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Administrative Sciences

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Suggested Citation: Lee, Cheonjae; de Vries, Walter Timo; Chigbu, Uchendu Eugene (2019) : Land governance re-arrangements: The one-country one-system (OCOS) versus one-country two-system (OCTS) approach, Administrative Sciences, ISSN 2076-3387, MDPI, Basel, Vol. 9, Iss. 1, pp. 1-26, https://doi.org/10.2200/edmosi0010021

https://doi.org/10.3390/admsci9010021

This Version is available at: https://hdl.handle.net/10419/239918

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Article Land Governance Re-Arrangements: The One-Country One-System (OCOS) Versus One-Country Two-System (OCTS) Approach

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Received: 16 January 2019; Accepted: 1 March 2019; Published: 6 March 2019



Abstract: This paper evaluates how land governance is re-arranged in a state re-structuring process. We compare the cases of the (re-)unification of China with Hong Kong with that of West and East Germany. The division and (re-)unification of these states mark different land governance re-arrangements. The China-Hong Kong (re-)unification relied on a one-country two-system (OCTS) approach, while in West and East Germany, (re-)unification resulted in the creation of a one-country one-system (OCOS). Our key interest is to identify similarities and differences in both cases and the implications of the differences. To support the analysis, we view land governance and (re-)unification from theoretical to practical lenses-structuration theory and the government tools-based approach. This supports the construction of a conceptual and analytical framework, with which we conduct an in-depth exploration to evaluate land governance re-arrangements. We find that the conceptual and analytical framework proves effective for countries, with entirely different land governance regimes, to decide whether to merge or adapt. We do not conclude which approaches for (re-)unification are appropriate to land governance re-arrangements since all countries have different historical contexts and institutional arrangements. Instead, we recommend that governments consider adaptive land governance in signification structures and focus on hierarchical enforcement in legitimation structures. While multi-level land governance in the domination structure phase is strongly required, issue-and-project-based land governance has a pivotal role in providing cross-boundary infrastructures. Nevertheless, further empirical analysis is recommended to verify how and where the re-arrangement processes are initiated and structured.

Keywords: land governance; (re-)unification; transformation; structuration theory; tools of government

1. Introduction

'(Re-)unification' is the process by which at least two separate homogenous political communities merge into a single nation with heterogeneous political communities (Lee and de Vries 2018). While the trend and pressures tend towards 'fragmentation' and 'separation' (e.g., Sudan; Yugoslavia; and Spain/Catalonia etc.), the paper explores the issues raised by (re-)unification¹. Over the past century, various states have (re-)unified, which forced them to adapt their governance systems. If these

¹ The North and South Korean (re-)unification quagmire is not new in the world. There are many divided countries in need of reunification and there are others that were once divided but finally became reunified. Countries like Cyprus (Turkish and Greek Cypriots), Sudan (Sudan and South Sudan), and Yemen (South and North Yemen) are some countries in need of reunification. China, Vietnam and Germany are examples of countries that were once divided and then became reunified.

systems differed vis-à-vis the ideological role of the state, this raised challenges during and after the (re-)unification process.

Land governance has been critical to this transforming institutional form and function (Augustinus 2009; Borras and Franco 2010; Deininger and Feder 2009; Enemark 2012). According to Palmer et al. (2009), land governance ruminates more intensely on the matter of the rules, processes and structures about land and its use and concern about who made decisions and how implemented and enforced. As the product of open-ended interactions within structures and agency, land governance can differ significantly depending on the state structures (e.g., unitary state; federal state) and the (re-)unification mechanisms (e.g., civilization-state; nation-state).

We divide competing approaches for (re-)unification, based upon fundamentally different institutional frameworks, into one-country one-system (OCOS) and one-country two-systems (OCTS) or multiple systems. These two models—OCOS and OCTS—were the result of two modes of thought on the nature of governance. The concepts of the civilization-state and nation-state focus on the relationship between social production, political organization, and transformation (Kumar 2002). Particularly, China and Germany are examples of states with experiences of division and (re-)unification². The China-Hong Kong (re-)unification resulted in the OCTS model; while in Germany (re-)unification resulted in the OCOS model. In both cases, it is empirically proven that (re-)unification has a different impact on land governance (Blacksell and Born 2002; Jiang and Yeh 2009; Kuchar and Gläsel 2006; Li et al. 2000; Ng and Tang 1999; Wolz 2012).

The debate on the existing literature, however, still provides little evidence to gain effective insights into how the government (agency) interacts in response to transforming people-to-land relationship (structures) and which governmental tools (resources) were deployed within different institutional (re-)unification contexts (OCOS and OCTS). Furthermore, these scholarly contributions only empirically generalized in each case study respectively (Germany and China-Hong Kong) and do not reflect the institutional extractions from the theoretical parameters of the analysis. The main objective of this paper, thus, is to evaluate how land governance is re-arranged in a state restructuring process, exploring land governance and (re-)unification through theoretical and practical lenses—structuration theory and the government tools-based approach. We compare OCOS with OCTS with the research questions:

- 1. What are the similarities and differences in the two cases and why is this so?
- 2. What are the implications of these differences for land governance re-arrangements?

We first present the theoretical foundations for describing and connecting different aspects of land governance and (re-)unification. The next section explains the methodology, followed by research findings on how land governance is re-arranged. The subsequent discussion section addresses the implications of the findings in relation to the expected land governance transformation in state restructuring processes. The final section draws conclusions.

2. Institutional and Instrumental Approaches to Land Governance

Theoretically, understanding institutional re-arrangements require an understanding of how and why institutions are transformed, and how their action can be qualified and measured. Structuration theory posits that institutional re-arrangements can be 'observed' by looking at operant changes in structure and agency. 'The tools of government' describe the resources of transformations.

² According to Kumar (2002), a civilisation rests upon a mode of social production characterized by a specific set of social and political institutions and texture of moral values. The OCTS model mirrors the civilisation-state, which is a logical justification for the China-Hong Kong (re-)unification. It rests upon the notions that certain parts of the state, which previously had different values or systems, can retain those values if they accept the wider sovereignty of the civilization. This relationship is clear in the role that China has played in Hong Kong after (re-)unification occurred. In contrast, the nation-state rests upon a single centralized political institution. This forms the basis for the OCOS model. An example is the merger of East and West Germany in 1990.

2.1. Structuration Theory

The usefulness of structuration theory has widely been debated and demonstrated in various disciplines. Giddens' structuration theory (Giddens 1984) provides useful analytical skeletons, which bring together structure and agency. According to Stones (2005), the core of the structuration theory emphasizes both structures and agents, rather than merely observing structures or agents respectively, or assigning priority to either one. Giddens (Giddens 1976, 1979, 1984) defines 'structure' as the "properties [which allow] the 'binding' of time-space in social systems" and argues that the structure is recursively implicated in systems through the 'rules' and 'resources' (Giddens 1984). Following Giddens' thought, 'Agency' arises as a constant stream of actions and intervenes to affect and modify structures rather than simply responding to them (Macintosh and Scapens 1990). Thus, the central argument is that structure is a both significant 'medium' and the 'outcome' of the practices of agents (Stones 2005). Poole and DeSanctis (2004) also highlight Giddens's dynamic interpretation that conceptualizes structures as (re)production and modification processes over time. Furthermore, Orlikowski (2000) illustrates that structuration presents the answer to the quandary of choice between subjectivist and objectivist accounts of social practices.

Meanwhile, structuration theory has also faced substantive criticisms on how the theoretical accounts on structures can be demonstrated in practice. Jones and Karsten (2008) criticize that structuration theory frames social phenomena at a high level of abstraction and philosophy, which makes it difficult to substantiate empirically within specific contexts. Accordingly, Layder (2005) argues that structuration theory tends not only to exaggerate the significance of reasons, motivations and activity but also to devalue the degree of coercion and restraint in social life. Archer (1995) has perpetually criticized the methodological conflation of structure and agency that eliminates analytical distinctions of where structures initiate and agencies finish or vice versa. Nevertheless, the theory has been modified—'adaptive structuration theory' (Poole and DeSanctis 2004), addressing the mutual influence of technology and social processes and 'strong structuration theory' (Stones 2005) reflecting a sense of ontology-in-situ have contributed to the advancement of structuration theory. These demands for a meta-theoretical approach of structuration theory also allow purposively investigating social setting with other theories (Pozzebon et al. 2014).

From an analytical standpoint, we pay more attention to Giddens' three-structural dimensions that influence social actions and interactions in social institutions: signification, legitimation and domination (Giddens 1984). Structural dimensions are associated with 'interactions' (communication, power and sanction) and expressed in 'action' (interpretive scheme, facility and norm). Signification indicates a system's discursive and symbolic order; legitimization deals with the rules of authoritative institutions; and domination refers to material and allocative resources (Whittington 2015). Thus, it is noteworthy that stressing different schematic dimensions of structures offers an analytical foundation for classification of institutions (e.g., discourse; political; economic; and law/regulations). Furthermore, this overarching theoretical perspective from structuration theory enables us to grasp a 'sociological institutional approach' to governance transformation processes.

2.2. Tools of Government

Answering what governments do is difficult yet important. Hood and Margetts (2007) describe it with three branches: what happens 'inside' government; the 'subject(s)' governments are interested in; and, the 'tools' that governments use. Focusing on the 'tools' of government, Carmona (2017) argues that it includes an array of instruments, approaches, and actions that policy-makers implement towards public policy outcomes. In other words, the tools of government approach highlights 'means', where policy goals can be achieved, rather than 'scope', wherein a spectrum of intervention can be determined (Henstra 2016).

Many scholars have discussed an 'instrumental approach' to public policy and administration from different theoretical lenses. Hood and Margetts (2007) have underlined the significance of both the 'role of government' and its 'resources available'. They differentiate between government

tools for both detecting information and effecting behavior. In addition, he adds basic governmental resources: nodality, authority, treasure, and organization (Hood and Margetts 2007). In the same vein, Vedung (1998) suggests a threefold arrangement of government tools, including regulations, economic means and information. Expressions of these tools are described as sticks, carrots and sermons, respectively. On the other hand, other scholars argue against resource-based approaches to policy instruments aforementioned. For instance, McDonnell and Elmore (1987) emphasize the 'techniques' of intervention as the tools of government actions including mandates, inducements, capacity building and system changing. Furthermore, Schneider and Ingram (1990) highlight 'behavioral characteristics' of government policy tools to change, such as authority, incentive, capacity, symbolic (hortatory) and learning.

To 'measure' the tools within a wider analytical frame, Salamon (2000) developed governmental tools for measuring degrees of coerciveness (the extent which tools impede the agency's behavior to encourage or discourage), directness (the extent to which tools are involved in implementation), automaticity (the extent to which tools utilize existing administrative structures), and visibility (the resource use in the policy review process). Lascoumes and Gales (2007) emphasize types of 'political relations' in reformulating tools of government as legislative and regulatory, economic and fiscal, agreement-based and incentive-based, information-based and communication-based, de facto and de jure standards best practices. Vabo and Røiseland (2012) identify governmental tools in a 'governance network' setting. Government instruments including legislation and budgeting can directly affect society, but governments can also influence society by using different intermediaries in indirect ways through networks. Carmona (2017) also argues that a multi-levelled typology of government focusing on the degree of 'intervention' may be needed: formal (guidance, incentives and control), informal (evidence, knowledge, promotion, evaluation and assistance).

Thus, these different angles from 'toolkit perspectives' denote that there is no simple definition and classification and even generic features of their policy tools or instruments. For analytical purpose, however, systematically identifying governmental tools enables us to understand the institutional effectiveness of public actions and new modes of governance. In addition, it provides the most practical lenses to not only reveal similarities, differences, strengths, and weaknesses of selected tools of government, but also distinguish the socio-political nature of instrumental choices.

2.3. Land Governance

While the land governance literature has not yet fully engaged with a constellation of structural dimensions of institutions and instrumental choices, addressing different theoretical (structuration theory) and practical (tools of government approach) standpoints of land governance is meaningful to underpin arguments for the architecture of people-to-land relationships.

Borras and Franco (2010) argue that land governance is a set of political process, involving multiple states and societal actors at different levels of the polity (e.g., national, local and even international) to intervene in the attributes, speeds, scopes and directions of land use, control, and access to it. In other words, land governance incorporates an administrative and technical process (e.g., land recordation and land titling) that required dynamic interactions between diverse states and societal actors, bringing desired land policy outcomes (e.g., land reforms, land laws). Similarly, Enemark (2012) assumes that land agencies prepare and execute land policies in line with the mandates given through democratic processes. This assumes an uncontested relation between what institutions prepare and what they do. Structure and agency are thus aligned. Institutional re-arrangements should then be visible by closely watching how governments formulate policy and translate them into concrete responsibilities and activities for dedicated staff members. In contrast, Deininger and Feder (2009) found that institutional structures of land governance and its interactions have a far-reaching effect upon the distribution of power and economic productivity within the society. Furthermore, Augustinus (2009) supposes that land governance results from economic dependencies and economic trade-offs. Hereby multiple actors influence how land is used and transferred. Each choice on use, transfer and claim depends upon

the mutual benefit which one actor receives from the transaction. Land governance re-arrangements should, therefore, be observed by evaluating transactions and trade-offs between individual actors. This is a very different way of understanding land governance re-arrangements.

The 'toolbox approach' to land governance has been broadly accepted in practices that provides a systematic view for choosing appropriate land tools when considering administrative inefficiencies and transaction complexities of land institutions as well as reflecting the evolution of peopleto-land relationships (Bennett et al. 2008; Palmer et al. 2009; Wehrmann 2010; Williamson et al. 2010; Zevenbergen et al. 2015). Based upon land administration theory, Williamson et al. (2010) comprehensively identify tools of land governance as: general tools for supporting basic infrastructure; professional tools for system design and implementation; and emerging tools for responding new societal changes. They emphasize that the range of tools that need to be chosen can be different in every jurisdiction since states have varying strategies according to their particular needs and development capacity, influenced by historical contexts and institutional arrangements. According to Zevenbergen (2012), 'land tools' refer to the principles, policies and legislations and these covers different mechanisms and these tools might complement and enhance their own operations or develop effective alternatives for addressing cross-cutting issues (e.g., pro-poor land tools; gender-responsive land tools etc.). However, these toolbox approaches seem to employ more systematic classifications of land governance tools based upon a comprehensive account of socio-economic and political variables for land governance.

3. Methodology

This section discusses how we develop fundamental assumptions and a methodology to reflect and connect different analytical lenses for land governance re-arrangements in a (re-)unification setting from aforementioned structuration theory (focusing on structural dimensions) and tools of government approach (focusing on developing extended tools of land governance).

We assume that land governance is a key element *during and after* (re-)unification. However, the notion of land governance in (re-)unification processes is justified only in the context of the signification and legitimation structures involved in land governance practices. Governments detect information and affect behavior using different policy instruments, while land governance interacts with signification, legitimation and domination structures. Governments are for example both active and recipient agents of land governance re-arrangements that rely on different sets of experience and available or accumulated knowledge. Without these processes, actions and decisions themselves influence, reproduce and create land governance and (re-)unification processes. Thus, conceptual frameworks need to represent the interaction and recursiveness between land governance in social structures and government actions and decisions using governmental resources.

Based on the aforementioned underlying assumptions, structuration is a complex process. It relies on 'culture' and 'traditions' actors are involved in (Binder 2007) and a 'discursive' and 'symbolic' order, which predominates their interactions (Whittington 2015). Such signification structures provide 'meaning', and facilitate communication and provide legitimation of actions (Binder 2007; Dillard et al. 2004; Whittington 2015). Relating this to land governance, one can thus ask, "What informs the interpretation of land governance in the reunification context?" Regarding the legitimization, one could ask: "What defines the legitimacy of land governance and what tools of government and which rules are chosen to transform land governance?" Domination structures concern allocative and authoritative resources including political and economic institutions, which relates to the power axis to control and mobilize resources. A third and final question is, therefore: "Which structures and capacities do government possess in transforming land governance?"

Given theoretical classifications of government tools, our approach departs from the classical 'NATO scheme' (Hood 1983; Hood and Margetts 2007) and the resources of governance: nodality, authority, treasure, and organization. Nodality relates to how the governing process collects and distributes information. Authority describes how governance actors acquire and utilize legitimate

forms of power. Treasure refers to the economic tools of governance to enforce or direct certain types of behavior. Lastly, organization relates to capacities, resources capabilities in executing governance policies. (Cf. see further details in Hood 1983; Hood and Margetts 2007; Howlett 2009; Vabo and Røiseland 2012; Vedung 1998). By adopting tools of government approach, we developed tools of land governance: Nodality-based, authority-based, treasure-based, and organization-based tools. The analytical descriptions on tools of land governance have been purposively defined and resulted in customized classifications of tools in alignment with structural dimensions of land governance (Figure 1).

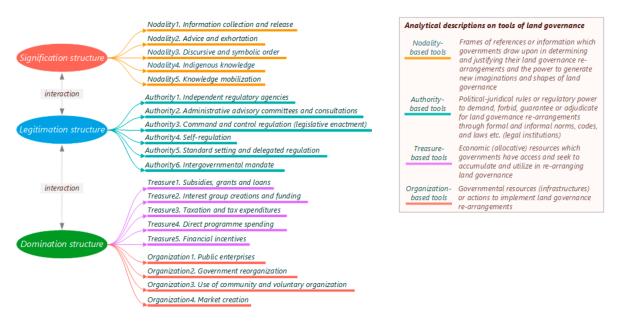


Figure 1. Thematic networks for structural dimensions and tools of land governance (devised by authors).

The methodological flow consists of three key steps of case study research: Designing, selecting, and analyzing (Figure 2). To reiterate, land governance re-arrangements need to be systematically scrutinized through structuration theory and tools of government approach within contrasting (re-)unification contexts. This paper considers an 'embedded multiple-cases study design' developed by Yin (2003) that is useful for applying multiple methods for data synthesis (Scholz and Tietje 2002). These methods provide rigorous evidence through integrating viewpoints from the 'sociological institutional' and 'public policy' perspectives, addressing critical research questions as well as drawing empirically valid inferences regarding land governance re-arrangements. Criteria for selecting case studies are grouped according to the three questions: (1) Are case studies areas 'representative' of (re-)unification? (2) How can similarities and differences of land governance re-arrangements be predicted through the 'opposite institutional frameworks' of (re-)unification? (3) Do case studies areas have an analogous set of historical facts or circumstances that surround the (re-)unification? In a given context, we narrowed the regional scope from the 'divided nations perspectives' and then selected Germany (OCOS) and China (OCTS) among six countries—Germany, Korea, China, Vietnam, Cambodia and Laos, and Mongolia (Lebow 2007; Lee and de Vries 2018). Using a network visualization technique, we identify tools of land governance and its interactions between the tools in each case study and analyze the similarity and differences between case studies. Then, we synopsize the implications of land governance re-arrangements in (re-) unification contexts.

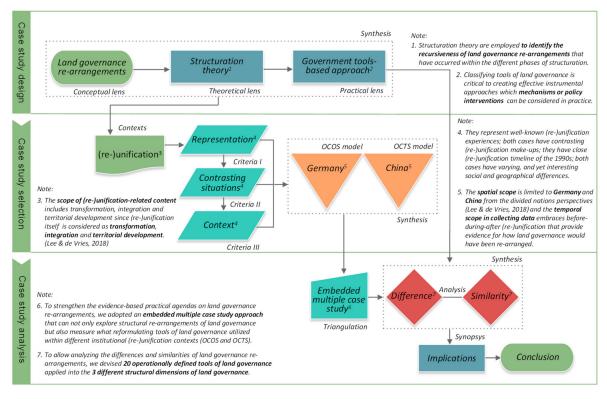


Figure 2. The analytical framework for land governance transformation (devised by authors).

4. Case Study 1: Land Governance Re-arrangements in Germany as OCOS

Land governance was transformed during German (re-)unification with an OCOS approach. (Re-)unification needed to restructure land governance in both urban and rural areas. The German experience highlights how restitution, land consolidation and privatization transformed land ownership structures in the former GDR.

4.1. Signification Structure

N1: Restitution is the process of returning land ownership to an original owner. According to Blacksell et al. (1996), a complication for the restitution process was that a number of land registers had been destroyed during the 'Socialist Occupation Zone (SOZ) period' and the GDR regime neglected to maintain up-to-date land records. The point hereby was not to neglect land administration as such, but to avoid maintaining a land administration system, which would legitimize the perceived bourgeois concept of private property in the East German state apparatus. (Re-)unification required, however, certain types of restitution. The federal government relies hereby on land information collected by claimants. These new registers lead to 'ad-hoc information bureaucracies'. When restitution claims were honoured, the government issued appropriate compensations, and proceeded with land registration into a land registry, such that the claimant becomes legal owner. Wilsch (2012) describes how German (re-)unification also re-shaped land registration and increased the conversion from a paper-based to digital land registration.

N2: One of the aims—yet not the only one—of the reunification was rooted in economic logic. A unified nation with for example a single currency (the "Deutschmark") was considered not only symbolic but also a condition to unify completely different economic systems and transactions. The transaction costs of having to convert from one system to the other could thus be avoided. At the same time, the political window of opportunity was however also narrow and strongly time-bound. The unification process as it has happened—by absorbing the GDR into West Germany—was not considered form the beginning as the only possible way. Another possibility—unifying Germany under entirely new terms and rewriting the constitution—was also considered, but quickly discarded. In other words,

despite political and historical rhetoric about German (re-)unification, the varying means to achieve political and economic transformation, integration, and territorial development have been employed by the West German government with abundant allocative (e.g., rapid introduction of the West-German currency, the "Deutschmark") and authoritative resources (e.g., dictated decision-making power). The conversion can be characterized as a 'social market economy' model, which has features of capitalism that include private property ownership (Ortmann 1998). Moreover, conceptions of 'market value' within an open-market economy aimed to deliver good land governance and transparency (Thiel 2010). He assumes, in the (re-)unification process, that Germany's transformation from a state-owned land system into a private one was anticipated as a 'long-term project'. Market orientation and shaping investment opportunities were a priority at the time so agencies such as THA/BVVG were under tremendous political pressure to resolve land disputes efficiently.

N3: Although most land expropriations occurred after Nazism (e.g., for Jewish citizens and political opponents), land restitution continued in the GDR after (re-)unification (e.g., for no specific social or political groups). Tucker-Mohl and Kim (2005) note that the German notion of 'coming-to-terms with the past' and 'backwards-looking justice' was an important factor influencing why and how land restitution was accepted in German re-unification, even though expropriation under the Nazi regime and GDR rule are regarded as fundamentally different institutions. This also meant, however, making restitution as efficient as possible such that it could promote economic revitalization. It was not obvious what role land restitution would play during (re-)unification. However, restitution and recognition of private ownership were perceived as consistent with the 'free-market ideology' of West Germany. Compensation was not based on a right to property but on principles of 'fairness', 'justice', and 'the social state' (Kuti 2009).

*N*4: With Germany's long history of land registration, the federal government has an advanced cadastral system to ensure 'land tenure security'. This was recognized as integral to societal development during German (re-)unification. Especially, the automated cadastral map (Li et al. 2000) and automated property register (ALB) from West Germany newly introduced to East Germany, which is a basis of integrated land information system in a (re-)unified Germany (Hawerk 2001).

*N*5: The impulsive movement for socio-economic transformation in Germany occurred in the move towards German (re-)unification, transplanting existing social, economic, administrative, and legal infrastructure from West Germany to the GDR. This is characteristic of OCOS examples, where the 'durable intellectual import' relates to the restructuring of 'ownership of land' and the 'role of the state' (Blacksell et al. 1996). For instance, former GDR states were affiliated with their respective West German counterparts in supporting re-structuring state administration services in the early 1990s (Wolz 2012). Sharing knowledge and experience shaped the implementation of land readjustment in the GDR. A vast number of seminars, short- and long-term transfer of personnel to the GDR (i.e., survey engineers) and capacity development in university education (i.e., setting up the first institute of land management at the University of Dresden) were included (Müller-Jökel 2001).

4.2. Legitimation Structure

A1: Privatization of property commenced under the last GDR government, which ratified the Trusteeship Law, followed by the establishment of the THA. The equitable reallocation of ownership by the THA was the main goal of this transformation during (re-)unification. The THA was responsible for managing and privatizing publicly owned agricultural and forest assets on behalf of the Federal Treasury (Hüttel et al. 2016; Ortmann 1998; Wolz 2013). Nearly 25% of the arable land in GDR was acquired, equivalent to approximately 1.5 million hectares (Dells 2008; Huettel et al. 2013; Koester and Brooks 1997). After the THA, the BVVG also played a role in privatizing all land, except for farms owned by the state. In 1994, about 1.2 million hectares of land had been privatized, approximately 20% of all farmland in the former GDR. In 2016, 156,000 hectares of land remained, which will be privatized by 2030 (BVVG 2016). By mid-1994, however, THA and BVVG had not fully estimated how much of the land they had to return to previous owners. Uncertainty about the accuracy of land

status has had a significant impact on privatization processes. For example, many land registers have been lost and therefore reference points had disappeared, affecting land returns and compensation (see Figure 3). The OSDPC (Offices for the Settlement of Disputed Property Claims) has been the fundamental administrative system dealing with the conundrum of land and property restitution after (re-)unification. It operates through a three-tier system: The Federal (BARoV), the provincial (LARoV), and the district (AroV) level (Blacksell and Born 2002).

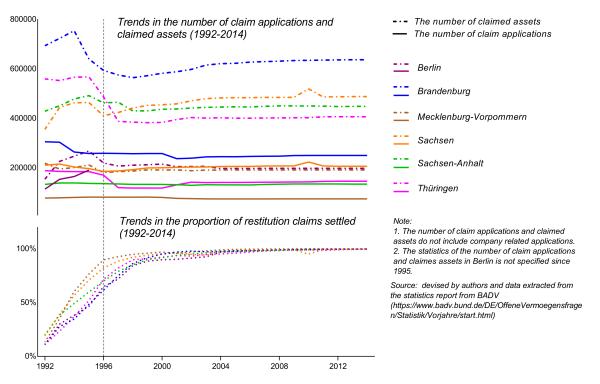


Figure 3. Trends in the number of claim applications and claimed assets and trends in the proportion of restitution claims settled (1992–2014).

A2: According to Kuchar and Gläsel (2006), the committees for valuation experts (CVE) under the Federal Building Code is responsible for both collecting and preparing data on the land market and make this available to the public. The municipalities or the public land surveyors' institutions set up these committees. In particular, CVE is in charge of gathering data on purchase prices, which is average values for a standard land parcel.

A3: As shown in Table 1, Legal issues surrounding property, expropriation, and restitution became controversial during (re-)unification. Although Article 14 of Germany's constitution specifies the protection of land ownership, this has only been applied since the end of (re-)unification. Land governance in Germany was transformed between 1989 and 1992 due to the regulatory agenda. Before 1989, overlapping land ownership and uncertain legal provisions regarding restitution and investment existed. Therefore, the federal government revised both the Property Law and Allocation of Ownership Act, applying the 'opening clauses' set out in the legislation by agreement, to speed up the transformation process and reduce national costs of reckless land claims in the courts (Kuchar and Gläsel 2007; Thiel 2010).

Authority-Based Tools	Main Description	Focal Arenas	Remarks	
German Basic Law (Article 14)	Property and the right of inheritance shall be guaranteed.	(Private) property right	Thiel (2010)	
Unification Treaty (Article 41 including Annex III)	States social equilibrium between the competing interests to protect Property restitution the property right		(Blacksell et al. 1996; Blacksell and Born 2002; Kuti 2009)	
German Civil Code (Article 233–237; Articles 585–597)	Contains rules regarding the transformation of property; stipulates legal procedures for land leasing	Property; land transaction	(Blacksell et al. 1996; Dells 2012)	
The German Land Register Code; Act for Acceleration of Register Processes	Initiates transformation from a paper to digital land register	Land registration	(Wilsch 2012)	
The Federal Regional Planning Act; Federal Building Code	Transform land-use planning and development and Introduce spatial planning	Land & regional development; spatial planning	(Tan et al. 2009)	
Real Property Transaction Act; Land Lease Transaction Act; Empire Settlement Act	Supports Setting up transparent (re-)unified land market	Land market	(Dells 2012)	
The Investment Acceleration Law; Investment Priority Law	elaborated procedures to support sales of land and encouraged new investment	Economic development; restitution	(Blacksell and Born 2002; Tucker-Mohl and Kim 2005)	
Property Restitution Law	Highlights land and property expropriated illegally was to be returned to the former owners	Property restitution	(Blacksell and Born 2002)	
Property Law; Allocation of Ownership Act	Set out the opening clauses by agreement for speeding up the transformation process and reducing the administrative costs	Property restitution	(Kuchar and Gläsel 2007; Thiel 2010)	
Trusteeship Law	Stipulates establishment of the THA	Property restitution	(Ortmann 1998)	
the Law on Adjustment of Agriculture; the Federal Land Consolidation Act	Specify rearrangement and adjustment of land in rural areas	Rural development; restitution	(Koester and Brooks 1997; Thomas 2006)	
the Indemnification and Compensation Act; Land Purchase Implementing Regulation	Eastern German farmers were given the first chance to amplify spatial resources by obtaining previous state-owned land through special conditions	Privatization; Land purchase; rural development	(Thiel 2010)	
The Valuation Ordinance	Determines the market value of land through standardized valuation methods	Land valuation	(Kuchar and Gläsel 2007)	

Table 1. Summary of authority-based tools in legitimation structures in a (re-)unified Germany (compiled and devised by authors).

The Federal Government enacted two significant legislations, which delayed restitution yet increased government land sales in the 'public interest', showing potential for significant economic growth. The initial Investment Acceleration Law (1991) elaborated procedures through which the THA could distribute an "investment priority authorization certificate" to support land sales. Furthermore,

the Investment Priority Law (1992) reinforced previous law expanding local authority powers to confer certificates and fortify what 'special purpose' would rationalize an investment priority (Tucker-Mohl and Kim 2005). Dells (2012) explains how legal frameworks helped to set up transparent land markets in a (re-)unified Germany. This included legal preferences on state aid, regional planning and development, land register, land valuation, expropriation and restriction on the use of private property. Articles 585–597 of the German Civil Code stipulate legal procedures for land leasing as prerequisites for changing or terminating land leases not added unnecessarily and lease contracts not registered with the land registry. In addition, the Valuation Ordinance (WertV) determines market land value through standardized valuation methods (see further details in Kuchar and Gläsel 2007). In addition, Tan et al. (2009) further highlight the Federal Regional Planning Act and Federal Building Code (BauGB) focusing on land planning and development.

Privatization of 'agricultural land' was already controversial prior to (re-)unification, and thus regulations were prepared accordingly. Since (re-)unification in 1990, the Law on Adjustment of Agriculture in 1990 and the Federal Land Consolidation Act supported the transition of land governance towards a market economy. These special laws enabled readjustment of land in rural areas when claims for land restitution were made, adapted former land use, and ownership of building (Koester and Brooks 1997; Thomas 2006). In the second privatization stage, GDR farmers were given the first chance to amplify spatial resources by obtaining previously state-owned land through special conditions such as federal land purchase programs, part of the Indemnification and Compensation Act (EALG) and Land Purchase Implementing Regulation (FIErwV) (Thiel 2010).

*A*4: The BVVG—successor of THA—is both a 'limited liability company' and a 'state agency' (Kuchar and Gläsel 2006, 2007). It is subject to all general legal regulation mechanisms and principles applying to 'large stock companies'. As a 'state agency', however, the BVVG is also subject to external financial controls and can be audited at any time by the Federal Court of Audit (BRH) (Kuchar and Gläsel 2007).

A5: The knowledge mobilization enabled efficient land management under a market economy, especially in accordance with the Common Agriculture Policy of EU (Wolz 2012). CAP adjusted land values in West Germany and the agricultural sector in GDR consented to adopt EU land prices at one swoop following (re-)unification. Although it is regulated by CAP and functioned within the same legal and institutional framework, land markets in West Germany and GDR have remained unchanged since the GDR has lowered the value of both land lease and sale than the West, and the lease-to-sale value ratio is higher in the GDR (Koester and Brooks 1997).

A6: A joint declaration effective on 15 June 1990 contained principles for resolving disputes related to unresolved land and property. Adopted as separate appendices to the Unification Treaty, entering into force on 31 August 1990 (Blacksell et al. 1996), a key aspect of the joint declaration was "find[ing] a socially acceptable balance between the competing interests, while taking into account the need for legal certainty and clarity and to protect the right of property" (Kuti 2009). More importantly, it created three major policy instruments for coping with land governance tools: compensation, privatization and restitution (Blacksell and Born 2002).

4.3. Domination Structure

T1: The federal government provided various agriculture-support financial tools in an early stage of state re-structuring process including grants (i.e., Starting Aid, Grant for Pasture and Resettlement Grant), interest subsidies (i.e., Subsidized Bank Credit) and credit subsidies (i.e., for general, disadvantaged regions and young farmers) as well as public credit. These were guaranteed by the states and adjustment aid was possible for agriculture development (Koester and Brooks 1997). The 'farm readjustment', thus, significantly contributed to land governance transformation after (re-)unification.

T2: THA possessed far-reaching regulatory powers and controls in transforming land governance and many interest groups were, therefore, fostering privatization of land (Czada 1996). Indeed,

Rentenbank (Germany's development agency for agribusiness and rural areas), federal state banks, regional cooperatives and the regional state farmer's association have been involved in funding for rural development project through the Land Administration Companies (LGSA).

T3: THA and BVVG prefer to lease land. This is because a large volume of land sales causes a sharp drop in land prices, an increase in the wealth of large-scale landowners only (Koester and Brooks 1997). Due to the sharp increase in claims for unresolved property, the federal government adopted legal provisions on land restitution and compensation. The privatization strategies were: short- and long-term land lease (1992–1996); implementation of a Land Purchase Program under the Indemnification and Compensation Act (1996–2010); land sales awarding to the full market value (2005) and options for long-term lease since 2010 (Dells 2012; Kuchar and Gläsel 2006, 2007).

T4: Restructuring agricultural production cooperatives (LPGs) was a significant effect of re-establishing private ownership, creating a sustainable agricultural structure and balancing farm businesses. To overcome the economic crisis of LPGs, the federal government launched a 'debt relief scheme' and approximately 1400 LPGs received partial debt remission. Moreover, a 'balance sheet discharge scheme' removed the obligation to repayments from the profit and capital tax of LPG successor business (1530 LPGs) (Wilson and Wilson 2001).

T5: BVVG sold land on favorable or discounted terms under the EALG scheme (391,000 ha) and more than half of the agricultural land was sold through lease agreements (393,000 ha). Large-scale farmers and investors could also buy land under preferential conditions (Herre 2013). LGSAs utilize a 'first-price sealed-bid auctions with public tenders' approach and intends to lease land for a relatively short period and reinforces 'regional ownership-based agriculture and rural areas'. Moreover, LGSAs recognizes 'pre-emption rights' through which current tenants are entitled to purchase land if they are willing to pay the highest bid without having to participate in an auction (Forstner 2011; Huettel et al. 2013).

O1: When it comes to land governance, THA was an 'information-provider' to the new states (and their respective ministries). For example, they provide information on what land policy instruments were taken and how much land they owned (Czada 1996). BVVG as 'privatization-facilitator' provides professional training, supervision and guidelines for the regional branches, and collaborating with federal ministries on finances, food and agriculture. Moreover, four decentrally-organized branches are responsible for selling and leasing land with no direct interventions by the states and local governments. Instead, it implements a staff rotation system, cross-checking procedures and 'four-eyes-rule' principles (Kresse et al. 2004)

O2: In 1995, the THA was 'administratively and functionally' reorganized into a new government institution: Federal Agency for Special Tasks Related to Unification (BVS) (Czada 1996). Under the BVS, BVVG was an affiliate of the THA in 1992 and was allocated the long-term task of managing and privatizing these assets (Dells 2008). BVVG is thus the 'executive agency' of the land governance (Kresse et al. 2004).

O3: In line with BVVG, Land Administration Companies (LGSA) were established in 2000 to preserve and develop rural areas as a rural non-profit on behalf of the Federal state. LGSAs operate as joint State enterprises where the German States are major shareholders. According to the Federal Association of non-profit making Land Companies (BLG), the main tasks and services of LGSAs are as follows: land procurement, land utilization and land management; improvement of agricultural business organization; execution of measures for re-organization of land holding and re-organizing of property ownership; village planning and renewal, land and community development as project management (BLG 2015).

O4: BVVG contributed to establishing land markets given the privatization process after (re-)unification, relying on five guiding principles: uniformity, independence, transparency, turnover-orientation, and social responsibility. BVVG implemented privatization under federal legal frameworks and its dual governance structure ensures administrative independence. In addition, the lease and sales information and the results of privatization are publicly available. BVVG operates with

their budgets and income from land privatization and has a social responsibility for balanced rural development (Kresse et al. 2004). The Tools of land governance in a German (re-)unification case and its interactions between tools of land governance can be summarized as Figure 4.

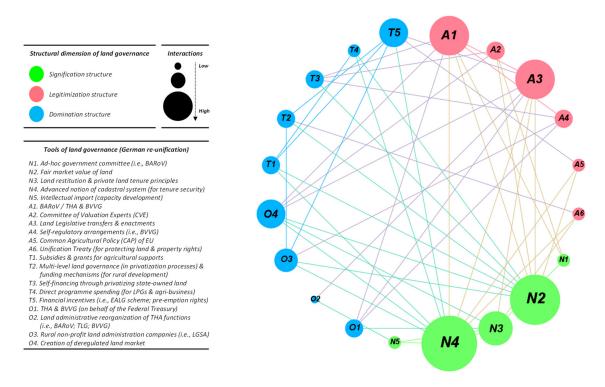


Figure 4. Tools of land governance in a German (re-)unification case and its interactions between tools of land governance (devised by authors).

5. Case Study 2: Land Governance Re-arrangements in China-Hong Kong as OCTS

On 1 July 1997, Hong Kong and Mainland China (re-)unified as one country. However, China agreed to maintain Hong Kong's capitalist system for the next 50 years. Under the OCTS approach, they have operated 'dual land governance' for the past two decades, encouraging economic development in China-Hong Kong.

5.1. Signification Structure

N1: The Guangdong-Hong Kong Co-operation Joint Conference (GHKCJC) framework was established in 1998. Given its ineffectiveness between 1997 and 2001, it was restructured in 2003 to strengthen horizontal coordination between the Pearl River Delta (PRD) and the Hong Kong Special Administrative Region (HKSAR). Additionally, 22 intergovernmental expert groups (IEG) under GHKCJC were formed by 2012, responsible for land mobilization for infrastructure, innovation, economic development, planning, regional cooperation, environment, and sustainability (Tommy 2015).

N2: Despite British administration, Hong Kong adopted essentially a 'socialist' policy, granting only leasehold estates for state-owned land. In Mainland China, the land was put under public ownership when the Chinese Communist Party (CCP) took power in 1949. Guided by 'egalitarianism' and a 'centrally planned economy', land use rights (LURs) were allocated by the government through administrative and political procedures instead of by the market, and the transfer of LURs was strictly limited (Li et al. 2000). The economic reforms of 1978 started to allow certain market transactions (Deng 1993). Since then Chinese land tenure regulation were gradually adapted. The 'leasehold system' applies market economy mechanisms and 'administrative allocation' supplying land to the state enterprises and agencies free of charge coexists and functions simultaneously (Wu et al. 2006).

N3: The principles of (re-)unification of the OCTS approach include 'high degree of autonomy' and 'Hong Kong people ruling Hong Kong' (Zhu 2012). 'Hong Kong people ruling Hong Kong' meant setting up a ruling coalition between the HKSAR government and the business sector (Fong 2014). 'High degree of autonomy' has meant HKSAR has been recognized as a 'city-state' with authority in monetary and social affairs, and international economic cooperation under Chinese sovereignty (Cheung 2014; Tommy 2015). HKSAR will maintain its own land governance until 2047. The two systems are expected to merge naturally (Li et al. 2000).

*N*4: Throughout Chinese's history, 'land tenure' has always been a significant political issue, with advocates supporting either public or private land ownership. With each new dynasty, public land ownership became an issue and policy-makers tended to reintroduce new systems. Once the dynasty stabilized its power, the land allocation would gradually be public again. This phenomenon caused serious social unrest for various dynasties. Thus, the land has had a pronounced influence on state re-formation, as has the aim of achieving an equal distribution of land. Mainland China and Hong Kong share these common roots of land governance—with authorities recognizing private land ownership should be strictly controlled to limit the power of the landed class for centuries—until colonial rule (Li et al. 2000; Li 1999).

N5: Despite China's opposition to the occupation of Hong Kong, ironically it was British administration of Hong Kong, which delivered the new land tenure system based upon 'the philosophy of land ownership without consideration of equality' (Li et al. 2000). The principles behind Hong Kong's leasehold system were a key driver in shaping how the commodification of land could work under 'socialist public land ownership' in Mainland China (Zhang 2012) at a time when it was unclear whether commodification was compatible with China's socialist system. Mainland China and HKSAR have established 'intergovernmental interactions' to manage cross-boundary policy issues since 1997 based on a 'give-and-take' and 'adjustment of mutual demands' system (Cheung 2014; Vogel et al. 2010).

5.2. Legitimation Structure

A1: Land management has been a fundamental part of the five-tiered government system of Mainland China since (re-)unification. Since (re-)unification, a prominent aspect of China's state re-structuring has been how central government recentralizes divergent regulatory measures in order to strengthen regional land governance. Decentralization processes have promoted an assortment of land policy instruments derived from hierarchical control of land governance using top-down vertical relations to handle the intricacies of land development (Jiang and Yeh 2009). On the other hand, the Lands Department (LandsD) enforces and controls all HKSAR land administration. Its major function is 'local land governance' in the context of economic development, community benefits and cultural transparency, technological advances, and human resources. LandsD deals with the acquisition of private land for public projects, renewal of land leases, and administers applications for lease modifications and land exchanges due to boundary adjustments of land parcels and implementation of urban (re-)development schemes (Ho 2001; Nissim 2012).

A2: The Ministry of Land and Resources (MLR) has mainly operated land governance in Mainland China based on policy directions under the State Council of PRC (SCPRC). The Ministry of Commerce (MOC) in Mainland China and the Financial Secretary of HKSAR co-organize a joint steering committee (JSC) for supervising implementation, dispute resolution and modifying the content of the Closer Economic Partnership Arrangement (CEPA), in handling working groups.

A3: In 1986, the Land Administration Law officially adopted Hong Kong's leasehold system for the first time, stipulating the conversion of private LURs to state-owned land, providing the legal foundation for land transfers (Wong 2014; World Bank 2014; Wu et al. 2006). After (re-)unification, the Land Administration Law, amended in 1998, stipulated the duration for a contract in 'collective ownership' to protect rural land and specified the land expropriation procedures. In addition, local governments were granted urban land rights underlining the legal basis for municipal authority

(Wu et al. 2006). Since (re-)unification, most existing laws in HKSAR have remained, except those that the Standing Committee of the National People's Congress (SCNPC) rejected as incompatible with China's Basic Law. However, constitutional changes have been mainly terminological. Following the Adaptation of Laws (Crown Land) Ordinance No. 29 of 1998, China mandated amendment of a number of ordinances associated with 'Crown Land' and all references to the word 'Crown' usually substituted with the word 'Government' (Cottrell 1997; Nissim 2012).

The Basic Law of HKSAR, which replaced Hong Kong's colonial constitution, has worked as a new constitution coming into effect on 1 July 1997, providing the legal basis for land governance in post-reunification (So 2011). The Hong Kong Reunification Ordinance (1997) was ratified to guarantee a unified legal and administrative transfer from the old to the new administration. Regarding land governance, Sections 27 and 32 of this ordinance are particularly pertinent (Nissim 2012). Section 27 stipulates 'delegations relating to land' and emphasized on 'lease or grant of land and natural resources' in Section 32. Based on Article 7 of the Basic Law of HKSAR, it states:

"The land and natural resources within the HKSAR shall be state property. The Government of the HKSAR shall be responsible for their management, use and development and for their lease or grant to individuals, legal persons or organizations for use or development."

*A*4: Long before (re-)unification, Hong Kong's investment was pivotal in enabling housing and land market development on the mainland (Ng and Tang 1999). Both 'vertical and horizontal economic collaboration', especially in the PRD have prospered since 1997. Nevertheless, the different administrative structure between PRD and HKSAR made co-operation complex under OCTS. In particular, land governance from the planning and development perspective has been discrete. The 'issue- or project-based collaboration' is the foremost mechanism used between PRD and HKSAR and cooperation is exceedingly dynamic in the arena of infrastructural projects and economic development (Figure 5) (Cheung 2014; OECD 2010).

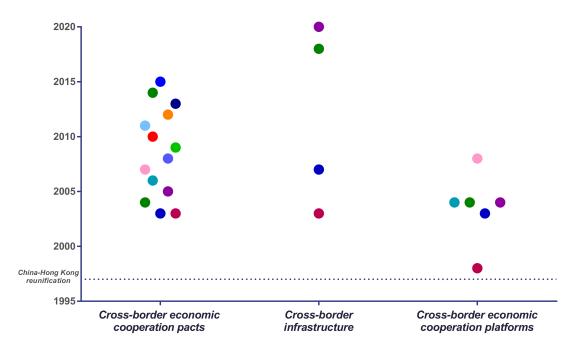


Figure 5. Issue- and project-based land governance between PRD and HKSAR (devised by authors based on Fong 2017).

A5: The HKSAR government requested its inclusion in 'the 11th National Five-Year Plan (FYP)' in 2006 for the first time (Vogel et al. 2010). This strengthened economic cooperation and integration between PRD and HKSAR through 'the Outline of the Plan for the Reform and Development of the PRD 2008–2020 (the Outline Plan)' in 2008. Meanwhile, 'the 12th FYP' promulgated in March

2011 demonstrates how Hong Kong and Macao are intensifying economic integration with Mainland China (Tommy 2015). The 13th FYP, recently announced in 2016, further enumerates mutual economic cooperation and common growth for further integration.

A6: Institutional integration through the CEPA concluded by the central government and HKSAR in 2003 stimulated regional integration and facilitated 'mutual trust and understanding' between the PRD and HKSAR (Cheung 2014; OECD 2010). The HKSAR government initiated 'regional planning' in 2004, bringing up the agenda at GHKCJC (Vogel et al. 2010). In 2008, HKSAR and Shenzhen established a co-operative relationship in terms of 'spatial governance'—creating a business-friendly environment in border areas. This has substantially improved transport infrastructure (Fong 2017; OECD 2010). 'A Framework Agreement on Hong Kong/Guangdong Co-operation' (FAHGC) in 2010 has deepened co-operation in the GPRD (Greater Pearl River Delta), promoting joint economic development and environmental co-operation (OECD 2010).

5.3. Domination Structure

T1: The local governments in China offered industrial land at subsidized prices and infrastructure without costs to investors to grab both economic growth and tax incomes. Moreover, the land administration law enforced 'resettlement subsidy' to compensate for losses during land expropriations and to restore rural areas (OECD 2010; World Bank 2014). Meanwhile, LandsD in HKSAR formulates and implements all land lease policies regarding long-term dispositions of government-owned land through 'public auction', 'public tender' and 'private treaty grants' (PTGs). In particular, NGOs are eligible for substantial tax exemptions at subsidized rates for PTGs (Nissim 2012).

T2: Central government agencies, including the Liaison Office of the Central People's Government (LOCPG) and the Trade Office of the Economic Affairs Department (TOEAD), support the economic governance of Mainland China and HKSAR (Tommy 2015). Land governance in HKSAR operates under the Financial Secretary and especially belongs to the Secretary for Development and its Bureaus. For instance, the Buildings Department (BuilD) provides services to owners and occupants in both existing and new buildings through its Building Ordinance. The Civil Engineering and Development Department (CEDD) undertakes mainly infrastructure planning and implementation of development projects spanning the territory. Furthermore, the Land Registry (Koester and Brooks) is in charge of providing secure land registration and information service. With increasing cooperation with Mainland China, the Planning Department (PlanD) continues to keep close contact with neighbouring cities on cross-boundary planning and development matters (Nissim 2012).

T3: 'Land fiscalization' through LUR sales has been recognized as a major revenue source for local governments in Mainland China (Table 2). Rithmire (2017) proves that by 2010, local government revenues from land development were almost equal to those generated from tax. Huang et al. (2017) also argue this result from China's 'urban-rural land system'. As local governments monopolized land transactions in cities, they tend to acquire land inexpensively from farming collectives and then sell them back to developers at higher prices. These land revenues then enable local governments to foster urban development and finance infrastructure provision, which leads to rapid urbanization in rural areas.

Prior to (re-)unification, the Sino-British Land Commission (SBLC) was formed in 1985 and disbanded on 30 June 1997, under the provisions of Annex III of the Joint Declaration. How to provide land leases was specified in the clause of the Joint Declaration indicating that, the government prefers to extend a 'non-renewable lease' or grant 'new leases' as a source of sustainable government revenue in company with land premium (Ho 2001). 'Land premiums' were a major source of government revenue in HKSAR in the years leading up to (re-)unification (Figure 6). Land premiums consisted of two major parts: 'proceeds from land sales' and 'revenue from lease modifications'. Transforming land governance began in 1986 with the setting up of the "HKSAR Land Fund". This Land Fund received 50% of proceeds from the sale of land by the British Hong Kong Government from 1985 to 1997, transferring the money to the HKSAR Government after (re-)unification (Liu 2015).

Year	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(h):(a)
1999	559,487	31,257	5906	-	3303	-	51,433	91,899	16.4%
2000	640,606	34,896	6476	-	3532	-	59,558	104,462	16.3%
2001	780,330	38,062	6615	-	3833	-	129,589	178,099	22.8%
2002	851,500	46,711	7683	-	5734	-	241,679	301,807	35.4%
2003	984,998	54,671	9157	-	3990	-	542,131	609,949	61.9%
2004	1,189,337	66,974	10,623	-	12,008	-	641,218	730,823	61.4%
2005	1,510,076	79,102	13,734	-	14,185	-	588,382	695,403	46.1%
2006	1,830,358	93,343	93,343	-	17,112	-	807,764	1,011,562	55.3%
2007	2,357,262	114,870	38,549	-	18,504	-	1,221,672	1,393,595	59.1%
2008	2,864,979	133,630	81,690	53,743	31,441	68,034	1,025,980	1,394,518	48.7%
2009	3,260,259	141,992	92,098	71,956	63,307	80,366	1,717,953	2,167,672	66.5%
2010	4,061,304	173,627	100,401	127,829	88,864	89,407	2,746,448	3,326,576	81.9%
2011	5,254,711	277,929	122,226	206,261	107,546	110,239	3,212,608	4,036,809	76.8%
2012	6,107,829	312,563	154,172	271,906	162,071	137,249	2,804,228	3,842,189	62.9%
2013	6,901,116	341,990	171,877	329,391	180,823	158,150	3,907,299	5,089,530	73.7%
2014	7,587,658	364,461	199,262	391,468	205,905	185,164	4,038,586	5,384,846	71.0%
2015	8,300,204	388,632	214,204	383,218	209,721	205,090	3,078,380	4,479,245	54.0%
2016	8,485,000	403,360	225,574	421,219	202,889	222,091	3,563,969	5,039,102	59.4%

Table 2. Land and property-related revenue in Mainland China, 1999–2016 (Million RMB, data extracted from the China Land and Resources Yearbook from Ministry of Land and Resources and China Finance Yearbook from the Ministry of Finance (1999–2016).

Note: (a) Local level government revenue; (b) urban maintenance & development tax; (c) urban land use tax; (d) land appreciation tax; (e) tax on the use of arable land; (f) house property tax; (g) total land-related revenue; (h) land-related versus budgetary revenue.

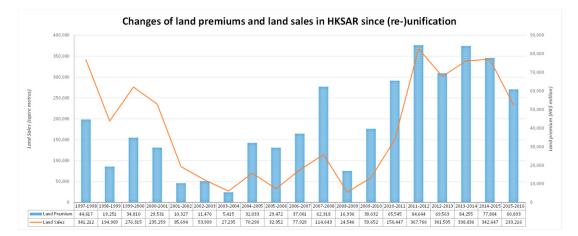


Figure 6. Changes of land premium and land sales in Hong Kong SAR since (re-)unification (devised by authors and data extracted from the HKSAR government, Census and Statics Department and the Lands Department).

T4: A huge amount of indirect programme spending has been invested in spatial development, especially in the transport infrastructure sector. 'Cross-boundary co-operation' initiatives accelerate economic integration through 'issue-and-project-based land governance' focusing on urban development, spatial planning, and environmental sustainability between PRD and HKSAR. The Guangdong-Hong Kong-Macao Close Co-operation Zone (GHKMCCZ), proposed in 2008, implies that the Guangdong provincial government may secure the right to establish a 'sub-regional cooperation mechanism' through the implementation of a new CEPA. This initiative enhances economic and administrative integration between cross-border regions with land governance being the focal point for accelerating 'integrative territorial development'.

T5: Based on CEPA, the initiative provides consequential financial incentives for provinces in Mainland China to open up land markets. However, it is only possible with mutual recognition of professionals regarding land governance (e.g., real estate appraisers and land surveyors).

O1: In addition to the national MLR in Mainland China, the Department of Land and Resources (DLR) at the provincial level, the Bureau of Land and Housing (BLH) at prefecture- and county-levels, and the Division of Land and Housing Office (DLHO) at the township-level all play pivotal roles in land governance (Jiang and Yeh 2009). Moreover, a wide range of regional agencies coping with housing and urban-rural development, environmental protection and agriculture have been involved in formulating local land governance and implementing local land policies. LandsD of HKSAR encompasses three functional offices: The Legal Advisory (LACO) and Conveyancing Office, the Survey and Mapping Office (SMO), and the Lands Administration Office (LAO) (Ho 2001).

O2: The MLR—set up in 1998—amalgamated all the previous land-related state bureaus and ministries. It has been responsible for planning, management, conservation and utilization of natural resources, and focused on 'managing uncontrollable conversions of rural land' and 'investment in urban development' (Rithmire 2017). This institutional transformation, in conjunction with the amendment of the Land Administration Law in 1998, has helped to spur China's transformation (Wu et al. 2006). The third-stage of land administration reform occurred in 2003 when the State Council of PRC (SCPRC) announced a 'Hierarchical Land Management System (HLMS)' for all governments below the provincial level. Consequentially, provincial land authorities have become 'regional agencies', keeping an eye over local land-use activities (Jiang and Yeh 2009). The central and provincial government carries out the main tasks of land administration in Mainland China. However, HKSAR land governance remains unchanged.

O3: It is not common to use community-based voluntary organizations relating to land governance transformation, but NGOs such as the Guangdong-Hong Kong-Macao Cooperation Association and the GPRD Business Council are platforms that have been established to implement infrastructure development projects and encourage market transformation among interest groups involved in collaboration (GPHURD 2011).

O4: The experiment of 'socialist market economy' began in the Shenzhen Special Economic Zone (SEZ), where the first 'land auction' in the history of China was conducted. It allowed LURs to be transferred for a fee while the public ownership of land remained unchanged. This land governance transformation was considered a huge success, which not only contributed to increasing government revenue but also allowed rapid urban development (Xu 2008). This model was then adopted in other cities and spread over China and finally "Shenzhen is HongKongized, Guangzhou is Shenzhenized, and the whole country is Guangdongized" (Cartier 2001). The Tools of land governance in a China-Hong Kong (re-)unification case and its interactions between tools of land governance can be summarized as Figure 7.

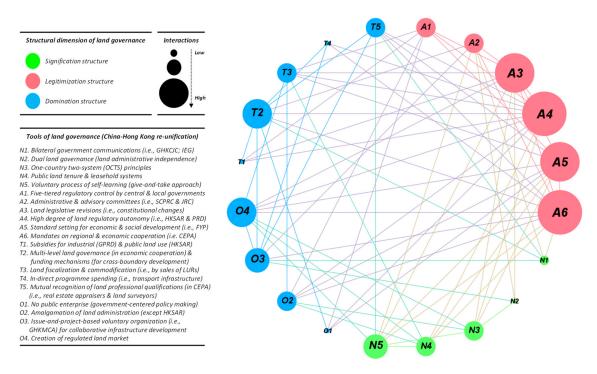


Figure 7. Tools of land governance in a China-Hong Kong (re-)unification case and its interactions between tools of land governance (devised by authors).

6. Synopsis of Results

This section evaluates the key results following the key analytical questions of this paper.

6.1. What Informs the Interpretation of Land Governance in the (Re-)Unification Context?

The analysis demonstrates that the nature of (re-)unification itself has affected the tools of land governance and its institutional arrangements in both Germany and China-Hong Kong. In German re-unification experiences, the advanced notion of a cadastral system for tenure security (N4) and fair market value of land (N2) in the signification structure are the most important tools of land governance. 'Land tenure security' has re-emerged during and after (re-)unification based upon advanced 'cultures' and 'traditions' of cadastral systems in the federal German government. Moreover, 'fair market value' within a social market economy played a major role in achieving good land governance as well as facilitating investments. The fundamental difference between China and Hong Kong was the 'political agenda' in shaping 'dual land governance' under OCTS (N3). Indeed, both already shared similar 'ideas and values' over land governance due to 'public land ownership' and 'leasehold system', modelled on Hong Kong (N5). Yet, China and Hong Kong also shared common historical roots recognizing 'tenure security' and 'control over land resources' (N4).

For both, other tools, including 'information collection and release (N1)' seemed relatively less effective than nodality-based tools during and after (re-)unification. In Germany, the federal government detected information on unresolved land and property through its special committee, but it is uncertain how government affects behaviors and perception of land governance transformation. In the same vein, Chinese and HKSAR governments established a bilateral government communication tool to collect information on territorial capital. Detecting or sharing information is only partially accomplished to manage cross-boundary territorial issues since (re-)unification. Characteristics of nodality-based tools in a signification structure in Germany were particularly requested 'post-reunification' to enhance 'democratic and transparent land governance'. Yet, China-Hong Kong already pursued and chose governmental nodalities 'pre-reunification' in a political manner to help formulate 'dual land governance' and further gradual integration of land governance.

Authority-based tools in the legitimation structures of Germany and China-Hong Kong were regarded as foremost concerns of land governance re-arrangements in being socially and geographically balanced and acceptable. In Germany, 'BAROV' and 'THA & BVVG' as independent regulatory agencies (A1) were used to cope with land restitution and privatization, respectively. Yet, China-Hong Kong emphasized the regulatory role of central and local government using five-tiered 'vertical land governance' (A1). SCPRC has functioned to elaborate policy directions of land governance at the superior level and local land authorities becoming 'regional agencies' in Mainland China. Furthermore, LandsD enforces and controls all HKSAR land governance.

Germany's federal government endeavours 'adaptive land governance' for efficient transfer of existing land-related institutions in setting up transparent land markets to narrow land-knowledge gaps post-reunification using 're-versioning legal frameworks' (A3). In addition, CAP restrained land value increases in West Germany and made land prices in GDR comply with EU standards (A5). 'Unification Treaty' highlights legal certainty and clarity to protect land rights in Germany but also stimulate economic co-operation and regional integration (e.g., CEPA) in China-Hong Kong (A6). Evidence from China-Hong Kong shows that authority-based tools have remained significant due to legal incoherence and incompatibility. However, many documents from SCPRC provide 'comprehensive land governance' frameworks. Moreover, central government delegates rule-making, land governance to HKSAR based on its Basic Law. PRD and HKSAR have a high degree of autonomy in strengthening 'local land governance' and utilize 'self-regulation' and 'delegated regulation' (A4; A5).

In both cases, authority-based land governance tools have been widely implemented in legitimation structures, showing necessary institutional re-arrangements, respectively, following particular demands since (re-)unification. The main difference between the cases is Germany re-distributed authority and responsibility to 'independent regulatory agencies' speeding up land governance transformations, reducing considerable administrative costs of reckless land claims. In China-Hong Kong, 'the right to command and control of local governments' has been further granted and strengthened under legal frameworks, catalyzing 'local land governance' in China (A1).

6.3. What Structures and Capacities Do Government Possess in Transforming Land Governance?

Treasure-based tools in domination structures have less influence in re-producing and re-creating land governance than other types of tools. However, organization-based tools are regarded as significant policy instruments in land governance re-arrangements. Germany and China-Hong Kong have approached these issues with different financial and re-structural mechanisms.

Most treasure-based tools in Germany are 'agriculture-oriented', especially in the former GDR. The federal government provides special funding for agriculture, including grants, subsidies and public credit (T1). In terms of funding, various stakeholders have all been involved in privatization processes as well as rural developments (T2). Meanwhile, most state and non-profit making agencies are self-financed through privatized state-owned land resources (T3). The federal government also introduced a scheme to prevent a financial crisis in LPGs and to develop agri-businesses (T4). After (re-)unification, both BVVG and LGSAs aim to secure the land rights of existing tenants (T5). The China-Hong Kong case reveals only limited engagement with treasure-based tools based upon 'mutual demands' and 'regional cooperation strategies'. For example, local governments in Mainland China and GPRD offered industrial land at subsidized prices to promote economic growth, tax revenues, and public interests (T1). To support economic-focused land governance between China and HKSAR, financial ministries and departments are involved (T2). 'Land premiums' by sales of LURs have been recognized as a major source of local government revenue in both Mainland China and HKSAR (T3). Based on CEPA, these provide consequential financial incentives for provinces in Mainland China to open up land markets. However, it is only possible with the mutual recognition of 'land professionals' (T5).

In Germany, public enterprises (e.g., THA & BVVG) helped transport land governance on behalf of the Federal Treasury, managing and privatizing land resources (O1). Former GDR states were affiliated with West German counterparts to support land governance restructuring (O2). The 'multi-level governance' using of community and voluntary organizations, for example, LGAs, preserved development of rural areas with regional ownership-based agriculture and land administration (O3). Moreover, land markets were created by privatizing and redistributing state-owned agricultural land based upon the principles of uniformity, independence, transparency, and turnover-orientation and social responsibility (O4). In comparison, there was no public enterprise in China-Hong Kong for land governance transformation since 'the central and local governments' in Mainland China and HKSAR government carry out land governance based on public land ownership and leasehold system (O1). MLR amalgamated land governance functions and local land authorities emphasize monitoring land use activities under HLMS in Mainland China. HKSAR's land governance has remained unchanged, except for the replacement of terminology from 'crown' to 'government' (O2). 'Issue-and-project-based land governance' between PRD and HKSAR focusing on spatial development, especially in the transport infrastructure sector, has promoted (O3). By imitating HKSAR land governance, SEZ was first 'land auction' in the history of Mainland China and the model adopted by other cities and then land markets were gradually established (O4).

7. Conclusions

Returning to the research questions posed at the beginning of this paper, it is now possible to state that land governance has a pivotal role in transforming institutional forms and functions during and after (re-)unification processes. Despite its explanatory nature of methodology and analysis, this work contributes to existing knowledge of land governance re-arrangements by providing an analytical foundation for a systematic classification of institutions and its tools based upon a comprehensive account of socio-economic and political variables for land governance. The investigation of land governance re-arrangements in the German case as OCOS has shown that nodality-based tools (especially N4; N2; and N3) in signification structures and authority-based tools (especially A1 and A3) in legitimization structures are widely implemented that have shown necessary transformation respectively following particular demands during and after (re-)unification. On the other hand, the most obvious finding to emerge from the China-Hong Kong case as OCTS is that authority-based tools (especially A4; A6; A3; and A5) in legitimization structures were more likely to be considered than other land governance tools.

The reasons for difference between OCOS and OCTS are clearly supported by the findings. Germany utilized 'adaptive land governance', aiming for fast-track transformation during and after the state restructuring process, and using ad-hoc administration to tackle new land governance problems. In contrast, the China-Hong Kong (re-)unification used hierarchical enforcement in re-arranging land governance, whereby central and local governments (including HKSAR) has the right to establish public land ownership combined with a leasehold system. This leads to a more gradual transformation of land governance. Moreover, concerning domination structures, the federal government in Germany established 'multi-level' land governance systems, involving government from both federal and local level, independent state agencies, to community-based voluntary organizations and regional cooperatives of former landowners and existing tenants. This enhanced rural development and created transparent land markets in particular. Instead, the China-Hong Kong transformation emphasizes 'land fiscalization' more, given that land has gradually become recognized as a main source of revenue for local governments in both China and HKSAR. In addition, 'issue-and-project-based land governance', i.e., addressing cross-boundary territorial problems in GPRD for accelerating 'integrative territorial development', was promoted.

The evidence from this paper suggests that:

- When adopting adaptive land governance, governments should monitor and identify formidable obstacles in (re-)unification processes and then proactively or reactively manage them using authority-based tools in legitimation structures.
- When relying on hierarchical enforcement, legitimation structures require strong political leadership at different administrative levels, which gradually transform land governance as a long-term project.
- When adopting multi-level land governance, the government should endeavour to establish transparent land markets and land tenure security at the domination structure phase, include rural development as a priority of land governance transformation, and build multi-layer check-and-balance mechanisms through which various stakeholders can contribute.
- Adopting issue-and-project-based land governance only works when fundamentally different
 institutional contexts and frameworks exist prior to (re-)unification. It is important to cope with
 cross-boundary infrastructure and economic development before changing land governance.

This is the first time that structuration theory aligned with tools of government approach has been used to explore land governance re-arrangements in cases of (re-)unification. The methods we used for this paper may be applied to other researches that focus on institutional approaches to land governance and its instrumental choices, where the countries tend towards fragmentation and separation or integration and (re-)unification in the world. Whilst this paper did not confirm with empirical data analysis, it did partially substantiate how the government (agency) interacts in response to transforming people-to-land relationship (structures) and which governmental tools (resources) were deployed within different institutional (re-)unification contexts (OCOS and OCTS) by reflecting the institutional extractions from the theoretical and practical parameters of the analysis. The generalizability of these implications is subject to certain limitations. For instance, we do not conclude which approaches for (re-)unification are appropriate for land governance re-arrangements, since all countries have different historical contexts and institutional arrangements. Thus, the next step would be to conduct a more empirical qualitative analysis using in-depth interviews with key agencies and actors who were involved in the institutional re-arrangement processes. Therefore, further empirical analysis is recommended to verify how and where the transformation processes are initiated and structured.

Author Contributions: C.L. contributed to this research in the following aspects: conceptualization, methodology, validation, formal analysis, visualization, investigation, resources, data curation, writing—original draft preparation, writing—review and editing. W.T.d.V. contributed to the research in the following aspects: conceptualization, methodology, validation, supervision and writing—review and editing. U.E.C. contributed to conceptualization, resources, visualization and writing—review and editing.

Funding: This work was supported by the German Research Foundation (DFG) and the Technical University of Munich (TUM) in the framework of the Open Access Publishing Program.

Acknowledgments: We thank our colleagues Ying Lu from the chair of land management from TUM and Guangyu Li and Menging Wang from Zhejiang University in China for their contribution on an earlier version of the manuscript for an international conference on sustainable urban and regional development as well as Adil Sait from LSE for proofreading and correcting expressions.

Conflicts of Interest: The authors declare that no conflict of interest.

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