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Land titling as a conflict remedy or driver? Analyzing institutional outcomes through latent and manifest conflicts in China's forest sector

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ABSTRACT

Keywords:

Land titling

Conflict manifestation

Credibility

Forest tenure

Rural China

Land titling programs are introduced to create a stable and secure institutional environment that effectively resolves land conflicts. However, the process of land registration may also exacerbate latent conflicts or trigger new contestation, causing the opposite of what was intended – a largely conflict-ridden and non-credible tenure arrangement. To understand this apparent contradiction in more detail, this study combines theoretical advances on institutional credibility and conflict manifestation. We employ our approach in China's forest sector, and explore how recent titling experiences affected manifest (visible) and latent (imperceptible) conflicts, re-presented by a judicial and empirical dataset, respectively. The judicial dataset of court adjudications shows that the majority of manifest conflicts only started after the titling process had been completed, and that nearly half of disputed titles were revoked in court. A household survey in southwest China indicates that latent tenure conflicts were largely unaffected and unresolved by titling. Both analyses suggest that in many instances, the new titles were no remedy or direct driver to tenure disputes but instead have evolved as new indirect drivers to conflict in China's already ambiguous tenure arrangement.

1. Introduction

The prospects of titling for land users are well understood. It has long been argued that formalization of tenure rights – in the form of a title or deed – implies that rights are more secure. In turn, secure rights will increase land values, improve investment incentives, enhance access to credit, and stimulate land transfer (Besley, 1995; Demsetz, 1974; Demsetz and Alchian, 1973; Feder et al., 1988; Soto, 2000). These beliefs have accordingly motivated a drift towards land formalization, as witnessed in post-war states such as Nicaragua and Rwanda (André and Platteau, 1998; Broegaard, 2009), transitional countries such as Vietnam and China (Do and Iyer, 2008; Zhan, 2019), and in Sub-Saharan Africa where titling projects have been assisted by multilateral organizations like the World Bank and International Monetary Fund (Holden et al., 2011; Maganga et al., 2016).

Amid its prospective benefits, however, an aspect of land titling that is less pronounced is that of conflict resolution (Holden et al., 2011). Although in theory titles improve tenure security and help reduce conflicts (Arruñada and Garoupa, 2005), there is ample empirical evidence that titling may instead create new controversies and

contestations for land users (e.g., Dwyer, 2015; Griffith-Charles and Opadeyi, 2009; Jansen and Roquas, 1998; Maganga et al., 2016). However, these contradictory outcomes of titling may not immediately become evident, or remain imperceptible to scholars and policymakers. In this regard it is important to see titling not as an effortless and frictionless institutional 'fix', but instead, as a "*long term, protracted process* of negotiation and dispute between state and other actors" (Ho, 2015, p. 352). Others have similarly remarked that titling is often intertwined with claiming state authority, exercising power, and gaining land control – which increases social and political friction (Bejaminsenet al., 2012; Peluso and Lund, 2011).

To understand how titling unfolds as a protracted process over time, which necessitates an analytical shift beyond the initial allocation of property rights alone (Arrunada, 2017), this paper constructs a dynamic approach to land titling vis-à-vis tenure conflicts. To accomplish this we borrow from two recent advances in the related literature. We first adopt notions of the 'credibility thesis' (Ho, 2014) which assumes that conflicts are inherent in any tenure arrangement, and where increased and intensified social conflict are indicative of non-credible institutional intervention (Ho, 2017). Conflicts are thus an important proxy to

the institutional credibility of land tenure arrangements (Arvanitidis and Papagiannitsis, 2020; Ho, 2006; Yang and Ho, 2019). In this study we advance its use with a more refined conceptualization of conflict to specifically account for the *dynamics* of conflicts – as developed by Yasmi et al. (2013, 2006), Yusran et al. (2017), and others (see also Sandström et al., 2013). Aside from appreciating some of the long-term effects of titling, it is also expected that our approach is useful in addressing some of the epistemological limitations in previous studies on land conflicts (explained in Section 3).

Insights are obtained from recent titling experiences in China's collective-owned forest sector, which accounts for about sixty percent of the country's forests. The Collective Forest Tenure Reform (*jiti lin-quan zhidu gaige*, CFTR) that was introduced on a national level in 2008 initiated one of the country's most significant forest titling efforts. According to official data, an area of 180 million hectares has been registered, with over 100 million new forest titles issued (NFGA, 2019). Experiences from the forest sector can be considered an impetus for China's 'new land reform' which was launched in 2013 and called for a comprehensive instance of titling for all of the country's land and re-sources (Zhan, 2019).

Two original datasets are derived from China's new instance of forest titling. First, a judicial set of court cases (N = 136) consisting of *manifest conflicts* (i.e., escalated, visible, and institutionalized disputes) is employed to elicit whether and how tenure conflicts develop amid titling, as well as the titles' role in court adjudications. Second, we use insights from a household survey (N = 331) in southwest China to explore how titling has affected *latent conflicts* (i.e., non-escalated, imperceptible, and non-institutionalized disputes). Although the two datasets are analyzed separately, their insights are used complementarily. Because both datasets describe a different stage in the manifestation of conflict, we are able to construct a more complete account of how titling affects tenure conflicts in all possible ways (Yasmi et al., 2013; Yusran et al., 2017).

The next section provides an overview of the titling-conflict axis, where we identify two contrasting views that consider titling as a conflict 'remedy' or 'driver'. In Section 3, the conceptual frameworks of institutional credibility and conflict manifestation are introduced, and in Section 4 we elaborate on the study's methodology. Section 5 introduces the case and presents the findings from the court cases and household survey, respectively. Our results are compared and discussed in Section 6 before we conclude in Section 7.

2. Two sides of the same coin?

2.1. Titling as a remedy to tenure security and stability

Population growth, urbanization, land commercialization, among others, create new pressures that induce land scarcity and value-changes (Feeny et al., 1991; Puppim de Oliveira, 2008; Sandström et al., 2013; Yamano and Deininger, 2005). Failures to effectively mitigate such pressures are linked with growing contestations and uncertainties. These may accordingly culminate into negative impacts on land productivity and management (Deininger and Castagnini, 2006; Ho and Spoor, 2006; Puppim de Oliveira, 2008; Yamano and Deininger, 2005), destructive resource outcomes (Angelsen, 1999; Godoy et al., 1998), and increased fear or social disruption for land users (Jansen and Roquas, 1998; Yasmi et al., 2013). Land disputes may also widen social inequalities or erupt into large-scale conflicts (Fred-Mensah, 1999; Peters, 2004), and in extreme scenarios they cause the outbreak of civil war (André and Platteau, 1998). In China, land-related conflicts remain a highly sensitive topic, traditionally over fears of a landless peasantry (Van Westen, 2011), and more recently in relation to national objectives of rural revitalization and ecological restoration that is contingent on social harmony and stability in the countryside (Liu and Li, 2017; Wang et al., 2019; Zang et al., 2020).

The economic, social, and environmental harms associated with

land disputes have raised the need for tenure arrangements that are capable of effectively mitigating and resolving conflicts, as Deininger and Castagnini (2006, p. 322) ascertain:

One of the main reasons underlying the increased incidence of land conflicts [...] is the failure of the prevailing land tenure systems to respond to the challenges posed by the appreciation of land in a way that would enhance effective tenure security.

Here, the systematic task of land titling or registration – i.e., clarifying, legalizing, and formalizing land rights – is seen as indispensable (Abdulai, 2006; Besley, 1995; Holden et al., 2011; Wehrmann, 2008). Feder (1988, p. 5), for instance, suggests that "one way to reduce or eliminate ownership uncertainty is to provide landowners with titles backed by a legal system capable of enforcing those property rights". A comprehensive tenure system supported by judicial powers may effectively and adequately deal with land disputes (Appendini, 2001; Griffith-Charles and Opadeyi, 2009). In addition to preventing further and violent escalation of conflicts, a stable and secure environment would also reduce transaction costs or the burden of 'defending' land rights – such as fences or guards (Deininger and Feder, 2009).

On this basis, land titling programs have been introduced in various parts of the world, such as in Africa where titling has been introduced as a remedy against illegal land acquisition (Dwyer, 2015; Kalabamu, 2019; Maganga et al., 2016). Empirical studies have found evidence that land titling and registration may improve tenure security and reduce conflicts. For example, it has been shown that Ethiopia's low-cost land registration system successfully reduced conflicts while increasing women's bargaining power and opportunities to receive compensation during expropriation (Deininger et al., 2008; Holden et al., 2011). In Kenya, registered land parcels featured fewer conflicts compared to unregistered parcels (Yamano and Deininger, 2005). Meanwhile, a World Bank (2001) study on the 'ejido' reforms in Mexico indicated that registration helped reduce conflicts and increase transparency.

2.2. Titling as a driver of conflicts and non-credibility

The appealing rationales for titling notwithstanding, empirical evidence also point to the difficulties involved. Critics have cautioned that universalist ideas concerning land registration may not be feasible with local realities and complexities (Bromley, 2009; Jansen and Roquas, 1998), especially in countries where land has been at the center of revolutionist movements such as in Nicaragua (Broegaard, 2009) and China (Ho and Spoor, 2006). Moreover, defining property rights, setting up, and maintaining a registration system is an arduous task (Benjaminsen et al., 2008; Deininger and Jin, 2009). State authorities may not be well prepared or equipped to perform this task, especially when there is a sudden demand for titles (Benjaminsen et al., 2008; Puppim de Oliveira, 2008). Consequently, land parcels may be left untitled and registration systems incomplete.

Similarly, land titles may only be rendered useful within an appropriate institutional framework, and in particular, an effective judicial system (Deininger and Jin, 2009; Fitzpatrick, 1997; Koroso et al., 2019). Yet even when courts prevail, individuals may remain reluctant to be involved with the courts. They may lack knowledge or financial resources, be apprehensive about challenging authorities, or have reservations about the courts' independence (Broegaard, 2009; Fitzpatrick, 1997; Jansen and Roquas, 1998). A formalized tenure system can also be dysfunctional due to overlapping mandates of different institutions (Benda-Beckmann, 1981; Deininger and Feder, 2009).

These considerations help explain the unintentional and contradictory outcomes that result from land titling, including its use as an instrument for opportunism, exclusion, or dispossession by powerful actors (Benda-Beckmann, 1981; Benjaminsen et al., 2008; Maganga et al., 2016). While introduced with the intention of establishing a more secure and stable environment, titling may thus create the opposite – a

conflict-ridden and non-credible tenure arrangement.

First, pre-existing ambiguities or tensions may be exacerbated when informal or customary tenure arrangements are transformed through state-led formalization. This has been witnessed under agrarian reform in Mexico (Appendini, 2001), in Kenya where constitutional land provisions were amended (Boone, 2012), or in Tanzania where new customary rights certificates were issued (Maganga et al., 2016). These interventions undermined long-lasting, informal agreements regarding boundaries and parcels – which may be ambiguous and overlapping – and in turn sharpened tensions between land users. This may be particularly evident in areas influenced by land nationalization, expropriation, and political turmoil (Ho and Spoor, 2006; Putzel et al., 2015). Under these scenarios, titling might open up a “pandora’s box” of historically-determined land issues (Putzel et al., 2015), and reignite former controversies over land distribution (Puppim de Oliveira, 2008). Second, titling may also *directly* act as a *driver* of increased contestation (Yasmi et al., 2013). A commonly documented phenomenon is ‘elite capture,’ in which speculative and powerful individuals register claims of land that did not belong to them (Benjaminsen et al., 2008). Similarly, instances of ‘land grabbing’ and power abuses by responsible authorities have also been witnessed during formalization processes (Broegaard, 2009; Dwyer, 2015; Meinzen-Dick and Mwangi, 2009).

3. Credibility and conflict manifestation

The mixed outcomes of titling have meant that even tenacious proponents of land titling now caution that:

[F]ormalization of land rights should not be viewed as a panacea and that interventions should be decided only after a careful diagnosis of the policy, social, and governance environment. (Deininger and Feder, 2009, p. 233).

While such a diagnosis requires a detailed understanding of how titling performs in their embedded context, both remedy- and driver- perspectives have yet to offer a systemic framework. Corresponding to recent studies that ascertain the relevance of temporally- and spatially defined functions for explaining institutional outcomes (McClymont and Sheppard, 2020; Tzfadia et al., 2020), this study seeks to offer a dynamic account that allows us to understand titling as a protracted process with varying outcomes *over time*. In line with this endeavor, our conceptual framework is founded on notions from the credibility thesis (Section 3.1), which is complemented with recent literature on land conflict manifestation that allows for a more refined conceptualization of conflict dynamics (Section 3.2).

3.1. The credibility thesis

The ‘credibility thesis’ (Ho, 2014) offers an appropriate starting point, which follows the idea that “conflicts occurring within a particular institutional or regulatory framework, may, if serious enough, detract from the social acceptance – or legitimacy – of the rules governing the conflict” (Pils, 2016, p. 440). In contrast to the assumption that institutional change is competent in creating a frictionless environment over time (e.g., Demsetz, 1974), therefore, the credibility thesis adopts Libecap’s (1989) argument that distributional conflicts are inherent in any rights arrangement. On this basis, even tenure arrangements that are ‘credible’ (i.e., socially supported and little contested) would feature varying levels of conflicts (Fold et al., 2018; Mengistu and van Dijk, 2018; Pils, 2016). When new institutions are introduced or older ones rearranged, the credibility thesis posits that processes of bargaining and conflict between actors will inevitably follow. In turn, a new sequence unfolds at the local, endogenous level where:

[F]unctions change, institutions change, and thus also the levels of credibility – a process evident in shifts in conflict. (Ho, 2016, p.

1134).

Conflicts are thus an important proxy or indicator of credibility (Ho, 2014, 2006). The credibility thesis proposes to scrutinize conflicts along with an extended set of various dimensions (Ho, 2017, 2014). The set includes the dimensions of: *Source* or cause of the conflict; *Frequency* or occurrence of a conflict during a given period; *Timing* or the chronological period during which conflict occurs; *Intensity* as the costs involved or the level of mediation or litigation; *Length* in terms of days, weeks, or years; and *Outcomes* seen as resolution of conflicts.¹ Recent efforts using this set have also added the dimension of *Actors* to describe the relevant parties in conflicts (Yang and Ho, 2019).

Studying conflicts through their various dimensions helps to discern the credibility of institutions. In contrast to institutions that are ‘credible’ or ‘empty’ (a symbolic compromise) which still feature some degree of conflict, ‘non-credible’ institutions are characterized by elevated levels of conflict. Non-credible institutions and their adversities may, for instance, occur when policymakers’ intentions do not match with the conditions and interests at the local level (Wu et al., 2018). For our exercise, explaining the level of credibility helps to identify and shed light on the conditions under which titling realizes its intended effects of conflict resolution and tenure securities.

3.2. Conceptualizing conflict dynamics

Most studies on land use conflicts are derived from single-case studies centered around emblematic ‘high-visibility’ conflicts that often lack comparative insights. When taking note of the current body of literature on land conflicts, Yusran et al. (2017, p. 303) similarly observe that:

[T]hese literatures make a valuable contribution by empirically describing the substance of land use conflicts [...] however, often are descriptive in nature, and have a rather vague theoretical conceptualization of conflict.

Scrutinizing conflicts along various dimensions, as proposed by the credibility thesis, is useful in quantifying and comparing conflicts. However, this approach is still likely to prompt findings that are mainly descriptive and unable to identify the underlying *processes* of conflicts.² To address this, we complement the credibility thesis with recent advances that have closely examined the dynamics, or more specifically, the manifestation of conflicts (Hubo and Krott, 2013; Kröger, 2013; Sandström et al., 2013; Yasmi et al., 2013, 2006; Yusran et al., 2017). These works build on the seminal work by Pondy (1967), who originally identified five major stages of escalation in organizational conflict – ranging from latent conflict to conflict aftermath (see also Yasmi et al., 2006).

We adopt the contemporary framework provided by Yusran et al. (2017) to distinguish between two categories of conflict: latent and manifest. The main difference between both types of conflict, according to Yusran et al., is that only manifest conflicts exist in the *visibility* dimension, i.e., their perceptibility by policymakers, academics, media, and other observers.³ While most studies on land conflicts have described manifest conflicts, only little attention has been devoted to latent conflicts due to their imperceptible nature. However, accounting for both manifest and latent conflicts – each representing a different

¹ See Ho (2017) for an elaboration on the dimensions. For an empirical application on mining institutions, see Yang and Ho (2019).

² In fact, understanding dynamic institutional processes is a primary task of the credibility thesis (see Ho, 2018).

³ Two other dimensions are distinguished by Yusran et al. (2017). Both latent and manifest conflicts exist in the *substance* dimension, where diverging interests over resources are perceived and felt by actors. Both types of conflicts may also exist in the *regulatory* dimension, where the conflict is institutionalized in legal or political frameworks.

stage of conflict – is important because it enables a dynamic analysis of conflict manifestation.⁴ This is particularly useful to identify direct and indirect drivers of conflicts (Sandström et al., 2013; Yasmi et al., 2006).

4. Methods

4.1. Data

Two original datasets are used to account for manifest and latent conflicts, respectively. The first is a judicial set of court cases. It describes manifest conflicts that have escalated, and accordingly have become visible in regulatory frameworks at the macro-level. The second set is an empirical dataset to describe latent conflicts, i.e., those that prevail at grassroots levels and remain largely imperceptible for analysts. Both datasets are explained below.

4.1.1. Judicial dataset

This set is comprised of a series of documented court conflicts derived from the ‘China Judgments Online’ database (*Zhongguo Caipan Wenshu Wang*) that is established and maintained by China’s Supreme People’s Court. Since 2013, Chinese courts at all four levels (basic, intermediate, higher, and supreme) are required to publish court adjudications in an open online database.⁵ Previous studies have used this database in relation to mining disputes (Yang and Ho, 2019) or labor strikes (Wang and Cooke, 2017).

To construct our dataset, we applied a five-step sampling procedure (Fig. 1). As a starting point, (i) only conflicts related to Collective Forest Tenure Reform (CFTR) were collected, from which (ii) only those related to titling were selected.⁶ To reduce bias between cases and given our main interest of why conflicts occur, (iii) only first-instance cases were selected. Since forest reform occurs nationwide but with considerable spatial variety, (iv) a maximum number of 15 cases per province was applied to reduce geographical bias.⁷ Finally, (v) we inspected the cases based on duplication and relevance, with the criteria that at least one party must be a household to make the sample more cohesive with our second dataset.⁸ In total, a set consisting of 136 valid cases was constructed. The dataset covers 22 provinces and ranges over the years between 2012–2018. The majority of cases (68.4%) appeared in basic courts, with the remainder (31.6%) adjudicated in intermediate courts.

4.1.2. Empirical dataset

A household survey conducted with 331 households formed the basis for the second dataset. The survey was conducted in 2017 and inquired about incidences and perceptions of forest tenure conflicts along the set of dimensions proposed by the credibility thesis. The

⁴ This also coincides with the “fluid approach” proposed by the credibility thesis, “in which different analytical levels are combined in lieu of adhering to a more fixed macro- or micro-level study” (Ho, 2016, p. 1133).

⁵ *Zhongguo Caipan Wenshu Wang*, <http://wenshu.court.gov.cn> (accessed between May – July, 2019).

⁶ For (i), relevant keywords were ‘collective-owned forests’ (*jitilindi*), ‘reform’ (*gaige*). We deliberately refrained from using the name of the reform (*jiti linquan zhidu gaige*) because not all relevant cases specifically referred to the official name. For (ii), the keywords ‘title’ (*linquanzheng*), and category ‘titling’ (*quan*) were applied.

⁷ This was necessary as some provinces had significantly more cases than others, particularly Guizhou (215 cases) and Guangxi (115 cases). For these provinces, the 15 cases were randomly selected.

⁸ 101 cases were rejected on the grounds of duplication. A conflict would frequently reappear in documented court cases, for instance, when different households filed an identical case against the same party. Furthermore, 41 cases were rejected because they were not relevant, in most cases because the conflict was about compensation and not directly about titling. Another 55 cases were rejected because no household was involved.

survey was carried out with households in the Wuling Mountain Area (WMA).⁹ The WMA is located in southwest China and ranges over 71 counties that stretch over four provincial-level administrations of Chongqing, Hubei, Hunan, and Guizhou. It covers predominantly mountainous and forested areas, and over ninety percent of the area’s forests are allocated to the collective-owned forest sector.

Cluster sampling was applied where two counties were selected in every province (totaling eight counties). In each county, 40–50 household surveys were conducted in-person. Due to the absence of an appropriate sampling frame, a household-to-household convenience sampling method was applied. This means that the survey sample is non-representative, although representativeness was enhanced by selecting villages at various and random county locations. Basic features of the sample resemble with key characteristics of China’s rural population at present – including an aging population (the respondents’ average age was 62 years), out-migration (about one out of four of respondents’ household members permanently migrated), and the high prevalence of subsistence farming (done by over ninety percent of all respondents).

4.2. Analytical framework

The two datasets do not allow us to trace the direct evolution from latent to manifest conflicts. However, a separate yet complementary analysis of the two datasets enables constructing a more complete understanding of conflict manifestation. The judicial dataset is used primarily to identify the drivers in conflict manifestation and to examine the role of the new titles in court (through their defeasibility, i.e., instances in which titles were revoked). The empirical dataset is used to examine how titling affected tenure disputes that persist ‘on the ground’ in China’s forest tenure arrangement. To facilitate comparisons between the datasets, both sets were scrutinized along with an identical set of seven dimensions as proposed by the credibility thesis (Table 1).

4.3. Limitations

The novel approach of combining two datasets is paired with several limitations. A main constraint is that only court adjudications were used to explain the manifestation of conflicts, not accounting for other (intermediate) steps of conflict mediation and manifestation (Pondy, 1967). Because it is expected that only a few conflicts will resort to the ‘full force of law’, we were therefore also unable to approximate the scale of titling conflicts in China’s forest tenure arrangement. Further, despite the use of a nationwide and quantitative dataset, there was a limited number of relevant and available court cases in the judicial database. The use of a non-representative household survey also inhibits generalizations to China’s broader population. Finally, and most importantly, the two datasets used in this study are markedly different in terms of their origin, data, and geographical range, and therefore irreconcilable for single analysis.

However, with these limitations into consideration, we posit that the approach can make an important contribution to address some of the epistemological limitations evident in previous studies of land conflicts (see Yusran et al., 2017). Other studies have shown that despite published court cases originating from a highly politicized context, documented adjudications from China’s court are helpful to understand rationales behind court (Jin, 2015; Stern, 2010; Yang and Ho, 2019). Finally, non-representative surveys have been considered appropriate and accurate for descriptive analyses (Goel et al., 2015), which is consistent with the purposes of this paper.

⁹ See (Krul and Ho, 2020) for descriptive characteristics of the sample, sampling strategy, and a detailed map of the study area.

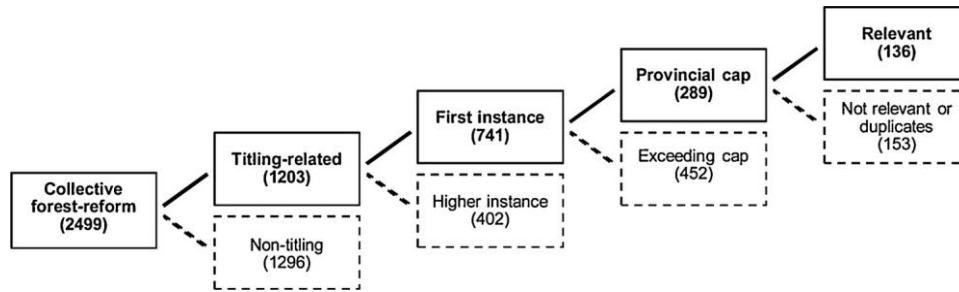


Fig. 1. Sampling of court cases.

Table 1

Analytical framework.

	Manifest conflicts (court cases)	Latent conflicts (household survey)
<i>Actors</i>	Opposite party(s) in conflict and actors appearing in court (plaintiff, defendant, third party)	Opposite party(s) in conflict
<i>Source</i>	Cause of conflict (further divided into underlying and direct drivers) Incidence of conflict (measured in the number of previous instances of the conflict)	Cause of conflict (e.g., boundaries, ownership) <i>Frequency</i> Incidence of conflict (ranging from infrequent to often)
<i>Intensity</i>	Controlled*	Perceived impact (ranging from little to severe)
<i>Timing</i>	Stage of conflict (during or after reform)	Stage of conflict (level of conflict mediation)
<i>Length</i>	Time since the first instance of conflict	Duration of conflict (ranging from days to multiple years, or ongoing)
<i>Outcome</i>	Court ruling (decision on the title and basis on which decision was made)	Status of conflict (resolved or unresolved)

* It is assumed that all conflicts appearing in court already reached severe levels of intensity. Conflict dimensions derived from Ho, 2017, 2014; Yang and Ho, 2019.

5. A renewed attempt at forest titling in China

5.1. Collective forest tenure reform

The 2008 Collective Forest Tenure Reform provided a comprehensive set of measures to further develop China's collective-owned forest sector (Zhang et al., 2020). With the objectives of improving household tenure security and stimulating forest transfer, the reform called for a new round of unified titling on a national scale.¹⁰ It specified the clarification and verification processes of forest demarcations and parcels sizes through on-site surveying, according to which new forest titles (*linquan zheng*) are distributed. The reform also stipulated that any forest disputes must be resolved prior to titling,¹¹ specifically noting that:

Party members and cadres [must] never take the opportunity of reform to seek personal gain for themselves and their relatives and friends. It is necessary to improve the working mechanisms of dispute mediation, resolve conflicts in a timely manner, and maintain rural stability. (Article 19, CFTR, CPC Central Committee and State Council, 2008).

Recent official reports indicate that the titling phase of the reform is largely complete. To date, over 100 million titles have been issued, encompassing 97.65% of China's collective-owned forest sector (Economic Daily, 2017; NFGA, 2019). Along with improved economic opportunities for farmers, a celebrated aspect was the reform's ability to effectively resolve conflicts:

[Cadres] rushed to the mountains to carefully measure and read through a large number of files to meticulously check, repeatedly communicate patiently and coordinately, and re-issue the forest title as an 'iron certificate' [*tiezheng*], which completely solves the long-standing legacy of a large number of forest rights' disputes. According to statistics, more than 800,000 nationwide forest

disputes have been arbitrated, with a mediation rate of 97% and a satisfaction rate of 98%. (State Forestry Administration (SFA), 2011).

Titling in China's forest sector, which has been ahead of the 'new land reform' that endorsed titling for all of the country's land and resources in 2013, is analogous to two underlying trends. First, it concurs with China's ameliorated efforts to protect farmers' land rights. While forest titles and land users' legitimate rights and interests were formally acknowledged in the 1984 Forestry Law (and again in its 1998 amendment),¹² detailed provisions were largely absent. Amid concerns of increased expropriation and dispossession, the 2002 Rural Land Contracting Law provided specific measures to protect land rights against infringement.¹³ Additionally, the 2007 Property Law offered further protection for (private) property rights.

Second, titling is also integral to China's furthering efforts to move towards a society based on formal institutions and the rule of law. Since the 1989 Administrative Litigation Law (ALL),¹⁴ individuals in China can litigate against administrative organs based on the infringement of rights, including property rights violations.¹⁵ The law was revised in 2014 to expand and improve individuals' rights to sue the government for administrative acts, with acts of land titling specifically addressed in the revised version.¹⁶ According to current provisions, individuals may

¹² Article 7, Amended Forestry Law.

¹³ Article 51–61, Chapter 4 'Settlement of Disputes and Legal Responsibility', Rural Land Contracting Law.

¹⁴ Also referred to as the Administrative Procedure Law (APL), or in Chinese, *Xingzheng Susong Fa*.

¹⁵ Article 2 of the Administrative Litigation Law stipulates that: "If a citizen, legal person, or other organization believes that the administrative actions of the administrative organs and administrative staff members violate their lawful rights and interests, they have the right to file a lawsuit in the people's court."¹⁶ Specific guidelines are provided in Administrative Procedure Law, Article 12, Items 4 (registration of ownership or use rights for natural resources) and 7 (rural land contract management rights). See also the Law Library of Congress, <http://www.loc.gov/law/foreign-news/article/china-administrative-procedure-law-revised/> (accessed on July 15, 2019).

¹⁰ Article 9, Views on Fully Promoting the Collective Forest Right System Reform, CPC Central Committee and State Council, 2008.

¹¹ Article 8, *ibid*.

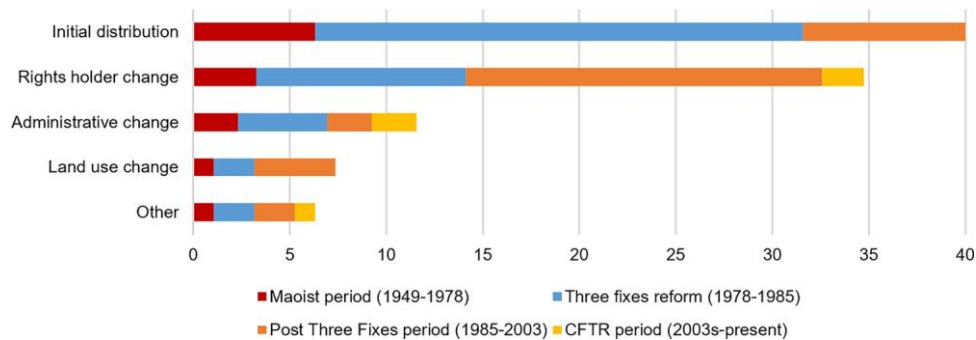


Fig. 2. Indirect drivers and historical origin.

request administrative reconsideration within sixty days, and file a lawsuit within six months of the administrative act being made or known by the individual.¹⁷ As a consequence of such efforts, dispute resolutions through formal and legal channels have substantially increased in the Chinese context (Yip et al., 2014).

5.2. Findings from the court: explaining manifest conflicts

This section uses court adjudications (N = 136) – analyzed along our analytical framework discussed in Section 4.2 – to describe (i) the drivers of forest tenure conflicts, (ii) the involved actors and outcomes, and (iii) the role of titles in court arbitrations.

5.2.1. (In)direct drivers of tenure conflicts

This court adjudications first show that land disputes, largely revolving around competing claims about land or boundaries, can be ascribed to China's history in which land ownership underwent drastic changes. In 67.4% of all observed court cases, an underlying source (indirect driver) of conflict could be identified (Fig. 2). From all historical sources, the initial distribution was the most frequent source (40.0%). This was mainly due to the Three Fixes period in the early 1980s, during which boundaries or plot sizes were often not clearly defined or when corresponding titles were absent.¹⁸ Another frequent historical source were the ambiguities created due to changes to the rightsholder (34.7%). While land transfers and auctions occurred in the 1980s and 1990s, forest right transfers were only formally arranged in the amended Forestry Law in 1998. In other cases where changes in the rightsholder occurred, households (temporarily) out-migrated and it was unclear whether they still held their land rights. Elsewhere, the death of the household head (who held the family's rights) also brought about confusion and contestation over inheritance rights between family members. Other historical sources, such as changes in land use (e.g., conversion from agriculture land) or administrative changes (e.g., the (re)organization of a production team or forest farm) were less common.

While the indirect drivers have created frictions and ambiguities in China's tenure arrangement, some of which dating back as early as China's first land reform in the early 1950s, they rarely transitioned

into a direct driver to conflict. This becomes clear when looking at the conflict frequency (i.e., incidences of conflicts), which shows that the majority (90.2%) of conflicts were newly created either during or after the 2008 forest tenure reform. Only in the remaining 9.8% the conflict could be linked to a previous sequence of conflicts. This shows that while historical ambiguities are highly prevalent in the Chinese forest tenure arrangement, they alone often do not directly attribute to conflict manifestation.

Recalling Section 2.2, titling may expose historical ambiguities and thus act as a direct driver of conflicts. However, when turning to the stage in which conflicts manifested (timing), the dataset shows that 34.7% of conflicts manifested during the titling implementation process (with land registration as the dominant direct driver). In the remaining 65.3%, contestation over titles only occurred *after* the new titles had been issued. Here, conflicts were triggered by a successive, non-titling related event, of which two direct drivers were most prevalent (Fig. 3). In 41.8% of instances, land acquisition acted as a direct driver, for instance, due to mining activities or the construction of an expressway. In 29.9%, there was a change to or on the land, most commonly when trees were cut or planted. It was only in response to these direct drivers that conflicts manifested and where households learned or became concerned about the titles and their specific content.¹⁹

5.2.2. Actors and outcomes of court conflicts

After a conflict manifests, the conflict may eventually be adjudicated in court after several failed negotiations. Of all conflicts, the plaintiff in 85.9% of cases claimed to revoke the title of another entity. In 9.1%, the plaintiff sought to uphold their title, often after an administrative decision was made to revoke the title. In the remaining 5.1%, the plaintiff appealed to obtain a title, for instance, when neighbors already received a new title. Because titles carry legal liabilities, the actors in court are markedly different from those initially involved in the dispute (Table 2).²⁰ Although the original actors of conflicts are mostly situated at the household level (60.0%), the main liability in court conflict was transferred to authorities (79.4%). In most court cases, the county government acted as the defendant given their main responsibility for reform implementation, despite tasks of clarification and registration conducted by authorities at lower levels (frequently appearing as a third party in court).

The outcomes of the court conflicts (Table 3) show for cases where

¹⁷ Respectively, Article 9, Administrative Review Law, and Article 46, Administrative Procedure Law. Note that, however, according to Article 41 of 'Interpretation of the Supreme People's Court on Several Issues concerning the Application of the Administrative Litigation Law', the term could be extended to two years if the administrative organ failed to disseminate the administrative act.

¹⁸ For instance, in HUB-2017-0684-3 the plaintiff and the third party had originally received a forest title in 1983. At that time there was no on-site investigation and titles were issued based on the local custom by 'filling the four boundaries' (*anzhao dangdi xiguan chengwei tianxiele sizhi jiexian*). In 2010, when the third party received a new title, the dispute started when the plaintiff disputed the new boundaries recorded in the third party's document.

¹⁹ For instance, in case JX-2015-7 the plaintiff and third party managed their forests together since the Three Fixes reform in 1982. In 2014, the plot was expropriated by the government for construction. It was only then that the plaintiff became aware that in 2006 the new forest title was issued to third party, but not to the plaintiff.

²⁰ The actors were reclassified as follows: Household (one or multiple households); Collective (natural village, village committee, township); Authorities (local municipal or county government, state forestry bureau); and Other (private organizations, companies).

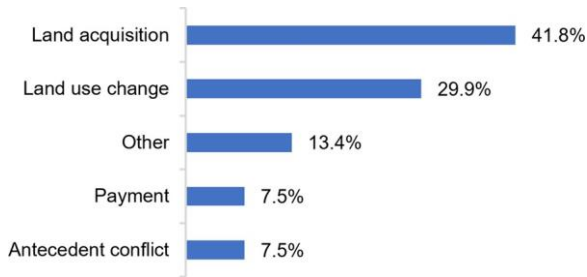


Fig. 3. Direct drivers of post-CFTR conflicts.

Table 2

Actors before and during court adjudications (for households as plaintiff).

	Household	Collective	Authority	Other	Total
Opposing party in initial conflict	N 63	24	18	0	105
	% 60.0	22.9	17.1	0.0	100.0
Defendant in court	N 5	17	85	0	107
	% 4.4	15.9	79.4	0.0	100.0
Third party in court	N 44	27	5	6	82
	% 53.7	32.9	6.1	7.3	100.0

Table 3

Court rulings (for households as plaintiffs).

	Plaintiff vs. Household	Plaintiff vs. Collective	Plaintiff vs. Authority	Total
Court ruling	N	5 (4.7 %)	17 (15.9 %)	107
Favoring plaintiff	%	40.0	41.2	45.8
Favoring defendant	%	60.0	52.9	49.5
Mixed ruling	%	0.0	5.9	4.7

the plaintiff was a household that the courts ruled in favor of the defendant in 49.5% of instances. In 45.8% the claims of the plaintiffs were supported. Notably, when a household directly challenged authorities in court, their claims were supported in 47.1% of cases. This figure, which was higher compared to figures when a collective or another household was challenged, illustrates households' ability to successfully challenge authorities in court.

5.2.3. Title defeasibility

The court adjudications also allow us to assess the role of new titles in court. Our analysis shows that for all disputed titles, they were revoked in nearly half all instances (47.7%). This high rate of defeasibility motivates further queries on the basis of which the court decision was made at.

While multiple reasons could be reported in the same case, three main reasons could be identified (Fig. 4).²¹ First, the revocation was decided in 61.0% of all cases due to insufficient evidence, for instance when no former titles could be shown to justify the contents of the new titles. Second, titles were revoked due to a failure to follow the correct procedures (34.1%). For instance, titles were issued but without a formal public announcement, or titling occurred on disputed land. Thirdly, and as the most severe basis, in 51.2% of all cases revocation was based on a violation of legal procedures. These violations include fraudulent practices, including registration without on-site verification or when there was no consent of responsible parties (with their signatures forged).²² Often violations were performed by those in higher

²¹ Often there were multiple reasons for one case, and therefore the total sum of the three main reasons exceeds 100 percent.

²² For instance, in case SAAX-2014-00010 the village committee sued the county government to revoke a title which registered 1741 mu (116 hectares) to one villager (who was a village accountant). It was found in court that the field survey date and date of signature were wrong, the signature of the village cadre

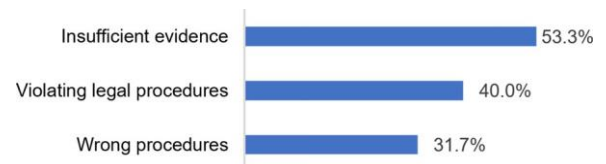


Fig. 4. Basis of revocation in court (in percent of cases: multiple reasons are possible).

positions, such as village leaders registering forests to family and relatives.²³

In cases where the title was maintained, this was mostly because the correct procedures were followed by the responsible authorities (51.0% in all cases), or the plaintiffs were unable to provide sufficient evidence to support their claims (42.9%). However, in certain cases where the title was not revoked, the decision was made because the plaintiff exceeded the maximum period of litigation. Although this occurred in 14.0% of cases, it is concerning given that litigation periods have expired at present.²⁴

5.3. Findings from the field: explaining latent conflicts

The judicial dataset showed why forest conflicts manifest, indicating that in around two-thirds of cases conflicts only started after the titling process had been completed. Yet not all conflicts appear in court and so remain outside regulatory dimensions. To address this epistemological gap, we complement the above analysis with a separate analysis derived from a household survey (N = 331) in the Wuling Mountain Area, southwest China.

The survey, using an identical set of dimensions as the judicial dataset, inquired whether respondents had perceived or experienced conflicts related to their forests. Of all respondents, 64.1% did not experience any conflicts, while 20.1% indicated experiencing only minor conflicts over forest boundaries between households of the same village. The remaining 15.8% (N = 52) indicated to have experienced a more substantial conflict over their forests, which we further scrutinized along with the various conflict dimensions below.

Starting with the actors, most disputes were between households (82.6%), and for these, in nearly all cases with households from the

(footnote continued)

was forged, and no public announcement was made. The title was revoked accordingly.

²³ However, we were unable to quantify this as the relations between the parties involved were not always described in the documented adjudication. It was also common that relevant authorities were accused of malpractices by households, but often such claims were not explicitly established in court. However, given that a violation entails a deliberate form of action and that titling is carried out by village and township authorities, the high degree of violations may be indicative of power abuses.

²⁴ For instance, in GZ-2015-00039 the disputed title was issued in 2008. The plaintiff claimed that his forest was wrongly titled in the name of another villager. The case was finally brought to court in 2015, after at least five administrative rulings had taken place between 2008 and 2015. In 2015, however, the court ruled that the litigation time of two years had exceeded and the plaintiff's claim was rejected on that basis.

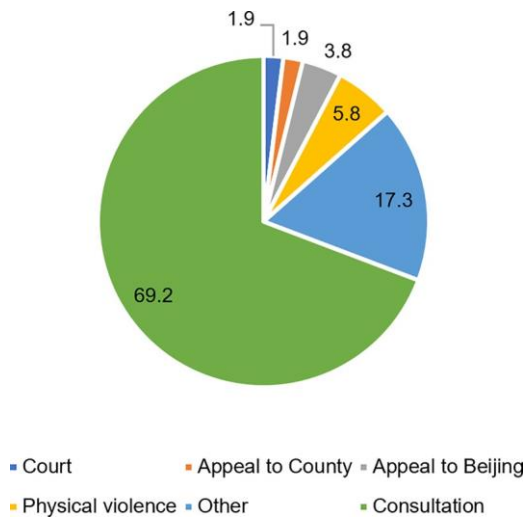


Fig. 5. Means in conflict mediation.

same village (95.3%). The most frequent source for all conflicts was in 87.0% over contested or unclear boundaries, other sources such as timber cutting or subsidies were less common. Meanwhile, although most respondents had received a new title under the Collective Forest Tenure Reform, the title was mentioned as a source of contestation in just 6.5% of the conflicts. In line with the judicial findings, this shows that China's new round of titling was not a direct driver of tenure disputes.

The frequency of conflicts also remained low, most clearly reflected by the 96.1% that indicated that their conflicts only rarely surfaced. Concurrently, the intensity of forest disputes was also perceived to be low, with just 13.4% perceiving the dispute as severe. Instead, 63.5% perceived the conflict as a very light source of tension. The low conflict intensity is also reflected by the stage of conflict, with most conflict instances remaining at the village-level (82.9%), and external mediation was rarely required. Fig. 5 similarly indicates that only few forest tenure conflicts would eventually resort to court or become visible in regulatory frameworks. While most conflicts remained within the villages, the duration was relatively long as a large number of conflicts (47.%) lasted over many years prior to resolution. At the same time, however, the majority of respondents (70.0%) indicated that their conflicts were still unresolved or only partially resolved.

In sum, the survey results indicate that about one-third of households experienced some degree (minor or substantial) of contestation over forest rights. However, the majority of these tenure disputes would not escalate; were not perceived as severe; only persisted at the village level; and most notably, remained unresolved. Importantly, the findings do not indicate that these disputes were affected China's new round of titling, and hence, most tenure disputes remained unaffected during and after the reform.

6. Titling as a new indirect driver of tenure conflicts?

Recalling from Section 4.2, complementing insights from manifest and latent conflicts helps to construct a more complete account to understand whether titling emerged as a 'remedy' or 'driver' of tenure conflicts. From our judicial analysis, it was shown that the majority of manifest conflicts only begun with a successive event *after* titling, most frequently due to either land acquisition or land use changes. Only under these circumstances did concerns over the title and its specific contents commence. Further, it was also only then that deficiencies and malpractices of titling procedures became disclosed through regulatory frameworks. The empirical analysis showed that aside from visible (manifest) conflicts, China's forest tenure arrangement also featured a range of persisting latent conflicts at the village level. Also here, titling

did not emerge as a direct driver to increased contestation, as only in 6.5% of disputes the titles were mentioned as a source of conflict.

In contrast to non-credible instances of titling elsewhere – where titling acted as a direct driver of increased contestation and controversies (Benjaminsen et al., 2008; Maganga et al., 2016) – the Chinese instance of forest titling might thus appear credible because it did not lead to a direct increase of conflicts. However, many underlying ambiguities inherent in China's tenure arrangement (acting as indirect drivers) continued to persevere with the potential for conflict in later stages. This concurs with the view of Yusran et al. (2017) who emphasizes that most land conflicts are rarely effectively resolved (permanently) through institutional change, but are merely *settled* (temporarily). A second outcome is that issues that occurred during the reform implementation have been blindsided. The court findings indicated that malpractices in implementation were prevalent, which often formed the basis for revocation. This stands in stark contrast to official accounts that regard the titles as infeasible or 'iron evidence' to resolve tenure conflicts (SFA, 2011).

While the two datasets thus suggest that titling was not a direct driver of conflicts, the new titles may, however, be characterized as new *indirect drivers* in China's already complex tenure arrangement. This can be explained in several ways. First, in the context of an aging population and stringent cutting restrictions, the values and uses of household forests are currently low, and therefore pressures over forests rarely surge (see Krul et al., 2020). Second, and closely related, specific contents such as boundaries and parcel sizes were ambiguously recorded in the new titles, which meant that overlapping land claims could persist. Third, in sensitive areas where tenure disputes prevailed, titling was delayed and no new titles were issued.²⁵ Finally, information asymmetries were formed between the 'principals' and 'agents' of titling. Although the county government takes legal liabilities for forest titles, critical steps in implementation were conducted by those at the township and village levels. While most of the violations occurred here, such as signature forgery, malpractices have (willingly or unwillingly) remained outside the scope and control of county authorities.

Considering the titles as new indirect drivers of forthcoming tenure conflicts, rather than direct drivers at present, a particular concern for households is that according to Administrative Litigation Law the statute of limitation is two years in most cases.²⁶ Although some households may be aware of ill-practices during implementation, previous evidence suggests that individuals often do not have the resources or knowledge to respond, let alone challenge authorities in court (Appendini, 2001; Broegaard, 2009). Although our findings bear some optimism about households' chances to succeed in court when authorities are challenged, appealing against formerly distributed titles will be more difficult with time to come.

7. Concluding remarks

With over 100 million new titles issued in the Chinese forest sector, and titling well underway in other sectors (Zhan, 2019), China is *en route* to engineering one of the most profound land titling projects in the

²⁵This is in line with the reform's guidelines. However, in our empirical observations we encountered one township where titles had been printed, but were not distributed yet for at least seven years.

²⁶We found several inconsistencies and varying interpretations of the litigation period. According to the Administrative Procedure Law the litigation period is six months and in some cases this is extended to two years, however it can be extended to twenty years in case it is related to real estate. While these periods were used interchangeably, in other instances they were overruled. In LN-2016-1402-59, for instance, a title was issued in 2009, but the plaintiff sued the county government only in 2016. While the county government explicitly pleaded that the litigation limitation passed, the court ruled in favor of the plaintiff that the documents were forged and on that basis the title was revoked, which was deemed more important than the litigation period.

twentieth-first century. Yet, China's experience has received only modest attention in international discussions on land titling, let alone on the less-pronounced aspect of conflict resolution. Addressing both gaps with the case of Chinese forest titling, this study was also directed to challenges around the study of land conflicts and titling.

To do so, we analyzed two types of conflicts – latent and manifest – represented by an empirical and judicial dataset, respectively. Accounting for two types of tenure conflicts that significantly differ in terms of perceptibility and institutionalization, the combined insights from the two datasets offered new insights in the long-term effects and outcomes of titling. Although our approach has its constraints, most profoundly the lack to include all intermediate stages in conflict manifestation, it was able to address some of the epistemological limitations of previous studies on land use conflicts – that remain predominantly derived from emblematic, empirically-visible conflicts (Yusran et al., 2017).

The yield of this approach, which responds to recent calls to extend our analytical focus beyond the initial allocation of rights alone (Arrunada, 2017), can be best explained by returning to our case under study. With regard to contrasting views that position titling either as conflict driver or remedy, it appears China's experience would not be fully addressed by either view. Based on our findings, in most instances the titles were not a direct driver to conflicts – however, they were also not a remedy based on their high revocation rate in court. Instead, after a decade since its introduction, titling might have actually evolved as a new indirect conflict driver in China's already ambiguous tenure arrangement. Strikingly, issues related to its implementation have remained concealed at village levels, outside regulatory frameworks. Although the implications of these outcomes are not clear yet, it is evident that our conclusions flag concerns about the alleged benefits in terms of credibility, stability, and security often expected from land titling. We emphasize that the mere act of titling is no closed book, but instead a *long term, protracted process* that will continue to unfold.

CRedit authorship contribution statement

Kees Krul: Conceptualization, Methodology, Formal analysis, Resources, Writing - original draft, Writing - review & editing. **Peter Ho:** Funding acquisition. **Xiuyun Yang:** Conceptualization, Methodology, Resources, Writing - review & editing, Funding acquisition.

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