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Beyond ‘Empty’ Forms of Formalization: The Credibility of A Renewed Attempt at Forest Titling in Southwest China

Abstract

Whereas the prospective benefits of formalization programs are well-understood and received, less attention has been placed on the feasibility of such actions. This paper studies titling under China’s Collective Forest Tenure Reform. We employ the Formal, Actual, and Targeted (FAT) Institutional Framework, based on the ‘credibility thesis’, to examine whether titling increases tenure credibility. To do so, we draw upon interviews and surveys collected in the Wuling Mountain Area (Southwest China), and compare *formal* policy objectives to households’ *targeted* (desired) preferences and *actual* forest rights. Our findings show divergences between formal and targeted versus actual rights. While titles were widely issued, socially supported, and farmers deemed boundaries and plot sizes clear, there is a paradox: (i) half of forest titles did not record boundaries; (ii) boundaries were not uniformly recorded; (iii) no on-site surveying had taken place; (iv) plot data were based on replicating older data, estimates, or averages; (v) titles had not been issued in contested areas; (vi) farmers had a weak legal understanding of ownership and lease rights. We argue that due to pressure from the central government to complete titling in five years, forest registration has emerged as an ‘empty institution’: an institutional compromise where spatial complexities were disregarded and neglected during implementation. Although seemingly credible at present, such outcomes of formalization bear the risk that future changes could easily dampen the reform’s institutional efforts and intentions.

Keywords: formalization; credibility thesis; empty institution; forest reform; FAT Framework; China

1. Introduction

Land titling programs have become increasingly popular as development policy. The main justification, as proposed by de Soto (2000), is that only legally recognized and well-defined rights can turn ‘dead’ capital into usable assets that are compatible with the market economy. Given that a formal title will provide for improved tenure security (Platteau, 1996), it has been argued that its possession will subsequently incentivize its holders to make more and better investments (Feder and Nishio, 1999). These outcomes are not only beneficial to titleholders but also translate into economic growth, larger tax revenues, and increased state legitimacy (Hirsch, 2011; Meyer and Rowan, 1977). Formal and well-defined tenure rights may also be necessary for land markets and environmental conservation programs (Cronkleton et al., 2017).

The above ideas have been met with acclaim by governments and multilateral organizations such as the World Bank and the International Monetary Fund (Broegaard, 2009). Accordingly, and often with the support of these organizations, a considerable drive at land formalization is witnessed in developing countries.¹ Also in China, significant efforts of titling (*quequan*, literally ‘rights confirmation’) have been undertaken, which were emphasized again in 2013 when the country announced far-reaching measures to reform its economy. China’s forest sector is no exception, and titling became most apparent during the announcement of the Collective Forest Tenure Reform (CFTR) in 2008. The reform called for the clarification and

¹ For example, in post-war Nicaragua (Broegaard, 2009), Sub-Saharan Africa (Abdulai, 2006), and Vietnam’s agriculture sector (Do and Iyer, 2008).

registration of forest rights, which are subsequently incorporated in a uniform, state-sanctioned forest title (*linquanzheng*). These efforts are seen as indispensable in catalyzing the proceeding phases of the reform, which entail the extension of farmers' rights to forests, including the right to transfer, inherit, and collateralize forest rights (Zhang et al., 2017).

With currently over one hundred million titles issued and 1.8 million km² of forestland registered (NFGA, 2019), the reform can be regarded as one of the most significant efforts in satisfying the nation's wider goals to improve rural livelihoods by protecting and strengthening households' rights to forests. This significance, together with the emergence of titling programs elsewhere, motivates a closer look at whether and how actions of formalization achieve their intended effects. This is important because previous studies have warned for the unintentional effects of titling. These range from inefficiencies to adversities, including policy failures, economic losses, social exclusion, conflicts, and environmentally destructive outcomes (see Putzel et al., 2015). Indeed, whereas the rationales for formalization are clear, much less is known about the conditions that drive its performance, and ultimately, its contribution to tenure arrangements.

In addressing this, our paper capitalizes on the recent advances made by the 'credibility thesis' (Ho, 2014, 2013). Its theoretical and methodological underpinnings of institutional functionalism and credibility are used to arrive at a better understanding and conceptualization of formalization. Specifically, the Formal, Actual, and Targeted (FAT) institutional framework is employed to analyze institutions and perceptions thereof along three dimensions (further explained in the following section). We will employ it in the analysis of forest titling, expecting it may lead to a more insightful understanding of formalization, and allowing it to be seen as a process unfolding over time, thereby revealing potential pitfalls which otherwise may remain unnoticed. We draw from empirical material consisting of household surveys and semi-structured interviews, collected in the Wuling Mountain Area, a relatively poor and mountainous area in Southwest China.

The next section introduces the theoretical concepts and the analytical framework of this study. Section 3 outlines China's forest titling efforts in more detail, focusing on the formal objectives laid out in the policy text. Section 4 describes the study's methodology and site of research, followed by the presentation of empirical results in Section 5. Findings are discussed in Section 6 before we conclude.

2. Understanding the performance of formalization

2.1 Unintentional outcomes and empty institutions

While the prospective benefits of formalization are well-understood on a theoretical basis, actions of formalization have also raised major objections by others. For titling, criticism has particularly problematized its use as a blueprint or institutional 'fix' for development (Cronkleton and Larson, 2015). Studies have pointed out that the intended social and economic objectives of titling in reality rarely occur (Benjaminsen et al., 2008; Loehr, 2012; Payne et al., 2009), and contrarily, warned that titling can create adversities such as gender inequalities, elite capture, and dispossession (Cousins et al., 2005; Jacoby and Minten, 2007). These adversities may occur because titling, as an institutional intervention, appears irreconcilable with the local context (Bromley 2008). In such cases, the responsible agencies are often inexperienced or have limited capacity to deal with the monumental task of land documentation and registration (Benjaminsen et al., 2008; Do and Iyer, 2008; Payne et al., 2009).

An imminent risk when considering these deficiencies, but one that has remained difficult to observe, is that titles are issued as a symbolic token that remains inconsistent with its stated objectives (Cronkleton and Larson, 2015). This is what has been described as an ‘empty’ institution’:

An institution that ‘embodies certain rules not yet widely accepted in society, but in such a manner that the newly created institution is generally ineffective’ (Ho, 2005, p. 73).

In this regard, the empty institution possesses three features that need to be considered. First, it often emerges as compromises over political issues that are sensitive (Ho, 2005, p. 73).² Put differently, “[t]he interests opposed to them ensure that they are established in such a way that they cannot achieve their aims, whereas the interests supporting them win a pyrrhic victory” (Ho, 2005, p. 73). Examples are the Norwegian Housemaid Law (Aubert, 1966), and more recently, Chinese mining institutions (Yang, 2018). Second, and closely related, it allows “those governing to enforce without enforcing, while those governed can continue what they did” (Ho, 2016b, p. 1145). Finally, it minimizes conflicts as the institution is socially accepted, little contested, and, in effect, credible (Ho, 2017)

It needs to be stressed that the empty institution is not necessarily ‘bad’ or in lack of credibility, and its role may actually render positive outcomes for actors involved. For instance, Yang (2018) finds that although mining laws and regulations are largely empty, they facilitated mineral extraction and, therefore, actually had a positive impact in stimulating local economic development. However, empty institutions may well shift towards non-credible, contested institutions when the delicate balance it strikes is broken, for instance, when more powerful, resource-rich or well-connected actors opt to strictly enforce them.

2.2 A functionalist and credibility perspective

To determine under what conditions land formalization achieves its intended effects – reflected in ‘credible’, ‘empty’, or ‘non-credible’ institutions – an analytical shift that goes beyond form is valuable. Deductive efforts have remained largely normative and deterministic, given its fixation on determining the ‘right’ form of institutions needed for development. Accompanying theories and models are found largely inadequate to explain why institutional interventions succeed or fail in achieving their intended effects (Aron, 2000; Grabel, 2000; Ho, 2014). As failures of formalization have become increasingly evident, an approach that investigates how institutions *function* over time and space, and how they interact with their embedded context, is welcomed. Worded differently:

Unraveling function beats remaining stuck on form (Mollinga, 2016, p. 3).

In this light, the mooted of the ‘credibility thesis’ (Ho, 2014, 2013) offers a useful framework. It posits that credibility – defined as the “collective expression of the functionality of institutions” (Ho, 2016a, p. 1125) – helps to explain and predict the engendering, evolution, and performance of institutions. Credibility is, in its very essence, not to be seen in binary or dichotomous terms,

² Put differently, “[t]he interests opposed to them ensure that they are established in such a way that they cannot achieve their aims, whereas the interests supporting them win a pyrrhic victory” (Ho, 2005, p. 73). Examples are the Norwegian Housemaid Law (Aubert, 1966) and Chinese mining institutions (Yang, 2018).

but as positioned on a *continuum*. As such, it is, at any given point in time and space, subject to the continuous and endogenous bargaining, interaction and conflict between socio-political actors and economic agents. By its focus on function, rather than form, the credibility concept becomes detached from normative notions about what is ‘good’ or ‘bad’ for development (Pils, 2016), or as explained by Miyamura (2016, p. 5):

[T]he credibility thesis contends that institutional analysis should refrain from passing moral, theoretical and political judgments on institutional forms.

Conceived in this way, the credibility concept allows us to critically examine formalization beyond the widely accepted notions of its form. Previous studies using the credibility thesis have looked at various institutional arrangements, such as slums (Zhang, 2018), extra-legal housing (Sun and Ho, 2018), and informal artisanal mining (Fold et al., 2018). The studies demonstrate that such arrangements may actually hold important functions for actors, offering an explanation to why seemingly ‘perverse’ institutions and phenomena persist.

The credibility thesis builds on the seminal work by Elinor Ostrom, and is in various ways complementary to her research. Whereas Ostrom (2009, 2005) sought to assess the conditions for the successful management of natural resources under different property regimes, not in the least as a commons, the credibility thesis examines the indicators with which credibility for the function of institutions can be measured. Apart from being complementary, both approaches also share marked similarities. For instance, they employ similar methodological perspectives, that is, multi-angulation of evidence, case-study research, in-depth qualitative analysis, and a general openness in terms of possible explanations and variables to be explored. In this endeavor, both point to the need to unpack property rights or “opening the black box of institutions” (Ho, 2016a, p. 1129) and move beyond the mere form of institutions in lieu of how they function. Moreover, both embrace a dynamic-evolutionary perspective, focusing on the multi-layered and complex interactions between socio-political actors, economic agents, and the actual outcomes produced in real times and real spaces, thus emphasizing the micro, meso, and macro conditions that determine a case under study.

2.3 Analytical framework: the Formal, Actual, and Targeted

In methodological terms, the credibility thesis relies on multiple sources of techniques and evidence (qualitative and quantitative) based on ‘multi-angulation’ (Ho, 2016a, pp. 1130–1). With these techniques, the credibility of institutions can be assessed by using various proxies, including, but not limited to, social conflict, endogenous transaction costs, and perceptions on institutional arrangements (Fan et al., 2019; McCawley and Celhay, 2020; Nor-Hisham and Ho, 2016). The latter furthers the existing research on the perceptions of property rights (van Gelder, 2013, 2010), more specifically through the development of a recent analytical tool: the Formal, Actual, and Targeted (FAT) Institutional Framework (Ho, 2016a, pp. 1133–4).

The framework is constructed along three dimensions (Figure 1): (i) *Formal*, rights which are formally intended and stated in policy texts; (ii) *Actual*, rights enjoyed in practice; and (iii) *Targeted*, rights desired by the targeted group of the intervention. By comparing and looking at the continuous and simultaneous interaction between the three dimensions (and their corresponding actors), the credibility and function of an institution can be determined. Close alignment of the three dimensions may indicate that the intervention is credible and has a higher

probability of fulfilling its expressed objectives, whereas misalignment between the dimensions may be indicative of non-credible or empty institutions.

It needs emphasis that the FAT framework – like the object of institutions it studies – is to be regarded and employed in a dynamic manner. Thus, the specific order in which the Formal, Actual and Targeted are analyzed is irrelevant, what is of importance is to carefully consider *each of the dimensions*. Moreover, the dynamic nature of the framework is underscored by the fact that institutional arrangements over time may shift in and out of different states of being (e.g., an actual right can be formalized, or vice versa, a formal right may shift towards being an actual right). Lastly, important is also – whenever possible – to include the aspect of time into the analysis through the contemplation of institutions at numerous time points: the proverbial t_1 , t_2 , and t_x (see Arvanitidis and Papagiannitsis, 2020; Nor-Hisham and Ho, 2016).

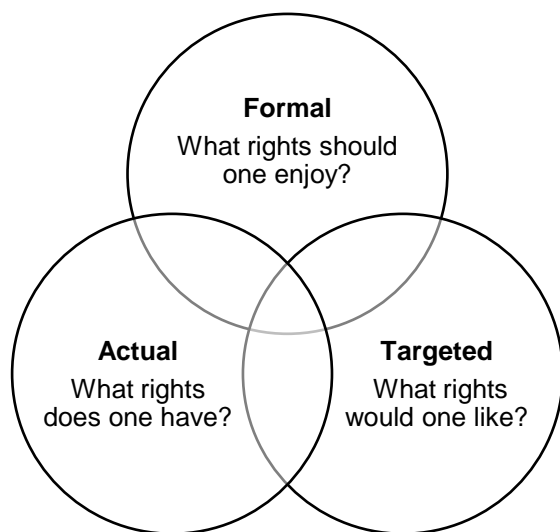


Figure 1 FAT Institutional Framework, adapted from Ho (2016a)

3. China's two rounds of forest reform

Well into the first decade of the twentieth-first century, about sixty percent of China's forests are collective-owned (with the remainder state-owned), distributed among the homes of roughly 400 million people (SFA 2010). This situation is markedly different from when the People's Republic of China was founded in 1949, where landlords owned and controlled most of China's forests. In the seven decades that followed, China's tenure arrangement experienced multiple far-reaching changes (Wang et al., 2008). Under the leadership of Mao, the first radical shift occurred between 1950 and 1980 when most of China's forests were confiscated from private owners, nationalized, and subsequently distributed to newly-established communes or collectives (Salant and Yu, 2016). This constellation remained intact until a new form of land tenure was introduced when China entered its reform era in 1978, following which the forest sector has witnessed two rounds of reform: (i) the Three Fixes policy, and (ii) the Collective Forest Tenure Reform. As discussed below, both rounds have called for the formalization of China's forests.

3.1 The Three Fixes policy

The success of leasing (termed 'contracting' or *chengbao* in Chinese) small plots of land to households in the agriculture sector, popularly known as the Household Contract Responsibility System (HCRS), motivated similar initiatives in the forestry sector (Holden et al., 2013). In

1981, the State Council launched the Three Fixes policy (*san guding*) to transfer the responsibilities of forest management to households. The policy addressed three ‘fixes’: i) clarifying forest rights; ii) delineating private forest plots, and iii) establishing an HCRS for forests (Liu and Dachang, 2001; Xie et al., 2016). It meant that forest use-rights became separated from ownership, private plots (*ziliushan*) were titled, and accordingly contracted for a fixed period between collectives and households.

Within five years after implementation, nearly seventy percent of collective forests had been contracted or leased to households (Xu and Jiang, 2009). However, in stark contrast with the favorable outcomes in the agriculture sector, the HCRS in the forest sector led to low revenues and poor management (Holden et al., 2013). In other places, the actual control of forests was held by villages, and stipulated redistribution only appeared on paper (Xie et al., 2016). The adverse outcomes led to the suspension and partial reversal of the reform in the following years (Holden et al., 2013; Xie et al., 2016).

Observers have commented that failures and inconsistencies in the first round of reform resulted from the state’s inadvertent approach, coupled to weak economic capacity and a lack of prior experience in forest reform (Yin et al. 2003; Liu & Yao 2011). In turn, it generated issues in China’s tenure arrangement that have persisted in subsequent decades. Ho (2006) stressed the high incidence of conflicts at the local level, authorities with overlapping mandates, and ambiguous policies, while others have pointed to high levels of deforestation (Shen et al., 2009). Furthermore, while the Three Fixes policy created many smallholders in a short period (Xu, 2010), discontinuities in policy implementation disrupted the flow of financial and technical resources needed for demarcation and registration purposes (Yin et al., 2013), as a result of which boundaries remained unclear and contested (Liu and Edmunds, 2003; Zhang et al., 2017).

3.2 The Collective Forest Tenure Reform

Forest titling regained momentum in the early 2000s when Fujian province approved a measure that closely resembled the core principles of the Three Fixes policy (Xu, 2010), which was soon followed by other provinces (Li et al., 2013). The measure ultimately triggered a new round of forest reform, and in 2008, the Central Committee of the Communist Party of China and the State Council issued a joint document that has become known as the Collective Forest Tenure Reform (CFTR). The timing of the reform coincides with China’s recent push for formalization and unified titling of all land resources (Zhan, 2019).

The CFTR targets to grant households greater rights and autonomy over forests, with the underlying rationale that this allows for more individual economic benefits and incentives. The reform has also been linked with state objectives of forest conservation and restoration, and a market for forests (Cronkleton et al., 2017; Siikamäki et al., 2015). As a precondition to these objectives, the first phase of the reform aims to strengthen forest tenure by clarification and formalization, and issue of a new and uniform forest title to households. Within the prescribed period of five years, many provinces felt considerable pressure to undertake considerable efforts in implementing the reform, and to date, over one hundred million titles have been issued covering 97.65% of China’s total collective-owned forests (Economic Daily, 2017; NFGA 2019; Shue, 2018).

The majority of empirical studies have focused on the immediate effects of the reform, and have associated it with improved tenure security (Holden et al., 2013; Qin et al., 2011; Song

and Cannon, 2011), and increased market participation together with income and investment increments (Shen et al., 2009; Siikamäki et al., 2015; Xie et al., 2014). Fewer studies have, however, looked at the more structural efforts of forest titling and its implementation. Studies by Liu et al. (2016) and Yin et al. (2013, p. 535) point to several weaknesses in the titling process, including the “lack of flexibility and creativity” and hasty implementation. Liu et al. (2017) provide evidence to the latter and find that only 23 percent of the surveyed plots have a corresponding title. Luo et al. (2015, p. 167) assert that major inconsistencies remain between national policies and local practice systems, and local actors have “deconstructed” the main policy text, including criteria for distribution and tenure titles. At the same time, little is known how the reform’s endeavors are aligned with farmers’ needs and preferences, as aptly noted by Qin et al. (2011, p. 473):

[R]esearchers and policymakers tend to ignore a key question: what do forest farmers really want from the reform?

This is the area in which our study aspires to make a significant contribution.

4. Study area and methods

Whereas Section 2 called for an analytical shift towards the function of credibility of institutional interventions, the previous section showed that also for China’s recent titling efforts households’ needs and interests are often excluded from analyses. Considering titling as a cornerstone to (future) forest reform, it is pivotal to look at how titling is carried out, and importantly, how it has aligned with the perceptions and interests of local actors. This motivates an empirical approach, explained below.

4.1 Study area and selected counties

This study is empirically situated in the Wuling Mountain Area (WMA). The area stretches over four provincial-level administrations – Chongqing, Hubei, Hunan, and Guizhou – and includes 71 counties. The area has a size of 172.000 km², roughly the same size as Cambodia, with three-quarters of its 36.5 million people living in rural areas (State Council 2011). The population is characterized by a high proportion of ethnic minorities and relatively low income levels (State Council 2011). WMA has a warm to subtropical climate, and several main rivers run through the area, including the Yangtze River. More than half of the area’s surface is covered by forests, including some of China’s last remaining natural forests, placing the WMA as an integral part of China’s subtropical ecosystem.

Previous studies on the CFTR have focused on key forested areas or places where the reform was initially introduced (e.g., Yunnan, Fujian, and Jiangxi). Much less is known about the areas where the implementation started later, including the four provinces in the WMA that feature dominant collective-owned forest sectors (at least 90% of forests are collective-owned).³ As made clear in the previous section, forest reforms in China tend to show varied

³ Chongqing (91.9%), Guizhou (96.3%), Hubei (92.1%) and Hunan (94.6%), according to the eight and most recent inventory of the State Forestry Administration (2012, 2010b, 2009)

outcomes across space.⁴ Because the WMA stretches over various administrative domains, it is possible to account for different implementation experiences beyond province and county borders. We performed cluster sampling where for every province two counties were selected (totaling eight counties), which are distributed across varying terrains in the WMA.⁵

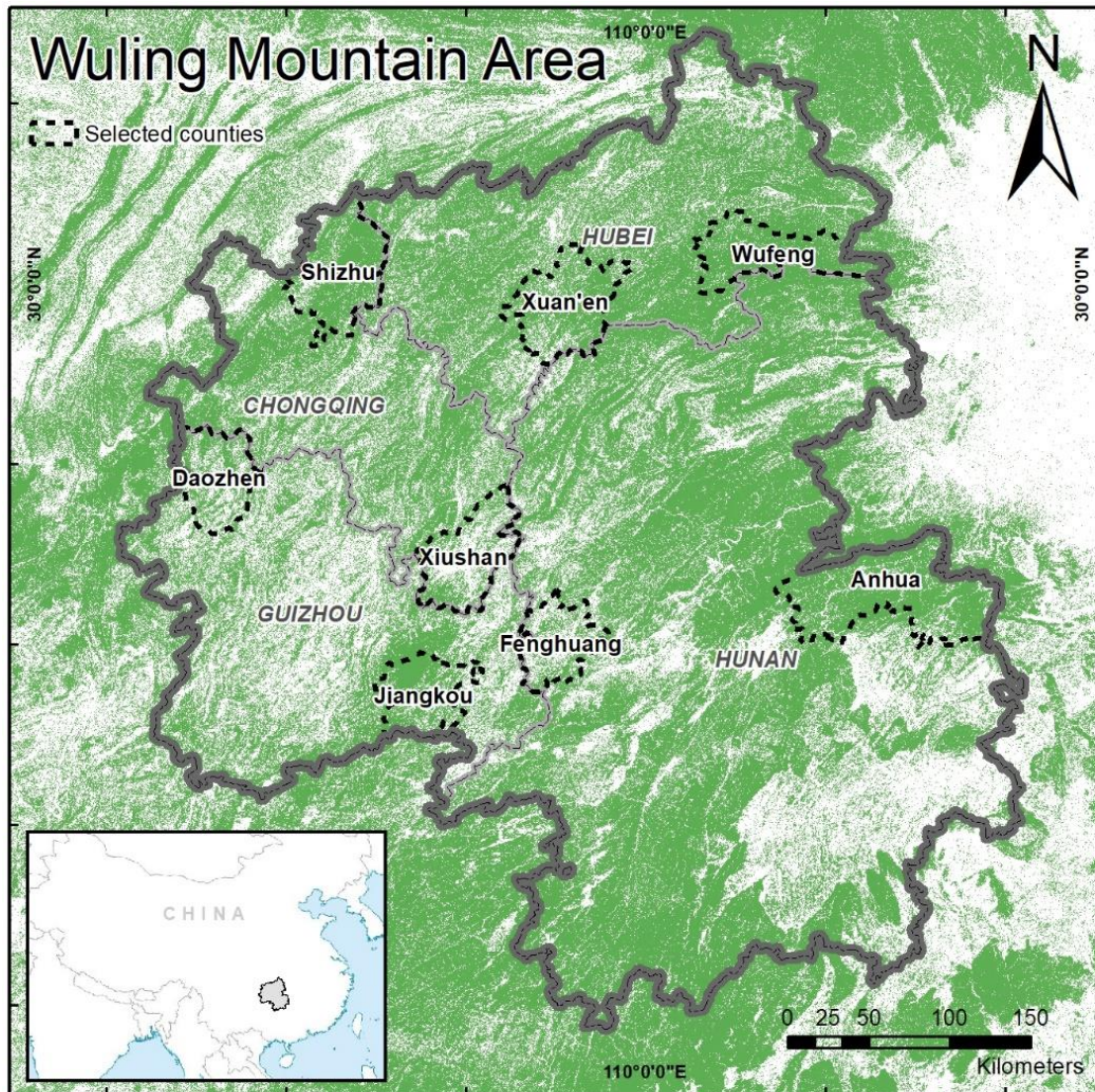


Figure 2 Wuling Mountain Area: forest cover and selected counties

4.2 Sampling frame and data collection

Three main data sources were used. Our primary source is a household survey (N=331), which was first pre-tested during a pilot study in early 2017 with 47 households in two-centrally located counties (Xiushan and Fenghuang). After careful review, a full survey was conducted in Fall 2017 with tablets using the EpiCollect5 application (version 1.1.4) that also logged GPS coordinates for every survey. Due to illiteracy amongst farmers, all surveys were conducted in-person, carried out by a research team of Chinese assistants led by the main author.

⁴ There are considerable provincial variations depending on the extent to which the Three Fixes policy was carried out. In the WMA much of the collective-owned forests were already leased to households in the 1980s, and therefore, the magnitude of the reform is most evident in the distribution of new forest titles.

⁵ The sample includes counties with comparatively high or low tree cover (Shizhu, Wufeng, Xiushan), high tree gain or loss (Anhua, Fenghuang), and presence of intact forests (Jiangkou, Xuan'en, Daozhen).

With the absence of an accessible sampling frame (such as a household register) and the difficulties to create one, a household-to-household convenience sampling method was chosen. We aimed to collect five surveys per village, with about ten villages per county (totaling 40 to 50 surveys per county). We deliberately kept the number of surveys per village low, not only because data saturation tended to occur at this point, but also to reduce bias towards larger villages (small village sizes and outmigration made it difficult to find more than five respondents). While the survey sample is non-representative, we aimed to enhance representation by visiting different and random villages within each county (with varying attributes such as proximity to urban centers, location in mountainous terrains, accessibility of roads, etc.). Table 1 features the basic characteristics of our survey, which resembles some distinct features of China's rural population – including an aging population, a high dependency on (subsistence) farming, and the relative few years of education for rural households.

The household survey was complemented with qualitative insights derived from our second source of data, which consists of semi-structured interviews with stakeholders (N=29). Complementing quantitative data from the survey with qualitative insights, generally known as the mixed-methods approach, not only improves the robustness and validity of our findings (Creswell, 2003), but is also considered necessary to account for the other dimensions of the FAT Framework. Because county-level bureaus of the State Forestry Administration (SFA)⁶ are mainly responsible for the implementation of the reform, semi-structured interviews were conducted with at least one representative in every county (totaling 14). We further validated and triangulated officials' claims through a small number of purposely-selected interviews with local leaders or cadres (9) and tenure experts (6). In addition, over 30 tenure certificates were inspected and archived during fieldwork.

While the above may provide a sufficient basis from which the Actual and Targeted can be understood, our third source consists of a range of officials documents (including policy texts, related laws, official reports) to account for the Formal. Taken together, the mixed-methods approach and the three sources of data enables us to interpret our findings according to different interest groups (Nor-Hisham and Ho, 2016), which each have their own role in the titling process. For our exercise, three main stakeholders can be identified: (i) central authorities (as 'initiators'); (ii) local officials (as 'implementers'); and (iii) farmers (as 'beneficiaries').

Table 1 Basic sample features

N = 331	In % valid
Gender	
<i>Male respondents</i>	61.3
<i>Female respondents</i>	38.7
Occupation	
<i>Farmer</i>	91.0
<i>Other</i>	9.0
Education	
<i>Illiterate</i>	19.3
<i>Elementary</i>	51.7

⁶ Note that on April 10, 2018 this name was changed to State Forestry and Grassland Administration (SFGA). However, during fieldwork in 2017 we spoke with officials from the SFA, and to avoid confusion, the term SFA is used except stated otherwise.

<i>Junior high</i>	21.5
<i>High school</i>	6.5
<i>University</i>	0.9

5. Results

This part begins by stating the formal objectives of titling in a historical perspective (Formal, Section 5.1). These are then empirically compared, by looking first at how such actions have been carried out (Actual, Section 5.2), and then how they have become perceived by relevant actors at the local level (Targeted, Section 5.2). With a full understanding of the three dimensions, some impacts of the titling outcomes are shown in Section 5.4.

5.1 Formal: a renewed attempt at forest titling

Recalling from Section 3, notions of forest titling became first apparent during the Three Fixes policy. Coinciding with the allocation of forest rights to individuals, and the installment of the household contract responsibility system, it was stipulated that:

Forest certificates will be issued by the people's government at or above the county level to ensure the ownership remains unchanged. Party committees and people's governments at all levels must make the arrangements as soon as possible and organize their efforts to complete this work before next Spring Festival. (Article 1, CPC Central Committee and State Council, 1981).

Not much later, titling also was included China's Forestry Law in 1984 (and later reiterated in its 1998 amended version).⁷ However, the Three Fixes policy was carried out unevenly and although significant efforts of titling were made, a report by the State Council (1989) observed that progress had ceased in most places since 1985. Then around 2003, coinciding with experiments in Fujian province, titling again appeared on the agenda of forest reform when the 'Decision on Accelerating Forestry Development' was released by the Central Committee and State Council (2003). The title's importance now became more closely associated with the transfer of forests rights, and it was stressed that:

If the forest certificate has not been issued, it shall be issued as soon as possible. (Article 5, CPC Central Committee and State Council (2003)).

With the initial results of the titling efforts that ensued in various places, in 2008, forest titling became a major component of the CFTR. It promoted titling on a national scale and provided detailed guidelines for its implementation:

After the contracted parties are established, it is necessary to conduct *on-the-spot demarcation* and *registration* according to law, and issue a *complete, unified, nationwide forest certificate*. Registration should be fully specified, based on accurate data with consistent maps, tables, and booklets that match with the owner and parcel. The

⁷ The law specifically states that "[t]he forests, trees, and forest land owned by the State and collectives, as well as the trees owned and forest land used by individuals, shall be registered with the local people's governments at or above the county level, which shall issue certificates to confirm such ownership or right of use" (Article 4, Forestry Law of the People's Republic of China, 1984).

relevant forest authorities [...] must clarify the forest rights, and undertake the registration of forest rights, the issuance of certificates, the management of archives, the management of transfers, the arbitration and mediation of forest rights disputes. (Article 9, CPC Central Committee and State Council, 2008, italics added).

From the above, it is clear that formal objectives not only call for distribution of titles, but also for on-site clarification and verification of tenure rights. After rights have been confirmed, new and uniform forest titles must be issued to its respective holders. The new forest titles include detailed information considering the parcels' location, size, type of trees, tenure term, and specific boundaries. The policy text further stipulates that forest rights that are disputed must also be mediated, before a new title may be issued. The authorities responsible for implementation, in most cases the State Forestry Administration at the county-level, are given five years to complete the reform.

5.2 Actual: Registration without surveying and clarification

We begin our empirical inquiry with the Actual to scrutinize how the formal objectives of titling have been carried out. Starting with the titling rate, local officials admit that not every household received a title, but that titles have been issued to at least 90% of eligible households in their administration. Although the survey results point to a figure that is lower, they confirm that 75.6% of households under individual management currently possess a forest title. However, not all titles are derived from the recent reform, and titling is subjected to variation between the counties (Table 2).⁸ In two counties (FH, JK), only one-third of households possessed a title, but those were titles distributed in the 1980s.⁹ In five counties (AH, SZ, WF, XS, XE) it could be established that the reform was implemented and that the new title was distributed to 84.0% to 92.1% of all observed households.¹⁰ Given that we are mainly interested in the new title distributed under the CFTR, the remainder of this section will focus on these five countries.

Table 2 Title distribution in the WMA

	Total	Chongqing		Hubei		Hunan		Guizhou*
		SZ	XS	WF	XE	AH	FH	JK
Total respondents (N=331)	331	40	50	48	44	50	47	47
Under individual management**	291	38	48	46	42	50	47	17

⁸ Minor county variations in the stipulated lease term were also found. The lease term in the title is extended to 70 years, and most places have set the expiration date at 70 years from the date of issue (expiring around 2079) except from one county (AH) where the date of issue was set at the time of the initial distribution in the early 1980s (expiring around 2054). In another county, (WF) the duration was set at 'long' (*chang qi*), which according to the interviewed responsible authorities means indefinite.

⁹ Note that one of the respective forest bureaus maintained that the reform has been implemented in their administration, acknowledging that only a small number of households did not receive a title yet. In the other county, officials admitted that the reform had not been fully implemented yet.

¹⁰ Confirming the possession of the new certificate is not a straightforward task. Respondents were always asked to show their document, but if this was not possible, a copy of the title front cover was shown to confirm one's possession. Follow-up questions were asked regarding the year of issuance and the lease term. Yet, farmers would frequently confuse the certificate with the red-colored agriculture certificate, or mistake it with another forest document. In other cases farmers forgot about the certificate and provided conflicting answers. It was therefore not always possible to get a definite answer. Confirmation is based on aggregate answers, certificate inspections, and officials' claims. Note that Daozhen (DZ) is not considered due to an insufficient number of valid surveys.

Titling rate (in %, N=280)	75.6	92.1	85.1	84.4	85.0	84.0	36.6	33.3
Period of issuance (in %, N=189)								
<i>During Three Fixes</i>	14.0	3.7	5.3	13.8	9.4	0.0	91.7	***
<i>Between both rounds</i>	13.4	7.4	2.6	20.7	15.6	24.4	8.3	***
<i>During CFTR</i>	72.6	88.9	92.1	65.5	75.0	75.6	0.0	***

* Daozhen (Guizhou) is not individually displayed due to a low number (<10) of valid surveys

** Only those under individual management are eligible for a title

*** The absolute number of valid surveys is too low for percentages

In spite of the high titling rate in their administration, officials from the five county bureaus acknowledged that in most places no actual on-site surveying and investigation had occurred (Table 3). Instead, information from older titles was reproduced in the new document, without further clarification or verification. These practices were also confirmed in the open-questions of the survey, and some households indicated the recorded size on their title is arbitrary because this was estimated by authorities ‘from the office’ or they were instructed to estimate the size of their plots themselves. In other cases, village leaders – also unaware of individual parcel sizes – would ‘calculate’ individual plot sizes by dividing the total size of the collective by the number of plots. As such, some farmers admitted that they do not possess as much land as what is formally recorded. In one specific case, the recorded size was even 30 mu while the household estimated to have only one-tenth of that.¹¹ In contrast, other households stated that the size in the title was underestimated.¹²

Table 3 Interview highlights with county officials

County	Highlights
AH	<ul style="list-style-type: none"> - Registration based on 1980s situation - Registered size is according to villagers’ estimation, only boundaries are confirmed - At least 90% issued - Implementation took about one year
SZ	<ul style="list-style-type: none"> - Registration was based on 1983 forest title - The task of registration was too heavy, many people working outside. Most villagers do not know the actual size, and in some villages, distribution was based on trees - Young people do not know the plot size and boundaries - At least 90% issued - Some conflicts remain, no title issued
WF	<ul style="list-style-type: none"> - Distributed in 2004, officially announced in 2002 - Based on the situation of 1981-1987 - Only one to two percent does not have a new title yet - Financial resources and staff were too limited for realistic implementation, no on-site verification
XE	<ul style="list-style-type: none"> - Young people not aware of boundaries - Some workers did just register based on the original title, or recorded more for friends - The reform started in 2009
XS	<ul style="list-style-type: none"> - Boundaries not clarified because there are too many small plots so the workload would be very high - No on-site verification was performed due to the “hurried pace” of the reform - Resources were sufficient - For about 181.000 households only 1.000 did not receive a title yet

In spite of national standards for boundaries based on GPS coordinates, there is a marked variation of how boundaries were recorded in the new titles (Figure 2). Three main types were identified: a) titles with hand-drawn or digital boundaries, sometimes based on older maps; b) titles in which only the larger plot of land that belongs to the collective is recorded; and c) titles with boundaries that are only described in text and combined with unclear and abstract

¹¹ Traditional measurement unit, 1 mu equals 1/15 ha.

¹² A county official mentioned that during the initial distribution in the 1980s, villagers would have to pay taxes over their land, which motivated some to under-report their actual plot sizes.

illustrations. Most commonly the latter two types of registration were opted for because the full demarcation of individual boundaries was deemed a too heavy task by officials:

Here every family may have three to five plots, so the size is small. The workload will be high if you want to record it on a map. (B.002, Head of county forest reform bureau, January 23, 2017).

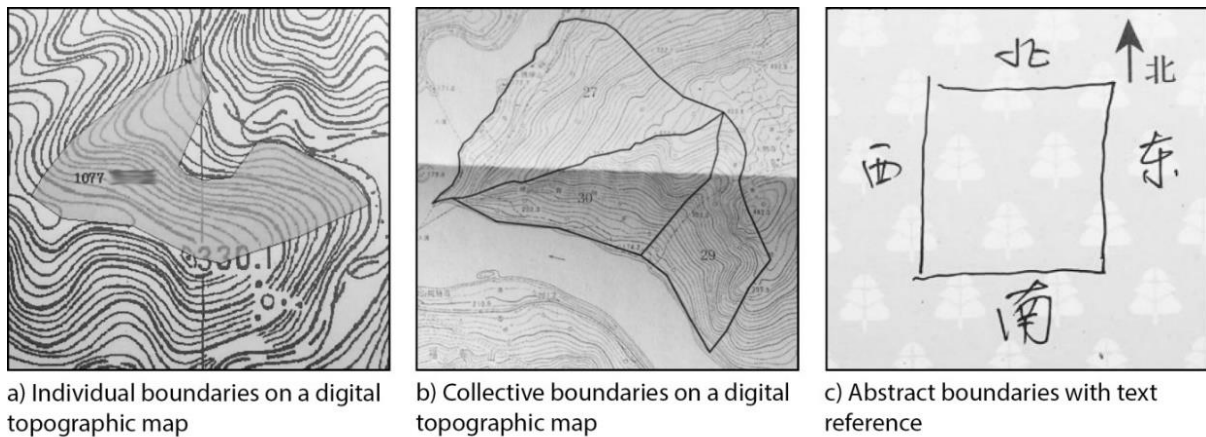


Figure 2 County variations in boundary demarcation (source: archived fieldwork certificates)

The high workload and difficulties of forest clarification stem from factors that are both spatially- and historically-determined. Officials and local leaders argued that during the Three Fixes period, the concept of boundaries was not prevalent. Parcels were initially distributed by ‘pointing the finger’ (*zhishou wei jie*), with the understanding of boundaries based on natural objects such as ditches, trees, and rocks. While these demarcations have remained unchanged in most cases, constant changes in the landscape such as tree growth, have made the boundaries more obscure. Compared to farmland – which is usually situated near villages with structured boundaries due to cultivation – forests in the WMA are mostly located in mountainous areas and more remote from roads and villages, making boundary and size clarification an arduous task. Currently, nearly half of the surveyed parcels have no clear physical boundaries (49.8%), or only natural boundaries such as rocks and ditches (43.0%). Only a small fraction of plots include physical confines such as fences (7.1%).

Not only were there difficulties in clarification, but registration was also carried out via diverse methods and parameters. The initial distribution in the 1980s was based on household size. To guarantee fairness and avoid distributional conflict, villagers would receive different parcels with varying types and qualities of trees, giving way to a fragmented land structure. Also in this study’s sample, households have on average 3.2 forest parcels with each an average size of only 5.5 mu (about one-third of a hectare). Moreover, the number of parcels vary significantly, and in one particular case, one family had no less than 26 plots. Demographical changes further complicated the forest tenure arrangement, as families have often extended or separated into smaller units over time, and it is common that land is shared between multiple households. In other villages, farmers did not receive individual parcels but were instead allocated an equal amount of trees on the same parcel, causing further issues for unified registration:

They did not divide it according to the area of the forest, but according to the trees: “these two trees are yours, these two trees are his”. In a situation like this, how can

you do titling? This is a big problem. (D.006B, Forest reform officer, September 21, 2017).

Another common issue was that during the registration process many households were not at home. In this survey, about one out of four household members have permanently migrated elsewhere (*da gong*), and local leaders were therefore unable to confirm the information. The interviewees further indicated that in other instances, households were not sufficiently informed about the reform, would disagree with the information in the document, or would not see the need to apply for the new title. In these cases, titles would not be distributed to the household.

A final and more sensitive barrier to implementation is the prevalence of forest conflicts. In accordance with the main policy text, titles would only be issued after a prevailing conflict over forests is resolved. The observed case of one township in Hunan – where the new titles are not distributed yet – illustrates the complexities of titling vis-à-vis conflicts. Various local leaders conceded that titles in the local administration had been delivered to their office in 2011, but that the titles have yet to be distributed as of the survey date (September 2017). They were instructed by higher authorities to delay the issuance of the document, over concerns that its distribution would spark new conflicts as happened in the pilot area. One of the leaders reasoned that in the absence of the new title, forest boundaries and size are deemed less crucial by households. However, once these aspects are formalized and recorded, many farmers will readily object. This observation is particularly evident in cases where farmers oppose the practices of unequal distribution during the 1980s, where some leaders distributed larger and more profitable plots of land to themselves or relatives. Those practices are still widely perceived as unjustifiable by villagers, and formalization of such would risk legitimizing past decisions and fuel new contestations. As the example illustrates, without a new title, the status quo is preserved without further escalation.

In dealing with the abovementioned complexities, authorities lament that these were not taken into account by central leaders and that the situation was exacerbated by the expeditiousness of the reform. Most county officials bemoan the fact that financial resources were insufficient, together with a lack of staff members to assist in the clarification process:

At that time the government required that every parcel should be registered. But for the registration of every parcel, the human and financial resources could not be warranted. The timeframe is tight, the date is approaching, there is no way but to replace it according to the previous certificate. Strictly speaking, in the process of change, we should go back to measure the four boundaries again. (D.005, Head of county forest reform bureau, September 18, 2017).

5.3 Targeted: perceived support of titling

In spite of the local complexities that surround titling, as made clear in the previous section, the Formal show that the initiatives of the reform are largely supported by authorities at the local level. Interviewed representatives from the county forest bureaus attach great importance to the new title. All emphasized that to establish a market for forestry, the document is a necessary constituent. Even though market demand for forests may be lower in mountainous areas, the title is perceived as a critical element to developing China's forest sector:

If I look at it now, we can see its significance for the country. With the document, you can enter the market, allowing it for circulation, transfer, leasing, which is conducive to the development of forestry. (D.005, Forest reform officer, September 18, 2017).

Furthermore, it is maintained that the title helps to increase awareness among the farmers of their rights, and improving tenure security. This is closely tied to the legal function of the title, which has been argued to help resolve conflicts:

The forest title is very important, it is the only proof of peasants' property. Without a title, how do you prove the forest is yours? (D.011, Forest reform officer, October 16, 2017).

At the same time, local authorities argued that not many economic benefits are derived from household forests, and therefore the delineation of boundaries and estimation of size is not prioritized or considered necessary, with the costs of clarification outweighing the prospective benefits.

Similarly, despite the absence of clear confines on forest parcels, most farmers maintain that the demarcations (79.9%) and plot sizes (66.3%) of their forest parcels are clear. At the same time, even when boundaries are considered unclear, it is not considered an issue by most farmers (83.1%). Actions of titling were also largely supported by households (Figure 3). For those with a title, a large group (82.4%) perceive it as important. Whereas authorities stress its role for forest transfer, most households (69.8%) acknowledge the title's prime function as evidence for their rights (Figure 4). Others feel that the title is important in the case of a conflict (34.9%), or feel that the title helps to protect rights (31.9%). In close relation, most respondents are confident that the forest certificate has a strong legal function, as nearly all agree (95.0%) that the document is well-protected by law. Given the high perceived importance among households, it is therefore not surprising that for those without a certificate, 60.0% express an interest in receiving one.

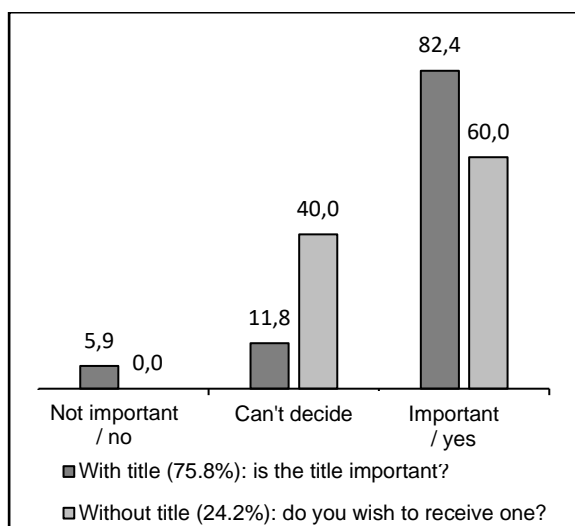


Figure 3 Title importance by households with forests

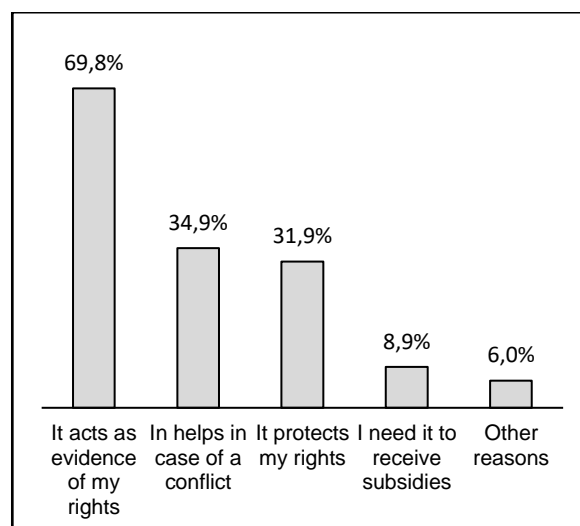


Figure 4 Reasons for title importance by titleholders

5.4 Titling outcomes and implications

So far, we have seen that the Actual has been constrained due to complexities at the local level, and hence, the lack of on-site surveying, clarification, and verification did not occur in most

places. Although the Targeted showed that this has not led to increased concerns amongst farmers who still valued the title, the implications of such nonconforming practices still need further exploration in our query whether and how titling increases tenure credibility.

As a first step, we assess the impact of the titling outcomes by comparing the group of new tile holders with a (small) group still possessing the title distributed in the 1980s. Here, bivariate analyses using cross-tabulations were performed (Table 4). Hypothetically, and in accordance with the formal stipulations of the reform, we may assume that the new title (compared to the old title) has made boundaries and parcel sizes clearer (I1-I2); provide more correct (and updated) information to rights holders (I3); and which may therefore also result in: higher rights' awareness (I4) and an increased sense of protection (I5). Our comparison, supported by the Fischer's Exact test (for associations within the non-representative sample), indicate that none of the expected changes have occurred. Contrarily, except for clearer plot sizes (I2), the analysis actually suggests a negative relation between the new titles and expected outcomes. For example, boundaries (I1) tend to be perceived as less clear by those with a *new* title.

In addition, households with a new title were asked directly as to what impact the new title has brought about. Also here, the results show no evidence that the reform has changed or clarified the rights of titleholders. Only few agreed that the reform has led to clarification of rights (4.3% agreed), clarification of boundaries (16.5%), income increments (10.6%), and enhanced investment incentives (9.6%). Closely related, because the new title has not clarified rights, households have remained unaware of their stipulated rights. Most strikingly, of those with a new title, only 27.0% recognize collectives as the rightful owners of forest, and only 39.1% correctly understood that the lease term is 70 years.

Table 4 Comparison between groups of title holders

		Boundaries clear (I1)		Size clear (I2)		Correct information (I3)		Rights awareness* (I4)		Title well-protected (I5)	
		No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
With old title (Code 0) (N=27)	Count	2	25	10	15	2	21	16	11	1	24
	%	7.4%	92.6%	40.0%	60.0%	8.7%	91.3%	59.3%	40.7%	4.0%	96.0%
With new title (Code 1) (N=114)**	Count	26	89	36	79	22	78	84	31	8	104
	%	22.6%	77.4%	31.3%	68.7%	22.0%	78.0%	73.0%	27.0%	7.1%	92.9%
Total	Count	28	114	46	94	24	99	100	42	9	128
	%	19.7%	80.3%	32.9%	67.1%	19.5%	80.5%	70.4%	29.6%	6.6%	93.4%
Direction		Negative		Positive		Negative		Negative		Negative	
Fischer's Exact test (2-sided)		0.105		0.482		0.241		0.167		1	
Fischer's Exact test (1-sided)		0.057		0.270		0.119		0.121		0.485	

* = Assessed based on knowledge of rightful owner of forestland (if answered 'collective' = 1, other = 0)

** = Only respondents that were able to demonstrate the possession of the new title were selected

With relatively high rights' unawareness coupled with ambiguously recorded boundaries, the reform was also implemented relatively frictionless. Although invalid and overlapping land claims have remained unnoticed during and after implementation, they may become more noticeable with the advent of concurring events. To illustrate, two examples point to the vulnerabilities that have remained after the reform has been implemented. In WMA, payment for ecological services (PES) programs were introduced after titling occurred. The subsidy provides households an annual compensation designated for ecological purposes. As the title is used to determine one's plot size, the program sparked concerns over stipulated parcel sizes. In

another case, contestation over the title only emerged when farmers received compensation for the construction of a highway on forest land. This phenomenon is also acknowledged by respondents:

Now the conflicts are less, because people are not willing to cut trees and have migrated to other provinces. But I am not sure about the future, this reform does not solve the problem. (B.006, Village leader, February 1, 2017)

Forests are not worth money, but if one day it has value, and we can sell the trees, everyone will fight. (C.281, Farmer, September 20, 2017)

6. Formal, actual, and targeted perspectives of formalization – discussion

Formalization is often regarded as a panacea for economic development and has gained popularity in development discourses. Whereas the pronounced benefits of formalization might be appealing, this study ascertains that claims that solely ascertain the need for formalization must be interpreted with caution, as the mere ‘form’ of titles only account for a fraction of the actual impact, and hence, the success of formalization and titling policies. The case of China’s forest titling is a textbook example, which we demonstrated through an analysis along three dimensions – the Formal, Actual, and Targeted property rights.

Within a protracted trajectory of titling, another attempt was introduced under the 2008 Collective Forest Tenure Reform (CFTR) to improve forest tenure and management. The CFTR’s initial phase effectuated the formalization of land, considered as the basis for subsequent phases of forest reform. At first glance, from the perspective of the Formal, such institutional interventions appear successful in our area under study. The formal objectives have been carried out by the local authorities and new, unified titles had been issued in most places within the stipulated deadline of five years. From the perspective of the Targeted, titling rallied strong support from both households and local officials, while boundaries and plot sizes were perceived as clear by households. By merely considering the form of formalization – i.e., the title as its most tangible result – the forest reform thus appears credible.

However, this is not without caution. As Table 5 depicts, shortcomings of the forest reform become apparent when zooming in on the Actual. For one, officials from the researched counties acknowledged that no on-site surveying and investigation had occurred due to time, human, and financial constraints. Instead, the registered information was simply reproduced and copied from older documents, estimated by officials or farmers themselves, or based on averages (i.e., arriving at individual plot sizes by dividing the total collective forest area by the number of farmers or plots in a village).

Moreover, in spite of national standards and guidelines, the implementation of the reform displayed considerable regional variety tied to the historical complexities and local conditions. This was clearly visible in the substantial variation in the registration of boundaries (hand-drawn, based on older maps, without individual boundaries, or only described in words). In areas where the initial forest distribution was poorly recorded and registered, the reform formalized previous decisions but left critical and potentially controversial issues unresolved and intentionally ambiguous. In places where conflicts over forests had already erupted, the titles were generally not issued, even if they had already been printed.

Table 5 Summary of data according to FAT framework (source: this survey)

Formal	Actual	Targeted
- Wide distribution of a new unified title	- No clear on-site surveying due to human, time, and financial constraints	- Titling supported by relevant local actors
- On-site clarification and verification of forest rights	- No clear physical boundaries of forest parcels	- Boundaries and plot sizes perceived as clear by farmers
- Implementation in five years	- No uniform standard for rendering of forest boundaries	
	- No titles issued in contested areas	
	- Farmers' display weak understanding of ownership and lease rights	

One may wonder why there is such a marked divergence between the Formal and Targeted on the one hand, vis-à-vis the Actual on the other hand. At this point, we ascertain that the forest titling under the CFTR is exemplary for what has been termed an ‘empty institution’.

First, the current manner of titling does not upturn or in any way affect the forest boundaries and rights as they have been perceived and existed for decades at the local level. In fact, in most cases, local authorities did not perform on-site surveying, measuring, and verification of boundaries and rights. As Liu et al. (2016, p. 5) mention, the titling has formalized previous decisions without resolving the “old issues.” As such, the titles – although widely distributed – frequently missed critical information considering plot size, delimitation, and location. Yet, exactly because of this ambiguity it allows “those governing to enforce without enforcing, while those governed can continue what they did” (Ho, 2016b, p. 1145).

Second, as a result of the above, the level of conflict around forest rights is actually minimized and is to a high degree “socially accepted, relatively rarely contested and, in effect, credible” (Ho, 2017, p. 211). It is a somewhat paradoxical explanation of why the majority of interviewed households supports forest titling and regards the boundaries and plot size as accurate. Not only did titling *not* accurately record rights, boundaries, and plot sizes, it also provided farmers with some proof that the forest they deem theirs, is indeed theirs. At a macro-level, this aligns with the national agenda to avoid social instability and preserve harmony in China’s countryside, not in the least, when it comes to the numerous sensitivities associated with land rights.

Three, perhaps a proper way to describe the current situation of forest titling is as an *institutional compromise*: (i) the central authorities can be satisfied as state intentions and objectives are met through a ‘uniform’ title, while state legitimacy is strengthened, and international acclaim over titling can be received; (ii) local authorities boast with a relatively effortless and frictionless implementation of the reform, despite the pressure by the central government that titling had to be completed within just five years;¹³ and (iii) the interests of

¹³ This is also illustrated in a mid-term report of the reform: “[t]he task of improving policies and deepening reforms is still very arduous. In accordance with the requirements of the central government, we will strive to complete the task of confirming the rights of forest land this year and complete the task of issuing forest tenure certificates next year (State Forestry Administration, 2011).

farmers are met as their rights as they see it have become anchored in a new state-sanctioned document, even though that document is decoupled from actuality and a significant proportion of farmers are unaware of the rights included in the title.

7. Concluding remarks

China's most recent instance of forest titling initially appears credible at present, and thus a considerably better alternative than formalization programs witnessed elsewhere that led to the imposition of non-credible institutions (Benjaminsen et al., 2008; Broegaard, 2009). However, credibility is subject to incessant change, and could shift if the central or local authorities decide – under the current socio-economic conditions – to require strict surveying of forest plots and clarification of rights. As noted elsewhere:

[T]his is where matters become complicated, controversial, and contested – the empty institution may also be actually enforced under political and public pressure, which causes it to shift on the continuum and evolve toward becoming a non-credible institution (Ho, 2017, p. 212).

Findings in this paper suggest that when the use and value of forest are changing, the credibility of the titles may also shift. Such a change may, for instance, occur in the case of the (partial) lifting of cutting bans, new carbon trading schemes, the launch of Payment for Ecological Services (PES) programs, or when rural-urban migrants return home in the face of economic crises. Research has shown that under such circumstances disputes may erupt over inaccurate parcel sizes and ambiguous boundaries (Huang et al., 2011), which may shift the empty institution into one that is non-credible and dysfunctional, i.e., unable to deliver its originally intended purpose as an institutional compromise. It remains to be seen how such changes will affect the credibility of the titles issued under the CFTR.

As the related vulnerabilities and inconsistencies associated with form-focused approaches frequently remain unnoticed or disregarded by policymakers and property rights analysts, this paper has shown that increased attention to credibility – as a dynamic concept that considers change over time and space – may be useful. To better understand this, more longitudinal and contextualized research is needed to assess how formalization and titling unfold in real times and real spaces. This may lead us to see clearer that the success of formalization programs is not merely determined by their form, but contrarily and equally, by how their function is negotiated in light of historical, endogenous, and spatial complexities.

List of Acronyms

CFTR	(Collective Forest Tenure Reform
FAT	Formal, Actual, Targeted
HCRS	Household Contract Responsibility System
SFA	State Forestry Administration
SFGA	State Forestry and Grassland Administration
WMA	Wuling Mountain Area

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