and centralized use, and procedures for land consolidation and afforestation of forest region, to guide forest farmers to reside in plain areas and improve their living conditions. The income of construction land in forest region is owned by land owners and mainly used for endowment insurance of forest farmers and compensation of ecological public welfare forest. The whole county has consolidated 63.27 hm² forest land, inspected and purchased construction land 49.73 hm², and built 15 centralized residential areas, involving 3 625 farmers (1 124 households), significantly improved farmers' living conditions.

3.2.4 Considerable increase of forest farmers' income from forestry development. Relying on location advantage of suburb of Chengdu City, Dayi County takes the opportunity of forest land transfer to energetically develop ecological tourism and under-forest crop cultivation and aquaculture. Xian Jianhong, Party branch secretary of Yujin Community of Jinxing Township, raises ecological wild chicken and plants elephant taro on contracted and rented 2 hm² forest land, realizing annual income of more than 200 000 yuan. It focuses on developing industrial forest and "three wood medicinal materials". The development of forestry leads to rise of wood-bamboo price for 100 yuan/m³. Consequently, the income from sales of commercial forest timber of the whole county in 2008 increased 5.7 million yuan over the previous year. Forest farmers' income increased 46.7 yuan per capita. In 2009, Bayi County realized the gross output value of forestry 650 million

yuan, forest farmers receive income of 685 yuan per capita from forestry, having an increase of 245 yuan compared with the previous year.

4 Existing problems in assessment of forest tenure transfer in Dayi County

4.1 Few specialized organizations and personnel of forest tenure transfer value assessment

Value assessment of forest tenure transfer in Sichuan Province started from 1994. At that time, over 20 organizations were engaged in the value assessment, including Forest Inventory and Planning Institute of Sichuan Forestry Department. With over 20 years of development, there is no increase of organizations. On the contrary, only 3 entities are engaged in this business, and all these 3 entities are located in Chengdu. Dayi County is situated in western area of Chengdu City, and it does not have its independent value assessment organization. What's worse, due to less development of economy, there are few offices or accounting firms engaged in assets assessment.

Table 2 Registration form for outturn of stand of near-mature, mature and over-mature forest

Class	Outturn of stand//%			Ratio of commercial timber production forest//%		
	Coniferous forest	Mixed coniferous broad leaved forest	Broad leaved forest	Coniferous forest	Mixed coniferous broad leaved forest	Broad leaved forest
1	> 70	> 60	> 50	> 90	> 80	> 70
2	50 - 69	40 - 59	30 - 49	70 - 89	60 - 79	45 - 69
3	< 50	< 40	< 30	< 70	< 60	< 45

4.3 Low charges of forest tenure assessment

Many provinces and cities have formulated and issued notice on charges of technical service of forestry. For example, Hunan Price Administration Bureau and Forestry Department issued *Notice on Matters about Charges of Technical Service of Forestry*, authorized 4 charging items, *i. e.* fee for assessing forest resource assets, fee for designing cutting operation of forest, fee for proving feasibility of expropriating forest land, and fee for technical assessment of forestry. In addition, it also makes clear method and criteria for charges for service items of assessment of forest tenure transfer. Specifically, business with assessment value below 1 million yuan (including), 1 to 5 million yuan, 5 to 10 million yuan, 10 to 50 million yuan, 50 to 100 million yuan, and above 100 million yuan will implement differential progressive standard rate of 0.50%, 0.25%, 0.20%, 0.08%, 0.03% and 0.008% respectively^[7]. Lechang City of Guangdong Province unified items and criteria of forestry technical service fees in accordance with *Reply to Matters about Charges of Technical Service of Forestry*, clearly specified items of forestry technical service fees: design fees for cutting operation: 10 yuan/m³, calculated as per actual outturn; timber inspection fee: 9 yuan/m³ with inspection error as per industrial provision. However, Bayi County still has neither such provision, nor criterion from price bureau and forestry department. Many assessment organizations only have travel fees, outside operation compensation and data fees, so it is hard to keep normal operation and not favorable for healthy development of the industry^[9].

Besides, most assets assessment people only have the qualification of assessing real estate, financial products and land, but no qualification of forest tenure value assessment^[11].

4.2 Outmoded forest tenure assessment operating specifications

Since there is no new operating specifications for forest tenure assessment, Dayi County always refers to relevant provisions in *Administrative Measures for State Owned Assets Assessment*, *Detailed Rules for the Implementation of the Administrative Measures for State Owned Assets Assessment*, *Technical Specifications for Assessment of Forest Resource Assets (for Trial Implementation)* and *Notice on Several Matters about Strengthening Management of Assessment of Forest Resource Assets*. These specifications have been formulated and implemented for a long time and some data are suitable for specific regions, so a lot of reference data do not satisfy the demand for assessing the value of forest tenure transfer. Besides, differences in climate, soil and management will also influence the objectiveness of assessment results in actual operation.

4.4 Weak awareness for assessing forest tenure transfer value

According to the notice of the Ministry of Finance and State Forestry Administration on issuing *Tentative Provisions on Management of Forest Resource Assets Assessment*, whether the non-state-owned forest assets should be assessed is determined by interested parties, unless otherwise specified by laws and regulations. However, in the actual transfer process, many forest farmers are unwilling to ask specialized organizations to assess their forest tenure value. There are two reasons for this: (1) the assessment of forest tenure transfer is a complex process and it needs a lot of preliminary works, so it will not be completed in short term; (2) the assessment will cost much^[10].

5 Recommendations for development of assessment of forest tenure transfer in Dayi County

5.1 Increasing specialized forest tenure assessment organizations

The *Tentative Provisions on Management of Forest Resource Assets Assessment* stipulates that the assessment of non-state-owned forest resource assets shall accord with relevant provisions of mortgage loan. For mortgage loan with amount above 1 million yuan, it shall entrust an organization with qualification certificate issued by financial department to make assessment; for mortgage loan with amount below 1 million yuan, it may entrust an organization with qualification certificate issued by financial department or forest resource survey, planning and design and forest scientific research and teaching institutes with third level (included) quali-

fication to provide consultant service or issue assessment consultancy report. Dayi County still has no special forest tenure transfer assessment organization, so all assessment businesses are carried out by assessment organizations from other places. Thus, it is necessary to set up independent assessment organization according to local conditions of Dayi County. Assessment of forest tenure transfer involves extensive and multiple point work and it is highly specialized, so the establishment of assessment organization should focus on technicians with forestry background, it is preferred to have qualification of accountant and asset appraisers. At the same time, it should strengthen the cooperation with local assets appraisal agency and accounting firm to realize mutual supplement with each other's advantages and promote the development of forest tenure transfer assessment^[8].

5.2 Strengthening training specialized forest tenure assessment personnel The *Tentative Provisions on Management of Forest Resource Assets Assessment* stipulates that personnel provided by forest resource survey, planning and design, forestry scientific research and teaching institutions should participate in training and follow-up education organized by the State Forestry Administration and China Appraisal Society. China already has perfect assets assessment qualification examination, generally involving corporate appraisal, stock right appraisal, land appraisal, and machinery equipment valuation. However, there is still no qualification examination special for forest tenure transfer value assessment. Thus, it is required to speed up establishing entrance examination system for forest tenure transfer assessment personnel, building a

specialized assessment team familiar with forest knowledge and assessment knowledge, and having professional qualification. Dayi County should send a certain number of personnel with forestry specialty above college level and technician title of forestry engineering to participate in training organized by the State Forestry Administration and China Appraisal Society, to make them obtain qualification of forest tenure transfer value assessment and change the current situation of "having institution but no person and having qualification but no business"^[7].

5.3 Promoting guiding price of forest tenure transfer The guiding price refers to reference base price of forest tenure transfer within the border of Dayi County according to altitude, site conditions, regions, and forest category. It does not include special conditions, such as gift and compensation. Since forest farmers' awareness for assessment is weak, they are generally unwilling to ask specialized assessment institution to make value assessment, but rather to make simple estimation. Consequently, their rights and interests may be harmed. In this situation, to protect farmers' rights and interests and regulate forest tenure transfer, it is recommended to promote guiding price. On the basis of handling of data about forest tenure transfer in Dayi County, guiding price is established according to different regions, forest land types and annual economic value in unit area (as listed in Table 3), which effectively promotes development of forest tenure transfer market. Therefore, it should establish objective and reasonable guiding price for forest tenure transfer.

Table 3 Guiding price for collective forest tenure transfer of Dayi County

Regions	Basic output value Yuan/(hm ² · a)	Land type	Proportion//%	Guiding price Yuan/(hm ² · a)
Mountain-side region	3 750	Wood land	12.0	450
		Shrub and sparse wood land	8.0	300
		Land suitable for forest	4.0	150
Hilly area	3 000	Wood land	10.0	300
		Shrub and sparse wood land	75	225
Land suitable for forest	4.0	120		
Mountain area	2 250	Wood land	10.0	225
		Shrub and sparse wood land	4.7	105
Land suitable for forest	2.7	60		

Note: timber price on market 400 yuan/m³ (not including land attachment).

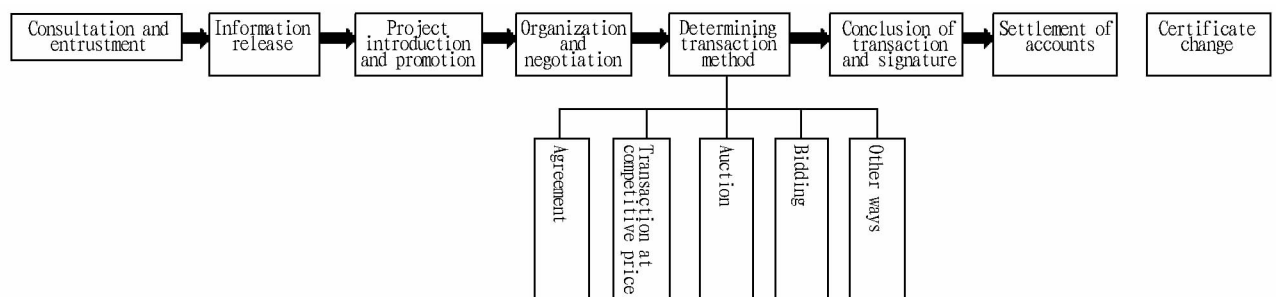


Fig. 1 Flow chart of forest tenure transaction

5.4 Energetically developing forest tenure transfer market

With issue of a series of policies on promoting forest tenure sys-

tem reform and speeding up developing modern forestry by central and local governments, the transfer of woods, forest land and for-

est resources surges forward. Forest tenure transfer market is an important capital financing market promoting forestry development. As early as 2008, Dayi County has set up its own forest property right transaction market, whose responsibilities mainly include: (1) managing registration, transfer and mortgage of woods and forest land in the whole city; (2) collecting and issuing information about forest tenure transfer, forest tenure certificate mortgage, and market transaction; (3) promoting flow of forestry production factors; (4) conducting forest tenure value assessment service; (5) organizing training and providing forestry sci-tech service; (6) providing advisory service of laws, regulations and policies on forestry. The complete transaction process is shown in Fig. 1. In addition, Dayi County should establish perfect application platform and promote policy financial cooperation. For example, Dayi County government takes the lead in signing cooperation agreement with State Development Bank and Agricultural Development Bank, then entrusts other local financial institutions to grant loans to middle and small undertakings and forest farmers.

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