

Reworking land reform

A credibility approach to property rights in China's forest sector

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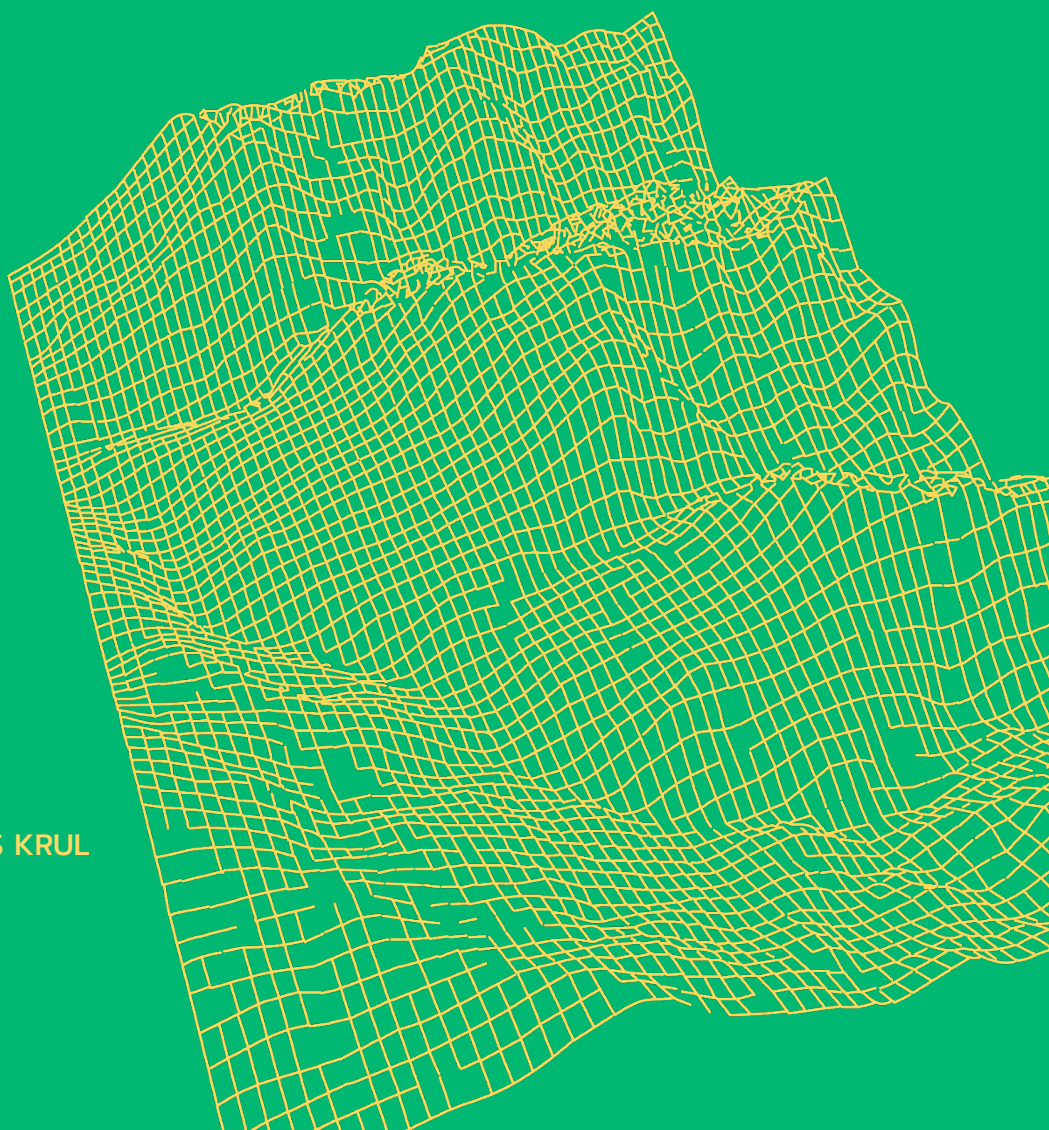
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KEES KRUL



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Dissertation

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Tuesday 21 September 2021 at 12:30 o'clock

by

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About the cover: The cover shows a 3D-wireframed geographical model featuring Xinqicun village (Hunan province), one of the village visited during this dissertation's fieldwork.



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It's just that you're about to do something out of the ordinary. And after you do something like that, the everyday look of things might seem to change a little. Things may look different to you than they did before. But don't let appearances fool you. There's always only one reality.

Haruki Murakami in *1Q84*

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This dissertation marks the end of my doctoral journey, and what an exciting journey it has been: from the high altitudes of the Wuling mountains to the Dutch lowlands, from the baking-hot temperatures of Chongqing's summer to a cold and dark Swedish winter, and from the vast and remote Chinese countryside to Singapore's urban jungle. The last few years have been challenging but rewarding, and I could not have completed my dissertation without those who helped me along the way.

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Kees Krul

Amsterdam, September 2021

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Summary

Land reforms play a central role in the political economy of developing countries. By regulating the access, use, and control of resources, reforms affect the livelihoods of those dependent on land and inform economic development and sustainable resource management. While the need and potential for institutional reform for land and resources are widely acknowledged, there is increased recognition that their intended effects rarely come to fruition. Rather than improving livelihoods or enhancing resource outcomes, counter-productive policy prescriptions and misguided land reforms are often witnessed instead. This is commonly due to local complexities, dynamics, and realities that are insufficiently acknowledged in reform designs and processes.

This study offers a credibility approach to land reform with specific reference to property rights. The credibility concept received renewed scholarly interest in the literature under the ‘credibility thesis,’ which considers credibility as the perceived social support of a given institutional arrangement (Ho, 2014). The credibility thesis offers a functionalist approach to institutional theory and is applied in this research to dissect the specific functions, roles, and purposes that actors accord to institutions. Assessing property rights reform based on credibility, rather than on efficiency and distributional consequences, draws analytical attention to the relations between property rights and their embedded political, legal, and social structures.

The credibility lens is employed in China’s forest sector, which from 2008 has been the target of one of the world’s largest land-reform undertakings under the Collective Forest Tenure Reform (CFTR). The reform has introduced far-reaching changes in China’s property rights arrangements, with the objective of making the sector more compatible with the market economy and improving the livelihoods of rural households. Official figures estimate that more than 500 million rural households are affected by the reform, and over 100 million new forest titles have been issued that collectively register 180 million hectares of land. The implications of such achievements for socioeconomic development in China’s forest sector are addressed in the main research question of this dissertation:

“How has property rights reform influenced socioeconomic development in China’s forest sector?”

In answering this question, fieldwork was carried out in the Wuling Mountain Area (WMA) in southwest China. A total of 331 valid household surveys were collected in eight counties across four provinces, complemented by 29 semi-structured interviews with county officials, village leaders, and tenure experts. Three structural phases of property rights reform are selected for further empirical investigation, namely how property rights are (i) *established*, (ii) *enforced*, and (iii) *exercised*.

The first phase of the CFTR called for clarification and registration of forest rights, which are subsequently *established* into a new, uniform state-sanctioned forest title. The empirical analysis shows that although new formal titles were widely distributed, the majority of titles lacked accurate information due to ambiguously recorded boundaries and parcel sizes. Moreover, potentially controversial issues were left unresolved and titles were not issued in disputed areas. Interviews with local officials indicated that administrative capacities were constrained due to human, time, and financial limitations, and also because most local authorities considered it not necessary or economically viable to survey all forest parcels in their administration. This created significant discrepancies between the rights intended by central policymakers versus those actually implemented by local authorities and possessed by households. Accordingly, the forest titles resemble what has been characterized as an ‘empty institution,’ that is, an institution that appears credible but with little effect on individual behavior.

The second and subsequent phase considered in this research is how the newly established forest titles are *enforced*. The stated long-term objectives of the CFTR intend for forest titles that are conducive to creating a secure and stable institutional environment. To assess how such aims have materialized, this study assesses whether titling has been an effective and credible instrument in resolving tenure disputes. Two types of conflicts are analyzed, ‘latent’ conflicts (perceived conflicts at the grassroots level) and ‘manifest’ conflicts (escalated conflicts adjudicated in courts). While latent conflicts were largely unaffected and unresolved by titling, the analysis of manifest conflicts similarly shows that most conflicts over titles only began *after* completion of the titling process. Nonetheless, when titles were contested and arbitrated in court, nearly half of all new forest titles were revoked due to insufficient evidence, violation of legal procedures, or due to the use of incorrect procedures during the implementation. This suggests that the new titles failed to act as credible remedies to tenure disputes and instead functioned as new indirect drivers to tenure disputes.

The third phase of reform assessed in this research is about how rights are *exercised* and perceived by households. The CFTR provides households with more rights and decision-making powers concerning forest management, including the lease and transfer of rights, intending to provide new incentives and economic benefits for households. Although the changes to management, alienation, and income rights rallied social support, few households were sufficiently incentivized to exercise their rights. This is explained by reasons that are not directly attributed to property rights, but instead due to low economic interest in household forests. Economic interest was low due to constraints from users (the absence of an active group able to turn forests into more profitable uses), the market (a lack of demand for both forest land and resources), and the state (imposing strict cutting restrictions). The results indicate that the outcomes of property rights reform cannot be solely attributed to rights

alone, but are strongly influenced by the specific needs and characteristics of both users and resources.

Combined, the insights into how property rights are established, enforced, and exercised help answer the main research question. The first part of the answer is that the reform appears credible at present, since the property rights changes and forest titles rallied support from relevant stakeholders and caused little friction in China's tenure arrangement. Yet, for the area under study, the results also indicate that the reform contributed little to socioeconomic development in China's forest sector. Most clearly, no tangible contributions were observed concerning the intended effects of improving tenure security, stimulating investment or market transactions, or generating new incentives and economic benefits for rural households. This can be explained by the discrepancies that are observed between the intended formal property rights versus the rights actually established, enforced, and exercised. These discrepancies further suggest that the credibility of the reform remains in a precarious position, and that reform initiatives can be easily jeopardized by future socioeconomic change.

Besides offering new insights into the workings and outcomes of China's forest reform, the study is also useful to gauge the relevance of the 'credibility thesis' as an alternative, emerging, and function-oriented approach to institutional theory. This is made explicit in the secondary objective of this dissertation, which scrutinizes the theoretical relevance of the credibility thesis for institutional analysis. While the credibility thesis is theoretically relevant as a contemporary framework to reevaluate and operationalize the ideas of original institutional economics (OIE), its theoretical contributions are constrained by an unwarranted neglect of institutional forms together with unfalsifiable claims about institutional function. The main relevance of the credibility thesis, therefore, revolves around its empirical basis by offering new methodological tools to facilitate detailed empirical analyses of how institutions function in their temporally- and spatially- defined context. This is particularly valuable in developing contexts – including situations in which authorities have limited capacity, enforcement is problematic, and markets are underdeveloped.

The study concludes with two sets of recommendations that are respectively directed to policymakers and institutional theorists. The first recommendation suggests that rather than the universal implementation of the 'right' institutional forms, policymaking might be better guided by starting from a clearly defined objective from which appropriate gradual and context-specific institutional treatments can be selected. This is particularly relevant for countries with high domestic variation in terms of economic, cultural, and geographical conditions, such as China. The second recommendation calls on institutional theorists and property rights analysts to be more humble, synthetic, and outward-looking in developing institutional theories. A broader analytical scope that considers the different dimensions of institutions, including their credibility, is important to reevaluate institutional arrangements

that in orthodox accounts would be perceived as socially undesirable or economically inefficient. This analytical shift is particularly welcomed, if not explicitly required, to accurately explain institutional change in China's remote hinterlands and other developing contexts.

Samenvatting

Het herverdelen van de eigendomsrechten van land speelt een belangrijke rol in de politieke economie van ontwikkelingslanden. Door het reguleren van de toegang, het gebruik en het beheer van natuurlijke hulpbronnen hebben landhervormingen niet alleen gevolgen voor degenen die afhankelijk zijn van deze hulpbronnen, maar beïnvloeden zij ook economische en duurzame ontwikkeling op macroniveau. Hoewel de noodzaak van institutionele hervorming breed wordt erkend, is gebleken dat de beoogde effecten van landhervormingen zelden werkelijkheid worden. Beleid is vaak contraproductief en leidt tot ongewenste effecten, welke veelal veroorzaakt worden door onvoldoende afweging van de lokale complexiteit en een verkeerde dynamiek in de hervormingsontwerpen en -processen.

Dit proefschrift presenteert een *credibility*-benadering van landhervorming met een specifieke focus op eigendomsrechten van grond. Het concept van *credibility* heeft onlangs hernieuwde belangstelling gekregen in de literatuur onder de ‘*credibility thesis*,’ waar *credibility* wordt beschouwd als de gepercipieerde sociale steun van een institutioneel arrangement (Ho, 2014). De ‘*credibility thesis*’ biedt een functiegerichte benadering van institutionele theorie en wordt in dit onderzoek toegepast om de specifieke functies, rollen en doelen te ontleden die actoren aan instituties toekennen. Door de uitkomsten van hervormingen te beoordelen op basis van *credibility*, in plaats van enkel op efficiëntie of distributie-effecten, wordt de analytische aandacht gevestigd op de relaties tussen eigendomsrechten en hun ingebedde politieke, juridische en sociale structuren.

De *credibility* theorie wordt toegepast op China’s bossector, waar sinds 2008 één van de grootste landhervormingsprojecten in de afgelopen decennia heeft plaatsgevonden – de Collective Forest Tenure Reform (CFTR). De hervorming behelst een reeks vergaande maatregelen omtrent China’s eigendomsrechtenregeling van bos, met als doel de bossector te vercommercialiseren en de levensstandaard van boeren te verbeteren. Officiële cijfers schatten dat de hervorming het leven van meer dan 500 miljoen mensen beïnvloed, en dat er meer dan 100 miljoen nieuwe eigendomsbewijzen zijn uitgegeven die gezamenlijk 180 miljoen hectare grond registreren. De gevolgen van dergelijke prestaties voor de sociaaleconomische ontwikkeling van de Chinese bossector worden behandeld in de hoofdonderzoeksvraag van dit proefschrift:

“Hoe hebben veranderingen in eigendomsrechten de sociaaleconomische ontwikkeling van China’s bossector beïnvloed?”

Om deze vraag te beantwoorden is veldwerk verricht in de Wuling Mountain Area (WMA), gelegen in het zuidwesten van China. In totaal werden 331 enquêtes afgenomen onder huishoudens in vier provincies, aangevuld met 29 semigestructureerde interviews met

lokale ambtenaren, dorpsleiders en experts. Voor de empirische operationalisering zijn drie structurele fasen van de hervorming verder uiteengezet, namelijk hoe eigendomsrechten worden (i) *vastgelegd*, (ii) *gehandhaafd*, en (iii) *uitgeoefend* onder de CFTR.

De eerste fase van de CFTR riep op tot verduidelijking en registratie van eigendomsrechten, die vervolgens binnen de eerste vijf jaar van de hervorming werden *vastgelegd* in nieuwe, door de staat gesanctioneerde, grond-certificaten. De empirische analyse laat zien dat, hoewel de nieuwe certificaten op grote schaal zijn uitgegeven, er bij de meerderheid van de certificaten informatie onjuist was of ontbrak – voornamelijk ten aanzien van perceelsgrenzen en -oppervlakten. Bovendien bleven bestaande geschillen onopgelost en werden er in controversiële gebieden geen nieuwe certificaten uitgegeven. Uit interviews met lokale ambtenaren bleek dat de bestuurlijke capaciteit beperkt is door tijd, geld en gebrek aan personeel, maar ook doordat de ambtenaren het niet nodig en economisch rendabel vonden om alle percelen in te meten. Dit leidde tot aanzienlijke discrepanties tussen de formele rechten die de centrale beleidsmakers beoogden uit te geven, versus de rechten die de boeren daadwerkelijk ontvingen. De nieuwe certificaten worden gekenmerkt als een ‘lege’ institutie, dat wil zeggen een institutie die wél *credible* (geloofwaardig) lijkt maar verder weinig invloed heeft op het individuele gedrag.

De tweede en opvolgende fase die in dit onderzoek is onderzocht is hoe de nieuwe certificaten worden *gehandhaafd*. Volgens de lange termijn doelstellingen van de hervorming zijn nieuwe eigendomsrechten vastgelegd om een stabiele institutionele omgeving te bewerkstelligen. Om te beoordelen of dergelijke doelstellingen zijn verwezenlijkt, is bestudeerd of het vastleggen van eigendomsrechten in nieuwe certificaten een effectief (en *credible*) instrument is geweest om eigendomsgeschillen te verminderen. Twee soorten conflicten zijn geanalyseerd: ‘latente’ conflicten (waargenomen geschillen tussen huishoudens) en ‘manifeste’ conflicten (geëscaleerde geschillen tussen huishoudens die door de rechtbank worden berecht). Terwijl latente conflicten grotendeels onaangetast en onopgelost bleven tijdens de hervorming, toonde de analyse van manifeste conflicten aan dat de meeste geschillen pas begonnen *nadat* de rechten al waren vastgelegd in nieuwe certificaten. Toen de certificaten eenmaal werden beslecht door de rechtbank is bijna de helft van alle nieuwe certificaten verworpen vanwege onvoldoende bewijs, schending van de juridische procedures of het gebruik van onjuiste procedures tijdens de implementatie. Dit laat zien dat de nieuwe certificaten in veel gevallen geen *credible* oplossing voor eigendomsgeschillen bood, maar eerder een indirecte oorzaak was.

De derde en laatste fase van de hervorming die in dit onderzoek is bestudeerd betreft de *uitoefening* van de rechten door boeren. De CFTR geeft boeren meer recht op eigen bosbeheer en besluitvorming, inclusief de mogelijkheden tot verpacht en overdracht van eigendomsrechten – met als doel boeren nieuwe prikkels en economische voordelen te bieden. Hoewel de veranderingen omtrent management-, aliënatie- en inkomensrechten sociale

steun verkregen, werden maar weinig boeren voldoende gestimuleerd om deze nieuw verworven rechten daadwerkelijk uit te oefenen. Betrokkenen zien weinig economische waarde in de bosgebieden als gevolg van beperkingen voor gebruikers (de afwezigheid van een actieve groep die de bossen kunnen omzetten in meer winstgevende exploitatie), de afwezige markt (een gebrek aan vraag naar bos) en de rol van de staat (die strikte beperkingen oplegt). De resultaten onderschrijven dat de uitkomsten van landhervormingen in eigendomsrecht niet enkel aan de rechten zelf kunnen worden toegeschreven, maar sterk worden beïnvloed door de specifieke kenmerken en behoeften van zowel gebruikers als natuurlijke hulpbronnen zelf.

De gezamenlijke inzichten over hoe eigendomsrechten worden *vastgelegd, gehandhaafd, en uitgeoefend* in China's bossector helpen om de hoofdonderzoeksvraag te beantwoorden. Het eerste deel van dit antwoord is dat de CFTR momenteel grotendeels *credible* is, aangezien de veranderingen in eigendomsrechten steun krijgen van relevante belanghebbenden en daarnaast tot weinig frictie hebben geleid. De resultaten geven echter ook aan dat de hervorming weinig heeft bijgedragen aan de sociaaleconomische ontwikkeling van de Chinese bossector. Zo werden er geen concrete bijdragen waargenomen met betrekking tot de beoogde doelen voor het verbeteren van de eigendomszekerheid, het stimuleren van investeringen en markttransacties, of het voortbrengen van nieuwe prikkels en economische voordelen voor boeren. Dit kan worden verklaard door de waargenomen discrepanties tussen de *beoogde* formele eigendomsrechten van centrale beleidsmakers, versus de *werkelijke, wettelijke, en vermeende* rechten in de praktijk. Dergelijke discrepanties suggereren ook dat de credibility van de hervorming in een precaire positie blijft en dat de uitkomsten van de CFTR gemakkelijk kunnen worden ondermijnd door toekomstige sociaaleconomische verschuivingen.

Naast het bieden van nieuwe inzichten in de werking en uitkomsten van China's boshervorming, leent de studie zich ook om de relevantie van de 'credibility thesis' te toetsen als een alternatieve, opkomende en functiegerichte benadering voor institutionele theorie. Dit wordt expliciet gemaakt in de secundaire doelstelling van dit proefschrift, waar de theoretische relevantie van de 'credibility thesis' voor institutionele analyse nader uiteen wordt gezet. Hoewel de 'credibility thesis' theoretisch relevant is om de ideeën van origineel institutionele economie (OIE) te herwaarderen en verder te operationaliseren, worden de theoretische bijdragen ervan beperkt door een verwaarlozing van institutionele 'vormen' tezamen met niet-falsifieerbare beweringen over institutionele 'functie.' De belangrijkste bijdrage van de 'credibility thesis' stoelt daarom op haar empirische basis, en specifiek het aanbieden van nieuwe methodologische instrumenten voor gedetailleerde empirische analyses om te begrijpen hoe instituties functioneren in hun temporaal- en ruimtelijk-gedefinieerde context. Dit is met name toepasbaar in ontwikkelingscontexten, waaronder

situaties waarin de capaciteit van autoriteiten beperkt is, handhaving problematisch is en markten onderontwikkeld zijn.

Het onderzoek sluit af met twee reeksen aanbevelingen die respectievelijk zijn gericht aan beleidsmakers en institutionele theoretici. De eerste aanbeveling suggereert dat in plaats van het najagen van de ‘juiste’ universele institutionele vormen, beleid beter kan vertrekken vanuit een duidelijk omschreven probleem- of doelstelling. Op basis hiervan kan vervolgens een geleidelijke en context-specifieke benadering worden bedacht. Dit is met name relevant voor grote landen, waaronder China, waar de binnenlandse economische, culturele en geografische verschillen groot zijn. De tweede aanbeveling roept institutionele theoretici en analisten van eigendomsrechten op om een meer nederige, synthetische en bredere houding aan te nemen bij de ontwikkeling van institutionele theorie. Een breder perspectief dat rekening houdt met de verschillende dimensies van instituties, waaronder hun credibility, is nodig om bestaande instituties te (her)evalueren – met name deze die in orthodoxe benaderingen worden getypeerd als sociaal onwenselijk of economisch inefficiënt. Een analytische verschuiving is nodig, zo niet noodzakelijk, om de institutionele veranderingen in China’s afgelegen achterland en andere ontwikkelingsgebieden te blijven omvatten.

Summary (中文)

土地改革是发展中国家经世济民、治国安邦之重器。通过规制资源的进入、使用和控制，土地改革不仅影响以土地为生的人的生计，而且关系经济发展和资源的可持续管理。虽然对土地和资源制度的改革之需求和潜在收益仍广泛认同，但学界对改革很少能达到其预期目标的认知也与日俱增。现实世界中，能达到改善生计或加强资源管理的改革寥寥无几，适得其反的政策处方和误导性的改革却比比皆是。这往往是由于改革的设计和过程没有充分重视地方的复杂性、动态性和现实性。

为了更好地解释土地改革如何实现其预期目标，本研究介绍了“制度可信度理论”。对改革的制度可信度的评价，将分析的注意力从效率和分配结果转移到制度与其嵌入的社会环境的内生性和非有意的互动。因此，本研究荟萃“制度可信度理论”及相关文献之精华，沿用其分析框架和方法工具箱，剖析利益相关者赋予制度的特定功能、角色和目标。

本研究将“制度可信度理论”应用到中国的林业改革。中国的集体林权制度改革是现代最大规模的土地改革之一，为中国的产权安排引入了一系列广泛而深远的措施，目的是使该部门与市场经济更加兼容，并改善农村家庭的生活。官方数字估计，这一改革涉及到 5 亿多农民，1 亿多本林权证发到农民手里，1.8 亿公顷的集体林地被确权。这些改革成就对中国林业部门的社会经济影响形成本研究的主要研究问题，即：

“产权改革如何影响中国林业部门的社会经济发展？”

为了回答这一问题，作者在中国西南地区的武陵山区进行了实地调查，在 4 个省的 8 个县共收集了 331 份有效问卷，并与主管林业的县级政府官员、村干部和产权研究专家等进行了 29 次半结构化访谈。作者选择了产权改革的三个阶段以进行进一步的实证研究，即产权是如何(i) **建立**, (ii) **实施**, 和 (iii) **行使**的。

集体林权制度改革的第一个阶段是明晰产权、勘界发证，其目的是**建立**和核发全国统一式样的林权证。实证研究显示，虽然新的林权证已经被广泛发放，但是大部分林权证都缺少准确的边界和林地面积等关键信息。同时，潜在的林权纠纷被搁置，权属有争议的林地暂未发放林权证。受访的地方官员表示，造成这一现状的原因不仅是由于人力、时间和财政约束而导致的行政能力有限，更是因为大多数受访地方官员认为没有必要或者经济可行性去把辖区内所有的林地都实地勘界确权。这导致中央决策者**期望**的权利与农户**实际**持有的权利之间存在重大差异。因此，集体林地确权发证看上去更像是“空制度”，即看起来可信但对个人行为影响很小的制度。

本研究接下来评估改革的第二阶段，即新建立的集体林地产权制度是如何被**实施**的。集体林权改革的总体目标是建立稳定的制度环境，形成林业的良性发展机制。为了评估这些目标是否以及如何实现的，本研究评估确权登记是否是解决林权纠纷

的有效和可信的工具。这里分析了两种类型的冲突：“隐性”冲突（草根层感知到的冲突）和“显性”冲突（升级进入到法院诉讼的冲突）。尽管隐性冲突在很大程度上不会受到确权登记的影响，也无法通过确权登记解决，但对显性冲突的司法案例分析表明，大多数冲突仅在**确权登记完成后**才开始浮现。但是，当林地权属争议诉至法院时，由于证据不足，违反法律程序或在实施过程中使用了不正当的程序，近一半的林权证被撤销。这可能表明，新的林权证未能作为林地权属纠纷的可靠补救措施，相反，却充当了新的权属纠纷的间接触发器。

本研究接下来评估改革的第三个阶段，即产权是如何**行使**的和农户是如何感知其权利的？集体林权改革赋予农户更多的权利和林地管理的决定权，包括林地承包经营权的出租和转让，以期提供新的激励和经济收益。虽然放活经营权、落实处置权和保障收益权的改革得到了社会支持，但是仅仅只有少数农户受到激励并行使其权利。造成这种现象的原因并非直接归因于产权，而是由于人们认为森林的经济价值较低。经济价值低是因为参与主体均受到约束：对林地和林木**使用者**而言，缺乏能够将森林转变为更有利可图的用途的活跃的团体；对**市场**而言，缺乏对林地和林木的需求；对**政府**而言，其实施了严格的砍伐限制而没有提供足够的补偿。结果表明，产权改革的结果不能仅由权利单独赋予，而受使用者和资源的特定特征和需求的影响。

综上所述，如何建立、实施和行使产权的实证洞见有助于回答本研究的主要研究问题。答案的第一部分是，目前的改革在很大程度上是可信的，因为产权的变化和林权证得到了有关利益相关者的支持，并且几乎没有引起矛盾。然而，结果表明，这项改革对中国林业部门的社会经济发展几乎没有贡献。最明显的是，在改善产权安全、刺激投资或市场交易、激发农民发展林业生产经营的积极性和增加农民经济收益方面，未见有明显的贡献。这可以通过预期的正式产权与实际的、法律的和感知的产权之间的功能差异来解释。这种差异还表明，集体林权改革的制度可信度仍然不稳定，而且很容易被未来的社会经济变化所削弱。

该研究除了提供有关中国林地改革运作和成果的新见解之外，还有助于评估“制度可信度理论”是否能成为一种替代的、新兴的、基于功能视角的方法来评价和解释制度变迁。这也是本文的第二个目标，即仔细研究制度可信度理论在制度分析中的理论和经验适用性。在理论层面上，制度可信度理论重新评价和操作化了老制度经济学的经典概念。但是，由于其简单化或有意无意地忽略掉某些现存制度经济学文献，制度可信度理论的贡献必然受到一定程度的削弱。因而，制度可信度理论更多的贡献在于实证经验的适用性，即通过提供新的分析工具和方法来获得更多制度在其特定时空环境中如何运作的系统性知识。在发展中国家，改革常常面临宏观结构的缺失和困难的执行环境，因而，制度可信度理论对于了解这些国家的制度改革尤其重要。

本研究的结论部分为政策制定者和制度理论家们各提供了一套建议。第一个建议是与其全面实施一个所谓的“正确的”改革形式，政策制定最好是从先有一个清晰界定的目标开始，再基于此目标去选择适合此情境的制度干预。这一点对于像中国那样幅员辽阔的国家而言尤其重要，这些国家的经济、文化和地理条件在国内差异巨大。第二项建议则呼吁制度理论家和产权分析师在发展制度理论时要更谦虚，更综合和更向外包容。应当秉持一个更宽泛的视角，从而考虑到包括制度可信度在内的制度的不同纬度。这样的一个视角有助于重新评估那些在传统视角下被视为社会上不受欢迎或经济效率低下的制度安排。为准确地解释中国偏远的内地和其他发展中国家的制度变迁，这种分析视角的转变，如果不是必需的话，尤其受欢迎。

Acronyms

ALL	Administrative Litigation Law
APL	Administrative Procedure Law
CAM	Conflict Analysis Model
CCFP	Conversion of Cropland to Forest Program
CFTR	Collective Forest Tenure Reform
CCCPC	Central Committee of the Communist Party China
ERC	European Research Council
FAO	Food and Agriculture Organization of the United Nations
FAT	Formal, Actual, and Targeted
FHRS	Forest Household Responsibility System
GDP	Gross Domestic Product
HCRS	Household Contract Responsibility System
IMF	International Monetary Fund
NCE	Neoclassical Economics
NFGA	National Forestry and Grassland Administration
NFPP	National Forest Protection Program
NIE	New Institutional Economics
NRM	Natural Resource Management
OIE	Original Institutional Economics
PES	Payment for Ecosystem Services
PRC	People's Republic of China
RLCL	Rural Land Contracting Law
RRI	Rights and Resources Initiative
SFA	State Forestry Administration
STPR	Separating Three Property Rights
USD	United States Dollar
WMA	Wuling Mountain Area

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Chapter 1

Introduction

1.1. Beyond institutional monocropping of land reform

In eighteenth-century Prussia, government officials were dissatisfied with the ‘chaotic’ character of old-growth forests. Therefore, they developed a scientific approach to replace the long-standing forests with new monoculture forests – planted with high-utility *Normalbaum* for optimal administration and monetization. The scheme worked well and established the modern standard of forest management in Europe. Over time, however, it became evident that the complex ecosystem—crucial for the forests’ resilience—was severely disturbed. Yields declined, and the monocropping led to the previously unknown phenomena of *Waldsterben* or forest death. The Prussian example, taken from Scott (1998), illustrates not only that resource systems are inherently complex – but also shows the potentially detrimental social, economic, and environmental consequences when specific time- and place-specific conditions are ignored. Similar to the intents of Prussian government officials, also policymakers and institutional theorists have remained tempted by the uniform imposition of idealized types of institutional forms as a ‘fix’ for development. Indeed, instances of institutional ‘monocropping’ (Evans, 2004) or ‘transplantation’ (de Jong et al., 2002) have been pervasive in policy circles.

Institutional monocropping is particularly evident in land reform where various ‘panaceas’ or ‘blueprints’ for efficient resource management have been proposed (see Ostrom et al., 2007). Land reforms play a central role in the political economy of developing countries, because they change the institutions which govern land and resources and determine the rules of *who* can use *what* resources under *which* conditions (Holden, Otsuka, et al., 2013; Larson et al., 2009; Lipton, 2009). The discussions of the need for institutional reforms around land and natural resources catalyzed when Hardin (1968) cautioned that government nationalization of natural resources was necessary for sustainable management. Otherwise, resources would inevitably become subjected to overexploitation – a ‘tragedy of the commons.’ In a similar vein, others proposed privatization and markets as the primary remedies for sustainable and efficient resource management (Cheung, 1970; Demsetz, 1967). Yet, Elinor Ostrom (Ostrom, 1990, 2005) demonstrated that nationalization and privatization are not always appropriate strategies for sustainable resource management. Accordingly, the debates about which property regimes and land tenure systems are preferable remain ongoing and unresolved (Kaufman, 2007; Ostrom & Nagendra, 2006).

These debates are complicated for a variety of reasons. First, institutions around land and natural resources comprise different aspects of resource management. For instance, resource rights comprise different ‘bundles’ of rights, such as the right to possess, use, or derive income from a resource (Galik & Jagger, 2015; Honoré, 1961; Schlager & Ostrom, 1992; Sikor et al., 2017). Moreover, the different bundles are often not owned or controlled by a single actor, but distributed between various claimants and stakeholders (Eggertsson, 1990;

Sikor et al., 2017). Multi-layered and hybrid types of institutional arrangements have emerged that exhibit complementarities among individual, state, and communal types of governance (Agrawal & Ostrom, 1999; Cleaver, 2001; Cronkleton & Larson, 2015; German & Keeler, 2010). Furthermore, resource governance is characterized by a complex “web of interests” where policy objectives are negotiated and contested over different political, economic, social, and ecological interests (Meinzen-Dick & Mwangi, 2009, p. 36; Rasmussen & Lund, 2018; Sikor & Lund, 2010).

The inherent complexity in resource governance means that designing and implementing effective institutional change remains difficult. If executed properly, institutional reform can result in meaningful socioeconomic outcomes such as economic development, livelihood improvements, and poverty reduction. Yet, the many uncertainties during and after reform processes inhibit successful institutional intervention and may cause counter-productive outcomes (Bromley, 2009; Meinzen-Dick, 2014; Putzel et al., 2015). A growing body of empirical literature provides evidence to the latter, demonstrating how institutional change results in rent-seeking, farmer dispossession, and societal conflict (André & Platteau, 1998; Boone, 2012; Chomba, 2016; Loehr, 2012; Ostrom, 1993). While the need and potential for institutional reform in resource settings are widely acknowledged, there is now a growing consensus that the anticipated relationship between institutional forms and their intended effects is not straightforward – no ‘silver bullets,’ ‘panaceas,’ or ‘blueprints’ guarantee particular outcomes of institutional change (Bromley, 2009; Dwyer, 2015; Ostrom, 2007). Instead, there has been increased recognition of the need to carefully match institutions with the specific contextual settings including local actors’ needs and interests (Agrawal, 2014; Cleaver, 2002; Clement & Amezaga, 2013; Gibson et al., 2002; Ho, 2014; Jagger, 2014; Ostrom, 2007).

Against this background, it is relevant to call attention to the recent development of the so-called ‘credibility thesis’ and the growing body of literature that builds on it (Ho, 2013, 2014).¹ By looking at how institutions align with actors’ needs and preferences, what role or purpose they fulfill, and how they find their meaning, the concept of credibility focusses on the interactions between institutions and the embedded social context (Diermeier et al., 1997; Grabel, 2000). Here, the credibility thesis offers a general conceptual framework and an analytical toolset for a systematic unpacking and understanding of institutional credibility. To do so, it focusses on institutional *function* as the key variable to assess the impact of institutional change in specific contexts, rather than institutional *forms* or designs as inherent in the panacea or blueprint approaches (Agrawal et al., 2014; Aron, 2000; H. J. Chang, 2007; Grabel, 2000). As Ho (2014, pp. 13–14 italics in original) elaborates:

¹ Since 2014, the credibility thesis has been featured in over forty empirical studies. A complete overview is provided in Chapter 2.

“[W]hat ultimately determines the performance of institutions is not their *form* in terms of formality, privatization, or security, but their spatially and temporally defined *function*. In different wording, institutional *function* *presides over form*; the former can be expressed by its credibility, that is, the perceived social support at a given time and space”.

This statement, including the accompanying notions of institutional function and credibility, is further explained and defined in the following chapter. For now, it is important to observe that the credibility thesis has been applied to study a wide range of institutional phenomena across different settings. Examples include Indian labor markets, civil-law notaries in Mexico, water institutions in Bangladesh, extra-legal housing in China, and real estate in Ethiopia (Gomes & Hermans, 2018; Mengistu & van Dijk, 2018; Miyamura, 2016; Monkkonen, 2016; Zheng & Ho, 2020). These studies have offered new insights to explain why institutional interventions often fail to create credible outcomes, and contrarily, why seemingly socially-undesired or economically inefficient institutional arrangements have persisted due to their credibility (Ho, 2020).

The credibility thesis is employed in the present research to offer new perspectives on the question how land tenure reforms deliver intended purposes. Specifically, the focus on credibility and function draws the focus away from institutional blueprints or ‘monocropping.’ Instead, it brings attention to the contextual variables and social interactions that influence land reform outcomes. The next section expounds on why recent tenure reform in China’s forest sector is relevant to substantiate the dissertation’s endeavor empirically.

1.2. China’s forest reform: An institutional success story?

In *How China became Capitalist*, Ronald Coase and Ning Wang (2012) describe how China departed from a centrally planned economy under Mao, towards a market-oriented economy after the third plenary session in 1978. It signaled a new era, also referred to as the ‘reform and opening-up’ (*gaige kaifang*) or reform period, in which the Chinese economy underwent a phase of unprecedented economic growth (C. Xu, 2011).

Particularly during the early phases of development, economic growth is often paired with resource exploitation to satisfy economic demands (Coe et al., 2007). While China’s development indeed led to an increase in resource consumption—as for instance witnessed by the ‘boom’ in the mining industry (Yang, 2018)—national forest inventories have shown sustained growth in both forest cover and stock volume, with the latter currently standing at 17,560 billion m³ (NFGA, 2019). In the mid-1970s, China’s first national forest inventory reported that forests accounted for less than 13% of all land in China, but by the ninth and latest inventory of 2018, this figure had increased to nearly 23%. On this basis, a recent report by China’s National Forestry and Grassland Administration (NFGA, 2019, p. 1) states that:

“In the past forty years of reform and opening up, remarkable achievements on forest protection and development have been made [...] China has entered a new era of ecological civilization to build a beautiful China.”

China’s forest conservation and afforestation efforts have gained international appraisal (Viña et al., 2016; G. Wang et al., 2007), particularly since its trajectory contrasts with the global trend of deforestation as observed in Brazil and Indonesia.² Juxtaposing China’s GDP and forest cover, as depicted in Figure 1.1, presents China’s remarkable development path over the last four decades. These two macro-indicators motivate a closer look at the role of institutions in China’s trajectory.

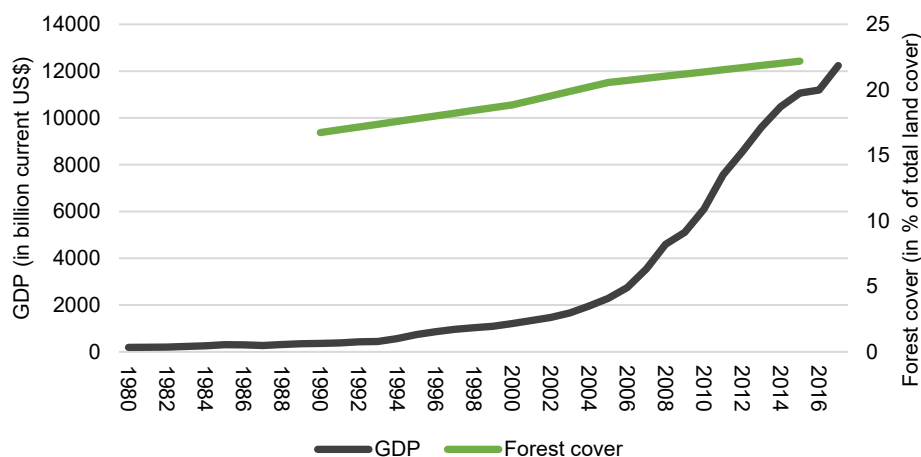


Figure 1.1. China’s gross domestic product (GDP) and forest cover, 1980-2017 (Source: World Bank National Accounts Data, and OECD National Account data files, Food and Agriculture Organization, accessed online at <http://data.worldbank.org>).

From an institutional perspective, China is often considered to have experienced an economic ‘miracle’ (World Bank, 1993) – the country was able to sustain a prolonged period of growth but in the absence of institutions that are often considered necessary for economic development (Goldfinch, 2016; Ho, 2017a; C. Xu, 2011). As Goldfinch (2016, p. 394) explains:

“Legally protected individual private property rights and a constrained state are doctrines of neoclassical economics-derived development theory. But what about China? It lacks strong rule of law, property rights can be collective, contested and ambiguous, and the state is relatively

² In the period 1990-2016, forest areas (as a percentage of total land cover) declined globally from 31.6% to 30.7%. In Brazil, this figure declined from 65.4% to 58.9%, while Indonesia recorded a decline from 65.4% to 49.9%. By contrast, China reported an increase from 16.7% to 22.4% in the same period (data retrieved from <https://data.worldbank.org/>, accessed July 29, 2020). For a comparison with other Asian countries, see Youn et al. (2016).

unconstrained and maintains a central role in the economy; yet it has seen impressive economic growth to take it to the world's second largest economy.”

There is still much to learn from China's unique institutional development. Notably, Chinese reform—with their own ‘Chinese characteristics’—may challenge or even contradict conventional theories to economic development (Coase & Wang, 2012; C. Xu, 2011). At the same time, the many paradoxes featured in China's development path makes it a “fascinating laboratory for economists precisely because so many received “truths” are challenged by the empirical evidence” (Bromley, 2005, p. 32).

One major institutional reform was undertaken in the country's forest sector since 2008. The Chinese forest sector is divided into a state-owned and collective-owned sector, establishing two different owners over China's forests (P. Liu et al., 2016). In the collective-owned forest sector, which comprises about sixty percent of China's forests, the Collective Forest Tenure Reform (CFTR) introduced a comprehensive range of far-reaching measures to restructure the forest sector. The reform aims to make the sector more compatible with market demands and improve rural households' livelihoods (P. Liu et al., 2016; J. Xu, 2010).

China's land regime is characterized by an important distinction between land *ownership* and land *use-rights* (Lin, 2009). For rural land, so-called ‘collectives’ hold land ownership rights, while the use-rights are contracted to individual households for a fixed lease term. While this constellation remains unchanged under the reform, the reform entails profound changes regarding farmers' use-rights. Specially, the CFTR aims to (i) clarify property use-rights; (ii) distribute new forest titles; (iii) grant households more decision-making power in forest management; (iv) permit the lease and transfer of forest rights; and, (v) improve households' income rights (FAO, 2013; He & Sikor, 2017; J. Xu, 2010; Yiwen et al., 2020). Parallel to the changes in tenure rights, the reform also initiated governance decentralization that shifted the main responsibility of forest reform to local governments (He & Sikor, 2017).

The World Bank described the CFTR as “arguably the largest land-reform undertaking in modern times in terms of area and people affected” (World Bank, 2016, p. 2). Indeed, official figures indicate that over 500 million rural households are affected by the reform, and over 100 million new titles have been issued that register over 180 million hectares of forestland (NFGA, 2019). Due to the scale of the reform, the CFTR forms an integral part of national socioeconomic development, including China's ‘new land reform’ and ‘rural revitalization’ policy that aim to bridge rural-urban disparities (Zhan, 2019). Meanwhile, Chinese forest reform also coincides with global trends in land reform, including land formalization and the devolution of tenure rights to households (Agrawal et al., 2008; Cronkleton & Larson, 2015; Deininger & Jin, 2009; Guneau & Tozzi, 2008; Hyde, 2015).

With the significance and relevance of the CFTR, both domestically and internationally, China's collective-owned forest sector provides a fruitful setting for this research. This study's focus is the influence of the CFTR on *socioeconomic* development, which is consistent with the reform's main objectives: Whereas the *social* objectives of the CFTR are about improving livelihoods of forest users, mitigating social conflicts, and improving tenure security, the *economic* objectives aim to develop the sector by permitting forest transfers and stimulating households' incentives to forest management.

1.3. Institutional economics and property rights

The CFTR incites significant *institutional change* in China's forest sector. Institutional change and institutions have been studied in various disciplines, including political science, sociology, and economics. Each discipline has developed different theories and methods to explain the influence of institutions on human behavior and their impact on organizational, economic, and political structures (Sauerland, 2015). The advancements made in different fields notwithstanding, this research is positioned in economics – foremost because questions around land and resource allocation form the basis of any economic system, and land is long considered a basic factor of production next to labor and capital (A. Smith, 1776). Since the late nineteenth century, economic theory has witnessed specific efforts to study the role of institutions for economic development (Commons, 1924; Veblen, 1899). These undertakings eventually laid the foundation for institutional economics (Hamilton, 1919), which gained further influence with the foundation of 'new' institutional economics in the mid-1970s (Coase, 1984; Williamson, 1975).

Within institutional economics, the term institution is often interchangeably used to describe both rules and organizations (Chavance, 2012). For conceptual clarity, this dissertation separates organizations from institutions and defines institutions as the 'rules of the game' which facilitate political, economic, and social interaction (North, 1990; Ostrom, 2005). Furthermore, institutions comprise both formal and informal rules. The former refers to codified rules and includes laws and policies, while the latter refers to non-codified rules such as customs, traditions, and norms (North, 1993). Since the present research is situated in the context of Chinese forest reform, where *formal* institutional changes are introduced to existing land tenure arrangements, the analytical focus is on the role of formal institutions in influencing reform objectives.

Similar to other instances of land reform (Alston et al., 1999; Lipton, 2009), the CFTR mainly affects property rights. Therefore, property rights are the specific type of formal institution this study examines. Property rights represent a "vital component of the basic institutional structure of an economy with property ownership" (Hodgson, 2018, p. 116) and have become a distinct and important unit of analysis in institutional economics (Alchian, 1965; Barzel, 1997; Bromley, 1991; Coase, 1960; Commons, 1924; Demsetz, 1967). In the

present study, property rights are defined as “a claim to a benefit stream that the state will agree to protect through the assignment of duty to others who may covet, or somehow interfere with, the benefit stream” (Bromley, 1991, p. 2). While the next chapter presents a full discussion on property rights, it is important to note that this definition encompasses different aspects of property rights that are scrutinized in this study. Following others who called for a specific inquiry into how property rights are specified, enforced, and transacted (Coase, 1960; Sjaastad & Bromley, 2000), this dissertation separates three critical phases of property rights reform under the CFTR: the (i) *establishing* of property rights; (ii) the subsequent *enforcing* of those rights; and, the (iii) *exercising* of property rights. These different phases are further explained in the next section.

1.4. Research objectives and questions

The objectives of this dissertation are twofold, structured along an empirical and theoretical objective. Two main research questions are put forward accordingly.

Objective I: Disentangling Chinese forest reform

The first and primary objective of this dissertation stems from empirical inquiry. Applying the credibility thesis to major Chinese institutional reform can illuminate new understandings of land tenure reform processes. Specifically, it helps to situate land reform within its embedded social context – including the role of local authorities, legal courts, as well as the needs and preferences of households. Through its focus on *understanding* institutional change, this study’s epistemic contribution is not to conceive a ‘grand theory’ or offer prescriptions about which institutional designs or interventions will work best. Instead, it is expected that a credibility perspective helps reveal new endogenous aspects and explanations to the workings and outcomes of institutional change in natural resource management. Moreover, existing theoretical claims might be (re)evaluated, and empirical testing of these claims in a non-Western setting can further complement, contradict, and advance institutional theory.

The first question corresponds to the primary objective of offering new perspectives of how formal institutional changes deliver reform objectives of socioeconomic development in China’s forest sector:

Question 1: How has property rights reform influenced socioeconomic development in China’s forest sector?

For empirical operationalization, three subquestions divide the research question. Each subquestion focusses on a different phase in property rights reform: (a) the initial allocation or *establishing* of new property rights; (b) the subsequent *enforcing* of these rights; and (c) the *exercising* of allocated rights by relevant actors. Although an analytical overlap between the

different subquestions is imminent, it is helpful to separate the reform into different phases as each phase embodies a distinct set of interests, objectives, and challenges in reform processes. Moreover, each phase is critical in shaping the reform's functioning and credibility, ultimately determining its influence on the stated socioeconomic development objectives. By looking at the initial stages (a) as well as the subsequent stages of reform (b and c), the dissertation aims explicitly to assess the *specific workings* and *longer-term implications* of the reform – rather than attributing the changes in property rights to direct causal effects. The relevance of this endeavor becomes more apparent when turning to each subquestion separately.

Question 1a: How are reform objectives of unified forest titling translated into locally established rights?

The first subquestion looks at the initial stage of Chinese forest reform: Establishing formal tenure rights through a new round of nation-wide forest titling. Formal objectives stipulate that all existing forest parcels must be measured and recorded through on-site surveys, after which new forest titles are distributed. This question assesses how such intentions have been implemented, perceived, and conducted by responsible authorities, households, and other relevant stakeholders. To do so, the analysis compares how *formal* (intended) rights of forest titling are matched with *actual* and *targeted* (desired) rights in China's forest tenure arrangement. By separating between formal and actual rights, the question highlights the role of state authorities in property rights reform – which is important because previous research in China has shown that governance dynamics (i.e., the relationship between central state authorities and local governments) frequently influence reform outcomes (He & Sikor, 2017).

Question 1b: How are property rights enforced after their initial allocation under China's forest titling reform?

An inherent feature of property rights is their protection by “some higher body” (Bromley, 1992, p. 2). After new forest titles are issued, it is imperative to examine how they are subsequently protected and enforced: For instance, previous studies indicated that when property rights are established in the absence of an independent and reliable judicial system, their significance and credibility are severely diminished (Fitzpatrick, 1997). Therefore, the second subquestion examines the enforcement of new forest titles and whether they have contributed to a stable and credible institutional environment over time. To do so, the question examines the role of titles when tenure rights are contested. Two types of conflicts are analyzed, ‘latent’ conflicts (imperceptible conflicts at the grassroots level) and ‘manifest’ conflicts (escalated conflicts adjudicated in courts). Complementing empirical data with

judicial data of court arbitrations, this question also addresses the legal basis of property rights reform (Hodgson, 2015).

Question 1c: How are forest property rights exercised and perceived by households under China's forest tenure reform?

The third subquestion focuses on the second and ongoing phase of the CFTR, in which households are granted more rights and decision-making power in forest management. Whereas in conventional analyses it is often assumed that rightsholders respond analogously to property rights changes, this question follows other studies that have indicated that the intended outcomes of reform only materialize if actors are sufficiently informed, aware, and supportive of their rights (e.g., Bromley, 1991; Galik & Jagger, 2015). The third question examines how changes were received and perceived by households for three rights affected by the reform: (i) management rights; (ii) alienation rights (including the right to lease and transfer forests); and (iii) income rights. In explaining how households exercise these rights, the analysis explicitly accounts for actors' specific attitudes, preferences, and knowledge that may influence individual behavior.

Objective II: Evaluating the relevance of the credibility thesis

Through an empirical application of the credibility thesis, it is intended that the first main question offers new explanations of Chinese forest reform. Besides this primary objective, extensive application of the credibility thesis in China's forest sector also means that the study becomes useful to assess the credibility thesis's potential and appropriateness for institutional analysis. In conjecture with growing interest and application of the credibility thesis in the empirical literature, the credibility thesis has been bestowed by Ho (2017b, p. 3) as a "alternative theory that could provide a more consistent explanation for the institutional phenomena around us." However, to date, a systematic evaluation of the credibility thesis to institutional theory is missing. Therefore, it is unclear how the credibility thesis—as an emerging and function-oriented institutional approach—may advance institutional theory. At the same time, the limiting aspects in offering such an 'alternative theory' remain unidentified. The secondary objective of this research addresses these theoretical gaps, and is guided by the second research question:

Question 2: What is the relevance of the credibility thesis for institutional theory?

The question is assessed from a theoretical and empirical perspective, given that the credibility thesis attempts to advance institutional theory both theoretically and empirically (Ho, 2014, 2017b). The theoretical basis of the credibility is explored by evaluating its main theoretical proposition that institutional function presides over form, with the latter considered irrelevant for explaining institutional performance and outcomes (Ho, 2013,

2016a, 2018a, 2020). The proposition is evaluated by drawing explicit links with original institutional economics (OIE), and through comparison with more conventional institutional approaches that have been developed under new institutional economics (NIE). The question also assesses the empirical basis of the credibility thesis, that is, its operational framework equipped with methodological tools specifically designed to dissect the nature and workings of property rights. Both theoretical and empirical perspectives help evaluate whether and under which conditions the credibility thesis may be relevant for institutional theory.

1.5. Methodology

This study uses a mixed-methods approach by combining qualitative and quantitative methods (Creswell, 2003). In addition to the existing relevant literature and theory, the research utilizes a broad range of sources (briefly discussed here, further explained in Chapters 3-5). The dissertation collects primary data from fieldwork conducted in the Wuling Mountain Area (WMA) in southwest China, an area that stretches over four provincial-level administrations (Chongqing, Hubei, Hunan, and Guizhou) and includes 71 counties (Figure 1.2 and Figure 1.3). The WMA is an appropriate research area for various reasons. First, the WMA stretches over various provinces and counties, which enhances the robustness of findings and enables comparisons between different administrations.

Furthermore, the WMA is a relatively poor and underdeveloped area, making it an appropriate area to assess the reform's objectives of rural development and poverty alleviation. Moreover, most existing studies on Chinese forest reform focused on key forested areas, or places where the Collective Forest Tenure Reform was piloted or initially introduced (e.g., Yunnan, Fujian, and Jiangxi). Much less is known about the impact of the reform outside these areas.

In 2017, two rounds of fieldwork were conducted as part of the Recoland project, a European Research Council (ERC) project hosted at Delft University of Technology between 2012-2018.³ A pilot study was undertaken between January and March 2017, during which 47 structured interviews were conducted with households in two centrally-located counties in Chongqing and Hunan. This formed the basis of a large-scale household survey conducted in the Fall of 2017. The survey was designed to capture household perceptions of forest property rights and their practices and uses of forest management. The survey (attached in the Appendix) was categorized into six parts: (i) basic household features; (ii) characteristics of households forest parcels; (iii) forest rights and uses; (iv) forest reform; (v) tenure conflicts; and (vi) a series of Likert-scale questions combining all categories.

A total of 331 valid surveys were collected in eight counties (two per province, averaging 40-50 surveys per county). The sample includes a diverse set of counties with varying forest

³ See www.recoland.eu.

compositions (Figure 1.2), containing those 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).⁴

Using household-to-household convenience sampling, each survey was conducted in-person by a team of Chinese assistants led by the author. In addition to the household survey, 29 semi-structured interviews were conducted with county officials, village leaders, cadres, and tenure experts. At least one representative of the State Forestry Administration (SFA) was interviewed in every county due to their main responsibility of reform implementation. In addition to the surveys and interviews, over thirty forest titles were inspected and archived during fieldwork.

Secondary data was derived from formal sources. First, a range of formal documents was assessed that describe the relevant reforms, laws, policies, regulations, and reports of China's forest reform. Table 1.1 provides an overview of the relevant national documents. Second, a set of court adjudications was derived from China's Supreme Court, which includes 136 conflicts related to forest titling that complements the empirical data in Chapter 4.

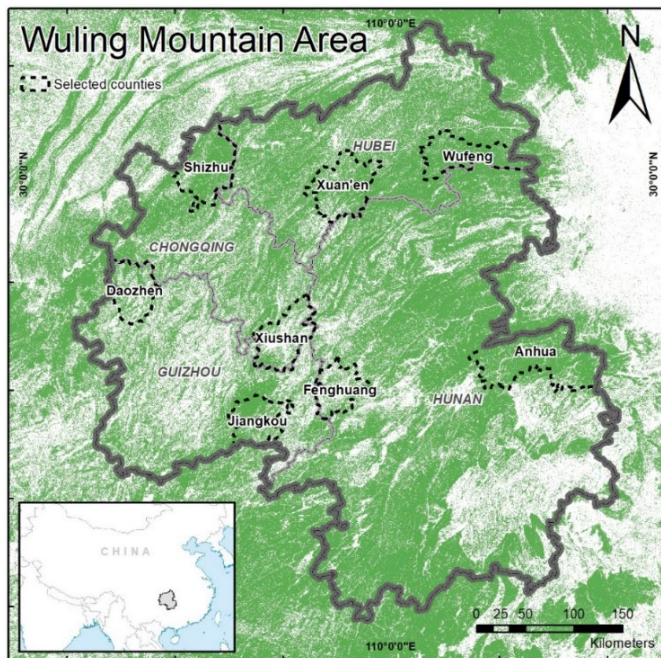


Figure 1.2. Wuling Mountain Area and selected counties.

⁴ Sampling was performed through a spatial model built with Python using Google Earth Engine (GEE), based on the dataset of global tree cover (version 1.3, released 2017) by Hansen et al. (2013). The model also includes data of China's long-standing forests (*yuanshi senlin*). The output produced a county level overview of (i) tree canopy cover in 2000; (ii) tree cover loss between 2000-2015; (iii) tree cover gain between 2000-2012; and (iv) intact forest cover.



Figure 1.3. Village in the Wuling Mountain Area (source: the author).

Table 1.1. Relevant national laws and policies.

Year	Name
1981	Three Fixes policy
1982	Land Administration Law
1984	Forestry Law
1998	Amended Forestry Law
1998	Natural Forest Protection Program (NFPP)
2002	Conversion of Cropland to Forest Program (CCFP)
2002	Rural Land Contract Law
2007	Property Law
2008	Collective Forest Tenure Reform (CFTR)
2014	Separating three property rights reform (STPR)
2019	Amended Forestry Law

1.6. Dissertation overview

This introductory chapter presented the research problem, context, and analytical focus of the study. Moreover, it specified this study's two main objectives and connecting research questions. The remainder of this dissertation consists of six chapters, as illustrated in Figure 1.4.

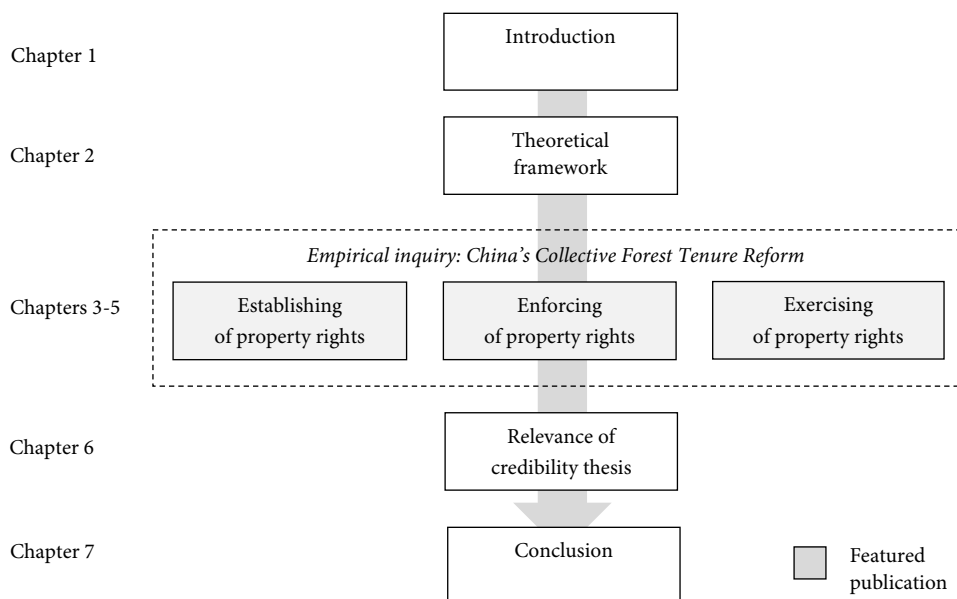


Figure 1.4. Dissertation overview.

Chapter 2

Theoretical framework

2.1. Introduction

To serve as a theoretical basis for the present study, this chapter selects relevant aspects in the field of institutional economics. The first part of this chapter provides a brief background of the institutional economics literature. It needs emphasis that the field of institutional economics remains highly fragmented, not only between the two main traditions of ‘original’ and ‘new’ institutional economics but also within each tradition. The chapter does not intend to present an exhaustive overview of the field and only selects those concepts and discussions most relevant for this research’s objectives. Neither does it discuss the related institutional theory that has emerged outside institutional economics, for instance, under new political institutionalism or new sociological institutionalism (Sauerland, 2015).

This chapter is structured as follows. Section 2.2 introduces institutional analysis. Section 2.3 discusses Original Institutional Economics (OIE) that laid the basis for the field, after which Section 2.4 describes New Institutional Economics (NIE) that became influential since the 1970s. Although NIE remains dominant since then, this chapter argues why a renewed interest in OIE is useful in addressing certain limitations in the NIE scholarship.

The second part of the chapter zooms in on property rights. Section 2.5 introduces conventional, NIE-based economic analyses of property rights and discusses how recent empirical and theoretical contributions have criticized this approach. After that, Section 2.6 suggests how these critiques can be partially addressed by applying the credibility thesis, which offers a function-oriented and OIE-inspired approach to property rights.

2.2. Institutions matter

Institutional economists are unanimous in their view that ‘institutions matter’ for economic analysis. They have long argued that mainstream neoclassical economic (NCE) theory falls short as an analytical approach since it neglects the role of institutions (Coase, 1960; Commons, 1934; Hodgson, 2000; North, 1990; Veblen, 1898; Williamson, 2000). While NCE relies on markets to explain economic behavior, with exchanges of goods and services determined by principles of competition, scarcity, and prices, institutionalists emphasize that economic processes are also dependent on norms, values, rules, and laws of the institutional environment (Hamilton, 1919). Thus, incorporating institutions in economic analysis is considered necessary to explain phenomena that would otherwise remain unnoticed or unaccounted for in conventional economic models. For instance, institutional analysis can explain why a growing group of Chinese consumers is interested in purchasing organic food, despite these products being priced three to five times higher than conventionally-grown agriculture products (Krul & Ho, 2017).

Following the initial efforts from Thorstein Veblen and John R. Commons in the first decades of the twentieth century, institutionalism made significant contributions to economics (Rutherford, 2001). Institutionalism also strongly influenced American

policymaking, including Roosevelt's New Deal in the 1930s (Hodgson, 2004b; Rutherford, 2001). Although institutionalism partially lost influence in the post-Second World War period, it regained attraction with the advent of New Institutional Economics in the 1970s (Coase, 1984; Williamson, 1975).⁵ The resurgence of institutionalism meant that development policies by the World Bank and the International Monetary Fund underscored the role of institutions. For instance, reform in transitional economies in the 1990s featured a strong emphasis on legal amendments, property rights, and courts (World Bank, 1996).

At present, one century after the appeal for institutional economics (Hamilton, 1919), the role and value of institutions have become broadly recognized by mainstream economists (Ménard, 2018). Besides the unanimous agreement that institutions matter, however, institutional economists remain sharply divided on epistemological, ontological, and methodological considerations (Hodgson, 2003; Luz & Fernandez, 2018; Spithoven, 2019). To understand these divides and why they matter for institutional analysis, it is first important to discuss the foundations of institutional economics theory.

2.3. Original Institutional Economics

In his seminal work, *The Theory of the Leisure Class*, Thorstein Veblen (1899) studied the consumption patterns of wealthy American groups. Veblen noted that the 'leisure class' consumed expensive products, not because they were better or more appealing, but as a way to demonstrate their wealth. This form of consumption was termed 'conspicuous consumption.' Veblen's conclusion was in direct opposition to classical economic models, which maintained that the price of a good is always equal to its intrinsic utility. This example illustrates Veblen's main critique of NCE theory, namely that it is formal, static, and abstract, while economic behavior is much more complicated than conventional models subscribe to (Rutherford, 2001).

Veblen, alongside John C. Commons, is widely regarded to have laid the basis for institutional economics (Hodgson, 2003).⁶ With the advent of 'new' institutional economics, their works are now commonly referred to as 'original' institutional economics (OIE). The significance of OIE can be explained by placing it in its historical context and juxtaposing it against neoclassical theory. This shows that OIE differs from NCE in three distinct ways: (i) methodological individualism versus interactionism; (ii) static versus dynamic analyses; and, (iii) deductive versus empirical approaches.

⁵ Reasons for OIE's decline comprise both internal factors (failing to convincingly argue for psychology as an adequate basis for economics) and external factors (the advent of theoretical and methodological advances in mainstream neoclassical economics including econometrics). These were partially addressed by NIE, which incorporated neoclassical principles, resulting in a renewed interest in institutionalism. See Rutherford (1996, 2001, 2011) and Hodgson (2004b) for further reading.

⁶ This section mainly describes OIE by referring to the works from Veblen and Commons. However, it must be emphasized that others also made early contributions to the field, including Wesley Mitchell, Walton Hamilton, and Clarence Ayres. For an overview, see Chavance (2009).

2.3.1. Individualism versus interactionism

The first distinct feature of OIE lies in its departure from methodological individualism upon which NCE is founded.⁷ Methodological individualism refers to the percept in which all phenomena—including transactions and institutions—are explained by the individuals involved. Individuals have given preferences and are expected to behave rationally and purposefully (Hodgson, 1986; Kaufman, 2007). In his critique of methodological individualism, Veblen (1919, p. 73) amply explained that the individual could not be regarded as a “lightning calculator [who] oscillates like a homogenous globule.” With this statement, Veblen understood that the assumptions that individuals always behave in a rational, optimizing, and homogenizing manner were flawed. Instead, a deeper understanding of human behavior was required, including the role of instinct, values, and habits (Commons, 1934; Hamilton, 1919; Veblen, 1914).

Equally problematic of methodological individualism was how NCE analysis neglects the institutional environment within which individuals are situated. Commons (1934) argued, with the notion of the ‘institutionalized mind,’ that individual preferences are always influenced by their environment, including cultural and legal structures (Kaufman, 2007). Put differently, individuals are partially ‘malleable’ agents since their preferences and purposes are socially and institutionally constituted (Hodgson, 2003, 2000, 1998). This accordingly motivated a holistic approach in which different aspects of the institutional environment are analyzed as a whole (Wilber & Harrison, 1978). For example, Commons (1934) demonstrated how cultural, sociological, and legal forces all matter for economic exchange.

With a critique of how actors and structures are considered in NCE, most original institutionalists consider that phenomena cannot be explained from the perspective of the actor or structure alone (Hodgson, 1986). Instead, OIE adopts methodological interactionism, in which interactions among actors and between actors and structures are studied (Correljé et al., 2014; Hodgson, 1998). Hence, while institutional structures shape actors’ behavior, actors also shape the institutional structure – they are connected in a circle of mutual interdependence in which “institutions mold, and are molded by, human action” (Hodgson, 1998, p. 181). Thus, not only is the role of institutions stressed in OIE, there is an additional and important analytical focus on the role of individual ideas, values, and habits.

2.3.2. Static versus dynamic analyses

A second key characteristic of OIE lies in Veblen’s (1898) critique of the ‘static’ approach featured in NCE. The notion of static refers to two assumptions. The first assumption is that there is harmony in the economic system. For instance, Adam Smith’s (1776) widely accepted

⁷ The term was first introduced as ‘Der methodologische Individualismus’ by Joseph Schumpeter in 1908 (Hodgson, 2007).

notion of the ‘invisible hand’ demonstrates the belief that there are stabilizing, albeit invisible, mechanisms at work. From this logic, a second assumption follows: The economy converges and settles in equilibria over time (Landreth & Colander, 2002).

Veblen and other institutionalists rejected principles of harmony and equilibria and instead advocated for a ‘dynamic’ approach, on the assumption that the economy is always subjected to an ongoing *process* of change (Groenewegen et al., 2010). Veblen first identified technology as the primary driver of change. Through technological change, existing production and distribution patterns are changed, from which socioeconomic conflict occurs (Mayhew, 2018). Since conflicts and social problems recur without attaining a permanent solution, any state of equilibrium is precluded (Wilber & Harrison, 1978).

Therefore, both Commons and Veblen emphasized institutional change as a path-dependent, evolving, and dynamic process.⁸ At the core of this argument is the notion of *cumulative causation*, which follows the logic that a cause will result in an effect, which in turn affects the cause (Kitagawa, 2016). Because cumulative causation is an infinite process, the future is characterized by uncertainty and change in which there is “no trend, no final term, no consummation” (Veblen (1907, p. 304) cited in Hodgson, 2004b, p. 346). Therefore, the analytical attention is moved away from conceptualizations of equilibria and comparative statics, and instead on understanding the unfolding and non-linear processes of institutional change (Hodgson, 1993, 2004).

2.3.3. *Deduction versus empiricism*

With the rejection of methodological individualism and static analyses, OIE also diverges in its epistemic and methodological endeavors compared to NCE. While NCE is ontologically guided along positivistic lines to capture reality in making *a priori* statements, predictions, and generalizations (Wilber & Harrison, 1978), OIE considers that all phenomena are subject to change and uncertainty.⁹ The corresponding aim is subsequently not to arrive at a grand theory with universal laws and generalizations derived from logical deduction, but instead to develop an abductive approach that emphasizes specificities and variations. As noted by Hodgson (1998, p. 169):

“If [original] institutionalism had a general theory, it would be a general theory indicating how to develop specific and varied analyses of specific phenomena.”

⁸ Note that there are substantial differences between Commons and Veblen, particularly in their position to apply Darwinian concepts, which are not discussed here (see Chavance, 2009).

⁹ OIE draws influence from the pragmatist philosophers John Dewey and Charles S. Pierce who assumed that all knowledge is fallible and hence uncertain (Mayhew, 2018). By accepting such uncertainty, abduction seeks to infer the *best* explanation, that is, the explanation that offers the most probable understanding (see Douven, 2017).

To facilitate such specific and varied analyses, empiricism is considered indispensable to address the ‘why’ question in providing new explanations (Bromley, 2008). A direct consequence is that the ‘closed systems’ approach as applied in NCE is rejected because “[f]undamental uncertainty precludes, in turn, a closed system economic model and equilibrium solutions” (Kaufman, 2007, p. 21). Instead, OIE adopts system openness and a multi-disciplinary approach in which a broad and undefined set of variables are empirically investigated (Ramstad, 1986). Here, using various data sources and methodologies is considered appropriate to “come into closer touch with facts” than NCE has previously done (Clark, 1927; Mayhew, 2018; Wilber & Harrison, 1978).

2.4. New Institutional Economics

Oliver Williamson’s (1975) influential book, *Markets and Hierarchies*, formed an important basis for ‘new’ institutional economics (NIE). While the focus on institutions remained, it was held that a key limitation of OIE was that neither Veblen nor his followers succeeded in offering a theoretical alternative to replace the neoclassical model (Hodgson, 1998, 2003). For instance, when writing on Commons and Mitchell, Coase (1984, p. 72) suggested that despite being “men of great intellectual stature,” they were:

“anti-theoretical, and without a theory to bind together their collection of facts, they had very little that they were able to pass on.”¹⁰

In stark contrast to original institutionalism, NIE aimed to move institutional economics closer to mainstream economics and offered an approach that would build on, modify, and extend neoclassical theory (North, 1993; Rutherford, 2001).

2.4.1. Neoclassical foundations

According to Eggertsson (2013, p. 2 italics added), the “most useful theoretical contribution of NIE is the idea that *transactions are costly*.” While NIE theory retains neoclassical assumptions of scarcity and competition (North, 1993), a critical contribution is the recognition and conceptualization of transaction costs (Coase, 1960). Because (positive) transaction costs—such as costs induced by the legal and political frameworks—impede economic growth, NIE seeks to determine how transaction costs can be reduced accordingly (Williamson, 2000). This endeavor is facilitated by a partial return to neoclassical analysis.

¹⁰ This statement is controversial. For instance, Hodgson (1998, p. 167) writes that “although several institutionalists put their faith in data, they all retained some degree of belief in the importance of a theoretical project.” See also Kaufman’s (2007) discussion on Commons’ theoretical contributions. Note also that within NIE, there is no clear consensus of how it positions itself against OIE. Whereas Coase appears to differentiate NIE sharply from OIE, others, including Williamson, made explicit references to original institutionalists and recognized the value of their work. See Rutherford (2001).

First, NIE adopts methodological individualism. Actors comply with maximizing behavior and behave rationally, intentionally, and purposefully to make the most optimal decisions. Whereas NCE assumes full or ‘instrumental’ rationality, NIE acknowledges that actors have limited cognitive competencies or do not retain all requisite information to make the best decisions (North, 1993; Williamson, 1995). Hence, an individual’s rationality is constrained, referred to as ‘bounded rationality’ by Simon (1957). Under these circumstances, actors conform to ‘satisficing behavior’ to find satisfactory solutions (Simon, 1957). Consequently, NIE recognizes opportunistic actors that pursue self-interest with guile (i.e., willing to lie or cheat in protecting their interests), which accordingly cause significant transaction costs in terms of the monitoring and enforcement of contracts (Hodgson, 2004a; Williamson, 1975). Therefore, institutions—perceived as the ‘rules of the game’ that shape human interaction (North, 1990; Williamson, 1995)—primarily serve to reduce uncertainty and to establish a stable environment that optimally structures actors’ behavior (North, 1993).

Second, NIE adopts equilibrium. Initially, NIE theorists agreed with OIE that “the way we look at the working of the economic system has been extraordinarily static over the years” (Coase, 1984, p. 73). However, on the basis that theory must serve for prediction purposes, it was argued that OIE entails little theoretical value due to its inability to make predictions (Williamson, 2000). To enable prediction, NIE incorporates equilibrium in which “equilibrium distributions of transactions will change in response to disturbances in the institutional environment” (Williamson, 1991, p. 287). The notion of equilibrium is essential for comparative static analyses, for instance, inquiries in which transaction costs are compared when property rights shift from public to private arrangements. By drawing comparisons between different governance structures, the most optimal structure can be identified accordingly. It should be noted that NIE does recognize that exogenous ‘shocks’ may occur—for instance, political, economic, or health crises—which have destabilizing effects in the short term but will resettle into new equilibria over time (North, 1993; Williamson, 1995).

By adopting methodological individualism and notions of equilibria, similar to neoclassical economics, the epistemic endeavors of NIE are mainly deterministic. Given that institutions are the underlying determinants of economic performance (Coase, 1984; North, 1993; North & Thomas, 1973), NIE seeks to draw universal lessons and generalizations that can be applied for different economies. Such endeavors have also been captured by the phrase of ‘getting the institutions right’ (Williamson, 1995, 1998), which echoes the Coasian assumption that when “the formal institutions are ‘right’, then the conditions are set for efficient contracting” (Correljé & Groenewegen, 2009, p. 397). Determining which types of institutions are conducive to economic growth remains a key endeavor in NIE, as demonstrated later in Section 2.5 for property rights.

2.4.2. Turning the ‘institutional turn’?

Since the mid-1970s, NIE successfully catalyzed an ‘institutional turn’ in which the role of institutions has become widely recognized and accepted in mainstream economic theory. Theoretical advances have been witnessed accordingly, including the ‘golden triangle’ consisting of transaction costs, property rights, and contracts theory (Furubotn & Richter, 2008; Ménard & Shirley, 2014). However, NIE’s dominance, and its partial return to neoclassical principles in particular, has not remained uncontested.

One long-standing critique is that NIE dismisses or belittles the work of original institutionalists. As previously mentioned, several NIE theorists have accused OIE of being atheoretical (Coase, 1984; Williamson, 1998). While such claims have been refuted (Hodgson, 1998, 2004b; Mayhew, 2018; Rutherford, 1996, 2001; Spithoven, 2019), contemporary NIE scholarship continues to pay little attention to OIE.¹¹ Meanwhile, there has been increased attention to the persisting “glaring gaps” in NIE scholarship (Hodgson, 2014, p. 592). Hodgson (2014) identified the lack of dynamics in transaction costs economics and an inadequate account of human motivation in NIE analyses. Others have problematized that the deterministic endeavors have resulted in reductionist notions around institutions (Clarke, 2018; Hodgson, 2003; Lawson, 2013; Marois & Güngen, 2016; Mollinga, 2016). Present limitations in institutional analyses have become particularly evident for emerging economies—including India, Vietnam, and China—that have contradicted the *a priori* assumptions around the ‘right’ institutions as promoted in NIE theory (Bromley, 2005; Fan et al., 2019; Ho, 2017a; Kim, 2004; Long, 2019; Miyamura, 2016; Mollinga, 2016).

One area where these contradictions are particularly evident is in property rights theory, and it is here where certain limitations in NIE approaches are disclosed and contested. The next section will elaborate these in further detail.

2.5. Rethinking property rights in land and natural resource settings

Thus far, this chapter discussed how institutions were brought into economic analysis and have been interpreted differently by streams of ‘original’ and ‘new’ institutional economics. The second part of this chapter focuses on property rights, a specific type of institution that has been central to theoretical discussions within the field. Discussions concerning property rights are found in original institutionalism, particularly in Commons’ works (1924, 1934, 1950). Commons asserted that rather than the physical goods being exchanged, it concerns the *rights* of ownership of these goods (Kaufman, 2007). However, most contemporary property rights literature in institutional economics spawned from Coase’s (1960) seminal paper *The Problem of Social Cost*, which made economists aware of transaction costs and the

¹¹ A notable exception is Douglass North, whose later works marked an important shift away from NIE and closer to OIE (see Groenewegen, 2019). For a more critical account on the similarities between North and OIE, see Luz and Fernandez (2018).

role of property rights therein. As discussed below, property rights have been the subject of significant work and debate in new institutional economics.

2.5.1. *The ‘economics’ of property rights – prescriptions for economic success?*

Property rights came to prominence after Coase’s seminal paper (1960), which established an important link between transaction costs and the delineation and enforcement of property rights (Foss & Foss, 2015). As a remedy for high transaction costs, well-defined property rights can reduce transaction costs and promote production and exchange. Following Coase, property rights have become regarded as the critical ‘parameters’ that are instrumental to how resources are used, managed, and allocated (Alchian, 1965; Demsetz, 1967; Demsetz & Alchian, 1973; Libecap, 1986). Specifically, property rights structure individual behavior by allocating and distributing the incentives and disincentives, which enable actors to consider and evaluate the relevant costs and benefits of their actions (De Alessi, 1983; Demsetz, 1967; Libecap, 1986).

On this basis, and consistent with the deductive and deterministic endeavors in NIE, there has been considerable scholarly attention in identifying the ‘right’ types of property rights for economic development and efficient resource management. Notably, *private*, secure, and well-defined property rights have been considered conducive for economic development – they reduce transaction costs, stimulate investment incentives, and facilitate property transfers (Besley, 1995; Feder & Nishio, 1999; Kerekes & Williamson, 2008; Miceli et al., 2000; Platteau, 1996). In a similar vein, *formal* property rights have been promoted because they enhance tenure security and increase long-term capital accumulation (De Soto, 2000; Deininger & Feder, 2009). By contrast, incomplete, informal, or simply ‘perverse’ property rights are considered impediments to economic growth and efficient resource management (Acemoglu et al., 2001; North & Thomas, 1973). The theoretical advances in property rights theory have been influential in development agendas and legitimized actions of privatization and formalization of land and natural resources (Abdulai, 2006; Colin, 2008; Nguyen et al., 2010).¹²

However, recent theoretical observations indicate that standard economic analyses of property rights—also referred to as the ‘economics’ of property rights—have gradually narrowed in scope (Arruñada, 2017b; Cole, 2015; Foss & Foss, 2015; Hodgson, 2015; Hoffmann, 2013).¹³ These accounts suggest that, and contrary to the approach initially

¹² The theoretical rationales for private and formal property rights in natural resource management are further discussed in the empirical chapters of this dissertation. The motives for *formal* rights are further discussed in Chapters 3 and 4, and those for *private* rights in Chapter 5.

¹³ As with other institutional concepts, also property rights have been conceptualized along different lines of theorizing. The heterogeneity in approaches received attention in two issues in the *Journal of Institutional Economics*. The first discussion revolves around Hodgson’s (2015) provocative contribution entitled “much of the ‘economics of property rights’ devalues property and legal rights,” which led to responses from prominent property rights theorists Allen (2015) and Barzel (2015) who justified a narrower interpretation of property rights

envisioned by Coase, economic analyses interpret property rights solely in terms of the *ownership* or effective control of a physical resource.¹⁴ Moreover, ownership is often considered to be unambiguous, indivisible, perfectly defined, and fully enforceable (Foss & Foss, 2015).

The narrower analytical scope of property rights is deliberate. In line with the view of Alchian (1965), it is motivated that restricting the focus solely on the economic aspects of rights—or those ‘that actually matter for behaviour’—makes it unnecessary to inquire into the legal, social, and other aspects of property rights. This accordingly eases efforts of analyzing and modeling property rights (Allen, 2015; Barzel, 1997, 2015). By abstracting considerations that are secondary or not expected to change, the analysis becomes more rigorous in explaining and predicting the role of property rights for individual behavior (Barzel, 2015).¹⁵

Whereas the importance and advances of the ‘economics’ perspective of property rights are acknowledged (e.g., Hodgson, 2015), the idea that property rights can be meaningfully analyzed by focusing on their economic aspects alone is controversial. Isolating property rights from other institutions that support ownership such as property law, might accordingly result in a “supposedly non-institutionalized form of property” (Cole, 2015, p. 728) that is paired with a significant reduction in the explanatory power and a devaluation of the full meaning of property rights (Foss & Foss, 2015, p. 408; Hodgson, 2015). This analytical deficit, in turn, might also cause over-optimism about the effectiveness of property rights reform because potential issues or contingencies in implementation and future workings are neglected (Arruñada, 2017b; Foss & Foss, 2015; Hodgson, 2015; Pils, 2016; Yin et al., 2013b).

The above concerns are substantiated in the empirical literature on property rights reform in land and natural resource settings. Here, the outcomes of actions of formalizing and privatizing property rights have remained “mixed at best” (Sjaastad & Cousins, 2009, p. 1) – supported by ample empirical evidence pointing to the many contradictory and unintentional consequences in property rights reform (Bromley, 2009; Cronkleton & Larson, 2015; Gibson et al., 2002; Loehr, 2012; Meinzen-Dick, 2014; Ostrom, 1993; Thanh & Sikor, 2006). For instance, the introduction of formal property rights—in economic perspectives conceived as necessary for tenure security—might contradictorily result in farmers’ dispossession and expropriation (Cousins et al., 2005; Jacoby & Minten, 2007). The

on the basis of easing analytical efforts. The second discussion starts from Arruñada’s (2017b) critique on single-exchange property rights analyses, which stirred debate between institutional theorists Allen (2017), Lueck (2017), Ménard (2017), and Smith (2017). In line with these discussions, the present study distinguishes the ‘economics’ approach of property rights from an approach that does not separate but integrates social and legal aspects of property rights.

¹⁴ As clear in Barzel’s definition of property rights as “essentially the ability to enjoy a piece of property” (Barzel, 1997, p. 3).

¹⁵ Barzel (2015, p. 723) further writes that “we need to economize not only in the production of commodities, but also be parsimonious in forming models, which are made to accommodate the issues the models deal with.”

contrasting empirical evidence triggered calls for a more nuanced and detailed conceptualization of property rights in natural resource management (Galik & Jagger, 2015; Hoffmann, 2013; Ribot & Peluso, 2003; Sikor et al., 2017), which are more attentive to the actual implementation and workings of property rights as summarized by Yin et al. (2013b, p. 536):

“[I]t seems that many property rights theorists have been too much preoccupied with promoting privatization as a means of efficiency enhancement and too little attentive to how to deal with the problems that occur during the implementation process.”

Taken together, both theoretical and empirical studies signal the need for a reconsideration of standard economic analyses and existing interpretations of property rights. Notably, they indicate that a broader analytical scope is necessary to appreciate property rights in their situated context, including the social relations between property, individuals, and the state (Hodgson, 2015). The next three sections borrow from recent theoretical and empirical observations to elaborate on how a broader scope can be facilitated for each of the three phases of reform investigated in this dissertation – (i) *establishing*, (ii) *enforcing*, and (iii) *exercising* property rights.

2.5.2. *Establishing property rights – the role of the state*

“Before the state there is only possession.” (Pipes (1999, p. 117) cited in Hodgson, 2015).

According to Arruñada (2017b, p. 754), the main issue in conventional economic analyses of property rights is that it retains “a contractual view that is essentially bilateral.” This contractual view is limited because property does not just revolve around two contracting parties, but instead involves sequential exchanges which occur after the initial transaction between at least three parties (Arruñada, 2017b). Here, one party is represented by the state or an equivalent “superior authority” as also highlighted by Commons (1924, p. 87), who considered the role of government concerning property rights as fundamental in authorizing transactions (Chavance, 2012; Kaufman, 2007). For instance, an exchange between two Chinese farmers who hold forest use-rights not only depends on their mutual agreement, but also requires recognition from an authority overseeing the exchange (the State Forestry Bureau). As Arruñada (2017b) further explains, property rights thus do not merely revolve around *private* ordering or contracting but also on *public* ordering that involves state authorities.

The notion of public ordering is crucial when considering that property rights are *institutionalized* rights – in stark contrast to ‘Crusoe-like’ exchanges that would only occur between one person and his or her material environment (Foss & Foss, 2015; Hodgson, 2015).

In most modern societies, rights are established and specified in state-sanctioned registries or cadasters, often for administrative purposes such as tax collection (Scott, 1998). Indeed, registering and establishing rights of “ownership, access, and trade in land and natural resources is a key function of the state” (Putzel et al., 2015, p. 465).

However, the arduous task of establishing (i.e., registering and specifying) property rights often comes with considerable costs, while it also risks creating implementation problems such as ‘elite capture’ where farmers are forcefully dispossessed by those in power during registration (Cousins et al., 2005; Jacoby & Minten, 2007). Furthermore, if authorities are unwilling or unable to carry out these tasks, property rights are rendered ineffective or meaningless (Bromley 1991). Exemplary are land titles that are merely symbolic tokens or “empty institutions” (Cronkleton & Larson, 2015; Ho, 2005, p. 73). Therefore, property rights analyses must closely consider how rights are established and administered by public authorities (Bromley, 2009; Cai et al., 2020).

2.5.3. Enforcing property rights – a legal perspective

Arruñada’s (2017b, 2017a) notions of public ordering and sequential exchange are not only relevant when rights are established, but also when rights are subsequently *enforced* and protected through regulatory mechanisms including courts. However, as stated before, economic perspectives excluded legal dimensions from property rights (Hodgson, 2015; Lueck, 2017). This implied that law and other social institutions are dismissed or merely regarded as constraints in economic analyses of property rights (e.g., Alchian & Allen, 1969; Cheung, 1970). For Hodgson (2015, p. 687), this is problematic because fundamentally:

“[U]sing the word ‘right’ to describe something that is not a right but a matter of de facto control is misleading: it obscures the adopted legal meaning of rights in modern legal and economic systems.”

Concurring with this view, observers have stressed that rights *always* carry legal significance because they otherwise cannot be ‘rights’ (backed by a legal apparatus) but are mere ‘privileges’ between individuals (Arruñada & Garoupa, 2005; Bromley, 1991; Fitzpatrick, 1997; Hodgson, 2015). This is a crucial consideration because only legal rights are protected by a ‘superior authority.’ As Sjaastad and Bromley (2000, p. 3) clarified, “[t]o have a right is to have the capacity to *compel* the coercive power of the state—or the pertinent authority system—to defend your interest in a particular outcome.”

The legal recognition of property rights becomes especially important when the assumption that (re)distributions of property rights are frictionless or unproblematic is rejected (cf., Demsetz, 1967). Instead, following Commons (1934), conflicts over the control and use of resources are inevitable in a world with material scarcity. Conflicts may occur between transacting parties but can also be induced by a ‘stranger’ – such as a trespasser from another village. This again highlights the importance of looking beyond bilateral exchanges

alone and acknowledging that only legal rights are protected ‘against the world’ (Arruñada, 2017b). Concurrently, it is also important to recognize that rights impose legal duties on others, for instance, when others have the *duty* not to trespass the land of those owning that land (Bromley, 1991; Commons, 1924; Galik & Jagger, 2015; Hohfeld, 1913).

Acknowledging the legal aspects of rights also means recognizing that the transacting parties do not solely bear the social and economic burdens arising from conflicts, but are also borne by the enforcing parties. High enforcement costs, such as litigation and judicial procedures, frequently occur *after* new rights are legally established (Arruñada, 2017b). For instance, while one of the objectives of land titling in Honduras was a partial withdrawal of the state, the increasing occurrence of conflicts contradictory led to repressive state intervention (Jansen & Roquas, 1998). This example also illustrates that new rights can become contested, negotiated, and bargained between different actors (Agrawal & Chhatre, 2006; Benjaminsen et al., 2008; Kumar & Kerr, 2013). In extreme scenarios, hazards may occur due to instances of government opportunism where state actors misuse their regulatory powers (see Spiller, 2013) – appearing as a ‘predatory’ actor that seeks their own gains from property rights reform (Peluso et al., 2012). These examples make it clear that power also is a crucial consideration when rights are created and enforced (Rasmussen & Lund, 2018; Sikor & Lund, 2009). As Sikor and Lund (2009, p. 2) emphasize, “struggles over property are as much about the scope and constitution of authority as about access to resources.”

The increased costs and hazards of enforcement might be further aggravated in the absence of a reliable and impartial judiciary system, or in instances where people are not fully accustomed to legal institutions (Kim, 2004). Recognizing these contingencies, which are easily overlooked in the initial designs of property rights reforms (Arruñada, 2017b), might help to understand why diverging institutional arrangements (such as customary tenure systems) might prevail over “imaginable alternatives that would appear to be more rational” (such as a uniform cadaster) (Libecap, 1993, p. 5).

2.5.4. Exercising property rights – perceptions and preferences

While it is important to consider how rights are established and enforced during and after reform processes, a third stream of critique argues that property rights analyses insufficiently account for personal perceptions and preferences. Whereas economic analyses of property rights are based on methodological individualism and regard rightsholders as utility-maximizing individuals who make decisions based on expected costs and benefits (discussed in Section 2.4), the approach has been criticized because it ignores that the attitudes, values, and motivations of individuals are shaped through social relations (Bromley, 1989; Ribot & Peluso, 2003). This is particularly problematic for land, with Peluso et al. (2012, p. 3) explaining that:

“Yet the influential texts of de Soto (2003), Deininger (2011) and others promoting land formalisation presume simplistic and straightforward relationships between land registration, poverty alleviation, and the production of capital, without recognising land’s much broader meanings outside the market.”

Accounting for such ‘broader meanings’—including sentimental values over land and forests—frequently implies that individuals behave differently than property rights theory predict. For instance, Ostrom’s (1990) groundbreaking work showed that individuals do not merely act in their self-interest or always seek to maximize the utility of common resources, but often work collectively to sustainably manage resources and hence avoid a ‘tragedy of the commons’ (cf. Hardin, 1968). In other instances, resource users may have little incentive to exercise their rights because they perceive formal rights as illegitimate or non-credible (Cronkleton & Larson, 2015; Frye, 2004). Others have pointed out that rights are only meaningful if they are collectively respected and recognized (Cole, 2015), and “rights can only exist when there is a social mechanism that gives duties and binds individuals to those duties” (Bromley, 1991, p. 15). Meanwhile, rights might not function properly when individuals have inadequate awareness or understanding of their rights (Jagger, 2014; Meinzen-Dick & Mwangi, 2009; Thanh & Sikor, 2006).

Taken together, the personal preferences, purposes, and other non-instrumental sentiments have a strong role in influencing the outcomes of property rights reforms. Therefore, it is critical not only to consider the economic incentives of actors when exercising property rights, but also to inquire into the underlying dispositions and motivations of rightsholders.

2.5.5. Property rights – necessary, but not sufficient

In a study on Ugandan forest reform that assessed which strategies could reduce deforestation, it was concluded that “tenure and property rights reform is a necessary but not a sufficient condition” (Jagger, 2014, p. 39). In most places, property rights are indeed a necessary condition for resource management, given their instrumental role in allocating, using, and managing land and resources. However, the sections above substantiate Jagger’s assertion that property rights reform is *not a sufficient condition* for effective land and resource management. Instead, it has become clear that property rights rely at least on an authority that is capable to establish and administer rights, a legal system that enforces rights, as well as the on the specific perceptions and preferences of rightsholders that determine how rights are exercised. Although such considerations were initially emphasized by Coase (1960), they have been gradually omitted in economic analyses that excluded property rights from state, legal, and personal dimensions (Arruñada, 2017b; Foss & Foss, 2015; Hodgson, 2015). Accordingly, the neglect of these dimensions help explain why outcomes of property rights reforms frequently deviate from their intended effects.

This raises the need for an approach that more closely considers property rights in their social, economic, and political context. The next section will examine how this might be facilitated by applying the notion of credibility – a concept that draws analytical attention to the specific and endogenous roles, functions, and meanings of institutions.

2.6. A credibility approach to property rights

“Most observers of economic changes [...] have emphasized the speed, efficiency, and distributional consequences of reform, but few have addressed the fundamental question of property rights: Do economic and political actors believe that property rights are *credible*?” (Diermeier et al., 1997, p. 20 italics added).

On the basis that property rights are unlikely to have their intended effects if they are not credible (Diermeier et al., 1997), the credibility lens may offer an alternative perspective on property rights. Most notably, the concept of credibility broadens the scope of analysis by asking questions of how property rights are perceived, how they attain their meaning, what role they fulfill for actors, whether they are socially accepted or contested, or how they are susceptible to bargaining (Miyamura, 2016; Zeuthen, 2018). These questions are addressed in the emerging credibility thesis literature (Ho, 2013, 2014).

2.6.1. *The credibility concept*

The concept of credibility initially emerged from studies on monetary policies, where it was used as a term to evaluate how policymakers’ objectives aligned with actual outcomes (Fellner, 1979; Kydland & Prescott, 1977). Policies that lacked consistency or could not be feasibly implemented would have low levels of credibility (Cukierman & Meltzer, 1986). The subsequent use of credibility extended beyond evaluating monetary policies and became more broadly used as a criterion for policies: “Reforms have to be credible in order to fully reveal the intended positive effects” (Funke, 1993, p. 73). In neoliberal discourses, it was held that economic success hinges on the capacity of the state to make *credible commitments* in terms of adhering to principles of privatization and the free market (Cottarelli & Giannini, 1997; North & Weingast, 1989). Credible commitments accordingly signal confidence and trust to external investors, which in turn stimulates economic development.

Gabel (2000) criticized the neoliberal reading of the credibility concept. She problematized the adaptation of a homogenous, anti-pluralist representation of social reality that not only excluded alternative views of development, but also tended to “privilege neoliberal economic policies and associated institutions” (Gabel, 2000, p. 1). Aron (2000) similarly observed that credibility was approached from a strict exogenous perspective, meaning that credibility could be intentionally created or ‘imported’ as long as specific

prescriptions were met. According to Grabel (2000, p. 13) this view “reflects a particularly naïve vision of society” because it ignores the endogenous aspects that influence credibility.

Following Grabel’s critique, Ho (2013, 2014) introduced the ‘credibility thesis’ to further reinvigorate the credibility concept, or specifically, as a “first attempt to further a *theoretical* and *empirical* basis for the study of institutional credibility with particular reference to property rights” (Ho, 2014, p. 22 italics added). The next two sections will discuss how the credibility thesis intends to develop such a theoretical and empirical basis, a more critical review to this basis will be provided later in Chapter 6.

2.6.2. *Theoretical basis of the credibility thesis – countering neoclassical thought*

The credibility thesis defines credibility as “the perceived social support at a given time and space” of particular institutions (Ho, 2014, p. 14), with institutions conceived as “a set of *endogenously shaped* [...] social rules” (Ho, 2015, p. 353 italics added). The credibility thesis is theoretically positioned against the neoclassical and neoliberal schools of thought. Ho (2015, 2017a, 2017b) identified three postulates that characterize neoclassical and neoliberal thought and offers a counter-postulate for each (Table 2.1). Since the counter-postulates reflect the credibility thesis’ main tenets, the theoretical basis of the credibility thesis is discussed along its three postulates.¹⁶

Table 2.1. Postulates of the credibility thesis (adapted from Ho, 2017a, 2017b, 2015)

Neoclassical and neoliberal	Credibility thesis
Institutions can be designed intentionally and subsequently enforced	Institutions are the result of interaction and endogenous, unintentional development
Institutional change is characterized by equilibrium	Institutional change is driven by an ever-changing, ever-conflicting process; a ‘dynamic disequilibrium’
The form of institutions is imperative for development and growth	Institutional form is subordinate to function

The first postulate of the credibility thesis maintains that all actors—be they state, corporate, or civic—are situated in an “autonomous, spontaneously ordered game” (Ho, 2016a, p. 1124). Actors are equal in the way that there is no external agency that can externally design institutions, although power imbalances between various actors may still be apparent (Ho, 2014, 2016a). Accordingly, institutions are only credible when there is a *common* agreement between all actors, that is, when all actors expect others to behave and abide

¹⁶ The reviewed works that have a significant theoretical contribution to the credibility thesis include Ho (2020, 2018a, 2018b, 2017a, 2017c, 2016a, 2015, 2014, 2013, 2006), Nor-Hisham and Ho (2016), Sun and Ho, (2018), Yang and Ho (2019), Ghorbani, Ho, and Bravo (2021). In addition, notes were used from a number of special sessions on credibility that were attended by the author: The EAEPE conference in Manchester (November 3-5, 2016); the PLPR conference in Hong Kong (February 20-25, 2017), and the ICARDC conference in Ningxia (October 21-23, 2018).

accordingly (Ho, 2014). Because this occurs through endogenous interactions—including processes of negotiation and bargaining—it is proposed that credible institutions can not be exogenously ‘engineered’ or intentionality ‘designed’ by a deliberate actor (Ho, 2013). Instead, although actors have intentions, institutions and institutional outcomes will culminate into “a highly complicated, paradoxical and, generally, unintended institutional amalgam, that could never have been the result of human design” (Ho, 2013, p. 1109).

As a starting point for its second postulate, the credibility thesis adopts a conflict-based view and follows Libecap (1989) that conflicts are inherent in any property rights arrangement. Although credible institutions may be “a reflection of a reliable system” (Koroso et al., 2019, p. 556), the credibility thesis posits that also credible institutions exhibit conflicting tendencies (Ho, 2014, 2018b). Over time, these tendencies give way to “alternating fast and infinitely slow” processes of institutional change and destabilization (Ho, 2016a, p. 1125). Correspondingly, the credibility thesis rejects any views on equilibrium, be it stable, dynamic, or punctuated (Ho, 2018a, 2018b). Instead, Ho (2016a, 2018b) suggests a ‘dynamic disequilibrium’ in which institutional change is a perpetual transformation process. In this context, ‘dynamic’ refers to a forward-moving and accumulative process that is always in motion (Ho, 2016a, p. 1125).

The credibility thesis is most distinct from other institutional approaches in its third postulate. Here, it distinguishes institutional *function* from *form*, following Chang (2007, p. 17) who argued that a critical limitation of institutional literature is the “inability to clearly distinguish between the forms and functions of institutions.” Institutional *forms* refer to institutions’ appearance or design, such as a property right that is labelled ‘formal’ or ‘private.’ Ho (2020) discards the relevance of institutional forms on the basis that ‘informal’ or ‘common’ institutions may perform equally well.

In turn, the credibility thesis focuses on institutional function, defined as “the *role* or *purpose* that actors accord to institutions” (Ho, 2013, p. 1095 italics added). It is important to stress that this approach differs from NIE-based assessments that postulate that actors deliberately establish institutions to fulfill certain functions, which is sometimes also referred to as a ‘functionalist’ approach (Chavance, 2009). In contrast, the credibility thesis emphasizes the functions accorded to an institution by *relevant actors* through endogenous processes, which may comprise a wide range of ‘functions’ including employment opportunities (Mengistu & van Dijk, 2018; Yang, 2018), alternative housing (Y. Zhang, 2018), or social well-being (Arvanitidis & Papagiannitsis, 2020).

Taken together, the three postulates of the credibility thesis show resemblance with the ideas of original institutionalism. Notably, both are critical towards neoclassical approaches and reject methodological individualism and equilibria – and instead, they emphasize the interactive, dynamic, and endogenous characteristics of institutions. The theoretical overlap between the credibility thesis and OIE will be further assessed in Chapter 6.

2.6.3. *Empirical basis of the credibility thesis – analyzing property rights*

Because the functions of institutions are indicative of their credibility (Ho, 2014), the credibility thesis' main endeavor revolves around "finding out what works in a given space and time-dependent context before the question of form is even asked." (Ho, 2014, p. 24). To facilitate this undertaking, the credibility thesis suggests an operational framework involving a set of methodological tools, that starts from empirical investigation:

"It is only through empiricism that we might see how institutions develop and on the basis of what mechanisms, in order to further institutional theory" (Ho, 2018b, p. 865).

To accomplish the task of in-depth inquiry, which involves multi-angulation of different qualitative and quantitative sources, the credibility thesis offers a set of methodological tools to analyze property rights at a detailed level empirically. One methodological tool is the Formal, Actual, and Targeted (FAT) framework (Nor-Hisham & Ho, 2016). The framework compares how formal rights are aligned with those that are actually held and those that are desired (targeted) by relevant actors. Because it distinguishes between *actual* rights and *formal* (intended) rights, it is consistent with Arruñada's (2017b) emphasis on state authorities' role in administering and establishing property rights.

On the basis that conflict is an important proxy to credibility, the Conflict Analysis Model (Ho, 2014, 2016a; Yang & Ho, 2020) was developed to analyze actors' perceived conflicts along with a detailed set of indicators, including the frequency, intensity, and duration of the conflict. This helps to identify the primary causes and dynamics of conflicts (Yang & Ho, 2020).

In addition to its methodological tools, the credibility thesis suggests proxies that allow for credibility analyses in less rigorous ways (Ho, 2016a, 2017a). Actors' perceptions, specifically the role and purposes that actors accord to institutions, is a main proxy for credibility. Because credibility revolves around how groups of actors perceive institutions in *common* agreement (Ho, 2016a), perceptions are studied at an aggregate level rather than at the individual level. Other proxies include the speed of change in institutional arrangements over time (Ho, 2016a). Yet, the list of proxies is not exhaustive, and new proxies may be added or altered depending on the research context and institution under investigation (Ho, 2014). For instance, Fan et al. (2019) looked at transaction costs as a novel way to assess credibility in more quantitative ways.

Once the level of credibility is determined through methodological tools or proxies, credibility is expressed not in dichotomies but instead along a *continuum* that ranges from 'fully' credible to 'non-credible,' or even 'empty' institutions (Ho, 2014). Specifically, an 'empty' institution does not achieve its intended aim and is instead a symbolic set of rules

that has no or little impact on social actors' behavior (Ho, 2005). The attained level of credibility can be further used to explore and recommend policy options.¹⁷

The credibility thesis has been applied in a growing number of empirical studies, encompassing different contexts and institutional phenomena, to assess institutional performance and outcomes in their endogenous context. Often, the studies point to discrepancies between the intentions and outcomes of institutional change. For instance, due to the neglect of local circumstances in decision-making processes (J. Wu et al., 2018; Zeuthen, 2018; Zhao & Rokpelnis, 2016), or because of bargaining and conflicts in the implementation process (Marois & Güngen, 2016; Miyamura, 2016). Other studies have used the credibility thesis to understand how institutions emerge, evolve, and persist by looking at their "functional endurance" over time (Fold et al., 2018, p. 922). For example, Gomes and Hermans (2018) used the credibility thesis to explain how a perceived gap in institutional function (emerging from failing formal arrangements) led to an endogenous response from communities in Bangladesh when dealing with issues in drinking water access. A complete overview of the empirical literature is provided in Table 2.2, showing that the credibility thesis has been applied predominantly around housing, land, and natural resources.

Table 2.2. Empirical studies using the credibility thesis.

Land and natural resources		
Zhao & Rokpelnis (2016)	Grassland use rights, <i>China</i>	The privatization of grassland and a grazing ban were not credible because local circumstances were not taken into account.
Nor-Hisham & Ho (2016)	Impact assessment institutions, <i>Malaysia</i>	Impact assessment of the Kelau Dam served the repression of communal rights by a non-credible private title.
Ho (2016b)	Grazing ban, <i>China</i>	The grazing ban lacked credibility due to its disregard of the function of land for social welfare.
Mollinga (2016)	Property rights of canal irrigation, <i>India</i>	Clear and formal property rights were paired with low credibility due to routine violations of legal entitlements.
Gomes & Hermans (2018)	Drinking water access, <i>Bangladesh</i>	Actors responded to system changes induced by urbanization because of a perceived gap in institutional function.
Zeuthen (2018)	Land use rights, <i>China</i>	Formal regulations led to less credible institutions because residents were not involved in the political process.
Fold et al. (2018)	Artisanal mining, <i>Ghana</i>	Artisanal mining (as an informal or illegal activity) has persisted due to its credible and functional endurance despite formalization attempts.

¹⁷ The Credibility Scales and Intervention (CSI) checklist has been developed for this purpose (Ho, 2016a; Nor-Hisham & Ho, 2016; Sun & Ho, 2018). Depending on the observed level of credibility (classified in five levels that range from 'low' to 'high' credibility), an appropriate intervention strategy is proposed. For instance, observations of low credibility would suggest the need for 'commanding' a new intervention. On the other hand, if an institutional configuration features high credibility, it is "probably wisest to leave it untouched" and the option of non-intervention is proposed (Ho, 2020, p. 9). However, the CSI checklist is not discussed here in more detail because the credibility thesis is primarily employed in this dissertation to offer insights on institutional change, rather than to suggest policy recommendations.

Clarke (2018)	Land use rights, <i>China</i>	Features of long-term use rights are not significantly different from full ownership.
Yang (2018)	Mining institutions, <i>China</i>	Institutions of mining land expropriation and environmental protection have emerged as empty institutions, but are socially accepted and conducive to economic growth.
Koroso et al. (2019)	Land institutions, <i>Worldwide</i>	A strong correlation was found between the quality of politico-legal institutions and the quality or credibility of land institutions.
Yang & Ho (2020)	Mining institutions, <i>China</i>	Rules on land acquisition and lease functioned as an 'empty institution,' which were conducive to mineral exploitation while gaining credibility from a wide range of actors.
Chen (2020)	Extralegal land development, <i>China</i>	Political bargaining led to ineffective enforcement of formal institutions, and institutional challengers' competition for informal practices facilitated unorganized coordination.
Tzfadia et al. (2020)	Local governance, <i>Israel</i>	The municipality maneuvered between contradictions and socio-spatial orders, failing to achieve credibility, yet maintaining Indigenous symbolic presence.
Arvanitidis & Papagiannitsis (2020)	Public park, <i>Greece</i>	Navarinou Park was a functional, long-standing and credible institution, successfully serving the manifold needs and interests of the local population.
Housing		
Pils (2016)	Laws on expropriations and evictions, <i>China</i>	Arguments for secure property rights are based on a simplistic understanding of rights; their value is reduced to their assumed utility.
Zhang (2018)	Slums, <i>India</i>	Mumbai slums persist because they fulfill functions such as alternative housing and economic opportunities.
Sun & Ho (2018)	Informal housing, <i>China</i>	China's extra-legal housing rallies a high level of perceived credibility despite alleged tenure insecurity.
Mengistu & van Dijk (2018)	Real estate, <i>Ethiopia</i>	Insecure tenure rights did not inhibit economic growth and real estate developers continued to invest despite a government crackdown.
Wu et al. (2018)	Spatial regulation plans, <i>China</i>	Multi-plan combination reforms have emerged as empty institutions due to exogenous design that did not account for endogeneity.
Easthope et al. (2020)	Apartment ownership, <i>Australia</i>	Similar legal systems of multi-owned property resulted in different outcomes for owners in practice, just as different legal systems resulted in similar outcomes.
Zheng & Ho (2020)	Housing rights, <i>China</i>	Credibility hinges on combinations of (in)formality and (in)security rather than being a direct function of formalization.
Oranje et al. (2020)	Informal institutions, <i>South-Africa</i>	The failure to recognize the contribution and credibility of endogenous institutions that enable human wellbeing and buffer housing and service demands was a major oversight.
Zekovic et al. (2020)	Illegal and informal construction, <i>Serbia</i>	Illegal and informal construction (IIC) in Serbia could not be fully averted while legalization policies were unsuccessful and non-credible.
Sun & Ho (2020)	Informal housing, <i>China</i>	The endogenous emergence of informal, untitled housing in China (known as SPRH) constituted a successful, albeit unintentional example of inclusive, pro-poor urbanization.
Sheppard & McClymont (2020)	Informal development, <i>United Kingdom</i>	Cases of informal development claimed credibility through their temporal and spatial persistence and were able to make claims about values they were promoting.
McCawley, Celhay & Gil (2020)	Informal settlements, <i>Chile</i>	Even within well-functioning urban areas with strong protection of private property rights, urban informality may

still provide a better geography of opportunities than formal home ownership.

Labor and public services		
Marois & Güngen (2016)	Public banks, <i>Turkey</i>	Turkey's public banks have been credible because their institutionalized social content has been functional to capitalist reproduction.
Miyamura (2016)	Labor market institutions, <i>India</i>	Labor market reforms that focused on exogenous policy engineering were misguided and incognizant of historically and socially sensitive details.
Monkkonen (2016)	Civil-law notaries, <i>Mexico</i>	Notaries performed a dual social function as public representatives and private service providers.
Levy (Levy, 2016)	Notaries, <i>Mexico</i>	Notaries were important intermediaries in pre-modern credit markets and created wealth for everyone.

2.6.4. Applying the credibility thesis in China's forest sector

In the following three chapters, the credibility thesis is applied empirically to examine how property rights reform in China's forest sector influences socioeconomic development. In contrast to economic analyses of property rights that focus predominantly on the initial allocation and private ordering of property rights, it is expected that the credibility lens adopted in this dissertation enables a broader and more nuanced analytical scope that draws attention to the larger institutional structures in which property rights are situated. This might offer new insights into how property rights are affected by different state, legal, and social forces, which are conducive for more effective and credible instances of land reform.

A critical phase in property rights reform is the establishment of (new) property rights. In the first phase of the CFTR, the central government called for the formalization of property rights in new forest titles. To examine how such efforts are translated into locally established rights, the FAT institutional framework (Ho, 2016a) is used in Chapter 3 to compare how *formal* (intended) rights of forest titling are matched with *actual* and *targeted* (desired) rights. By distinguishing *actual* rights from formal rights, the chapter pays specific attention to local authorities' role in administering and establishing property rights.

After that, Chapter 4 considers how the newly established forest titles are subsequently enforced in China's forest tenure arrangement. Extending the analytical scope beyond the initial allocation of property rights, the chapter assesses the reform's outcomes along its long-term objective to create a stable and secure institutional arrangement. Specifically, the chapter examines whether titling has been an effective and credible instrument in resolving tenure disputes. The Conflict Analysis Model (Ho, 2016a) is applied for two types of conflicts and combines empirical data with judicial data of court adjudications.

In Chapter 5, the ongoing phase of the reform is studied, in which households receive more autonomy and decision-making power to exercise their forest property rights. The chapter examines whether changes in (i) management, (ii) alienation, and (iii) income rights led to the reform's stated objectives of providing new incentives and economic benefits for

rural households. It does so by examining the specific preferences and perceptions of households to their new rights arrangement as a proxy for credibility (following Ho, 2014), in order to assess whether the reform has established a more credible rights arrangement.

The insights from the three empirical chapters are useful concerning the second objective of this dissertation – that is, to assess the theoretical and empirical merits of the credibility thesis for institutional theory. This chapter suggested that the credibility thesis, as an emerging and function-oriented approach, may be valuable in addressing certain limitations in ‘economic’ analyses of property rights. Further scrutiny is warranted, however, which will be the focus of Chapter 6 that evaluates the credibility thesis against both the ‘original’ (OIE) and ‘new’ (NIE) institutionalist traditions. This will offer a more critical perspective on the credibility thesis’ endeavors than hitherto contributions in the credibility thesis literature. The insights from the empirical analyses in Chapters 3-5 will also be used to complement the theoretical analysis.

Chapter 3

Establishing property rights: Beyond ‘empty’ forms of formalization

This chapter is based on:

Krul, K. and Ho, P. (2020). Beyond ‘empty’ forms of formalization: The credibility of a renewed attempt at forest titling in Southwest China. *Geoforum*, 110, pp. 46-57.

3.1. 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 & 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 & 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 establishing new formal rights is witnessed in developing countries. 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 registration of forest rights, which are subsequently incorporated in a uniform, state-sanctioned forest title (*linquanzheng*). New formal rights 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 (H. 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 (Putzel et al., 2015). Indeed, whereas the rationales for formalization are clear, much less is known about how rights are initially established, and ultimately, their contribution to tenure arrangements.

In addressing this, this chapter capitalizes on the recent advances made by the ‘credibility thesis’ (Ho, 2013, 2014). Its theoretical and methodological underpinnings of institutional function and credibility are used to arrive at a better understanding and

conceptualization of land formalization. Specifically, the Formal, Actual, and Targeted (FAT) institutional framework is employed to analyze property rights and perceptions thereof along three dimensions (further explained in the following section). The framework is employed in the analysis of forest titling, expecting it may lead to a more insightful understanding of in the initial stages of formalization, and allowing it to be seen as a dynamic process unfolding over time, thereby revealing potential pitfalls which otherwise may remain unnoticed.

The next section introduces the theoretical concepts and the analytical framework of this chapter. Section 3.3 outlines China's forest titling efforts in more detail, focusing on the formal objectives laid out in the policy text. Section 3.4 describes the study's methodology and site of research, followed by the presentation of empirical results in Section 3.5. Findings are discussed in Section 3.6 before conclusions are offered in Section 3.7.

3.2. Constituting formal rights

3.2.1. *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 & 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 & Minten, 2007). These adversities may occur because titling, as an institutional intervention, appears irreconcilable with the local context (Bromley, 2009). 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 & 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 & 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. Put differently, the “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, 2017a).

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.

3.2.2. *A 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, 2013, 2014) 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, 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):

“the 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 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 (Y. Zhang, 2018), extra-legal housing (Sun & Ho, 2018), and informal artisanal mining (Fold et al., 2018). The studies demonstrate that these 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 (1990, 2005, 2009) 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.

3.2.3. 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. 1130–1131). 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 et al., 2020; Nor-Hisham & Ho, 2016). The latter furthers the existing research on the perceptions of property rights (van Gelder, 2010, 2013), more specifically through the development of the Formal, Actual, and Targeted (FAT) Institutional Framework (Ho, 2016a, pp. 1133–1134).

The framework is constructed along three dimensions (Figure 3.1): (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).

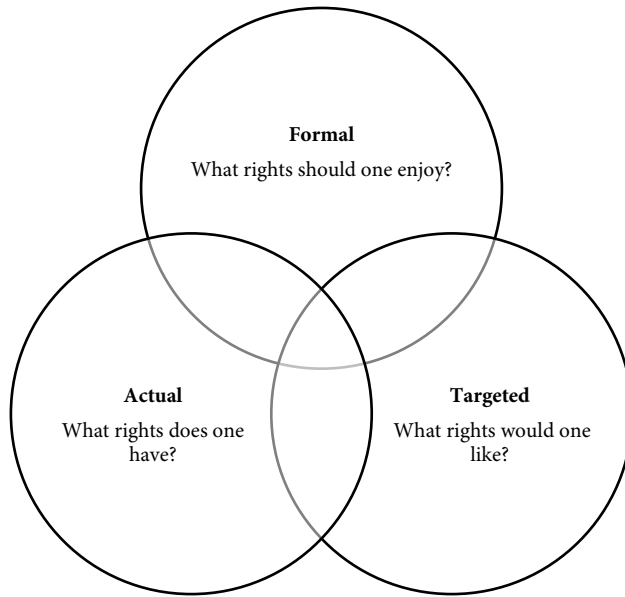


Figure 3.1. FAT Framework, adapted from Ho (2016a).

3.3. 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 (PRC) 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 (K. 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 & 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 called for the formalization of China's forests.

3.3.1. 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, Yi, 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 (Dachang, 2001; L. Xie et al., 2016). The reform 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 (J. Xu & 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, Yi, et al., 2013). In other places, the actual control of forests was held by villages, and stipulated redistribution only appeared on paper (L. Xie et al., 2016). The adverse outcomes led to the suspension and partial reversal of the reform in the following years (Holden, Yi, et al., 2013; L. 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 in the reform period (Shen et al., 2009). Furthermore, while the Three Fixes policy created many smallholders in a short period (J. Xu, 2010), discontinuities in policy implementation disrupted the flow of financial and technical resources needed for demarcation and registration purposes (Yin et al., 2013b), as a result of which boundaries remained unclear and contested (D. Liu & Edmunds, 2003; H. Zhang et al., 2017).

3.3.2. 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 (J. 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 (CCCCP) 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 and 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 (further discussed in Chapter 5). The reform has also been linked with state objectives of forest conservation and restoration, and establishing 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 establishing new formal tenure rights, through the distribution of new and uniform forest titles 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).

The majority of empirical studies have focused on the immediate effects of the reform, and have associated it with improved tenure security (Holden, Yi, et al., 2013; Qin et al., 2011; Song & Cannon, 2011), land increased market participation together with income and investment incentives (Shen et al., 2009; Siikamäki et al., 2015; Y. 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. (2013b, p. 535) point to several weaknesses in the initial processes of titling, 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):

"researchers and policymakers tend to ignore a key question: what do forest farmers really want from the reform?"

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

3.4. Methods

Whereas Section 3.2 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 new rights are aligned with the perceptions and interests of local actors. This motivates an empirical approach, explained below.

3.4.1. 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).¹⁸ As made clear in the previous section, forest reforms in China tend to show varied outcomes across space.¹⁹ Because the WMA stretches over various administrative domains, it is possible to account for different implementation experiences beyond province and county borders. Cluster sampling was performed where for every province two counties were selected (totaling eight counties), which are distributed across varying terrains in the WMA.²⁰

3.4.2. Sampling frame and data collection

Three main data sources were used. The 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 among farmers, all surveys were conducted in-person, carried out by a team of Chinese assistants led by the author.

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. It was aimed to collect five surveys per village, with about ten villages per county

¹⁸ Chongqing (91.9%), Guizhou (96.3%), Hubei (92.1%) and Hunan (94.6%), according to the eight inventory of the State Forestry Administration (2009, 2010b, 2012).

¹⁹ 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.

²⁰ 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).

(totaling 40 to 50 surveys per county). The number of surveys per village was intentionally kept 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, representation was enhanced 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). Table 3.1 features the basic characteristics of the 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 the 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 robustness and validity (Creswell, 2003) but is also considered necessary to account for all dimensions of the FAT Framework. Because county-level bureaus of the State Forestry Administration (SFA)²¹ are mainly responsible for the implementation of the reform, semi-structured interviews were conducted with at least one representative in every county (totaling 14). Officials' claims were further validated and triangulated through a small number of purposely-selected interviews with local leaders or cadres (9) and tenure experts (6) (Table 3.2). In addition, over 30 tenure certificates were inspected and archived during fieldwork.

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

²¹ Note that on April 10, 2018 this name was changed to State Forestry and Grassland Administration (SFGA). However, during fieldwork in 2017 officials from the SFA were interviewed. For clarity, the term SFA is used except stated otherwise.

Table 3.1. Basic sample features of household survey.

N = 331	In % valid
Gender	
Male respondents	61.3
Female respondents	38.7
Occupation	
Farmer	91.0
Other	9.0
Education	
Illiterate	19.3
Elementary	51.7
Junior high	21.5
High school	6.5
University	0.9

Table 3.2. Expert interviews.

Date	Position	County	Province
23-01-2017	Agricultural officer	Xiushan	Chongqing
23-01-2017	Head of SFA county bureau	Xiushan	Chongqing
24-01-2017	Village leader	Xiushan	Chongqing
29-01-2017	Village leader	Xiushan	Chongqing
31-01-2017	Agricultural officer	Xiushan	Chongqing
01-02-2017	Village leader	Xiushan	Chongqing
09-02-2017	Conflict manager SFA county bureau	Huayuan	Hunan
09-02-2017	Village leader	Huayuan	Hunan
09-02-2017	Village cadre	Huayuan	Hunan
17-02-2017	Forest resource manager SFA county bureau	Xiushan	Chongqing
02-03-2017	Village leader	Fenghuang	Hunan
02-03-2017	Head of SFA county bureau	Fenghuang	Hunan
03-03-2017	Village leader	Fenghuang	Hunan
07-03-2017	Tenure experts NGO (group interview)	Beijing	Beijing
08-03-2017	Tenure expert Peking University	Beijing	Beijing
09-03-2017	Forest expert NGO	Beijing	Beijing
01-09-2017	Forest reform officer SFA county bureau	Jiangkou	Guizhou
10-09-2017	Village leader	Anhua	Hunan
13-09-2017	Forest reform officer SFA county bureau	Anhua	Hunan
13-09-2017	Resource manager SFA county bureau	Anhua	Hunan
16-09-2017	Village leader	Wufeng	Hubei
18-09-2017	Forest reform officer SFA county bureau	Wufeng	Hubei
21-09-2017	Forest police officer SFA county bureau	Xuan'en	Hubei
21-09-2017	Forest reform officer SFA county bureau	Shizhu	Chongqing
21-09-2017	Resource manager SFA county bureau	Shizhu	Chongqing
09-10-2017	Chinese agriculture expert (telephone interview)	Beijing	Beijing
10-10-2017	Tenure expert	Beijing	Beijing
12-10-2017	Tenure expert NGO	Beijing	Beijing
16-10-2017	Forest reform officer SFA county bureau	Daozhen	Guizhou

3.5. Results

This part begins by stating the formal objectives of titling in a historical perspective (Formal, Section 3.5.1). These are then empirically compared, by looking first at how such actions have been carried out (Actual, Section 3.5.2), and then how they have become perceived by relevant actors at the local level (Targeted, Section 3.5.3). With a full understanding of the three dimensions, some impacts of the titling outcomes are shown in Section 3.5.4.

3.5.1. Formal: A renewed attempt at forest titling

Recalling from Section 3.3, 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).²² 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 title has not been issued yet, 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:

²² The law specifically states that “The 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).

“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, nation-wide forest title*. Registration should be fully specified, based on accurate data with consistent maps, tables, and booklets that match with the owner and parcel. The relevant forest authorities [...] must clarify the forest rights, and undertake the registration of forest rights, the issuance of titles, 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 the distribution of titles, but also for on-site clarification and verification of tenure rights. After rights have been verified, 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, the State Forestry Administration at the county-level, are given five years to complete implementation.

3.5.2. Actual: Registration without surveying and clarification

The empirical inquiry begins 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 3.3).²³ In two counties (FH, JK), only one-third of households possessed a title, but those were titles distributed in the 1980s.²⁴ 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.²⁵ Given the main

²³ 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.

²⁴ 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.

²⁵ 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

Table 3.3. Observed title distribution in the WMA.

	Total	Chongqing		Hubei		Hunan		Guizhou*
		SZ	XS	WF	XE	AH	FH	
Total respondents (N=331)	331	40	50	48	44	50	47	47
Under individual management**	291	38	48	46	42	50	47	17
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)								
During Three Fixes	14.0	3.7	5.3	13.8	9.4	0.0	91.7	***
Between both rounds	13.4	7.4	2.6	20.7	15.6	24.4	8.3	***
During CFTR	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.

interest in the new title distributed under the CFTR, the remainder of this section will focus on these five countries.

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 3.4). 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.²⁶ In contrast, other households stated that the size in the title was underestimated.²⁷

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 3.2). 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 illustrations. Most commonly the latter two types of registration were

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.

²⁶ Traditional measurement unit, 1 mu equals 1/15 ha.

²⁷ 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.

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).

Table 3.4. Interview highlights with county officials.

County	Highlights
AH	- Registration based on 1980s situation - Registered size is according to villagers’ estimation, only boundaries are being validated - At least 90% issued - Implementation took about one year
SZ	- 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	- 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	- 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	- 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

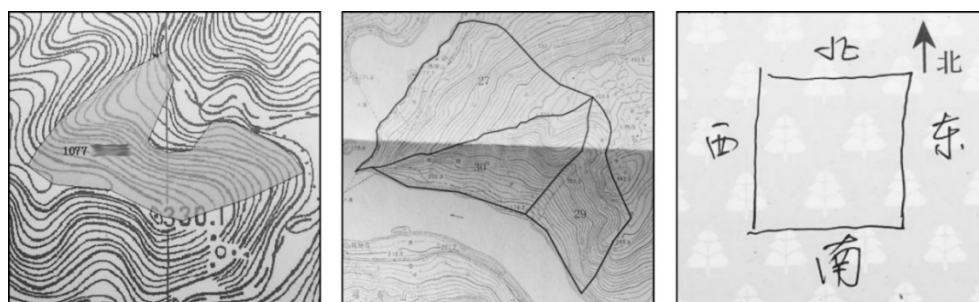


Figure 3.2. County variations in boundary demarcation (source: archived fieldwork certificates)

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 clear and rectangular delineation for cultivation purposes—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

were 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 of this study (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 title. 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).

3.5.3. 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 3.3). 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 3.4). 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.

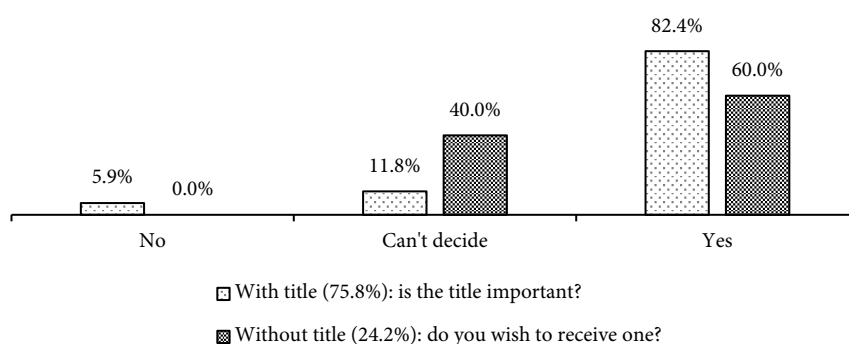


Figure 3.3. Perceived title importance by households

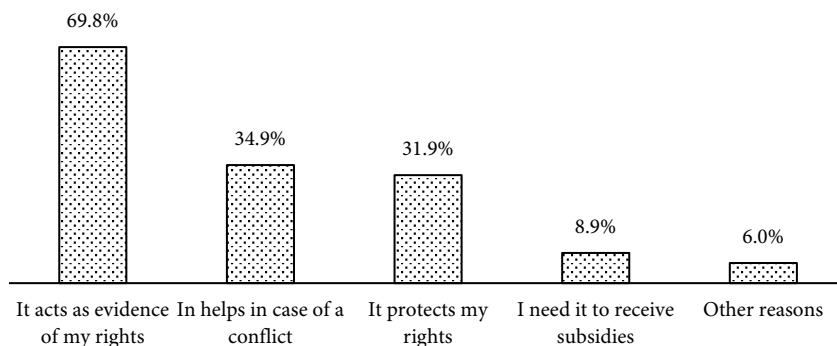


Figure 3.4. Reasons for title importance by titleholders

3.5.4. Titling outcomes and implications

So far, the findings indicated 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 the query whether and how titling increases tenure credibility.

As a first step, the impact of the titling outcomes is assessed 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 3.5). Hypothetically, and in accordance with the formal stipulations of the reform, it can be assumed 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). The comparison, supported by the Fischer's Exact test (for associations within the non-representative sample), indicates 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 3.5. 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 (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 (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)."

How conflicts are affected by the new forest titles is an undertaking further explored in Chapter 4.

3.6. Discussion: Formal, actual, and targeted perspectives of titling

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 property rights reform. The case of China’s forest titling is a textbook example, which was demonstrated through an analysis along three dimensions - the Formal, Actual, and Targeted property rights.

Within a protracted trajectory of titling in China’s forest sector since the 1980s, 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 the 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., forest titles as its most tangible result—the forest reform thus appears credible.

However, this is not without caution when looking more critical at how the new formal rights have been *established*. As Table 3.6 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).

Table 3.6. 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	

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. At this point, forest titling under the CFTR may resemble 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, 2017a, 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;²⁸ and (iii) the interests of

²⁸ This is also illustrated in a mid-term report of the reform: “the 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.

3.7. Concluding remarks

China's most recent instance of forest titling established new formal rights that initially appear 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:

“this 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 chapter 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. Previous research has indicated 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.

The implications of the issues disclosed in this chapter are further explored in the next chapter. Chapter 4 will look further into how the newly established rights are subsequently *enforced* in China's forest tenure arrangement, for instances in which tenure rights are disputed. This focus helps to inquire into the post-titling phases of the reform and is informative to the reform's long-term objectives of creating a stable tenure arrangement.

Chapter 4

Enforcing property rights: Titling as a conflict remedy or driver?

This chapter is based on:

Krul, K., Yang, X., and Ho, P. (2021). Land titling as a conflict remedy or driver? Analyzing institutional outcomes through latent and manifest conflicts in China's forest sector. *Land Use Policy*, 100.

4.1. 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; De Soto, 2000; Demsetz, 1967; Demsetz & Alchian, 1973; Feder et al., 1988). 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 & 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 & Opadeyi, 2009; Jansen & Roquas, 1998; Maganga et al., 2016). However, these contradictory outcomes of titling may only become visible over time, while in other instances they remain imperceptible to scholars and policymakers. In this regard it is important to see titling not as an institutional ‘fix’ to be realized through a single intervention, but instead, as a “*long term, protracted process* of negotiation and dispute between state and other actors” (Ho, 2015, p. 352, italics added). 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 (Bejaminsen & Lund, 2002; Peluso & Lund, 2011).

To understand how titling unfolds as a protracted process over time, beyond its initial allocation (Arruñada, 2017b), this paper zooms in on the question how rights are *enforced* in post-implementation stages of reform. To accomplish this, two recent advances in the related literature are capitalized on. First the notions of the ‘credibility thesis’ (Ho, 2014) are adopted. It assumes that conflicts are inherent in any tenure arrangement, and that increased and intensified social conflict are indicative of non-credible institutional intervention (Ho, 2017a). Conflicts are thus an important proxy to institutional credibility (Arvanitidis & Papagiannitsis, 2020; Ho, 2006; Yang & Ho, 2020). In this study its use is advanced with a more refined conceptualization of conflict to specifically account for the dynamics of conflicts – as developed by Yasmi et al. (2006, 2013), Yusran et al. (2017), and others (see also Sandström et al., 2013). It is expected that this approach is useful in addressing some of the epistemological limitations in previous studies on land conflicts (explained in Section 4.3).

Insights are obtained from recent titling experiences in China’s collective-owned forest sector. The Collective Forest Tenure Reform 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 resources (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, empirical insights from a household survey (N = 331) in southwest China are used 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 interval in the manifestation of conflict, it is intended that this chapter is able to construct a more complete, dynamic account of how titling affects tenure conflicts in different ways.

The next section provides an overview of the titling-conflict nexus, where two opposing views are identified that consider titling either as a 'remedy' or 'driver' to tenure disputes. In Section 4.3, the conceptual frameworks of institutional credibility and conflict manifestation are presented, and in Section 4.4 the study's methodology is discussed. Section 4.5 introduces the case and presents the findings from the court cases and household survey, respectively. Results are compared and discussed in Section 4.6 before final deliberations are provided in Section 4.7.

4.2. Two sides of the same coin?

4.2.1. *Titling as a remedy to tenure security and stability*

Population growth, urbanization, land commercialization, among others, have created new pressures that induce land scarcity and value-changes (Feder & Feeny, 1991; Puppim de Oliveira, 2008; Sandström et al., 2013; Yamano & 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 & Castagnini, 2005; Ho & Spoor, 2006; Puppim de Oliveira, 2008; Yamano & Deininger, 2005), destructive resource outcomes (Angelsen, 1999; Godoy et al., 1998), and increased fear or social disruption for land users (Jansen & 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 & 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 (Y. Liu & Li, 2017; J. Wang et al., 2019; Y. 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 (2005, 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—and subsequent enforcement 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 enforce property rights and adequately deal with land disputes (Appendini, 2001; Griffith-Charles & Opadeyi, 2009). In addition to preventing further and violent escalation of conflicts, a stable and secure environment would also reduce transaction costs and the burden of ‘defending’ land rights, such as fences or guards (Deininger & Feder, 2009).

On this basis, land titling programs have been introduced in various parts of the world, such as in Africa where formal titles have 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 & Deininger, 2005). Meanwhile, a World Bank (2001) study on the ‘ejido’ reforms in Mexico indicated that registration helped reduce conflicts and increase transparency.

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

Although the rationales for titling seem appealing, 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 & Roquas, 1998), especially in countries where land has been at the center of revolutionist movements such as in Nicaragua (Broegaard, 2009) and China (Ho & Spoor, 2006). Moreover, defining property rights, setting up, and maintaining a registration system is an arduous task (Benjaminsen et al., 2008; Deininger & 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 enforcement mechanisms incomplete.

Similarly, land titles may only be rendered useful within an appropriate institutional framework, and in particular, an effective judicial system (Deininger & 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 & Roquas, 1998). A formalized tenure system can also be dysfunctional due to overlapping mandates of different institutions (Benda-Beckmann, 1981; Deininger & 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 creating 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 meant that long-lasting and mostly informal agreements regarding boundaries and parcels which may be ambiguous and overlapping – were no longer credible and in turn sharpened tensions between land users. This is particularly evident in areas influenced by land nationalization, expropriation, and political turmoil (Ho & 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 phenomena 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 & Mwangi, 2009).

4.3. Credibility and conflict manifestation

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

“formalization of land rights should not be viewed as a panacea and [...] interventions should be decided only after a careful diagnosis of the policy, social, and governance environment.” (Deininger & 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 performance (McClymont & Sheppard, 2020; Tzafadia et al., 2020), this study seeks to offer a dynamic account that regards titling as a protracted process with varying outcomes *over time*. In line with this endeavor, the conceptual framework is founded on notions from the credibility thesis (Section 4.3.1), which is complemented with recent literature on land conflict manifestation that allows for a more refined conceptualization of conflict dynamics (Section 4.3.2).

4.3.1. *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 (Demsetz, 1967), 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 & 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:

“functions change, institutions change, and thus also the levels of credibility – a process evident in shifts in conflict.” (Ho, 2016a, p. 1134).

Conflicts are thus an important proxy or indicator of credibility (Ho, 2006, 2014). The credibility thesis proposes to scrutinize conflicts along with an extended set of various dimensions (Ho, 2014, 2017a). 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.²⁹ Recent efforts using this set have also added the dimension of *Actors* to describe the relevant parties in conflicts (Yang & Ho, 2020).

Studying conflicts through their various dimensions helps to discern the credibility of institutions, which accordingly help understand the spatially- and temporally-defined functions of land titling. In contrast to institutions that are ‘credible’ or ‘empty’ (a symbolic compromise, as discussed in Chapter 3) which still feature some degree of conflict, ‘non-credible’ institutions are characterized by elevated levels of conflict. Non-credible institutions

²⁹ See Ho (Ho, 2017a) for an elaboration on the dimensions. For an empirical application on mining institutions, see Yang and Ho, 2019.

and their adversities may, for instance, occur when policymakers' intentions do not match with the conditions and interests at the local level (J. Wu et al., 2018). For this study's exercise, explaining the level of credibility helps to identify the conditions under which titling realizes its intended ex-post implementation effects of conflict resolution and tenure securities.

4.3.2. *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) observes that:

“these 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.³⁰ To address this, the credibility thesis is complemented with recent advances that have closely examined the dynamics, or more specifically, the manifestation of conflicts (Hubo & Krott, 2013; Kröger, 2013; Sandström et al., 2013; Yasmi et al., 2006, 2013; 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).

The contemporary framework provided by Yusran et al. (2017) is adopted 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 others.³¹ 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 stage of conflict—is important because it enables a dynamic analysis of conflict manifestation.³² This is particularly useful to identify direct and indirect drivers of conflicts (Sandström et al., 2013; Yasmi et al., 2006).

³⁰ In fact, understanding dynamic institutional processes rather than making static comparisons is a primary task of the credibility thesis (see Ho, 2018b).

³¹ 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.

³² 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, 2016a, p. 1133).

4.4. Methods

4.4.1. Judicial and empirical data

Two original datasets are used to account for latent and manifests conflicts. The first set is an empirical dataset to describe latent conflicts, i.e., those that prevail at grassroots levels and remain largely imperceptible for analysts. This dataset is identical to the household survey discussed in Chapter 1, and will not be reiterated here.³³

The second source of data consists of 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. This judicial 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.³⁴ Previous studies have used this database in relation to mining disputes (Yang & Ho, 2020) or labor strikes (T. Wang & Cooke, 2017).

To construct the judicial dataset, a five-step sampling procedure was applied (Figure 4.1). 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.³⁵ To reduce bias between cases and given this study’s main interest of conflict manifestation, (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.³⁶ Finally, (v) the cases were inspected based on duplication and relevance, with the criteria that at least one party must be a household to make the sample more cohesive with the empirical dataset.³⁷ 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.

³³ Specifically, questions from part 5 (tenure conflicts) of the survey are used in this chapter.

³⁴ *Zhongguo Caipan Wenshu Wang*, <http://wenshu.court.gov.cn> (accessed between May - July, 2019).

³⁵ For (i), relevant keywords were ‘collective-owned forests’ (*jitilindi*), ‘reform’ (*gaige*). Using the name of the reform (*jiti linquan zhidu gaige*) was deliberately refrained from because not all relevant cases specifically referred to the official name. For (ii), the keywords ‘title’ (*linquanzheng*), and category ‘titling’ (*quequan*) were applied.

³⁶ 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.

³⁷ 101 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.

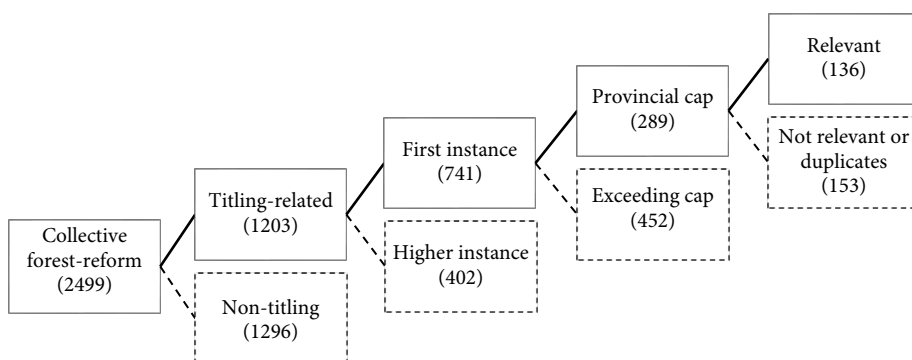


Figure 4.1. Sampling of court cases.

4.4.2. Analytical framework

The two datasets do not allow for tracing the direct evolution from latent to manifest conflicts. However, a separate yet complementary analysis of the two datasets enables constructing a more complete and dynamic understanding of conflict manifestation. The judicial dataset is used primarily to identify the drivers in conflict manifestation and to examine how the new titles are enforced in court (measured by their defeasibility, i.e., instances in which titles were revoked). The empirical dataset is used to examine how titling affected tenure disputes that reside ‘on the ground’ in China’s forest tenure arrangement, most frequently at the village-level between households. 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 4.1).

Table 4.1. 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)	Cause of conflict (e.g., boundaries, ownership)
<i>Frequency</i>	Incidence of conflict (measured in the number of previous instances of the conflict)	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. Although the level of the court may be an appropriate indicator, it was refrained from using this as the sample only included first-instance cases that appeared in basic and intermediate courts. Conflict dimensions derived from Ho, 2017, 2014; Yang and Ho, 2019.

4.4.3. *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,’ the study was 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, it is posited 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 & Ho, 2020). 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 study.

4.5. Results

4.5.1. *A renewed attempt at forest titling*

The 2008 Collective Forest Tenure Reform provided a comprehensive set of measures to further develop China’s collective-owned forest sector (Yiwen 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.³⁸ 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,³⁹ 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,

³⁸ Article 9, Views on Fully Promoting the Collective Forest Right System Reform, CPC Central Committee and State Council, 2008.

³⁹ Article 8, *ibid*.

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, 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),⁴⁰ 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.⁴¹ 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),⁴² individuals in China can litigate against administrative organs based on the infringement of rights, including property rights violations.⁴³ 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.⁴⁴ According to current

⁴⁰ Article 7, Amended Forestry Law.

⁴¹ Article 51-61, Chapter 4 ‘Settlement of Disputes and Legal Responsibility’, Rural Land Contracting Law.

⁴² Also referred to as the Administrative Procedure Law (APL), or in Chinese, *Xingzheng Susong Fa*.

⁴³ 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.”

⁴⁴ 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).

provisions, individuals may request administrative reconsideration within sixty days, and file a lawsuit within six months of the administrative act being made or known by the individual.⁴⁵ As a consequence of such efforts, dispute resolution through formal and legal channels have subsequently increased in the Chinese context (Yip et al., 2014).

4.5.2. Findings from the court: explaining manifest conflicts

Court adjudications (N=136)—analyzed along the analytical framework discussed in Section 4.4.2—are used to describe: (i) the drivers of forest tenure conflicts; (ii) the involved actors and outcomes; and, for (iii) a closer examination of the role of titles in court arbitrations.

(In)direct drivers of tenure conflicts

The 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 (Figure 4.2). 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.⁴⁶ 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.

⁴⁵ 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.

⁴⁶ 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.

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 from Section 4.2.2, 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 (Figure 4.3). 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.⁴⁷

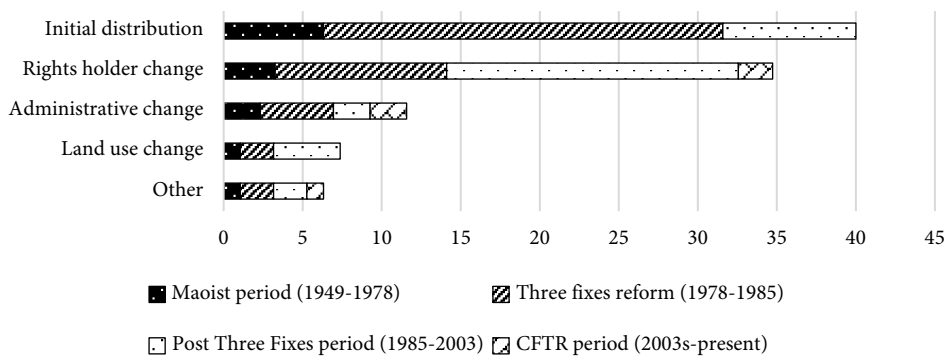


Figure 4.2. Indirect drivers and historical origin.

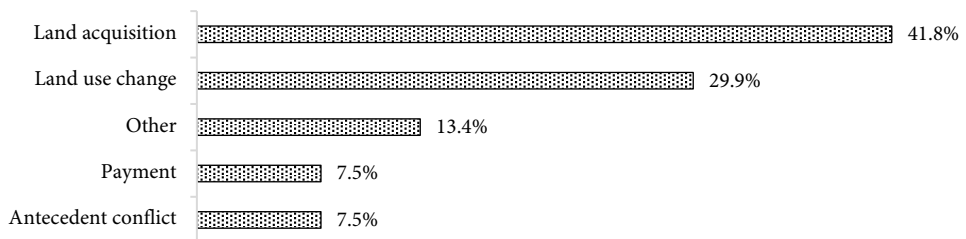


Figure 4.3. Direct drivers of post-CFTR conflicts

⁴⁷ 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.

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 4.2).⁴⁸ 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 4.3) show for cases where 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.

Table 4.2. Actors before and during court adjudications (for households as plaintiff).

		Household	Collective	Authority	Other	Total
Oposing party in	N	63	24	18	0	105
initial conflict	%	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 4.3. 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%)	85 (79.4%)	107
Favoring plaintiff	%	40.0	41.2	47.1	45.8
Favoring defendant	%	60.0	52.9	48.2	49.5
Mixed ruling	%	0.0	5.9	4.7	4.7

⁴⁸ 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).

Title defeasibility

The court adjudications also allow to assess the role of new titles in court. The 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 (Figure 4.4).⁴⁹ 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).⁵⁰ Often violations were performed by those in higher positions, such as village leaders registering forests to family and relatives.⁵¹

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.⁵²

⁴⁹ Often there were multiple reasons for one case, and therefore the total sum of the three main reasons exceeds 100 percent.

⁵⁰ 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 was forged, and no public announcement was made. The title was revoked accordingly.

⁵¹ However, the study was 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.

⁵² 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.

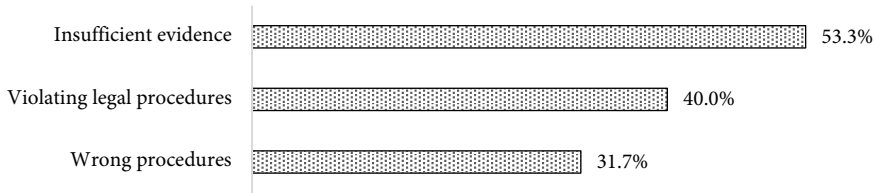


Figure 4.4. Basis of revocation (in percent of cases: multiple reasons are possible).

4.5.3. 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, the above analysis with complemented 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 was 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 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. Figure 4.5 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 by China's new round of titling, and hence, most tenure disputes remained unaffected during and after the reform.

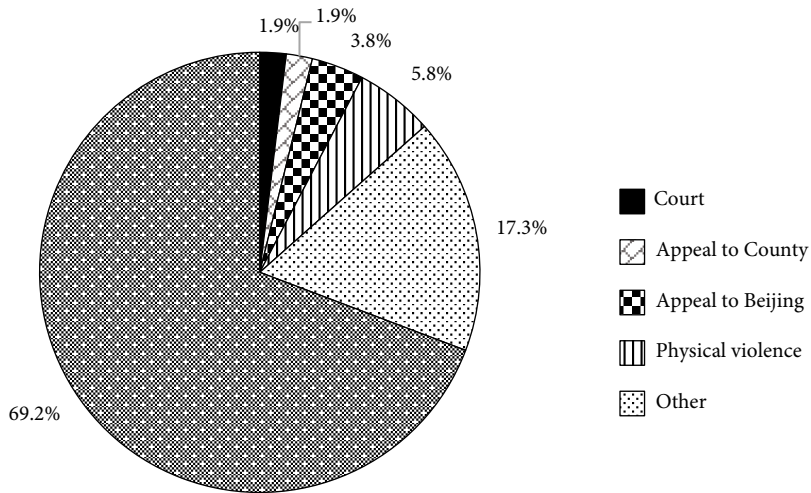


Figure 4.5. Means in conflict mediation

4.6. Discussion: Titling as a new indirect driver of tenure conflicts?

Recalling from Section 4.2.2, 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 the 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 indefeasible 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 (further discussed in Chapter 5). 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.⁵³ 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.⁵⁴ 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 the findings bear some optimism about households' chances to succeed in court when authorities are

⁵³ This is in line with the reform's guidelines. However, recalling from Chapter 3, during fieldwork one township was encountered where titles had been printed, but were not distributed yet for at least seven years.

⁵⁴ Several inconsistencies and varying interpretations of the litigation period were found in this study. 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.

challenged, appealing against formerly distributed titles will be more difficult with time to come.

4.7. 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 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, two types of conflicts—latent and manifest—were analyzed, 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 the employed 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 yields of this approach, which responds to calls to extend the analytical focus of property rights reform beyond the initial allocation of rights alone (Arruñada, 2017b), can be best explained by returning to the 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 this study's 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 and enforcement have remained concealed at village levels, outside regulatory frameworks. Although the implications of these outcomes are not clear yet, it is evident that the conclusions presented here flag concerns about the alleged benefits in terms of credibility, stability, and security often expected from land titling programs. It is emphasized that the mere act of titling is no closed book, but instead a long term, protracted process that will continue to unfold.

Chapter 5

Exercising property rights: Limitations to rights-based approaches

This chapter is based on:

Krul, K., Ho, P., and Yang, X. (2020). Incentivizing household forest management in China's forest reform: Limitations to rights-based approaches in Southwest China. *Forest Policy and Economics*, 111

5.1. Introduction

Over recent decades, discussions on natural resource management have increasingly focused on property rights (e.g., Gibson et al., 2002; Johnson & Forsyth, 2002; Kumar et al., 2015). There is a consensus that rights are instrumental to how actors manage resources (Bromley, 1992; Ostrom, 1990), where rights are often perceived as catalysts in bringing about effective incentives in meeting (state) objectives of improved resource management, production, and conservation. The strong emphasis on property rights in resource policies—hereafter referred to as the ‘rights-based’ approach (similar to Johnson & Forsyth, 2002; Kumar et al., 2015)—has become particularly evident in forest sectors. Here, there is a strong tendency in recognizing, establishing, and formalizing forest rights, and devolving these to local communities or households (Hyde, 2015; Kumar et al., 2015; Oyono, 2009; Safitri, 2009). Moreover, objectives of forest conservation are increasingly led by payment for ecosystem services (PES) programs that compensate users for the attenuation of forest rights (Sierra & Russman, 2006; Trædal et al., 2016; K. Zhang et al., 2017).

New insights have, however, pointed to persisting discrepancies between the intended effects of changes in property rights reforms and their actual outcomes (e.g., Galik & Jagger, 2015; Pils, 2016). They have shown that a focus on property rights alone might be insufficient in acting as a ‘panacea’ to realize policy objectives, and contrarily, it has been suggested that changes in the increasingly complex character of resource management may often bring about unintentional or adverse outcomes (Ho, 2018a). In response, recent works have focused on enhancing the conceptualization of resource rights, for instance, by emphasizing the ability to exercise resource rights (Ribot & Peluso, 2003), or by accounting for the indirect benefits that have become increasingly associated with resources (Sikor et al., 2017). Other works, including those using the ‘credibility thesis’ (Ho, 2014), have postulated that changes in property rights will only be credible if they are sufficiently aligned with the needs and preferences of local users (Pils, 2016; Zeuthen, 2018). Empirical studies that integrate such considerations are needed to increase the understanding of the mechanisms and conditions under which rights-based approaches might be successful.

China’s most recent instance of forest reform has adopted a set of far-reaching measures that reconfigure property rights in its tenure arrangement. With an explicit focus on three rights—management, alienation, and income rights—the reform aims to create new incentives and benefits for over 500 million farmers (NFGA 2019). Such efforts concur with China’s broader efforts in addressing rural-urban inequalities, mitigating migration patterns, and creating new economic opportunities for smallholder farmers (Yin et al., 2013a; Zhan, 2019). This study examines whether China’s rights-based reform has been successful in meeting its intentions, assessing how forest rights have become *exercised* and perceived by households.

The next section provides a brief theoretical background to rights-based approaches, where some limitations are identified and how they have been addressed in recent literature. Section 5.3 zooms in on China's forest reform upon which three main rights (management, alienation, and income rights) are identified that guide the empirical analysis. Section 5.4 elaborates on sampling and data collection. Section 5.5 presents the findings along with the three rights, which are discussed in Section 5.6. Concluding remarks are offered in Section 5.7.

5.2. Revising property rights

5.2.1. *A rationale for rights*

Following advances in institutional economics (discussed in Chapter 2), property rights are often understood as the “parameters” or rules that determine the allocation, management, and use of resources (Alchian, 1977; Libecap, 1986, p. 229). On this basis, they derive their main significance from structuring actors' behavior by distributing incentives (De Alessi, 1983; Libecap, 1986): “Different bundles of property rights, whether they are *de facto* or *de jure*, affect the incentives individuals face, the types of actions they take, and the outcomes they achieve” (Schlager & Ostrom, 1992, p. 256). Incentives are conducive to a greater “internalization of externalities” (Demsetz, 1967), which enables actors to consider their relevant costs and benefits (externalities) with an optimal decision.

With this importance, institutional theorists have long sought to determine the most optimal and efficient *forms* of property rights. From these endeavors, formal, private, and transferable rights have become widely accepted as warranting the most efficient resource outcomes (Besley, 1995; Coase, 1984; De Soto, 2000): *formal* rights improve tenure security and increase investment incentives (Feder & Nishio, 1999; Platteau, 1996); *private* rights mean that resource users directly experience the costs and benefits of their decisions (Demsetz, 1967); and *transferable* rights will ensure that the resource is continuously valued and efficiently allocated (Williamson, 2000). While these configurations may optimally facilitate the role of resources as an asset for production and exchange (Libecap, 1989), natural resources require extra attention due to their ecological value. To address this, recent approaches (including PES programs) provide resource users with monetary compensation when they decide *not* to exercise certain rights (Trædal et al., 2016).

5.2.2. *Empirical challenges and limitations*

Rights-based approaches have grown influential, particularly in forest sectors. A growing number of studies, however, have questioned the underlying assumption that allocated rights naturally distribute effective incentives for improved resource management (Galik & Jagger, 2015; Gibson et al., 2002; Thanh & Sikor, 2006). It has been empirically demonstrated that the expected incentives may be compromised by a wide range of intervening and endogenous

factors. For instance, rights may be subjected to varying interpretations that enable actors to alter them (Mahoney & Thelen, 2009; Skjølsvold, 2010), or resource users may remain unfamiliar and inadequately informed of their rights (Larson et al., 2008). Moreover, rights may not be compatible with the local context: Prevailing institutions such as customary laws may constrain rights (Paudel et al., 2009), or rights may be conflicting with traditional resource practices (Agrawal & Chhatre, 2007; Tang & Gavin, 2015). The absence of supportive mechanisms, such as legal institutions and extension services, may further compromise the functioning of rights. As a consequence, important discrepancies may occur between *de jure* and *de facto* rights (Ostrom, 2005).

5.2.3. Exercising and perceptions of rights

The increased recognition of limitations in property rights theories, together with changing dynamics in resource governance, have been reflected in the conceptualization of resource rights as well (Galik & Jagger, 2015; Nor-Hisham & Ho, 2016; Penner, 1995). Ribot and Peluso (2003, p. 154), putting forward a theory of access, state that: “By focusing on ability, rather than rights as in property theory, this formulation brings attention to a wider range of social relationships that can constrain or enable people to benefit from resources without focusing on property relations alone.” This consideration helps to explain why some are able (and others not) to benefit from resources, despite similarities in rights. In a similar vein, Galik and Jagger (2015) emphasize the duties and liabilities of rights. A recent study by Sikor et al. (2017, p. 338) reconceptualizes resource rights in response to changes in resource governance – particularly (i) the “multiplicity of social actors” including local communities, and (ii) the increased “significance of indirect benefits” such as PES programs. These works have marked an important shift that has moved conventional notions of property rights into broader conceptualizations—integrating the abilities, duties, and liabilities of rights—that evaluates more closely how resource users exercise the rights granted to them.

Another important consideration, and especially in the face of ‘blueprint’ approaches as explained in the introductory chapter of this dissertation, is how rights align with the needs and preferences of users. This consideration has also been the focus of the ‘credibility thesis’ (Ho, 2014), implemented in a growing number of studies that examine how property rights function in their endogenous context (Mengistu & van Dijk, 2018; Mollinga, 2016; Pils, 2016; Yang, 2018; Zeuthen, 2018). According to the credibility thesis, a rights arrangement is credible when it rallies sufficient social support with a common agreement, i.e., when actors’ expectations of external behavior are met (Ho, 2014).

While it may be useful to conceptualize resource rights along with a set of ‘bundles’ for analytical purposes (Galik & Jagger, 2015; Sikor et al., 2017), it has become clear that the actual outcomes of rights-based approaches are mixed and contextually-determined. To address this seemingly epistemological challenge, a closer look at how resource rights (and their changes) relate to their users is imperative. Building on the advances described above,

this study posits that the performance of rights-based approaches is contingent not only on how (and whether) rights are *exercised* (Galik & Jagger, 2015; Ribot & Peluso, 2003) but also how they are *perceived* by their respective users (Ho, 2014). Characteristics of the resource itself may further affect the exercising and perceptions of rights (Ostrom, 2005).

In sum, when considering and conceptualizing the variety of resource rights, it is critical to examine the precise role of rights, what they represent for actors, and which contextual conditions explain variation in their performance. This argument will be further substantiated with the empirical case of Chinese forest reform, detailed in the next section.

5.3. Incentivizing household forest management

China's collective-owned forest sector has been subjected to major institutional transformation over the last four decades. Forest reform in China has long emphasized afforestation and forest conservation, and is associated with significant gains in forest cover (Zeng et al., 2015). However, the Collective Forest Tenure Reform marks a new phase where aims to create new incentives and economic benefits for households are made more explicit:

“The Collective Forest Tenure Reform promotes initiatives for households’ employment and income [...] Implementing the reform will help households to obtain important means of production and stimulate farmers’ enthusiasm for forest production and management, especially for those living in mountain areas.” (Article 2, CPC Central Committee and State Council, 2008).

After a round of titling during the first five years of the reform (discussed in Chapters 3 and 4), the second and ongoing phase of the reform aims to improve households’ exercising of rights (Yin et al., 2013a; Han Zhang et al., 2017). Three distinct rights are addressed by the reform: (i) the ‘release’ of management rights (*jingying quan*); (ii) the implementation of alienation rights (*chuzhi quan*); and (iii) the protection of income rights (*shouyi quan*) (Article 10-12, CPC Central Committee and State Council, 2008). Although these rights share characteristics with definitions raised in conceptual papers, their precise meaning and use in the Chinese setting remains highly contextual.⁵⁵ As these three rights will form the analytical framework of this study, the following sections expounds on each with stipulates pronounced in the policy text.

⁵⁵ Schlager and Ostrom (1992, p. 251) define *management* rights as “the right to regulate internal use patterns of a resource” and *alienation* rights as “the right to sell or lease a resource”. *Income* rights resembles the definition of use rights by Sikor et al. (2017, p. 340): “the right to enjoy direct and indirect benefits from a resource”. However, because the use and interpretation of rights in China’s forest reform have unique features, specific guidelines and interpretations are obtained from State Council, 2016; CPC Central Committee and State Council, 2003, 2008.

5.3.1. Releasing management rights: reducing state control

Background: When the People's Republic of China was established in 1949, private property including land was outlawed and replaced by state or collective property (Ho, 2001). All rural land was appropriated and successively allocated to newly established 'collectives,' which were granted ownership and took responsibility for its management (Salant & Yu, 2016). This arrangement was sustained until the late 1970s when, following similar initiatives in the agricultural sector, the 'Three Fixes' policy in 1981 called for the separation of use-rights (*shiyong quan*) from ownership (*suoyou quan*) (Dachang, 2001). Communes were dismantled and replaced by a forest household responsibility system (HRS) in which households were granted use-rights and took responsibility for forest management.

Disappointing outcomes in the ensuing years, however, meant that HRS's implementation was partially halted or reversed. Then in 2003, privatization of forest rights' was reintroduced in Fujian province (Holden, Yi, et al., 2013). Positive initial results in Fujian and other provinces, catalyzed the national implementation of the Collective Forest Tenure Reform (CFTR) in 2008. It endorsed further individual forest management as well as the extension of lease terms between collectives and households to seventy years.

While in many places forest use-rights were allocated to households, management rights contrarily have been subject to state restrictions (see also Section 5.3.3). Most importantly, the National Forest Protection Program (NFPP) created a blanket ban on any logging of natural forests along the Yangtze River and Yellow River, which also affected forests that were commercially managed by farmers. The non-discriminatory imposition of the ban severely constrained management rights, which led to an immediate decrease of households' livelihoods relying on timber harvest (see J. Liu et al., 2008).

Specific guidelines and intentions: While the privatization of forest use-rights is stipulated in the policy text, the reform also addresses the current impositions on management rights (and their negative outcomes for household incentives). To do so, the CFTR has sought to 'release' management rights through a classified management approach. It distinguishes two types of forests: commercial (*shangpin lin*) and ecological (*gongyi lin*). For commercial forests, state control over small-scale production is reduced, and farmers (as well as companies) are granted more autonomy and can decide which trees to plant, log, and sell. While cutting restrictions of ecological forests remain in place, non-timber forest products (NTFP, such as fruit trees, mushroom harvest, medicinal herbs, livestock raising) and tourism are promoted as main channels to realize economic benefits.

5.3.2. Implementing alienation rights: embedding China's market-oriented approach

Background: China has witnessed a swift transition from a planned economy towards a market-orientated economy. During the 1990s, the agenda of forest reform targeted the creation of a market for forest rights. While land transfers and auctions to private and even

foreign actors had already occurred,⁵⁶ the transfer of forest use-rights was arranged in the amended Forest Law of 1998 (Holden, Yi, et al., 2013). With the transfer of contracted rights allowed in the Rural Land Contract Law of 2002, land use-rights—including those for forests—eventually were codified as usufruct rights in the Property Law of 2007. At present, the alienation of forest use-rights within and outside the village is allowed, and in most cases, permission from the collective is not required (see Yin et al., 2013a).

Specific guidelines and intentions: The alienation⁵⁷ of forest rights is permitted on the conditions that (i) the term does not exceed the tenure period, and (ii) the use of forestland remains unchanged (prohibiting land conversion). The alienation of rights is pursued to promote forest transfer with the interrelated objectives of realizing economies of scale and developing (large-scale) cooperative forms of forest management. Alienation has also been associated with a carbon trading system. To facilitate forest transfer, specific measures have aimed at: (i) setting up and improving a property transaction system (*chanquan jiaoyi pingtai*); (ii) enhancing forest appraisal services; (iii) calling on financial institutions to improve forest credit products; and, (iv) facilitate forest rights to be used as collateral.

5.3.3. *Protecting income rights: from sanctions to subsidies*

Background: In 1985, the central state decided to liberalize timber markets by abolishing the unified procurement price system (C. Liu, Wang, Liu, et al., 2017). As forest use-rights were granted to households only a few years before, this decision unexpectedly triggered unsustainable timber harvests on a large-scale, which was particularly severe in southwest China (Robbins & Harrell, 2014). The state swiftly responded by stalling and reversing the course of privatization, returning timber markets under strict state control, and imposing new regulations (Dachang, 2001; Yin & Newman, 1997). High stumpage taxes and fees not only impeded forest income rights but also created heavy burdens for households (C. Liu, Wang, Liu, et al., 2017; Yin et al., 2013a).

While household incentives consequently declined (Y. Xie et al., 2014), dramatic floods along the Yangtze river in 1998 motivated further and stricter measures (Dai et al., 2011). Six key forestry programs were launched, of which the most significant are (i) the Natural Forest Protection Program (NFPP) to ban further logging and promote afforestation; and (ii) the Conversion of Cropland to Forest Program (CCFP) to restore vegetation on grasslands and steep slopes by providing farmers with cash subsidies (Dai et al., 2011; Gutiérrez Rodríguez et al., 2016; J. Liu et al., 2008).⁵⁸ Although harvest restrictions and

⁵⁶ Oral communication with Wen Tiejun, October 8, 2017.

⁵⁷ In the Chinese context further specified into: subcontracting (*zhuanbao*); lease (*chuzu*); transfer (*zhuanrang*), shareholding (*rugou*), mortgage (*diya*), and capital contribution (*chuzi*).

⁵⁸ For a complete overview see (Dai et al., 2011, p. 1091 table 3).

cutting permits remain, taxes and fees were gradually reduced or eliminated over concerns of rural poverty (Yin et al., 2013a).

Specific guidelines and intentions: It is important to observe the underlying shift from solely imposing sanctions and penalties, towards compensating farmers for rights' attenuation. Measures of the CFTR have explicitly aimed to protect income rights in two ways. The first revolves around compensation in case of expropriation, calling for fair and adequate resettlement fees. The second is about easing the 'contradiction' (commercial production versus ecological preservation) by providing households subsidies if their forests are designated for ecological purposes. While subsidies have been introduced under the key forestry programs, the CFTR calls for an increase of the compensation standards.

5.4. Methods

It has become clear that China's most recent instance of forest reform has been guided by a strong focus on property rights. Apart from calls to formalize rights, management rights are allocated to households (with management restrictions gradually reduced), alienation rights are implemented to encourage the transfer of forest rights, and subsidies are installed to protect income rights. This study examines whether these formal changes in property rights matches the intended outcomes of the reform, i.e., enhanced incentives and economic benefits for households. Recalling from Section 5.2.3, this will be done by zooming in on at how rights are perceived and exercised by resource users.

5.4.1. Research site

Similar to Chapters 3 and 4, the Wuling Mountain Area (WMA) is selected as the site of research. Considering the aims of this chapter, it needs emphasis that the area currently serves as a pilot site for a State Council regional development and poverty alleviation project (State Council, 2011). Further, the WMA region is home to about 36 million people, of which approximately three quarters live in rural areas, although a rapid increase in urbanization has been witnessed. Its population is characterized by a high prevalence of indigenous peoples, such as Tujia, Miao, and Dong. In 2010, the per capita average net income level was 3499 yuan, just 59.1% of China's national average (State Council, 2011). There are persisting and widening income disparities between rural and urban households, and about one out of ten households lives in poverty.

The area is rich in natural resources, and WMA's forest cover stands at 53 percent of its total surface – including some of China's last remaining natural forests. National forest protection programs, including NFPP and CCFP, are both enforced in the WMA (see J. Liu et al., 2008, p. 9478). The CFTR was implemented around 2008, although most of WMA's forests were already distributed to households during the Three Fixes policy. With a large collective-owned forest sector, and a relatively poor population living in mountainous

terrains, the objectives of the reform to generate new welfare benefits thus appear highly relevant for households in the WMA.

5.4.2. Data

This chapter uses the household survey, introduced in Chapter 1, as the primary source of data. Specifically, it uses the survey questions from part 3 (forest rights and uses) and part 4 (forest reform). Additional insights from the semi-structured interviews are also used in this chapter.

5.5. Results

The empirical results are presented along with the analytical framework. The first Section 5.5.1 draws on the household survey and discusses how every right has been perceived and exercised by households. Based on insights from observations and interviews, the second Section 5.5.2 identifies other factors also at stake in China's forest tenure arrangement.

5.5.1. Disentangling forest reform: household perceptions and exercising of rights

Management rights: The first measure of the reform was to 'release' forest management rights – i.e., granting households with more rights and decision-making. Whereas in other provinces this has been paired with a new round of privatization, the majority of households in this study (87.9%) were already allocated forest use-rights in the early 1980s and have individually managed their forests since then. For 82.1% under individual management, this arrangement was supported, considerably higher than those under collective management (56.5%) and cooperative management (27.3%, i.e., a small group of households, *xiaozu*) (Table 5.1). At the same time, the recent extension of the tenure term to 70 years was also widely supported (Table 5.2).

Table 5.1. Households satisfaction of management arrangement.

			Management satisfaction		
			Yes	Indifferent	No
Management type	Individual	Count	234	26	25
		%	82.1%	9.1%	8.8%
	Collective	Count	13	3	7
		%	56.5%	13.0%	30.4%
	Cooperative	Count	3	1	7
		%	27.3%	9.1%	63.6%
Total		Count	250	30	39
		%	78.4%	9.4%	12.2%

Table 5.2. Households satisfaction of tenure term.

			Term satisfaction	
			No	Yes
Indicated duration of tenure term	30 years	Count	11	13
		%	45.8%	54.2%
	70 years	Count	6	41
		%	12.8%	87.2%
Total		Count	17	54
		%	23.9%	76.1%

Despite support for individual management and extension of the tenure term, the actual exercising of management rights has remained low. Results from the survey show that 64.3% spend little time on forest management, and most notably, 50.9% never planted trees on their land. Similarly, only 8.1% has applied for a cutting permit, which is currently free but still required when harvesting more than a stipulated number of trees.

The low exercising of management rights was also reflected in the uses of household forests (Figure 5.1). In 81.8% of cases, forests were solely used for self-use, which can be translated into using a small number of trees for subsistence purposes to satisfy cooking and heating needs. However, as fuelwood is increasingly replaced by electricity, the use of forest resources has declined for nearly all households (92.2%). The average decline of 73.3% over the last 15 years shows that dependency on forest resources has drastically diminished, together with their importance for self-use.

In relation, commercial uses of forests were much less common. Only a fraction of households (3.5%) engaged in NTFP, such as tea trees and mushrooms, while even fewer (2.5%) used their land for commercial purposes such as tourism. Given these low figures, it is not surprising that only 8.2% of households obtained direct economic benefits from their forests. For those with a benefit, it has been mostly derived from the sale of timber (45.8%), NTFP (41.7%), and the transfer of forest rights (12.5%). However, only 12.5% considered these as an important source of revenue. This means that from all surveyed households who individually managed forests, just 1.0% obtained *substantial* economic benefits from their forests.

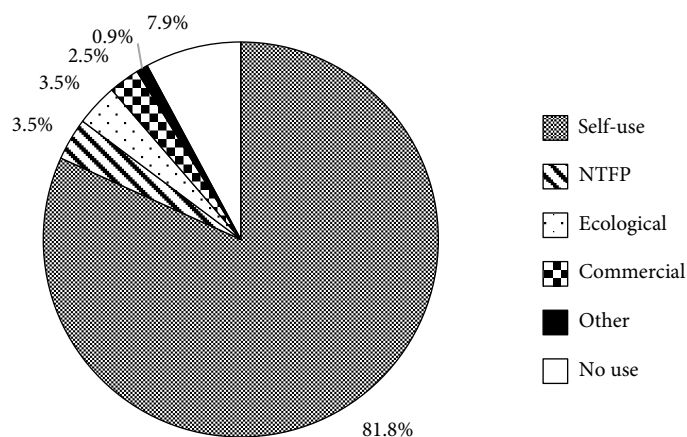


Figure 5.1. Use of household forests.

Alienation rights: With the low exercising of management rights, best reflected by infrequent commercial uses, the transfer of forest rights may provide households with an additional, alternative economic opportunity. This is especially relevant considering current migration patterns, which have caused many households to migrate away from their forests. Despite this relevance, the survey results show that only 5.8% have engaged in forest transfer. Here, 4.1% engaged in renting out their forests, commonly to a private company for a fixed period. Just 1.7% cited selling their forest use rights, which were permanently sold to factories for a lump sum.⁵⁹ None of the respondents stated using their rights as collateral in order to obtain credit.

To explain why the exercising of alienation rights have remained low, household attitudes towards forest transfer were examined. Figure 5.2 shows a modest readiness for forest transfer, with more households willing to rent-out (38.1%) compared to those willing to sell their forest rights (29.1%), which is not surprising given that selling forest rights has permanent implications. At the same time, a sizable group was undecided about forest transfer, particularly for renting-out (35.6% of respondents answered 'maybe'). This may indicate that some households are not fully accustomed to the idea of forest transfer yet. Finally, a considerable group was unwilling to transfer forests (explained in Figure 5.3): a large group wanted to retain their forests, while others pointed to market deficiencies which are mainly caused by a lack of demand for forests. The survey results further show that some households were not fully aware of the opportunities for forest transfer, as 23.3% indicated

⁵⁹ Depending on the size of land sold, households reported they were given tens of thousands of yuan. Figures vary between 20,000 and 90,000 yuan per mu (equivalent to 2,800-12,500 USD per 1/15 hectare), but given the low number of observed cases, these figures serve only as an indication.

that renting-out is not allowed (and 58.4% for sale). This was paired with a relative high ambiguity over tenure rights, as 59.6% of households under individual management believed to possess ownership, with only 13.8% pointing to the collective as the rightful owner.

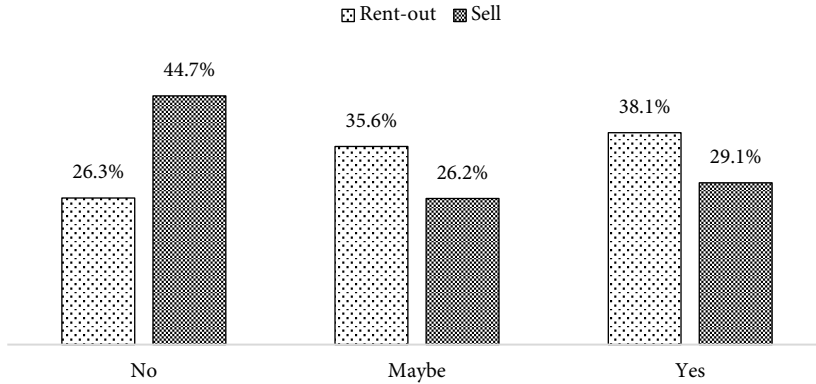


Figure 5.2. Household willingness of forest transfer (in %).

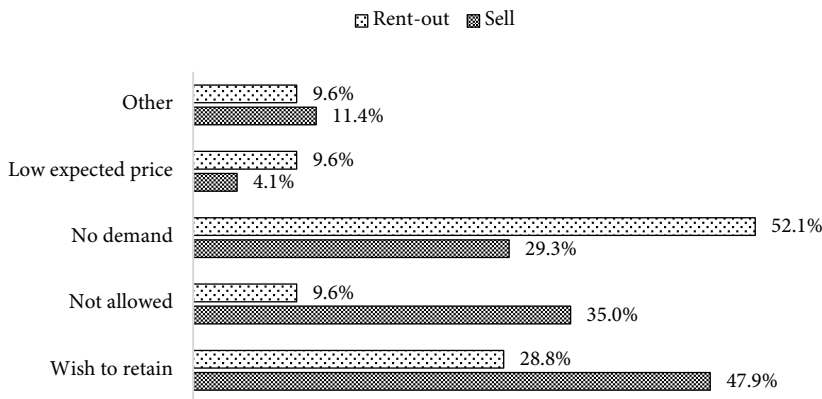


Figure 5.3. Not willing to transfer: motivations (in % all cases).

Income rights: Both management rights and alienation rights are influenced by income rights,⁶⁰ assuming that the right to economically benefit from the resource will affect one's incentive to manage or obtain it. With cutting bans enforced in the research area, it is important first to assess how these are internalized by households. The majority of households (65.8%) acknowledged the need to apply for a permit when exceeding a certain number of trees to cut (although with varying estimates). At the same time, 97.1% recognizes

⁶⁰ Although formal guidelines have also focused on fair compensation in case of expropriation, no such cases were encountered and therefore this section focusses on the distribution of subsidies. It is relevant to note, however, that 89.6% is confident to receive a fair compensation in case of expropriation.

the effect of such restrictions, with some claiming that deforestation would occur without these. These findings correspond with few reports of illegal harvesting (reported by 7.6%).⁶¹

With cutting restrictions largely respected, the subsidies offered by the NFPP and CCFP have aimed to compensate forest users for the attenuation of their income rights. The programs are relatively common in the research site, with 37.0% indicated receiving a subsidy. Farmers received an annual fee of about 8 to 10 yuan for every mu included in the program.⁶² However, as most households only hold small pockets of forest, the amount of subsidies is perceived as low by 76.1% of households. Households in the study sample have an average of 3.2 forest parcels with each an average size of 5.5 mu (about a third of a hectare). This means that even in a hypothetical case where all forests are included, the total annual compensation would only average to about 150 yuan annually (about 22 USD).

5.5.2. Explaining discrepancies

The previous section may indicate that the current configuration of property rights in China's forest sector has become credible, best reflected by high support for individual management but also by the adherence of cutting restrictions. This is also reflected in the overall attitudes of forest rights (Figure 5.4), where 90.2% expressed satisfaction with their current rights, and 68.8% indicated no need for further (policy) changes. At the same time, household forests are still seen as important for most (84.3%). Despite such credibility, however, it is also observed that the actual exercising of forest rights has remained low – best characterized by low levels of forest management and infrequent transfers of forest rights.

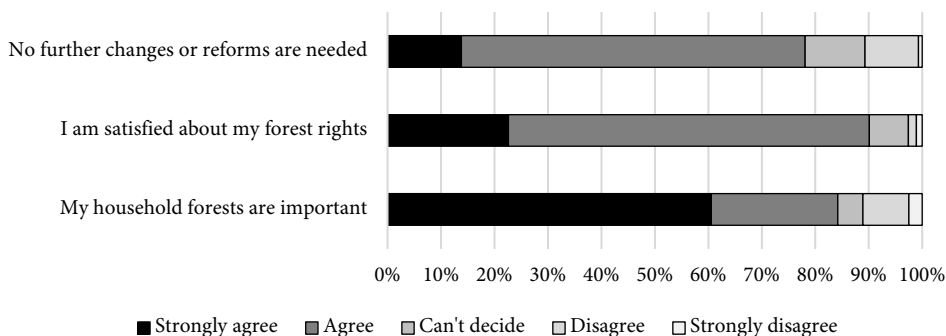


Figure 5.4. Household overall attitudes of forest rights.

⁶¹ Although the survey did not ask about the role of potential sanctions, it is generally understood that penalties for illegal harvest are strict in China. One respondent, a village leader in Hunan, was sentenced for three years due to (illegal) harvesting of approximately 65 hectares of forestland.

⁶² Equivalent to approximately 1-1.5 USD per 1/15 hectare. The survey did not differentiate between both programs.

These results point to a paradox in China's forest tenure arrangement: Even though nearly all surveyed households have been unable to derive a substantial economic benefit from their forests, the rights arrangement still appears highly credible. The in-depth insights derived from interviews provide further elucidation to explain this.

The low exercising of management rights (paired with little economic benefits) are explained not only because of declining dependencies of forest resources but also by rapid demographic changes across rural China. With the youth moving to more lucrative off-farm jobs in urban areas, there is a high proportion of seniors residing in the villages. This was also illustrated in the survey sample, where the average age was 62 and approximately one in four household members out-migrated. The aging composition of China's forest users has been viewed as a critical hindrance for forest reform because the laborious tasks of forest management are no longer fulfilled by forest users:

"Now that all young adults have left, only the elderly are still at home. It is impossible to call them to develop your industry." D.011, Forest reform officer, October 16, 2017.

Given that the aging population puts a direct constraint on individual forest management, China's continued trajectory of allocating forest use-rights to households are viewed with skepticism by local authorities in the WMA. Most agreed that a collective form of management can be better equipped to improve forest management:

"The younger generations do not know the boundaries and number of plots. What is the meaning of the contracting system? If you do not even know it yourself, how will it be managed? My view is that ultimately collective management is better." D.004, Village leader, September, 16, 2017.

"Actually, I personally think that initially forests should not have been assigned to households. Forests are not the same as agriculture land. Cultivated land is to solve the problem of 'food and clothing.' Forests are not the same, the first priority is to provide wood and the second priority is to protect the ecology. This is totally not the same." D.006B, Forest reform officer, September 21, 2017.

Some households and village leaders also echoed officials' concerns about individual forest management. They have argued that it has hindered the construction of roads to tap on the economic benefits of valuable trees, which are usually located in mountainous terrains that are difficult to access, particularly for the aging population. Moreover, the fragmented land structure may motivate interested parties to obtain forests that are collective-managed instead of individual-managed due to lower transaction costs, reducing market demand for household forests. Fragmentation has also put an immediate barrier to land appraisal that is

often a prerequisite for transfer. The following statement illustrates this issue for collateralizing forest rights:

“If you only have five mu, and you want to get a loan, how can you do that? You need to evaluate your forest assets. For evaluation, you need a qualified person to assess, which you need to hire. We only have one accredited person in this province. You only have five mu of forest, but he asks 50,000 yuan, what can you do?” This is a problem. D.011, Forest reform officer, October 16, 2017.

The difficulties of land appraisal have constrained the functioning of forest markets, which in the research site already suffered from market deficiencies that were identified by households (Section 5.5.1). Others have suggested that the market deficiencies are not exclusive for transfer, but also apply for timber markets:

“Right now, the prices of trees are low, so no people are cutting the trees. You can cut trees down, and bring them to the road, but people will not pay for it.” D.003A, Forest reform officer, September 13, 2017.

On the other hand, market deficiencies are not solely caused by forest fragmentation and remoteness. Another factor is that restrictions over forestland have remained, and although households are being compensated when their forests are designated for ecological conservation, the results have shown that they have been unable to create significant benefits for households as most retain small parcels of forests. At the same time, some have suggested that the prevailing restrictions over forest rights remained as an impediment to income rights and incentives of management and alienation:

“There are no such cases [of forest transfer], because if you want to rent the forest, you want to cut the trees, but since you can not cut the trees no one is willing to do that.” B.010, Village leader, February 9, 2017.

5.6. Discussion: Limitations to China’s rights-based approach?

While individual management introduced in China’s agricultural sector remains largely successful (Coase & Wang, 2012), its introduction in the forest sector has proven to be more difficult with persisting issues (C. Liu, Wang, & Liu, 2017; Xiong et al., 2018; J. Xu, 2010). The introduction of individual management since the 1980s has resulted in a large number of small forest parcels. In the subsequent decades, however, economic growth motivated many young villagers to move to urban areas, increasing the proportion of elderly in villages, which ultimately inhibits the ability to exercise management rights. Although the state’s response has been to encourage forest transfer for more efficient management, it is observed in this study that this is constrained by low market demand and high transaction costs, while strict regulations over forests have also remained.

It has become evident that the rights-based approach featured in China's forest reform has been largely unable to meet its objectives for households. Instead of creating new incentives and economic benefits, households' forest use and dependencies have diminished considerably over the last decades and the reform has been unable to reverse this trend. At the same time, however, the rights arrangement has become largely credible and rallied social support amongst households. This anomaly may point to the limitations of the rights-based approach. These are not only presently manifested but also in the ensuing phases and directions of (rights-based) forest reform.

The most plausible direction is the intensification of previous efforts on allocating and improving forests rights. This would imply reducing further restrictions on management rights, enhance the institutional conditions for the alienation of rights, and increasing subsidies for income rights. However, it is unlikely that these efforts will be sufficient in addressing the underlying issues of land fragmentation and an aging population. Moreover, China's forest sector already hosts some of the largest PES programs in the world (J. Liu et al., 2008), and even if subsidies for ecological programs are raised, per capita levels will remain low as most households are smallholders.

A more radical direction would be to introduce fundamental changes in China's forest tenure arrangement. As households only hold the use-rights of land, some groups have called for the full privatization of land rights (Zhan, 2020). However, while it will be doubtful that the central government breaks from its socialist principle of collective land ownership (Lin, 2009), it is also not likely that this will incentivize households as most already believe they have full ownership. Another more drastic measure would be to reallocate use-rights to the collective level, as proposed by some of the interviewees. While this could enhance economies of scale and reduce transaction costs, the results presented here coincide with other studies that showed individual household forests remain highly appreciated among farmers (Siikamäki et al., 2015). Such measures are, therefore, likely to be faced with strong resistance from farmers.

It appears that the main problems residing in China's forest tenure arrangement cannot be easily ascribed to property rights, nor do property rights alone offer a direct institutional 'fix'. Whereas the institutionalization of natural resources have implied that the focus has been diverted to the rights of the resource instead of the resource itself (Coase, 1960), the results show that the key issue lies not in China's rights arrangement – but instead, with the resource itself and particularly its limited economic interest and potential. The economic interests of household forests are currently low because of deficiencies that pertain to the users (the absence of an active group able to turn forests into more profitable uses), the market (a lack of demand for both forestland and forest resources), and the government (imposing strict restrictions with inadequate compensation). Taken together, the low economic interests have meant that the reform has been largely unable to realize its objectives,

because household forests provide insufficient basis to generate new incentives or economic benefits for households.

This may still explain why the reform appears more successful in other areas, for instance in areas where infrastructure and geographical conditions may be more suitable for (large-scale) economic production, or where demographic change did not constrain individual forest management. While this study's findings resemble with other studies that indicated that transactions around household forests remain low (Shen et al., 2009; Siikamäki et al., 2015; Han Zhang et al., 2017), a number of studies have indicated that the reform led to positive incentives in household management, improved tenure security, increased afforestation and NTFP, and investment increments (He & Sikor, 2017; Qin et al., 2013; Ren et al., 2018; L. Xie et al., 2016; Yi, 2016). It remains clear, however, that for the WMA—an area representative of household forests in remote and mountainous terrains—the ambitions of the reform has yet come to fruition.

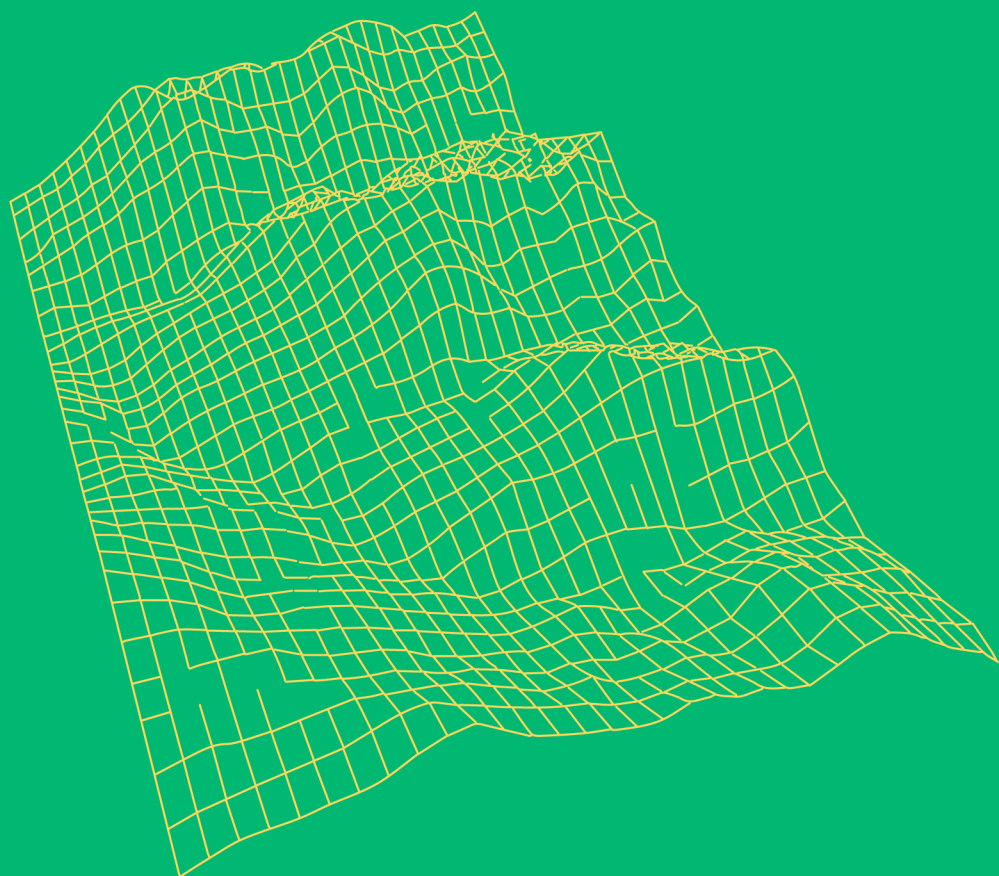
5.7. Concluding remarks

Over the last few decades, rights-based approaches aimed to facilitate new types of economic transactions around natural resources. They are often formulated on the basis that formal changes in rights will provide effective incentives for resource management, production, and more recently, conservation. At the same time, it has become increasingly clear that the reconfiguration of property rights are not always successful. Recent works seek to address this by revising the conceptualization of resource rights (Galik & Jagger, 2015; Ribot & Peluso, 2003; Sikor et al., 2017), while other studies have looked at how rights are aligned with the needs and perceptions of actors (Ho, 2016b; Sun & Ho, 2018; Zeuthen, 2018).

While such works have improved the understanding of how rights function vis-à-vis their users, China's case shows that successful reform is not just about property rights alone. Ten years after the extensive (and credible) efforts under the Collective Forest Tenure Reform, the reform has been largely unable to create new incentives and economic benefits for households in the WMA. This illustrates that rights-based approaches are unlikely to realize their intended effects if natural resources hold too little economic interest or potential. This is an important consideration commonly blindsided in conventional studies on property rights reforms, where success stories between reforms, forest conservation, and economic growth are mistakenly taken for causal relations.

Undoubtedly, this provokes a chicken-or-egg dilemma as advocates of rights-based approaches (and particularly those promoting formal and private rights) would argue that it is first necessary to 'get the institutions right' before the economic potential of resources can be capitalized on. Although the results presented in this chapter are not conclusive about the long-term effects of property rights reform, what is clear, is that such processes will take a longer period to manifest. Moreover, throughout these processes, values may also be

subjected to changes in resource use and production. This calls for an analytical shift that further incorporates not only how rights are exercised or perceived by resource users, but also how they stand in relation to the resource.



Chapter 6

Function with form?

The relevance of the credibility thesis for institutional theory

6.1. Introduction

The Collective Forest Tenure Reform (CFTR) incited major institutional change to catalyze socioeconomic development in China's forest sector. The previous three empirical chapters showed how the reform comprised actions of *formalization* (the clarification and registration of forest rights in new tenure titles) and *privatization* (granting households new individual use-rights in forest management and permitting those rights to be leased or transferred) (FAO, 2013; He & Sikor, 2017; J. Xu, 2010; Yiwen et al., 2020). Accordingly, institutional forms of private and formal property rights have been established in China's forest tenure arrangement.

However, the empirical analyses presented in the previous chapters identified significant issues in the *functioning* of these institutional forms. Most clearly, marked discrepancies were identified between formally intended rights versus those: (i) *established* by local authorities (Chapter 3); (ii) *enforced* in courts (Chapter 4); and (iii) *exercised* and perceived by households (Chapter 5). These discrepancies explain why the anticipated effects of formal and private property rights—including income improvements, increased incentives in forest management, and market transfers—were not observed in the Wuling Mountain Area.

Aside from offering insights into the specific workings of property rights in China's forest tenure arrangement, the empirical insights are also relevant in light of recent debates about the 'form' and 'function' of institutions. A growing body of literature has argued that institutional interventions cannot be adequately explained by their mere forms or designs alone, and therefore, an analytical reorientation that focusses more explicitly on how institutions *function* is called for (Agrawal et al., 2014; Aron, 2000; H. J. Chang, 2011; Davy, 2018; Grabel, 2000). Recalling from Chapter 2, the credibility thesis postulates the importance of institutional function:

“[W]hat ultimately determines the performance of institutions is not their *form* in terms of formality, privatization, or security, but their spatially and temporally defined *function*.” (Ho, 2014, pp. 13–14 italics in original).

The credibility thesis is developed both theoretically and empirically with a specific focus on property rights. However, despite increased interest in and application of the credibility thesis in the empirical literature, a critical examination of its theoretical and empirical merits for institutional analysis has not been undertaken so far. Therefore, it is unclear how the credibility thesis' endeavor in providing an “alternative theory that could provide a more consistent explanation for the institutional phenomena around us” has come to fruition (Ho, 2017b, p. 3). Based on the empirical insights from the previous chapters—where the credibility thesis was applied in different phases of property rights reform—this

chapter presents a first evaluation of the credibility thesis as a ‘function-based’ approach for institutional theory.

This undertaking is twofold. First, Section 6.2 explores the credibility thesis’ *theoretical* contributions by assessing its main theoretical proposition that institutional function presides over form (Ho, 2013, 2014, 2020). Links are drawn with existing institutional theories, and specifically, its ideas are compared with those put forward by original institutional economics (OIE). After that, Section 6.3 evaluates the credibility thesis from an *empirical* perspective, that is, its operational framework alongside methodological tools to analyze the nature and workings of property rights. In Section 6.4, several critical caveats of the credibility thesis’ contributions to institutional theory are discussed. Combined, the different perspectives presented in this review help appreciate the credibility thesis’ relevance for institutional theory, which is concluded along with final remarks in Section 6.5.

6.2. Theoretical inquiry – a companion to original institutionalism?

Chapter 2 explained that a key undertaking in the NIE-based or ‘economic’ property rights literature is the determination of the ‘right’ (i.e. the most efficient) institutions for economic growth (Besley, 1995; Demsetz, 1967; Miceli et al., 2000; Williamson, 1998). In stark contrast to these approaches, hereafter referred to as ‘form-based’ approaches, the credibility thesis refrains from using institutional forms or typologies in judging and explaining economic development. Instead, the credibility thesis proposes that economic performance must be assessed based on how institutions *function*. When situating the credibility thesis in the existing institutional literature, it becomes clear that some of its theoretical and empirical endeavors are akin to those in original institutional economics (OIE). Notably, the functionalist orientation was also central to original institutionalism:

“If the OIE saw institutions as the all-important backdrop to social inquiry, they also placed the emphasis on understanding their *function* rather than on a full-fledged explanation of their particular *form*.” (Spiegler & Milberg, 2009, p. 310 italics added).

Although OIE partially lost influence in the decades after the second world war, with its ideas written off or considered anti-theoretical by prominent NIE-scholars (e.g., Coase, 1984; Williamson, 1998), there has been a renewed scholarly interest in the ideas proposed by original institutionalists (Caballero & Soto-Oñate, 2015; Groenewegen, 2019; Hodgson, 2014; Lawson, 2013; Luz & Fernandez, 2018; Markey-Towler, 2019; Spithoven, 2019). Notably, scholars have called for the reappraisal of original institutionalism in light of persisting inadequacies or ‘glaring gaps’ in NIE scholarship. According to Ménard and Shirley (2014, pp. 559–560), these gaps are most profound when dealing with informal institutions or making analyses more dynamic, while methodological deficits in defining and

measuring institutional effects across different settings are also observed. The same authors attribute these gaps to “uncomfortable adaptations” of neoclassical principles in NIE analysis, creating analytical deficiencies in realism and detail (Ménard & Shirley, 2014, p. 599). When taking note of these shortcomings, Hodgson (2014, p. 591) suggests that:

“NIE can learn from the original institutionalism, particularly when elaborating more dynamic analyses, and developing more nuanced, psychologically-grounded and empirically viable theories of human motivation.”

Scholars are divided on the question of how a ‘reconciliation’ or ‘rapprochement’ between NIE and OIE should be facilitated (Caballero & Soto-Oñate, 2015; Groenewegen et al., 1995; Hodgson, 2014). While some have claimed that a “dialogue between the different institutional approaches may be fruitful” (Caballero & Soto-Oñate, 2015, p. 971), Spithoven (2019) stresses that reconciliation is not possible due to fundamental differences in methodology and normative stances between OIE and NIE. Luz and Fernandez (2018, p. 597) also found major incompatibilities and critiqued the tendency “for some researchers to compromise key tenets of the OIE tradition.” What is clear, however, is that there is a growing consensus that the ideas put forward by OIE are in need of reappraisal.

Against this background, it becomes a relevant task to explore how the credibility thesis may aid to reevaluate and operationalize the ideas of original institutionalism. Recalling from Section 2.3, OIE marked an important departure from neoclassical economics, which shifted scholarly attention towards (i) methodological interactionism; (ii) dynamic analyses; and, (iii) abductive and empirically-grounded approaches. The below will show how the credibility thesis incorporates these ideas, and hence, might act as a contemporary companion to some of the ideas of original institutionalism. When applicable, the empirical insights from China’s forest reform are used to substantiate why and how a reappraisal of these ideas is relevant.

6.2.1. Beyond individualism – institutional change as an interactive process

Standard NIE-based analyses of property rights are founded on methodological individualism and regard rightsholders as rational and utility-maximizing actors (Allen, 2015; Barzel, 2015). It assumes that societal objectives can be achieved by making changes in the relevant institutional arrangements, which accordingly structure actors’ behavior through incentives. Methodological individualism has been problematized by original institutionalists, who claimed it ignored that actors’ preferences and attributes are often heterogeneous and non-instrumental (Commons, 1934; Hamilton, 1919; Veblen, 1914). OIE starts from methodological interactionism in which interactions among actors and between actors and structures are inquired (Correljé et al., 2014; Hodgson, 1998). Also the credibility thesis follows methodological interactionism, and assumes that institutions emerge through the (unintentional and endogenous) cumulative interactions of actors (Ghorbani et al., 2021; Ho,

2014, 2016a). Two empirical examples witnessed in China's forest reform illustrate why methodological individualism might be an inadequate basis for institutional analysis, while offering support to the idea of methodological interactionism.

First, the empirical results suggest that individuals are not always (efficiency-driven) rule-followers whose behavior can be readily influenced by making changes in the relevant institutions. Chapter 5 indicated that despite households now having more rights and decision-making power concerning forest management, few households were sufficiently incentivized to exercise their new rights. For example, a significant group was unwilling to engage in land transfer due to strong sentimental values. Households wanted to be able to pass on the land to their children, while others did not want to alienate their land because their ancestors were buried there and because they believed their land possessed the right 'fengshui' (i.e., auspicious values determined by local environmental specificities which benefit the deceased in their afterlife).⁶³ Hence, even though households are now permitted to exchange their land use-rights, their strong non-economic sentiments partially explain why an increase in market transactions did not emerge.

Second, the empirical findings demonstrate that the actors responsible for implementation often have an active role in shaping or "molding" the institutional structures (Hodgson, 1998, p. 181). Chapter 3 suggested the pivotal role of local authorities in reform processes. Interviews with local authorities revealed their decision *not* to carry out on-site surveying and leave potentially controversial issues unresolved. This decision was informed not only by financial and capacity constraints, but also by the expectations of central authorities who set tight timelines and targets for reform implementation. However, these timelines would not be feasible if local authorities had decided to conduct on-site surveying and resolve all (former) controversies and ambiguities between households. In dealing with the demands and expectations from central authorities and households, therefore, an institutional compromise had occurred where titles were issued but based on older and unverified information. As an outcome, discrepancies had occurred between formally intended rights (accurate and verified rights) versus those held by households (ambiguous and overlapping rights).

Both examples ascertain that the relationship between institutional structures and actors is not linear or straightforward, but frequently appears *irrational* (when actors do not 'maximize' their rights) and *chaotic* (when actors endogenously mold their institutional structures). Considering the interactive processes and feedback mechanisms of institutional change, as illustrated in Figure 6.1, is important because it highlights the many dependencies, expectations, and social relationships in reform processes. In stark contrast to

⁶³ Every year Chinese migrants return to their ancestors' land to pay respect and tidy up their tombstones. See also the short video "Remembering the Rituals of the Chinese New Year" (2019) directed by the author, available on YouTube: <https://youtu.be/1S4DfwxKGto>.

methodological individualism, which assumes an unproblematic and one-directional relationship between structure and actors, their recognition is valuable to explain why the (central) state is often unsuccessful in single-handedly initiating institutional change (Scott, 1998).

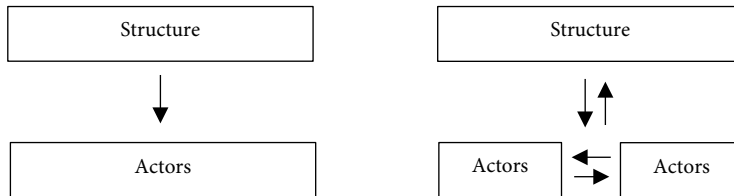


Figure 6.1. Methodological individualism versus interactionism.

6.2.2. Beyond equilibria – institutional change as a dynamic and conflicting process

Institutional approaches in the tradition of NIE often assume that processes will converge to the point where no actor can gain additional utility by unilateral action – an equilibrium. In contrast, the credibility thesis rejects any form of equilibrium, be it static, stable, or punctuated (see Ho 2018a). Instead, the credibility thesis stresses the conflicting tendencies that give way to “alternating fast and infinitely slow” processes of institutional change and destabilization (Ho, 2016a, p. 1125). This claim coincides with the dynamic approach in OIE, and closely follows Commons (1934) who argued that conflicts (alongside dependence and order) are inherent to every transaction (Kitagawa, 2016). The credibility thesis thus bears a resemblance to OIE in its proposition that institutional change is a protracted and conflicting process involving negotiation and bargaining between actors (Ho, 2015).

This proposition was empirically evaluated in Chapter 4, which inquired whether forest titling led to a more stable and credible tenure arrangement over time. The analysis first showed that rather than acting as an effective instrument to resolve tenure disputes, nearly half of all titles were revoked in court adjudications due to implementation issues. The analysis also indicated that the tenure titles frequently acted as new (indirect) drivers for conflicts in post-implementation phases of reform. Disputes arising from land acquisition or land-use changes would often culminate into manifest conflicts about ambiguously recorded forest boundaries and parcel sizes. This finding suggests that future change in China’s forest sector, for instance, when ecological subsidies are introduced or when migrants return to the countryside in the face of economic recession, is likely paired with new contestation about the specific contents of forest titles.

The empirical results illuminate that institutional reform is rarely a frictionless undertaking, and that contradictory, institutional change might result in *more* conflict rather than the intended reduction thereof. At the same time, the example shows that institutional change is often no institutional ‘fix’ that converges to an equilibrium state – but frequently, a long-term, protracted process in which outcomes diverge and are indeterminate over time.

Selecting conflicts as a focal point for investigation—as initially stressed by Commons (1934) and reiterated by Ho (2014, 2018b)—is thus helpful in offering a more dynamic account of how reform initiatives are affected in sequential stages of reform. Or, as a proverbial ‘stress test’ in which possible drivers for destabilization and change are identified.

6.2.3. Beyond determinism – institutional change as an endogenous process

Form-based approaches seek to establish causal relationships between how institutional forms (as independent variables) result in certain outcomes (as dependent variables). In contrast, the credibility thesis refrains from causal approaches and discards deductive and deterministic reasoning (Ghorbani et al., 2021). Instead, it calls for an abductive approach that starts from empirical investigation on the basis that it is “only through empiricism [...] in order to further institutional theory” (Ho, 2018b, p. 865). Also here, the credibility thesis shows resemblance with OIE, which rejected teleological approaches and adopted an open and holistic approach to empirically investigate a broad set of variables (Kaufman, 2007; Ramstad, 1986; Wilber & Harrison, 1978).

The merits of the abductive and empirical approach are highlighted in the empirical observations of Chinese forest reform as well. Despite the uniform implementation of—what some would consider the ‘right’—institutional forms of *formal* and *private* property rights under the CFTR, the empirical analyses showed that their implementation did not accelerate socioeconomic development in the area under study. Chapters 3 and 4 revealed that although new forest titles were widely distributed, most titles lacked critical information due to ambiguously recorded boundaries and parcel sizes. Therefore, and despite the widely approved ‘form’ of titles (as a tangible state-sanctioned document), they had little impact on actors’ behavior. Rather than suggesting a causal relationship between institutional forms and certain effects, the findings ascertain that institutional outcomes are subject to a broad range of endogenous variables. For the case of Chinese forest reform, these include farmers’ preferences, specific geographical conditions, local authorities’ attitudes, demographic compositions, and migration patterns.

Such endogenous variables—which are often neglected in deterministic and deductive approaches because they isolate intervening variables from analysis—collectively explain why the anticipated effects of the reform did not take place in the WMA. An abductive and empirically-grounded approach thus helps to understand how institutions are affected by different social, spatial, economic, political, or cultural factors (Miyamura, 2016; Mollinga, 2016). These factors explain why identical institutional forms often perform differently across time and space (Ghorbani et al., 2021; Ho, 2020), which is particularly relevant in light of a growing recognition that institutional interventions cannot be molded into institutional blueprints or panaceas (Bromley, 2009; Cai et al., 2020; Meinzen-Dick, 2014; Ostrom, 2007).

6.3. Empirical inquiry – the credibility thesis as a methodological tool

With an overlap between the theoretical ideas of OIE and the credibility thesis, their methodological endeavors are also similar – both advocate for more dynamic, abductive, and empirical approaches to advance institutional theory. However, this leaves a methodological challenge unresolved: Even though the notion that ‘institutions matter’ has received extensive theoretical treatment in institutional literature, the development of a supportive empirical basis has lagged behind (Buchanan et al., 2014; Voigt, 2013). Although formal methods such as game theory, regression models, and process tracing have been developed to study the causal patterns of institutional change, Buchanan et al. (2014, p. 2 *italics added*) remark the:

“absence of a convincing account linking the theory of institutions to a set of *empirical* methods for measuring institutions and identifying their precise roles in shaping economic behaviour and outcomes.”

Against this background, the empirical and methodological undertakings of the credibility thesis appear relevant for institutional analysis. The credibility thesis offers new methodological tools that are consistent with OIE-principles and are appropriate for abductive and holistic research with greater attention to realism and detail. Its methodological tools include the Formal, Actual, and Target (FAT) framework (Chapter 3) and the Conflict Analysis Model (Chapter 4). In addition, the credibility thesis proposes a list of proxies to operationalize credibility in different ways, including perceptions, conflicts, and speed of institutional change (Ho, 2016a). As the credibility thesis is still in early development, these proxies and methodologies can be expanded or adapted based on the context and nature of research (Ho, 2014). The applicability of the credibility thesis for empirical research, compared to more formal and static approaches, can be assessed by going back to the empirical case of China’s forest reform.

Here, most studies have studied the causal effects of the reform and assessed how particular changes in x (such as private forest rights) have led to specific outcomes in y (such as income improvements or market transfers). A clear example is the study of Xie et al. (2016) which inquired whether the allocation of forest rights to individual households led to positive effects in afforestation. The results pointed to a significant increase in forestation, especially in the first year of the reform. A total increase of 7.68% in forest cover was observed due to villagers’ enhanced incentives in tree planting activities. While these findings might culminate into specific recommendations, e.g., private tenure rights are conducive for afforestation, the study also found significant variance across the observed villages. As the authors admit, the study could not explain the “heterogeneous effects” of forest reform that were encountered between different villages and forest tenure arrangements (L. Xie et al., 2016, p. 127).

To explain these variations in more detail, it is helpful to expand the analysis by looking at individual motivation, as demonstrated in the study by Wu and Zhang (2014). The study applied game theory to analyze the interactions between three main stakeholders of China's forest reform; the central government, local government, and farmers. A multi-stakeholder game model was constructed to estimate the probabilities of farmers' willingness to actively participate in the reform, based on the net present value (NPV) of their investments (tree seedlings) for five years. The study showed for different tree species that farmers would not purchase tree seedlings under current conditions as their expected returns were negative. However, when tax breaks and subsidies would be introduced, the incremental NPV would change positive ($\Delta\text{NPV} \geq 0$), and farmers would more likely participate and gain economic benefits from the reform. For the Wujiao maple, for instance, the model estimated that a subsidy of about US\$11 per tree was needed to make farmers' investment profitable. The methods used by Wu and Zhang (2014) are thus helpful in providing detailed suggestions on how the CFTR can achieve its intended objectives of farmers' livelihoods improvements.

Both studies by Xie et al. (2016) and Wu and Zhang (2014) highlight the main advantage of formal approaches. That is, to provide detailed predictions on which institutional changes will likely result in desired outcomes of reform, which accordingly establishes "a positive reference for the government authorities" in selecting relevant policies (S. Wu & Zhang, 2014, p. 330). Certain settings, however, would render formal approaches less applicable, most clearly in scenarios where markets and enforcing and regulatory mechanisms are absent or ineffective. The studies by Xie et al. (2016) and Wu and Zhang (2014) assume that there are well-functioning tree seedlings markets, evenly distributed subsidies, and fully-informed and rational farmers. In actuality, however, the prevalence of corruption or information asymmetries could imply that the anticipated effects do not occur.

When variations in observed outcomes cannot be adequately attributed to institutional factors alone, the credibility thesis' abductive and empirical approach is helpful to look deeper into the specific workings of institutions. Instead of analyzing causal relationships, its methodology enables contextualized analyses in understanding the underlying mechanisms of *how* institutions deliver intended outcomes. The FAT framework, for instance, scrutinizes property rights in different dimensions, thereby offering empirical insights into how formal rights are aligned with the locally-determined actual and perceived rights. Its application for China's forest reform in this study identified discrepancies in the establishment of property rights that were previously unobserved. However, their recognition is essential to explain why the intended effects of the CFTR did not materialize in all the sites affected by the reform, and why positive effects in other sites should not necessarily be attributed to the reform.

The methodological tools offered by the credibility thesis thus appears most applicable in addressing questions of "how property systems work on the ground" (Colin, 2008, p. 232) – which timely responds to an expressed need for more context-specific analyses (Cai et al.,

2020; Cleaver, 2002; Clement & Amezaga, 2013; Jagger, 2014; Ostrom et al., 2007). Even though existing studies have documented a broad range of contextual factors that influence institutional outcomes, it has been observed that such empirical knowledge remains “messy and fragmented” (Clement & Amezaga, 2013, p. 142). With a growing interest and application of the credibility thesis in different domains—particularly in land, housing, and natural resource management—the credibility thesis has the potential to facilitate more systematic analyses of property rights in their specific contexts. In a recent special issue on informality, for instance, the empirical contributions of the credibility thesis literature have been synthesized to argue that divergent institutions perform identically, and secondly, that institutions do not converge but diverge over the course of development (Ho, 2020). For the credibility thesis to offer more organized knowledge and facilitate comparisons between case-studies, however, a number of key challenges remain unresolved. These challenges and limitations become evident when positioning the credibility thesis in the broader field of institutional economics, shown in the next section.

6.4. Function presides over form? A critical perspective

The previous two sections suggested how the credibility thesis’ theoretical and empirical contributions could advance institutional theory – foremost by making scholars more attentive to the interactive, dynamic, and endogenous characteristics of institutions as initially stressed by OIE. Such relevance notwithstanding, a more critical reading of the credibility thesis as an “alternative theory” to institutional phenomena discloses several key challenges (Ho, 2017b, p. 3). Below three key issues are discussed.

6.4.1. The irrelevance of form?

Recalling from the introduction, various scholars have emphasized to more closely consider how institutions *function* over time and space (Agrawal et al., 2014; Aron, 2000; H. J. Chang, 2011; Davy, 2018; Grabel, 2000). The credibility thesis not only reiterates this assertion but extends the argument with two additional claims. First, a hierarchy between ‘form’ and ‘function’ is established in which “institutional function presides over form” (Ho, 2014, p. 14). Second and closely related, institutional forms are considered irrelevant because institutions always emerge from spontaneous and endogenous interactions, and therefore, the “form of institutions is not in our hands; in fact, one might argue, it is of *no real significance at all*” (Ho, 2013, p. 1090 italics added). The alleged insignificance of form also means that the relationship between institutional forms and their expected outcomes is considered irrelevant, because even if the right institutions were to be determined, it would be impossible to implement these accordingly (Ho, 2018a). Below it is explained why both claims on institutional form are problematic.

The first claim that “function presides over form” is problematic in its treatment of the concepts in a divisible manner. The empirical results ascertain that the ‘form’ of an institution can hardly be meaningfully separated from its ‘function’ because they are mutually interactive. Consider Chapter 3, which demonstrated that new forest titles’ functions were compromised due to inaccurately registered forest boundaries and parcel sizes, which undermined their role in resolving tenure disputes. Despite this, however, the *form* of forest titles (a state-sanctioned document) rallied social support because, for many households, it signaled a commitment by the central state to recognize and protect land rights for China’s rural inhabitants. Despite the ‘empty’ function of titles, therefore, their *form* actually served to enhance state legitimacy for central authorities. Hence, the suggestion to abandon form from analyses is undesirable (Sun & Ho, 2018), because institutional forms clearly influence function – even if they are not the only variable in the equation. The above example also indicates that the term of an ‘empty’ institution (Ho, 2005) might be misleading as, from a pure functionalist perspective, all institutions at any given time and space retain functions – if only symbolic.

The second claim that institutional forms are irrelevant (and the accompanying rejection of deliberate institution-building) is problematic because it neglects that formal rules, external agency, and deliberate processes are often of great importance in society. To illustrate, the claim that “property rights cannot be externally designed” (Ho, 2013, p. 1109) loses significance when acknowledging that a ‘right’ inherently relies on an established legal structure that is deliberately designed and enforced by an external agency (Arruñada, 2017b; Bromley, 1991; Hodgson, 2015). Moreover, the judicial analysis in Chapter 4 illustrated that even when institutions are not implemented in full accordance with official guidelines, property rights are still enforced conform to the formal and legal regulations assigned to them.

Far from being unintentional, Searle (2005, pp. 6–7) stresses the ‘collective intentionality’ that pertains to institutions, in which different groups of actors work collectively and intentionally to structure social interactions – which may take the form of social agreements, beliefs, conventions, or constitutions. Also Commons (1934) emphasized the importance of (deliberately created) institutions when actors have to deal with the future expectations of transactions, including the expected costs and benefits of their actions in a ‘going concern.’ The reasoning in the credibility thesis that institutional forms are irrelevant because institutions always emerge in a way that is unintentional, hence, seems spurious for many existing cases where institutions emerge and evolve from a combination of intentional designs and their functions in practice. For instance, China’s previous experiences in the early 1980s have shown that *deliberate* redistributive processes of land-use property rights were successful in achieving objectives of economic growth and food security (Coase & Wang, 2012).

6.4.2. *The (un)falsifiability of credibility and function*

A second key challenge to the credibility thesis revolves around the loose conceptualizations of ‘credibility’ and ‘function’ in empirical applications. The latter is defined to describe “something about what it does for a group of actors” (Ho, 2018b, p. 645) and has accordingly been used to describe a broad range of aspects – including employment opportunities (Mengistu & van Dijk, 2018; Yang, 2018), informal housing (Y. Zhang, 2018), or recreational needs (Arvanitidis & Papagiannitsis, 2020). However, in the absence of more specific provisions of the credibility and function concepts, they risk becoming overly accommodating and elastic concepts – and ultimately, unfalsifiable with no explanatory power. For instance, the proposition that the persistence of institutions is explained by their “functional endurance” (Fold et al., 2018, p. 922) becomes unfalsifiable when acknowledging that any institution inherently fulfills some kind of function (even if that function is largely symbolic, as observed earlier).

The elastic use of both concepts also makes the analyses more vulnerable to subjective bias. The study by Zhang (2018), for instance, applies the credibility thesis to explain the persistence of informal housing in Mumbai. The study finds that because slums fulfill a functional purpose—housing for the urban poor—they are considered credible, and therefore, policymakers are cautioned not to intervene. However, the analysis does not consider that although slums are credible for their inhabitants due to their ‘functional’ role, they might be perceived as non-credible by local policymakers and neighboring dwellers if the slum simultaneously functions as a potential fire safety hazard. The example suggests that without more guidance on questions of *whose* and *which* function(s) are indicative of credibility, the analysis risks becoming incomplete because institutions serve different functions for different actors at the same time.

A related issue around the notions of function and credibility is their interchangeable use in empirical applications – *functional* institutions are equated with *credible* institutions in the credibility thesis. However, the empirical findings in this study reassert that a further distinction between credibility and function is warranted: The CFTR rallied social support from both households and authorities, and hence, appeared *credible*. At the same time, however, the reform was little *functional* in terms of resolving conflicts, enhancing forest management, and improving income levels. Combined, the under-specified and interchangeable use of the credibility thesis’ main concepts presents a significant limitation as it creates issues in explanatory power and consistency between empirical applications.

These issues are further aggravated by several inadequacies in the methodological tools of the credibility thesis. The credibility thesis relies strongly on subjective indicators – notably individual perceptions and preferences. However, it still lacks a strong cognitive and psychological basis to support how perceptions are formed and transformed. Therefore, the credibility thesis is unable to account for how *internal* forces (such as morality, altruism, fear)

and *external* forces (such as media, peer pressure, state repression) cause cognitive effects that affect preferences and hence credibility. For instance, a credibility assessment of the North-Korean political system is trivial if actors' perceptions are heavily influenced by state propaganda. Without a stronger psychological basis, therefore, the credibility thesis offers little guidance in explaining *why* a certain institution appears credible. An institution may be socially supported because it fulfils a certain function, as predicted by the credibility thesis, but may also be supported because people believe the institution is morally right, culturally appropriate, introduced by a reputable party, or simply convenient to follow.

6.4.3. *Mainstreaming the mainstream*

“What the credibility theory aims for is to explain and predict the formation and performance of institutions in ways that *mainstream economic theory* could and cannot.” (Ho, 2018a, p. 649 italics added).

A third challenge of the credibility thesis concerns its feeble connections with institutional literature. The credibility thesis positions itself against the “mainstream economic paradigm” (Ho, 2018a, p. 643). Yet, it does so without being clear about what the ‘mainstream’ entails – reflected by the interchangeable usage of ‘neo-classical,’ ‘neo-liberal,’ or ‘neo-institutional,’ theories or paradigms. For instance, it is suggested that the “neo-liberal and neo-classical paradigms deem institutions a black box, unchanged and unopened as it were over time and space” (Ho, 2016b, p. 1125). While this argument might be valid from a strict Marshallian neoclassical account, it demonstrates that most critique of the credibility thesis has focused on textbook neoclassical theory but without considering the significant efforts that have been initiated since – and particularly those in the (NCE-driven) scholarship under NIE. The notion of a “mainstream economic paradigm” is further misplaced because it is presented as an internally uniform body of thought that can or should be rejected in its entirety. But the field of institutional economics still lacks a coherent theory and remains highly fragmented between different traditions, in which it has been observed that also NIE is “in many ways still a decentralized field of inquiry” (Ménard & Shirley, 2014, p. 542).

The simplified reading of existing literature also has implications for the intended theoretical contributions of the credibility thesis. Consider the “Theorem of Dynamic Disequilibrium” that is put forward on the basis that:

“Neo-classical economics, and neo-institutionalism in particular, might be so predicated upon the notion of equilibrium that it does not see that empirical reality could as well be characterized by an ever-present force of change” (Ho, 2018b, p. 865).

This statement neglects recent advances that have used the equilibrium concept to endogenize actors' beliefs, norms, and expectations in analyses (Aoki, 2007; Greif & Kingston,

2011; Greif & Laitin, 2004). This ‘institutions-as-equilibrium’ view holds that institutions are only meaningful when they are self-enforcing (i.e., confirming, reinforcing, regenerating), known to everybody (common knowledge), and actors must be motivated to follow them and expect others to do the same (mutual expectations). This interpretation of equilibrium, however, bears close resemblance with what is postulated by the credibility thesis:

“If an individual believes that others will behave in a certain way and have no incentive to deviate from the rule by which they are governed, that rule (institution) will be perceived as credible. It is thus not whether an individual actor – be it a farmer, entrepreneur, or state official – personally accepts a rule, but whether an actor expects that other actors will abide by that rule.” (Ho, 2014, p. 14).

Hence, credibility also requires confirmation and mutual expectations between actors (Ho, 2014), and therefore, a credible institution also resembles an equilibrium (at least in the short- to medium-term). The rejection of equilibrium, as an analytical concept to explain convergence, thus appears unwarranted.

Similarly, the alleged “obsession with form” (Ho, 2014, p. 25) that prevails among institutional theorists also deserves confutation. For one, Rodrik (2005, p. 1007) has taken note of the increased recognition in the economics literature that “institutions can take a multitude of forms and that economic convergence need not necessarily entail convergence in institutional forms.” But also North (1994, p. 8), whose earlier works were typical to the ‘form-based’ approach, warned in his later works that the adoption of “formal rules of another economy” would show diverging outcomes due to variations in norms and enforcement across countries. Also proponents of formalization now warn that interventions must be based on a careful diagnosis of the specific context first (e.g., Deininger & Feder, 2009). Taken together, the antagonistic juxtaposition of the credibility thesis against the ‘mainstream economic theory’ appears misplaced and unnecessary at best.

The credibility thesis’ feeble theoretical connections are not only confined to mainstream literature. While this review suggests an overlap between the ideas of the credibility thesis and original institutionalism, it also observes that the credibility thesis draws few explicit links with OIE. Whereas the concepts of non-equilibrium, evolution, interactionism, and conflict have received extensive treatment by Veblen, Commons, Mitchell and others, their contributions find little presence in the credibility thesis’ theoretical works. For instance, in a recent discussion on the evolutionary characteristics of institutions (Ho, 2018a), Veblen’s seminal works that introduced evolutionary thinking to institutional analyses are undiscussed. This is problematic because it blurs further assessment of the credibility thesis’ novelties and contributions to institutional theory. Finally and closely related, also the theoretical contributions of the credibility thesis have yet to appear in

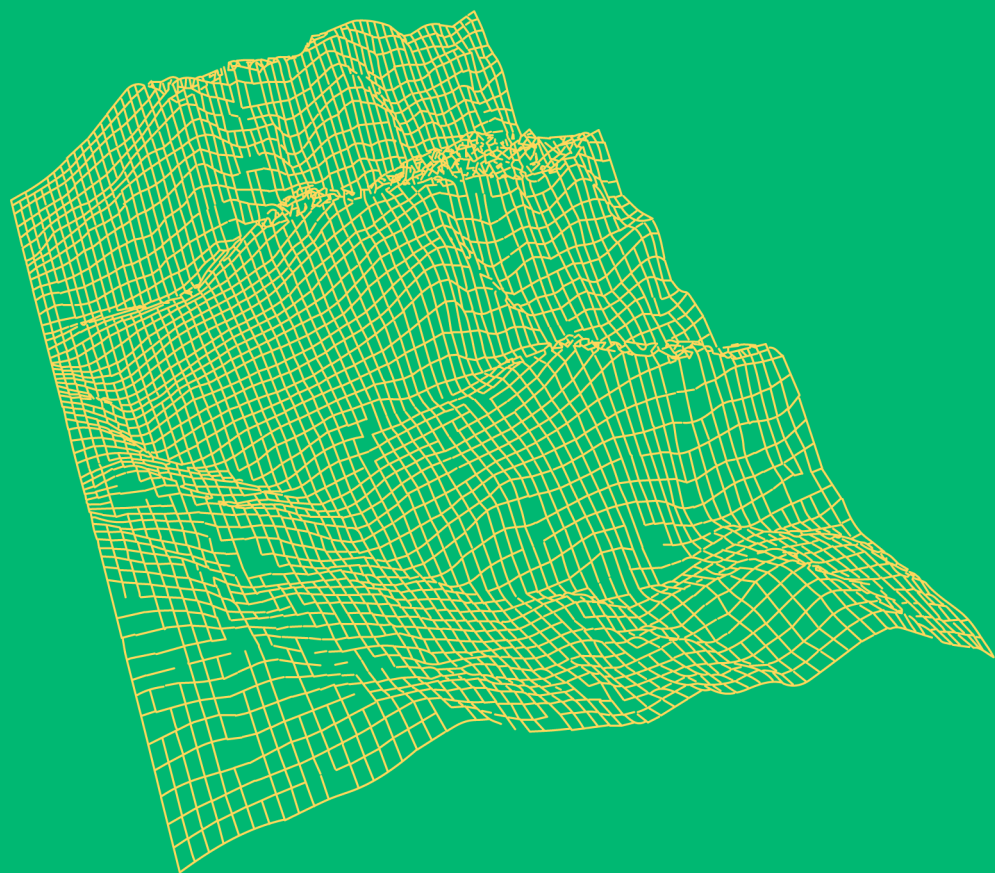
institutional journals such as the *Journal of Institutional Economics* or the *Journal of Economic Issues*.

6.5. Concluding remarks

Despite increased empirical application and interest in the credibility thesis, it remains unclear how its theoretical and empirical contributions can advance institutional theory. This chapter presented a first attempt to examine the relevance of the credibility thesis for institutional analysis. At a theoretical level, the credibility thesis' ideas show resonance with those initially offered by original institutionalists – both emphasize the interactive, dynamic, and endogenous features of institutions. Amid a renewed interest in OIE, the credibility thesis thus appears relevant in reappraising and illuminating new ways to apply the ideas of original institutionalism in contemporary institutional analysis. However, this chapter also showed how the credibility thesis' theoretical contributions are limited by an unwarranted neglect of institutional form, unfalsifiable claims about function, and a feeble connection with existing institutional scholarship. Therefore, the primary contribution of the credibility thesis revolves around its empirical application. Here, it responds to the need to develop new analytical tools that facilitate empirical operations – especially those that allow for more “realism and detail” than formal methodologies (Buchanan et al., 2014; Ménard & Shirley, 2014, p. 559).

Notwithstanding this relevance, it is unlikely that the credibility thesis can offer an “alternative theory” for institutional analysis (Ho, 2017b, p. 3). Neither should the advancement of institutional theory be a matter of “overturning the methodological and theoretical foundations of an entire field of studies” (Ho, 2017a, p. 6). NIE-based approaches, with a more explicit emphasis on form, offer an exogenous perspective to institutional change and are applicable to explain and predict causal effects – which may be sufficient for comparative analyses within established structures. However, they might not handle well informal institutions and institutional change that does not result from exogenous shocks or new formal designs (Ménard & Shirley, 2014).

Here, the credibility thesis as an OIE-inspired ‘function-based’ approach offers an endogenous perspective that is more appropriate in developing settings – including scenarios where authorities have limited capacity, enforcement is corrupt, or where markets are underdeveloped. It is here where institutions are often not followed as rules, and where the actions of individuals do not converge into patterns of equilibria – which makes detailed inquiry into the specific workings of institutions necessary. But the credibility thesis does not justify an exclusive focus on institutional function alone: Institutional forms and functions are closely intertwined and only their mutual consideration offers an adequate basis for institutional theory. Advancing institutional theory is thus not a matter of “function versus form” (Ho, 2018a), but rather, function *with* form.



Chapter 7

Conclusion

7.1. Introduction

The literature on land and natural resource management is engaged in ongoing discussions about which property rights regimes and tenure systems are preferable to achieve particular outcomes – such as poverty reduction, economic development, or resource conservation. This dissertation examined how property rights reform under the Collective Forest Tenure Reform (CFTR) influenced socioeconomic development in China’s forest sector. To this end, it employed a credibility approach to offer new understandings of how institutional reform delivers on intended purposes.

This endeavor, drawing upon empirical and theoretical inquiry, is concluded in this final chapter. Section 7.2 summarizes the empirical inquiry’s main findings that scrutinized how property rights became established, enforced, and exercised in China’s forest tenure arrangements. The results offer a new and critical perspective on the outcomes of the CFTR. In Section 7.3, the dissertation’s secondary and theoretical objective of assessing the credibility thesis’ relevance for institutional analysis is concluded. The final Section 7.4 presents an outlook along with two sets of recommendations for policymakers and institutional theorists.

7.2. China’s forest reform: Property rights and property wrongs

China’s Collective Forest Tenure Reform signifies one of the most significant land-reform undertakings in recent times (World Bank, 2016). Over 100 million new forest titles have been issued that collectively registered over 180 million hectares of land. Furthermore, official figures indicate that the reform has impacted over half a billion farmers (Liu et al., 2017; NFGA, 2019; Xu, 2010). In consideration of the reform’s scale and significance, the primary objective of this dissertation was to examine how property rights changes have contributed to socioeconomic development in China’s forest sector, as captured in the first research question:

Question 1: How has property rights reform influenced socioeconomic development in China’s forest sector?

Following recent discussions on the narrow scope of conventional ‘economic’ analyses of property rights (Arruñada, 2017b; Foss & Foss, 2015; Hodgson, 2015), this study aimed to offer a more comprehensive account by selecting three phases in property rights reform for further empirical investigation – namely, how property rights are *established*, *enforced*, and *exercised*. Each phase is considered critical for the actual functioning and credibility of the reform, and ultimately, its influence on socioeconomic development in China’s forest sector. The following three sections present the main results and conclusions for each phase separately. After that, the main research question is answered by juxtaposing the empirical findings with official discourses of the reform.

7.2.1. *Establishing property rights*

A critical first phase in property rights reform is the establishment of property rights. In most modern societies, land tenure rights are established and specified in state-sanctioned registries or cadasters (Arruñada & Garoupa, 2005). Similarly, in the CFTR, the first stage was led by an attempt to register forest rights into new forest titles. Reform objectives stipulated that within five years, all existing forest parcels must be measured and recorded through on-site surveys, based on which new forest titles were issued. In examining how such efforts materialized, the FAT institutional framework (Ho, 2016a) was applied to compare how *Formal* (intended) rights of forest titling were matched with *Actual* and *Targeted* (desired) rights.

The empirical analysis in Chapter 3 identified significant discrepancies between formal and targeted rights versus actual rights. The first finding was that the new titles were widely issued and appeared credible because of their social support, while farmers considered forest boundaries and plot sizes clear. However, the analysis also disclosed several problematic issues in the implementation of the new titles: (i) half of observed forest titles did not record boundaries; (ii) boundaries were not uniformly recorded; (iii) no on-site surveying had taken place; (iv) plot data was based on replicating older data, estimates, or averages; (v) titles had not been issued in contested areas; and, (vi) farmers had a weak legal understanding of ownership and lease rights. Due to pressure from the central government to complete titling within five years, as showed in the chapter, forest registration at the local level lapsed into an institutional compromise wherein specificities and complexities associated with land parcels and tenure arrangements were neglected. As an outcome, forest titles consequently turned in to what has been characterized by Ho (2005) as an ‘empty institution,’ that is, an institution that appears credible but with little effect on individual behavior.

In line with previous studies (Broegaard, 2009; Sjaastad & Cousins, 2009), the results of this study demonstrate that the task of registering and specifying property rights is highly contingent on the capacities and attitudes of local authorities. Although new rights were formally established, critical and potentially controversial issues remained unresolved and were recorded in an ambiguous manner. This was partially due to staff, time, and financial constraints, but also because most local authorities believed that it was not necessary to survey all forest parcels in their administration because of the high costs involved (due to land fragmentation) coupled with low economic interests in household forests. These findings empirically signify an emphasis on public ordering in property rights reform (Arruñada, 2017b), that is, local authorities’ role in implementing and molding property rights. For the case under study, the experiences observed in the Wuling Mountain Area flag concerns about the functioning and credibility of the new forest titles over time, because many of the

ambiguities, conflicts, and other vulnerabilities in China's tenure arrangement were left unaddressed by the reform.

7.2.2. *Enforcing property rights*

To gauge the long-term implications of the implementation issues that were identified in the previous question, the second subquestion considered how the newly established forest titles were subsequently enforced in China's forest tenure arrangement. Rather than conceiving titling as a frictionless institutional 'fix' for development, this question starts from the position that titling is always a *long-term* and *protracted* process involving social and political friction – in which intended benefits might take longer to materialize (Dwyer, 2015; Ho, 2015; Peluso & Lund, 2011). By extending the analytical scope beyond the initial allocation and short-term benefits of property rights reform, this question becomes valuable in assessing the reform's outcomes against the long-term objective to create a stable and secure institutional arrangement.

To do so, Chapter 4 evaluated whether titling has been an effective and credible instrument in resolving tenure disputes in China's forest sector. Specifically, it examined the role of titles vis-à-vis tenure disputes for two types of conflicts: (i) 'latent' (imperceptible) conflicts; and (ii) 'manifest' (visible) conflicts, as respectively represented by empirical data of perceived conflicts and judicial data of adjudicated conflicts. The empirical analysis indicated that latent tenure conflicts, which mostly revolved around unclear boundaries between households at grassroots levels, remained unchanged and unresolved in the titling process. Similarly, the analysis of manifest conflicts indicated that most conflicts over titles only began *after* completing the titling process. Nonetheless, when titles were contested and arbitrated in court, nearly half of all new forest titles were revoked due to insufficient evidence, violation of legal procedures, or incorrect procedures during the implementation. Both analyses suggest that in many instances, the new titles failed to act as credible remedies to tenure disputes and instead functioned as new indirect drivers to tenure disputes. This paradox can be ascribed to the local practices of non-surveying observed in the first subquestion, which established inconsistencies with the legal basis of the reform. Yet, these issues only surfaced when disputes were arbitrated through legal channels, and it was also only then that issues and malpractices of implementation were disclosed.

The empirical results reaffirm the legal importance of property rights, that is, the right to *compel* the state to defend one's legal interests (Sjaastad & Bromley, 2000). The analysis suggests that this legal basis of rights was significantly undermined in China's forest tenure arrangement – important discrepancies occurred between how rights were established and perceived, versus how they were being enforced in court. These discrepancies facilitated a relative frictionless implementation of the reform – which could signal the reform's credibility in the short run. However, the legal inconsistencies that became visible when the

state *was* compelled to act in post-implementation stages of the reform, implied that the intended function of forest titles as a conflict remedy was severely compromised. In turn, the results suggest that the credibility and function of forest titles remain at risk in the long run.

7.2.3. Exercising property rights

The third subquestion focused on the second and ongoing phase of the CFTR, which grants households more rights and decision-making opportunities in forest management. In contrast to conventional analyses that assume that holders of rights have full information and respond well to property rights changes, this question started from the position that the intended outcomes of reform only materialize if actors are sufficiently informed, aware, and accepting of their rights (following Bromley, 1991; Galik & Jagger, 2015). The analysis examined how changes in (i) management; (ii) alienation; and, (iii) income rights corresponded to the reform objectives of providing new incentives in forest management and economic benefits for rural households.

Chapter 5 showed that the property rights changes were socially supported and hence credible. However, the results also indicated that rights were infrequently exercised with meant that the intended incentives and economic benefits did not occur in the area under study. In explaining this, the analysis found that there was little economic interest in household forests, while also households have become less dependent on forest resources and China's rapid economic growth has resulted in the migration of many young villagers to urban areas. Due to these changing socioeconomic and demographic circumstances, the elderly are primarily responsible for forest management. Yet, the empirical findings illustrated how some households struggle with basic tasks of forest management. For instance, nearly half of respondents had never engaged in tree planting. For alienation rights, few were involved in forest transfer due to a lack of market demand. Finally, the fragmented nature of forest plots meant that ecological compensations (based on the parcel size of household forests) did not significantly enhance income levels.

Rather than creating new incentives and economic benefits for rural households, the analysis suggests that households' forest uses and interests have diminished considerably over recent decades – a trend that the reform has been unable to reverse. Even though the changes in property rights initiated under the reform have rallied social support amongst households, few households were sufficiently incentivized to exercise their rights. This anomaly may point to the limitations of property rights reform: Rather than property rights or the credibility thereof, it is the limited economic interest in household forests that impedes the main objectives of the CFTR. Whereas Coase's (1960) seminal paper spawned increased attention for the role of property rights in natural resource management, the empirical results motivate closer inquiry of how property rights interact with the specific needs and characteristics of users and resources.

7.2.4. *Beyond (re)form: A new narrative on China's forest reform and beyond*

At the macro-level, the Collective Forest Tenure Reform has been conceived as an institutional success story both domestically and internationally. For instance, a recent National Forest and Grassland Administration (2019, p. 1) report stated that:

“The reform has played a fundamental role to allot forest resources in the market, thereby emancipating the huge potential of forest resources [...] It solved major problems in the forest sector, such as a lack of motivation and low efficiencies [...] and promoted the transformation from traditional to modern forestry.”

The narrative of success has been echoed in the academic literature as well. The majority of empirical studies find positive outcomes of the reform, indicating that the changes in property rights have been paired by income improvements (e.g., J. Chen & Innes, 2013; L. Zang et al., 2015), increased market participation and investment incentives (e.g., Jiang et al., 2014; Qin et al., 2013), as well as positive resource outcomes (e.g., L. Xie et al., 2016; Yi, 2016). While these studies have looked into the reform's causal and short-term effects, this dissertation followed a function-based approach that examined the more structural and underlying processes of establishing, enforcing, and exercising property rights. The combined insights into these different processes help answer the main research question of how property rights reform has influenced socioeconomic development in China's forest sector.

The first part of the answer, supported by all three empirical questions, is that the reform is credible at present. Both forest titles and new rights arrangements rallied support from relevant stakeholders, and the reform did not immediately trigger new conflicts. Moreover, the increments in forest cover in China's forest sector (discussed in Chapter 1) might further indicate credibility (Ho, 2006), although this was not substantiated in this study. The observed credibility suggests that the reform undertakings in China's collective-owned forest sector align well with changing demands emerging from the country's swift socioeconomic changes – including the outmigration of a rural population to urban areas along with the ongoing transition to a market economy. Notably, and in contrast to communist ideologies, private property rights appear to be socially accepted and desired in China's countryside.

Despite the reform's seemingly credible efforts, the empirical inquiry indicated that the reform contributed little to actual socioeconomic development in the area under study. Most clearly, the property rights changes did not result in the intended effects of improving tenure security, stimulating investment or market transactions, or generating new incentives and economic benefits for rural households. These observations can be explained by the discrepancies between *intended* rights versus those *established*, *enforced*, and *exercised* during and after the reform (summarized in Figure 7.1). The observed malpractices and

inconsistencies further suggest that the reform's observed credibility remains in a precarious position. Future socioeconomic change may jeopardize the reform initiatives, for instance, when resource values change or when migrant workers return to their home villages. Moreover, along with weak rights' awareness, households are at risk that the property rights they believe are theirs conflict with the legal and contractual rights in actuality.

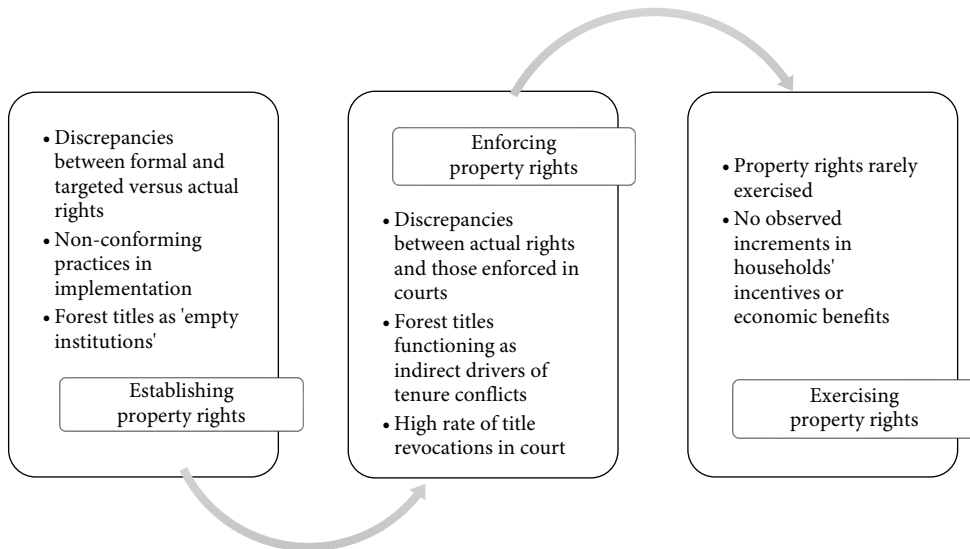


Figure 7.1. Summary of empirical analyses.

Considered together, the results of the present research put the reform in a more critical perspective compared to the success story in official discourses of the reform, which has emphasized the tangible contributions of the reform based on correlations between administrative records of rights' establishment, forest cover trends, and economic development – but without scrutinizing what these signify for China's protracted socioeconomic development. With recent contributions expressing similar concerns as those put forward in this dissertation (e.g., Xiong et al., 2018; Yiwen et al., 2020), a closer and more critical perspective on China's forest reform is warranted to assess the reform outcomes in the long-run.

In constructing such more critical perspective, it is pivotal to adopt a broader analytical scope that goes beyond the standard 'economics' of property rights (Arruñada, 2017b; Foss & Foss, 2015; Hodgson, 2015). Recalling from Chapter 2, the legal, social, and other aspects of property rights have gradually been omitted in order to ease analytical and modelling efforts (Allen, 2015; Barzel, 1997, 2015). Moreover, property is often assumed to be unambiguous, indivisible, perfectly defined, and fully enforceable (Foss & Foss, 2015). Yet, the results from China's forest reform strongly suggest that when the social, political, and legal dimensions of property rights are insufficiently accounted for in reform designs and

analyses, potential issues in implementation and future workings are easily neglected. The experience from China's forest reform ascertains that property rights reforms are dependent on at least a capable authority with sufficient resources to establish and administer rights, a legal system that enforces rights, and a group of rightsholders that are willing and capable to exercise the rights granted to them. In the absence of these, reform objectives are unlikely to materialize – or when objectives do seem to materialize, they are difficult to attribute to property rights reform in lieu of various (exogenous) parallel developments.

7.2.5. Limitations

When interpreting the above conclusions, it is important to recall the limitations of the empirical inquiries. The main limitation is the survey's non-representative nature, which inhibits generalizations to other parts of China. A main shortcoming, therefore, is that this study does not account for the different (more positive) outcomes that were witnessed in areas with different spatial and socioeconomic characteristics – such as in Fujian province where the reform initially began (for Fujian, see Liu and Ravenscroft, 2016; Qin and Xu, 2013; Shen et al., 2009). Recalling from Chapter 6, one methodological explanation is that most empirical studies have investigated the reform's effects by co-relating macro-level trends in outcomes of interest with reform administration, rather than by studying its specific micro-level workings – which could imply that alternative explanations for the socioeconomic and environmental benefits associated with the reform were overlooked or misinterpreted. More research is needed to assess whether and how the variance in empirical observations can be attributed to property rights changes.

A second limitation of this research is the lack of longitudinal data. Therefore, the reservations expressed in this study concerning the reform's long-term implications remain tentative. The absence of longitudinal data also implies that this dissertation has been unable to conceive institutional change as a reciprocal or dynamic process, i.e., how China's forest reform's current outcomes will influence further institutional change. Finally, it is important to recall that the present study focused on the formal processes of institutional change and did not consider the informal and unwritten rules that could also influence socioeconomic development.

7.3. Positioning the credibility thesis

Besides offering new insights into the workings and outcomes of China's forest reform, the empirical inquiry also demonstrated the potential advantages of a more function-based assessment as advocated for by the credibility thesis. Despite increased interest and application of the credibility thesis in the empirical literature, however, it has remained unclear how its stated objective of developing an “alternative paradigm” for institutional theory has materialized (Ho, 2016a, p. 1123). This gap was addressed in the second research question:

Question 2: What is the relevance of the credibility thesis for institutional analysis?

Chapter 6 examined the theoretical and empirical accomplishments of the credibility thesis for institutional analysis. With regards to the theoretical notions, the analyses showed that the ideas put forward by the credibility thesis resonate with those of original institutionalism. With a similar emphasis on methodological interactionism, dynamics, and support for abductive instead of deductive inquiry into institutions, the credibility thesis helps to reconsider how the ideas of original institutionalism can be applied for contemporary institutional analyses. This relevance notwithstanding, its theoretical contributions are reduced due to the unwarranted neglect of institutional forms and deliberate institution-building, as well as unfalsifiable claims about institutional function. The analysis also suggested that the theoretical basis of the credibility thesis suffers from either a simplification or neglect of existing institutional literature. In sum, the theoretical endeavors of credibility thesis offer a starting point to address some of the glaring gaps in NIE-scholarship. But without a stronger theoretical foundation, the credibility thesis is a complement rather than a substitute to existing institutional theories.

Therefore, the primary relevance of the credibility thesis revolves around its contribution for empirical analysis. It offers new methodological tools, including the Formal, Actual, and Targeted (FAT) framework (Chapter 3) and Conflict Analysis Model (Chapter 4), to scrutinize the workings of property rights in specific contexts and allow for more “realism and detail” compared to more commonly applied formal methodologies (as noted by Buchanan et al., 2014; Ménard & Shirley, 2014, p. 559). The methodological and empirical basis of the credibility thesis appears appropriate for analyses in developing contexts in which formal institutions are not followed as rules (e.g., due to weak monitoring and enforcement), where individual action does not easily converge into equilibria (e.g., due to the absence of market and regulatory mechanisms), or in scenarios where institutions do not always emerge from formal designs but instead from informal practices (e.g., due to limited state capacity). Under these scenarios, the anticipated effects of institutional designs and reforms are often not achieved, and hence, a closer consideration into the specific workings and endogenous factors of property rights is important. Here, the credibility thesis and its methodological toolbox for empirical study has the potential to contribute to systematic knowledge on the endogenous and non-deliberate processes of institutional change.

It needs emphasis that the credibility thesis is a recent development, and hence the review presented in this dissertation can be used to develop further and revise the credibility thesis. What is clear, however, is that the credibility thesis is unable to and should not replace existing institutional theories and approaches. Instead, the credibility thesis can complement and enrich institutional analyses. It can do so by offering a broader and more empirically-grounded analytical scope, compared to conventional economic analyses of property rights

that analyze property rights in more abstract and isolated ways (e.g., Barzel, 1997). The function-oriented approach of the credibility thesis might be of particular importance for the natural resource management literature – where new analytical approaches are greatly needed ‘for going beyond panaceas’ (Ostrom, 2007), and look deeper into the complex web of interactions and multivariate relationships between property rights, users, and resources.

7.4. Outlook

The primary message from the present dissertation rests in its assertion that the functioning and credibility of land reforms do not simply rely upon rights alone – but also on the actions of actors, local authorities, and supportive institutions when property rights are established, enforced, and exercised. However, such contingencies are frequently overlooked or devalued by authorities and property rights analysts. This chapter concludes with two sets of recommendations that are respectively directed to policymakers and institutional theorists.

7.4.1. *Recommendations for policymakers*

The study results indicated that central policymakers in Beijing were stressing the projected benefits of property rights, at the expense of considering local circumstances or setting reasonable timeframes for implementation. These oversights from central authorities also meant that local authorities became more concerned about meeting short-term implementation targets, rather than securing the reform’s long-term objectives of creating a clear and stable tenure arrangement. Notwithstanding the theoretical rationales and prospective benefits of property rights, which make an universal implementation of property rights tempting, it is important to recognize that reform outcomes rely strongly on the specific temporal and spatial characteristics – which require more *gradual* and *context-specific* institutional treatments. Central policymakers are advised to withdraw from universalist thinking and instead become more attentive to the time- and space-specific variables that determine reform outcomes, especially for countries with vast territories, like China.

This also implies that policymakers must refrain from simply transplanting reforms across different cultures, societies, and resource settings (de Jong et al., 2002). However, institutional reforms are still guided by the assumption that the uniform imposition of the ‘right’ institutions are conducive—if not necessary—for development. But because the implementation of the ‘right’ institutions frequently results in the ‘wrong’ outcomes (Bromley, 2009; Meinzen-Dick, 2014; Putzel et al., 2015), one way forward for policymaking is to reverse the relationship between institutions and development. That is, reforms might be better guided by *starting* from a clearly-defined development objective from which the most appropriate institutional strategy can be selected accordingly (and further improved through piecemeal adjustments).

To illustrate, take the widely accepted assumption that formal land titles are conducive to land transfer – which also motivated Chinese policymakers to engage in the arduous task of universal registration of over 180 million hectares of land. However, a shift in focus to the desired *objective* (rather than the desired institution) would have illuminated alternative solutions that potentially are more feasible and cost-effective for stimulating land transfers. Consider the Torrens system that follows the idea of titling *by* registration, meaning that land parcels are titled once there is an expressed interest (such as in the case when a parcel is transferred to a new owner). Although the system leaves parcels unregistered, it mitigates the heavy burden of registering all land at once or registering land with no clear economic interest (Arruñada & Garoupa, 2005) – thereby potentially avoiding establishing ‘empty’ institutions as observed under China’s forest reform.

7.4.2. Recommendations for institutional theorists

The present study also expresses a theoretical need for an improved conceptualization and understanding of property rights. Specifically, it calls for the incorporation of factors that are often neglected in economic analyses of property rights – such as legal enforcement, state capacity, and individual awareness and perceptions of rights. Institutional theorists and property rights analysts have a pivotal role in developing such a broader scope, an undertaking that begins by being “more *humble, synthetic and outward-looking*” (Hodgson, 2014, p. 606). While Hodgson did not specify his assertion in further detail, the below account suggests how the call to be more (i) humble, (ii) synthetic, and (iii) outward-looking can be interpreted based on the observations from the present dissertation.

One century ago, Hamilton made an explicit plea for the “institutional approach to economic theory” to unite institutionalists (Hamilton, 1919). Yet, besides the consensus that institutions matter, the field of institutional economics remains highly fragmented and variegated. Due to the great variety of issues that institutionalists have worked on, it is difficult to sympathize with the belief that a single theory can provide a satisfactory account for all institutional phenomena. Instead, to be *humble* means acknowledging that different institutional theories and approaches coexist with their own merits and limitations. Accordingly, institutional theorists can select appropriate theories and methods based on the nature of the research question (see Groenewegen & Vromen, 1996). The call to be ‘more humble’ applies specifically to the credibility thesis, since its antagonistic position towards other institutional approaches appears misplaced and unnecessary. Instead, as pictured in Elinor Ostrom’s groundbreaking work, there is a great deal to learn from using and combining different theories, methodologies, and empirical approaches. For institutional economics, this means combining insights from NIE-led ‘form-based’ approaches with the OIE-inspired ‘function-based’ approaches as suggested in Chapter 6.

For institutional theorists to be more *synthetic*, a major issue remains integrating theoretical advancements with empirical evidence. While significant progress in property rights theory has been recently made, for instance by Arruñada (2017b) and Hodgson (2015) who addressed several shortcomings in conventional analyses of property rights, empirical fieldwork to complement and validate such advancements has lagged behind. Meanwhile, the empirical literature has limited interactions with the theoretical discussions featured in institutional journals including the Journal of Institutional Economics and the Journal of Economic Issues. Although China's forest reform represents one of the most extensive land-based institutional reform in modern times, empirical evidence has yet to culminate into a set of lessons that can advance institutional theory. Since this dissertation has only been a marginal attempt, the field could benefit from more comprehensive efforts that actively seek to bridge the gap between the empirical and theoretical literature.

Finally, the institutional economics literature can also be furthered by adopting a position that is more *outward-looking*. Presently, NIE-based analyses place much emphasis on the exogenous design of formal institutions, and institutional reform is often designed and assessed based on efficiency arguments. Extending this focus to other dimensions of institutions, including their credibility, can help to reevaluate institutions that appear to be socially undesirable or economically inefficient in orthodox accounts. A more outward-looking perspective is also warranted, if not explicitly required, to understand emerging economies, including China – whose development cannot be adequately explained from dominant institutional theories that are derived from Western experiences. China's ongoing institutional restructuring, characterized by its many institutional paradoxes, certainly deserves serious and closer attention from institutional theorists, even if that restructuring occurs in remote hinterlands.

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Appendix: Household survey

集体林地调查问卷

填报说明：本调查不涉及到您的个人隐私，所得资料为科学研究所用，不会给您带来任何麻烦，希望您如实认真填写，谢谢合作！

- ① 填写说明：
☐ 圆圈处为单项选择
☐ 方框处为多项选择
在横线（ ）处填写答案

零。筛选受访者:

你家是否有林地？

☐ 有 ☐ 没有 ① 如果没有林地，就停止调研。

- 日期 : 日 月
- 时间 : 点 分
- 县 名 :
- 乡 名 :
- 村 名 :
- GPS :

一。基本情况

1. 性别： ☐ 男 ☐ 女
2. 家庭地位： ☐ 户主 ☐ 其他
3. 职业： ☐ 农户 ☐ 其他
4. 受教育程度： ☐ 文盲 ☐ 小学 ☐ 初中 ☐ 高中 ☐ 大学及以上 ☐ 不知道
5. 年龄： 岁
6. 家庭大小： 人 a. 其中： 人在家务农 b. 人在外务工人员
7. 民族： ☐ 汉族
 ☐ 少数民族（☐ 苗族 ☐ 土家族 ☐ 仡佬族 ☐ 其他:
 ☐ 不知道

二。林地情况

1. 林地数:

#	a. 面积 (亩)	b. 林种类	c. 经营模式
1			
2			
3			
4			

b. 林种类：(1) 木材森林 (2) 经济林 (3) 竹林 (4) 生态林 (5) 其他 (0) 不知道
c. 经营模式：(1a) 自己管理：自留山 (1b) 自己管理：单户经营（一家在管理） (1c) 自己管理：其他
(2a) 共同管理：联户经营（好几家在共同管理） (2b) 共同管理：自然村 (2c) 共同管理：集体经营
(2d) 共同管理：小组 (2e) 共同管理：其他 (0) 不知道

2. 林地分布： ☐ 一个地点 ☐ 不同地点 ☐ 不知道

3. 你怎么使用你的林地？
☐ 自给 (只自己使用木头) ☐ 商业 (比如卖木头等) ☐ 林下经济 (比如种植业等)
☐ 生态 (环保等) ☐ 没使用 ☐ 不知道 ☐ 其他：_____
- 如果有《自给》→ a. 和 15 年前比，你使用林木的数量的变化是：
☐ 用更多的林木 ☐ 没有变化 ☐ 用更少的林木 ☐ 不知道
 b. 如果有变化：你估计大概变化了几成（或百分之几）？____ %
4. 林地是否给你带来经济收入？
☐ 是 → a. 什么收入？
☐ 卖木材的收入 ☐ 林地出租的收入 ☐ 林下经济 ☐ 其他，请说明：
 b. 林地收入占一年总收入的比例是多少？
☐ 仅占极少的一部分 ☐ 一般 ☐ 重要的部分 ☐ 不知道
☐ 没有
☐ 不知道
5. 林地是否给你带来带政府补贴？
☐ 是 → a. 你认为政府补贴怎么样？☐ 很少 ☐ 比较少 ☐ 一般 ☐ 比较多 ☐ 很多 ☐ 不知道
☐ 没有
☐ 不知道
6. 你认为你的林木的质量怎么样？
 a. 质量 ☐ 差 ☐ 比较差 ☐ 一般 ☐ 比较好 ☐ 好 ☐ 不知道
 b. 与 15 年前相比，林木的质量 ☐ 变好了 ☐ 不变 ☐ 变差了 ☐ 不知道
7. 你认为你的林地的经济价值怎么样？
 a. 价值 ☐ 非常低 ☐ 低 ☐ 一般 ☐ 高 ☐ 非常高 ☐ 不知道
8. 你村里的林地覆盖率 有没有提高？
 a. 趋势 ☐ 变好了 ☐ 不变 ☐ 变差了 ☐ 不知道
 b. 变化的原因：
☐ 人们用更多/更少的木材 ☐ 外出打工人数增加 / 村内人口增多
☐ 政府政策 ☐ 当地管理得好/差 ☐ 自然灾害 ☐ 森林火灾
☐ 气候变化 ☐ 矿业开发或者城市化 ☐ 其他，请说明_____
9. 过去 15 年里，是否有森林火灾？
 a. 发生频次 ☐ 没有 ☐ 极少 ☐ 有 ☐ 不知道
 b. 如果有火灾，是哪一年发生的？____ 年 ____ 年 ____ 年 ☐ 不知道

三. 产权

1. 你家林地的边界：
 a. 你认为是否清楚？ ☐ 不是 ☐ 是 ☐ 不知道
 b. 您林地边界为村民所知道并遵守吗？ ☐ 不是 ☐ 是 ☐ 不知道
 c. 有书面记载？ ☐ 不是 ☐ 是 ☐ 不知道
 d. 有实体的边界，比如栅栏？ ☐ 不是 ☐ 是 ☐ 不知道
 e. 有异议/有纠纷？ ☐ 不是 ☐ 是 ☐ 不知道
2. 你家林地的面积
 a. 你是否清楚？ ☐ 不是 ☐ 是 ☐ 不知道
 b. 有书面记载？ ☐ 不是 ☐ 是 ☐ 不知道
3. 谁有你林地的使用权和所有权？
 a. 使用权 ☐ 自己 ☐ 国家 ☐ 集体 ☐ 不知道 ☐ 其他：
 b. 所有权 ☐ 自己 ☐ 国家 ☐ 集体 ☐ 不知道 ☐ 其他：

4. 对于你的林地，你是否做过以下事项：
- a. 出租林地 ☐ 从来没有 ☐ 一次 ☐ 几次 ☐ 不知道
 - b. 卖林地 ☐ 从来没有 ☐ 一次 ☐ 几次 ☐ 不知道
 - c. 卖木头 ☐ 从来没有 ☐ 一次 ☐ 几次 ☐ 不知道
 - d. 抵押林地 ☐ 从来没有 ☐ 一次 ☐ 几次 ☐ 不知道
 - e. 种树或做其他投资 ☐ 从来没有 ☐ 一次 ☐ 几次 ☐ 不知道
 - f. 曾经申请过砍伐证 ☐ 从来没有 ☐ 一次 ☐ 几次 ☐ 不知道
5. 对你的林地，你认为国家是否允许？
- a. 卖林地 ☐ 允许 ☐ 允许，但是有限制 ☐ 不允许 ☐ 不知道
 - b. 出租林地 ☐ 允许 ☐ 允许，但是有限制 ☐ 不允许 ☐ 不知道
6. a. 如果别人出了一个很好的价格来买你的林地，并且国家允许你卖，你是否愿意卖掉你的林地？
- ☐ 不愿意 → ☐ 我想保留我的林地 ☐ 没人对我的林地感兴趣/没有需求 ☐ 经济利益不够高
☐ 不允许 ☐ 我关心环境 ☐ 情感价值（比如，老祖宗传下来的，不能卖）
☐ 我得依靠林地生活 ☐ 不知道 ☐ 其他：
- ☐ 可能愿意
☐ 很愿意
☐ 不知道
7. 如果别人出了一个很好的价格来租你的林地，并且国家允许你租，你是否愿意出租你的林地？
- ☐ 不愿意 → ☐ 我得依靠林地生活 ☐ 情感价值 ☐ 经济利益不够高
☐ 没人对我的林地感兴趣/没有需求 ☐ 不允许 ☐ 不知道 ☐ 其他：
- ☐ 可能愿意
☐ 很愿意
☐ 不知道
8. 是否有限制砍树数量的政策？
- ☐ 有 → a. 所有人都遵守这些规定吗？ ☐ 是，我认为大家都遵守
- ☐ 没有 ☐ 有一定的作用
- ☐ 不知道 ☐ 不，大家想砍多少就砍多少就砍多少
☐ 不知道
9. 你的林地是否有林权证？
- a. 林权证：
- ☐ 有 → 能否让我看一看你的林权证？能拍照片吗？
- ☐ 没有 → 你是否希望收到林权证？
☐ 想 ☐ 有没有都无所谓 ☐ 不想 ☐ 不知道
☐ 不知道
- b. 如果《有》，什么时候收到了？
☐ 1980 以前 ☐ 1980s ☐ 1990s-2005 ☐ 2005 以后 ☐ 不知道
- c. 如果《有》，林地的产权期限多少年？
☐ 30 年 ☐ 50 年 ☐ 70 年 ☐ 其他：_____ ☐ 不知道
- d. 如果《有》，上面的信息是否都正确？
☐ 正确
- ☐ 有一部分不正确 → a. 哪部分不正确？☐ 林地的边界 ☐ 林地的面积 ☐ 产权期限
- ☐ 全都不正确 → ☐ 产权（所有权，使用权，等）
☐ (家庭)姓名 ☐ 其他：

- b. 信息不对的话,会有什么影响吗?
☐ 没有影响 ☐ 有一点影响 ☐ 我希望重新发一本信息正确的林权证
☐ 不知道
- e. 如果《有》林权证是否和其他家共享一本
☐ 是 → a. 你是否希望有你自己的林权证? ☐ 是 ☐ 都可以 ☐ 不是 ☐ 不知道
☐ 不是
☐ 不知道
10. 你认为林权证重要吗?
☐ 重要 → 为什么? ☐ 作为林地权属的证据 ☐ 中国发展的一部分
☐ 能保护个人对林地的权利 ☐ 有纠纷的时候,肯定有帮助
☐ 有林权证才能拿到国家补贴 ☐ 其他
☐ 有没有都可以
☐ 不重要 → 为什么? ☐ 没有作用 ☐ 林地对我来说不重要,有没有都无所谓 ☐ 其他
☐ 不知道

四. 集体林权制度改革

1. 你知道林权制度改革吗?
☐ 知道 ☐ 从没听过 ☐ 如果《从没听过》跳到 第五部分
2. 改革是何时开始的?
☐ 大概 2006-2012 ☐ 2006 以前 ☐ 2012 以后 ☐ 不知道
☐ 如果《2006 以前》还是《2012 以后》, 确认是否是此次集体林权改革; 如果不确定, 跳至第五部分
3. 你认为这次改革, 带来新的变化/影响?

	是	不是	不知道		是	不是	不知道
a. 我收到新的林权证了				b. 我的权利(所有权或者使用权)发生了变化			
c. 边界变得更清晰了				d. 我的林权期限变长了			
e. 我的收入因此增加了				f. 我对林地的决定权更多了			
g. 我更愿意投资在林地上				h. 权利变得更清楚了			
i. 卖木材或林下作物更容易了							

4. 你对林权改革有什么看法?
☐ 很成功 ☐ 一点成功 ☐ 一般 ☐ 一点失败 ☐ 失败 ☐ 不知道
5. 你认为林权改革有没有必要
☐ 有必要 ☐ 改不改, 都可以 ☐ 没必要 ☐ 不知道
6. 关于你的林地, 你希望将来有什么变动?
☐ 对林地的决定权更多 ☐ 卖木材或林下作物更容易 ☐ 边界变得更清晰
☐ 林权期限变长 ☐ 允许卖林地 ☐ 根据现有人口, 再重新分配林地 ☐ 其他:

五. 纠纷 (⑩ 林地纠纷)

1. 你是否遇到过林地纠纷？

☐ 有 ☐ 极少 ☐ 没有 (⑩ 跳至问题 2)

a. 与谁有冲突？

☐ 亲戚 ☐ 同村村民 ☐ 外村村民 ☐ 村领导 ☐ 政府部门 ☐ 不知道

☐ 其他，请说明：_____

b. 林地纠纷的原因是：

☐ 土地调整 ☐ 边界纠纷 ☐ 林地证错误 ☐ 偷砍滥发 ☐ 林地征用 ☐ 不知道

☐ 其他，请说明：_____

c. 林地纠纷发生的频率：

☐ 极少 ☐ 有时 ☐ 经常 ☐ 不知道

d. 冲突的表现形式？

☐ 与对方理论 ☐ 与对方动手打架 ☐ 发生械斗等严重暴力冲突 ☐ 报警

☐ 上法院打官司 ☐ 写联名信告状、投诉 ☐ 上访 ☐ 其他：

e. 纠纷的严重程度：

☐ 很轻微 ☐ 一般 ☐ 严重 ☐ 非常严重 ☐ 不知道

▪ 如果《严重》：有暴力冲突发生吗？

☐ 暴力 ☐ 非暴力冲突 ☐ 不知道

f. 纠纷是怎么解决的？

☐ 双方间协商 ☐ 村里调解 ☐ 镇里调解 ☐ 林业部门调解 ☐ 打官司 ☐ 到县里上访

☐ 到北京上访 ☐ 不知道

g. 纠纷持续了多长时间？

☐ 几天 ☐ 几个星期 ☐ 几个月 ☐ 一年多 ☐ 好几年 ☐ 仍在持续 (跳至下一问题)

☐ 不知道

h. 纠纷的结果是：

☐ 解决了 ☐ 部分解决了 ☐ 没有解决 ☐ 不知道

2. 与 15 年前相比，林地纠纷：

a. ☐ 减少了 ☐ 差不多 ☐ 增加了 ☐ 不知道

b. 你认为林地纠纷减少/增加的原因是什么？

☐ 用材量减少了 ☐ 政府限制砍伐 ☐ 对林木和林地的看法变了 ☐ 人口变化

☐ 其他，请说明：_____

3. 现在是否有偷砍滥伐的情况？

a. ☐ 没有 ☐ 极少 ☐ 有 ☐ 不知道

b. 如果《有》：是谁在偷砍滥伐？

☐ 本村村民 ☐ 外村村民 ☐ 外来企业 ☐ 政府 ☐ 不知道

六 . Likert scale questions

你是否认同以下观点：

	肯定同意	一点同意	中立	不太同意	肯定不同意	不知道
二 . 林地情况						
1. 我家的林地对我来说很重要。						
2. 我花了很多时间来管理我的林地。						
三 . 产权						
3. 我对我现有的林地权利很满意。						
4. 我对现在的林地产权期限很满意。						
5. 我希望林权可以自由转让						
6. 由个人来管理林地，比集体管理好。						
7. 我的林权证有法律保护,谁也不能侵犯						
8. 现在的承包期够长, 所以我愿意投资改良我家的承包地 (比如种树)						
9. 我们家的林地太小和太分散, 妨碍林业生产						
10. 跟着农户的人口变化 (结婚/离婚/丧事,等等), 村委会应该调整林地						
四 . 改革						
11. 关于林地，没有进一步改革的必要了。						
12. 如果某些政策变化的话，我可以从林地挣更多的钱。						
五 . 纠纷						
13. 我认为林地冲突将来会越来越少了。						
14. 如果其他人想砍我家的树，我一点也不在意。						
15. 如果我家林地被征用我会得到适当的补偿						

七 . Survey final remarks:

Publications

Thesis related

Krul, K., Ho, P., & Yang, X. (2021). Land titling as a conflict remedy or driver? Analyzing institutional outcomes through latent and manifest conflicts in China's forest sector. *Land Use Policy*, 100.

Krul, K., Ho, P., & Yang, X. (2020). Incentivizing household forest management in China's forest reform: Limitations to rights-based approaches in Southwest China. *Forest Policy and Economics*, 111.

Krul, K., & Ho, P. (2020). Beyond 'empty' forms of formalization: The credibility of a renewed attempt at forest titling in Southwest China. *Geoforum*, 110.

Non-thesis related

Krul, K., & Ho, P. (2017). Alternative approaches to food: Community supported agriculture in urban China. *Sustainability*, 9(5).

Yusuf, S.F.G., Krul, K., & Marufu, G. (2016). Representation of agricultural issues in South African newspapers: A content analysis. *Journal of Communication*, 7(2).

Krul, K. (2016). China's boeren zonder land (in Dutch). *Rooilijn* 49(1).

Krul, K. (2015). Preserving Bang Krachao's green space through agriculture. *Asia in Focus* 1 (2).

Krul, K. (2014). From agent to principal: Marginalization of farmers in China's land regime (conference paper). Presented at the 52nd Annual Conference of the Agriculture Economics Association of South Africa (AEASA), Port Alfred, Sep. 28 – Oct. 1, 2014 (best paper award).

About the author



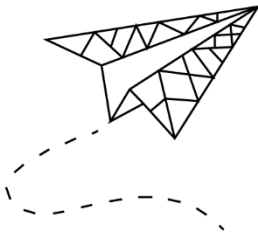
Kees Krul (古凯旭)

Kees Krul (1989) was born in Grootschermer, the Netherlands. He graduated with a Bachelor of Science in Human Geography in 2012 from the University in Amsterdam, with a specialization in International Development Studies (IDS) and an exchange semester at Korea University.

In 2013, Kees moved to Sweden for interdisciplinary master's degree in Asian Studies at Lund University, focusing on Contemporary China Studies. After obtaining his master's degree, with a thesis on Community Supported Agriculture (CSA) in urban China, Kees received a full scholarship from the Chinese Scholarship Council to study Mandarin at the Beijing Language and Culture University for one year. In the same period, he interned at the Beijing-branch of Landesa, an international NGO concerned with improving farmers' land rights globally.

In 2016, Kees joined Delft University of Technology as a researcher in the European Research Council (ERC) funded Recoland project to study the role of land institutions in China's development, which eventually led to a doctoral candidacy in institutional economics. Aside from working on his doctoral research, Kees was also hired by the section Organisation & Governance as a teaching assistant. During his PhD, Kees was a visiting researcher for five months at the Asia Research Institute at the National University of Singapore in 2019. In the same year, he also received a PhD fellowship grant from the Centre in East and South-East Asian Studies at Lund University, allowing him to reside one month at the Centre.

Aside from his educational and academic activities, Kees enjoys making short documentary-style videos, including *Inside the Outsiders: Chinese migrant workers* (2012), *Smallscale Beekeeping in the Eastern Cape, South Africa* (2017), and *Remembering the Rituals of Chinese New Year* (2019).



Reworking land reform

*A credibility approach to property rights in
China's forest sector*

Why do land reforms rarely achieve their desired effects? This dissertation posits that a key to solve this question lies in a closer understanding of the specific workings of property rights. The idea is developed empirically in China's forest sector, where one of the world's largest land-reform undertakings in modern times was initiated under the Collective Forest Tenure Reform. The study offers a credibility approach to focus on the relations between property rights and their embedded political, legal, and social structures. Three phases of reform are selected for further empirical investigation: The establishment, enforcement, and exercising of property rights. The dissertation empirically demonstrates how each phase is critical for the functioning and credibility of reform objectives, and ultimately in influencing socioeconomic development in the Chinese forest sector and beyond.