Understanding governance structures in shaping greenway implementation in city-regions: A case study in central Zhejiang Province, China

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Abstract

Greenway implementation in city-regions is a collective action involving a complex range of relations between regional and local agencies, between government departments at the same administrative level, and between adjacent jurisdictions. This paper explores how greenway implementation governance is structured, and why different governance structures result in different greenway implementation processes and outcomes in a city-region. We use a case study approach to a greenway project in central Zhejiang Province (CCCZ), where data are collected through field reconnaissance, in-depth interviews, and document analysis. Preliminary findings reveal that the central Zhejiang Greenway Project has experienced a development from 'territorially-specialized governance' to 'cross-scale governance'. 'Double-hatted' agencies comprising government leaders and professional representatives from different agencies can create cross-scale institutional linkages both vertically (across levels of governments) and horizontally (across jurisdictions and departments), thus improving the efficiency in greenway implementation at a large scale.

Keywords: greenway implementation, governance structure, double-hatted agency

Introduction

The focus of nature conservation has shifted from the protection of single 'sites' to the restoration of ecological 'networks' across boundaries (Ahern 2004; Jongman & Pungetti 2004). This is evident in the greenway planning sector, as numerous greenway plans have been formulated and implemented worldwide. Although greenways originated in the USA (Ahern 2004), they have recently been used as a planning tool in numerous Chinese city-regions, e.g., the Pearl River Delta Greenway Project and Xiamen-Zhangzhou-Quanzhou Triangle Greenway System. The rationale behind the greenway initiative is based on its capability to reconcile the competing needs between green space and land for economic use (Chung et al. 2018). To develop linear green space like greenways, some "residuals" of land can be used, such as riverbanks or drainage buffers which cannot be intensively developed because they are narrow or unsafe (Tan 2006). Greenways may also be developed to unleash the recreational potential of the land parcels utilized or protected for other purposes, for example, by inserting footpaths within greenbelts (Chung et al. 2018). In addition, China's strategy for city-region development involves regarding greenways as an 'integrator' to connect different settlements as a unity (Ministry of Housing and Urban-Rural Development 2016).

Past studies reveal that governance structure is one of the main challenges in regional greenway implementation (Ryan et al. 2006). Three aspects of governance structure are central to greenway success at a city-region scale: regional control, inter-departmental cooperation and cross-jurisdictional

cooperation. Regional control aims at coordination of the overall spatial development. Though a regional government is not necessarily the solution (Siegel 1999), many scholars agree that regional agency's status is relevant in determining whether the regional greenway program is strong and integrated (Erickson 2004; Ryan et al. 2006; Ryder 1995). For example, after studying the relationships between regional and local agencies in different greenway projects, Erickson (2004) classifies them into centralized, moderate and decentralized models according to their institutional structures. The centralized model features a regional entity with primary control over implementation. It allows for better inter-governmental coordination and a larger funding base from a wider geographical area. However, this approach may lack grassroots support and will be problematic when local municipals do not see the greenway project as a priority. In the moderate model, neither the regional agency nor the local jurisdictions have primary control over implementation. Leadership can develop among local municipals, thus encouraging coordination among them. However, the implementation may be slower due to shared responsibility across actors. The decentralized model allows local municipals to implement individual pieces of the greenway system while a regional agency acts as the advisory body. Strong local control means great grassroots support and a manageable scale. However, projects may not connect to their neighbors and a shared vision is absent due to a lack of regional leadership for coordination (Erickson 2004).

Inter-departmental coordination allows for departments with expertise and considerable resources to perform their respective functions in a greenway project. In Singapore, for example, the Singapore Land Authority deals with land acquisition issues; the Land and Transport Authority makes greenways accessible to the public through the provision of public transport and road access; Ministry of Finance allocates funds for greenway construction and maintenance; and Tourism Board develops the tourist industry in harmony with the environment (Tan 2006). However, more often than not, some agencies are more cooperative than others in the working process, as a result of different incentives and disincentives (Thomas 2002).

Inter-jurisdictional cooperation intends to achieve the level of greenway connectivity that is necessary for an integrated greenway network throughout a region. Due to the nature of regional greenways to extend across jurisdictions of which institutional arrangements are different (Hoover & Shannon 1995), their development calls for the coordination of local efforts. As local governments have a will of their own, it is likely that greenway priorities listed in the regional greenway plan have local issues which install implementation (Erickson 2004).

Despite a large number of scholars that have realized the importance of governance structure in greenway implementation, few studies have treated governance structure in detail. There is little explanation about how greenway implementation projects are governed, and why different governance structures lead to varied spatial processes and outcomes. The goal of this paper is to explore the *how* and *why* questions associated with different governance practices and greenway implementation outcomes. Note that we do not aim to provide a comprehensive explanation of different behavioral and implementation outcomes. A large number of factors might make a difference in this respect. Rather, we focus on the impact of governance structure in particular. The cluster of cities in central Zhejiang (CCCZ), China was selected as a case study area. By analyzing data collected from field reconnaissance, semi-structured interviews with leaders in three levels of governments involved in the central Zhejiang Greenway Project, including the city-region, county-level city/county/district and the basic unit, and secondary information such as media reports and government policy documents, we found evidence that the central Zhejiang Greenway Project has experienced a development from 'territorially-specialized governance' to 'cross-scale

governance'. In the cross-scale governance structure, the 'double-hatted' agencies play a key role in bridging organizations both vertically (across levels of governments) and horizontally (across jurisdictions and departments).

In the rest of the paper, we first review research on governance structure associated with greenway implementation in China. This is followed by the development and presentation of a conceptual framework. Then we provide background information and data-collection procedures. After explaining the approach, we will present the original greenway governance structure of the CCCZ and its consequences, succeeded by an analysis of the developed CCCZ governance structure in recent greenway practices. We conclude with a discussion of implications for greenway policy

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Governance structure in greenway implementation in China – what do we know?

Several scholars have focused on China's governance structure associated with greenway implementation, and there is a consensus that greenway implementation in China is steered by a strong top-down political mobilization (Lawson & Liu 2009; Liu et al. 2016; Xu & Yeh 2012; Yu et al. 2006). When studying the regional greenway project in the Pearl River Delta, China, Liu et al. (2016) found a three-level governance structure, including the city-region, the municipal and the basic unit. The regional authority acts as the primary promoter and coordinator by initiating the regional greenway plan and supervising greenway development. Municipal governments will receive length-oriented assignments from the region and subcontract them to basic level units which will construct and maintain the greenways (Liu et al. 2016). Scholars believe that such an arrangement is able to improve implementation efficiency (Liu et al. 2016), foster uniformity across cities (Yu et al. 2006 p. 236), and "re-invent regional governance" (Xu & Yeh 2012 p. 396). However, there has been little supporting evidence of these findings. Moreover, as local authorities are obliged to fund, build and manage greenways within their boundaries, it is highly problematic to translate the regionally integrated greenway policy into greenway networks on the ground built by localities (Lawson & Liu 2009). Much uncertainty still exists about the relation between the regional level and the local level in practice.

While most attempts have been made to analyze the vertical relationship in a governance structure, little attention has been paid to the horizontal linkage, including coordination across multiple jurisdictions and that across diverse departments. This study aims to fill these gaps by analyzing the governance structure in much detail as well as its change over time, and therefore we may understand how governance structure functions in practice.

Governance for greenway projects – a conceptual framework

Figure 1 shows a conceptual framework to inquire into the governance structure associated with greenway project implementation. Multiple agencies in local government shape greenway project implementation directly. At the feasibility study stage, for example, the planning agency will justify the alignments of greenways. The finance agency decides the source of money to fund the project. If the greenway project involves the conversion of rural land into construction land, it requires permission from the land agency. The water resources agency may conduct a flood risk assessment if greenways are built over the water. After the feasibility study is approved by the development and reform agency, the construction agency will invite tenders for the planning contract and the building contract. The government agencies involved are of different sizes, specializations and relational orders. For instance, the development and reform agency may be intensively interacting with the finance agency but less so with the construction agency. The sectoral and local governments also shape the characteristics of local agencies due to China's Tiao-

kuai system. The term 'Tiao' refers to vertical lines of authority that tie various sectors to the ministries of the central government. The term 'Kuai' represents the horizontal lines of authority that tie these sectors to their territorial governments. In China's Tiao-kuai system, a local agency, for example, has reporting responsibilities both to its parent/local government and to the sectoral government at a higher level. The former primarily has leadership relation with the local agency (Kuai) while the latter mainly exercises professional relationship (Tiao).

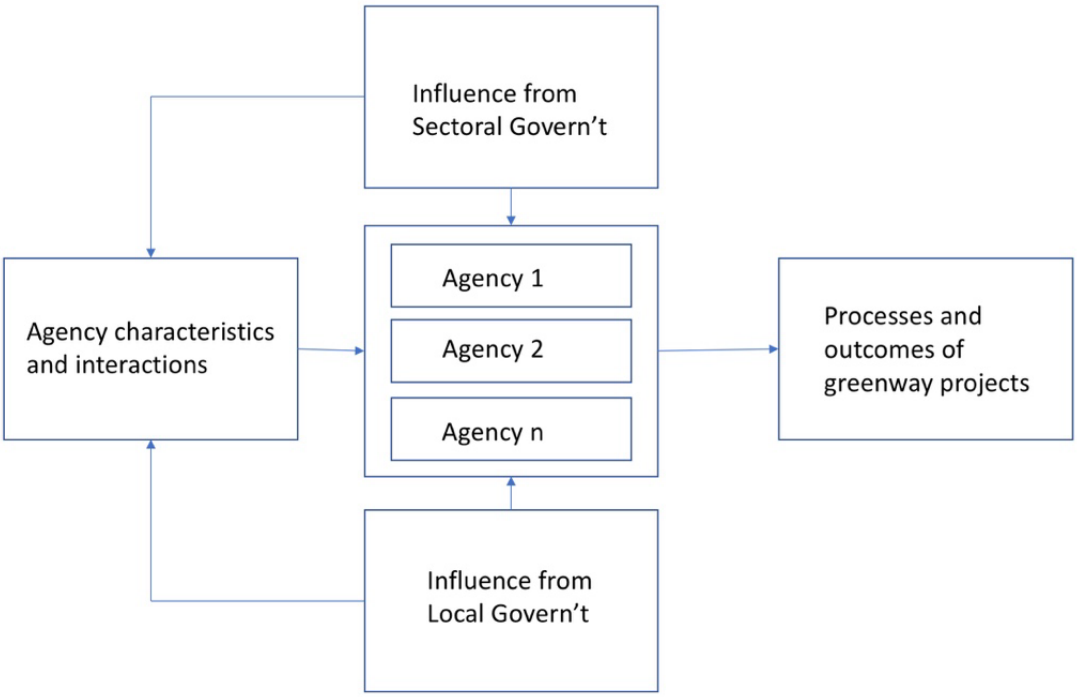

Figure 1. Governance structure vs greenway project outcome

Agency characteristics and interactions are further discussed using ideas from Egeberg & Trondal (2018a). They summarize five organizational characteristics: size, horizontal specialization, vertical specialization, order of structures, and organized anarchy (Egeberg & Trondal 2018a). When applying their ideas to our greenway implementation study, we focus on the following characteristics of agencies.

- ***Size***, the number of positions that are involved in greenway implementation, indicates an agency's capacity to oversee, coordinate, or implement greenway projects.

- ***Horizontal specialization*** represents how greenway tasks are distributed horizontally among units. Horizontal task distribution may relate to territory, sector, process or targeted client (Gulick 1937). For example, Toronto's greenway plan is formulated at the regional level and implemented by local government units which are internally specialized according to their territory (Erickson 2004).

- ***Vertical specialization*** expresses the intended division of personnel across hierarchical levels within or between greenway implementation organizations.

- ***Order of structures*** decides whether a greenway implementation organization constitutes an actor's primary or secondary structure. An actor is supposed to be more loyal and devoted to the organization constituting their primary structure, for example, a bureaucratic unit like a government agency. Secondary structure is defined as the structure to which an actor works as a part-timer in an organization, such as greenways advisory board or network. Primary structure may matter for actor's decisions and actions while the impact of secondary structure is usually modest (Egeberg & Trondal 2018a).

- ***Organized anarchy*** means the greenway governance structure is open and unspecialized, so it allows different actors to move across organizational borders. Therefore, there are a variety of actors involved, facilitating information exchange and innovation.

In Egeberg & Trondal (2018b) 's another study, they discussed the role of 'double-hatted' agencies in transforming European Union (EU) governance from 'indirect administration' to more 'direct administration'. These national agencies serve both national ministries and the EU authority, thus strengthening the coordination between the national level and the EU level (2018b). In China where government agencies are by nature 'double-hatted' due to the unique Tiao-Kuai system, one may expect strong coordination across levels. However, as their behavior is shaped by not only the competing policy expectations from two 'hats' but also their own characteristics, it is unclear whether these 'double-hatted' agencies function as 'organizational bridges' in practice (Egeberg & Trondal 2018b p. 17). In our case study, we will pay extra attention to the role of these 'double-hatted' agencies.

Case selection and data collection

Case selection and background information

The selection of case study area, the cluster of cities in central Zhejiang Province (*Zhezhong cheng shi qun*, CCCZ), China, is based on the two major rationales set in Yin (2017): a typical case and a critical case. Specifically, in terms of typicality, it represents one of the city-regions in China having implemented a regional greenway plan. Despite city-regions in China might cross provincial boundaries, existing and planned regional greenway projects are likely to be in the same geographical situation as the CCCZ, that is, within the boundary of a province, e.g., the Pearl River Delta Greenway Project and Xiamen-Zhangzhou-Quanzhou Triangle Greenway System. Figure 2 shows that the CCCZ is in the center of a province (Zhejiang) and comprised of one prefecture-level city (Jinhua) which administers two districts (Wucheng and Jindong) and seven counties/county-level cities (Yiwu, Dongyang, Pujiang, Lanxi, Pan'an, Wuyi, Yongkang).

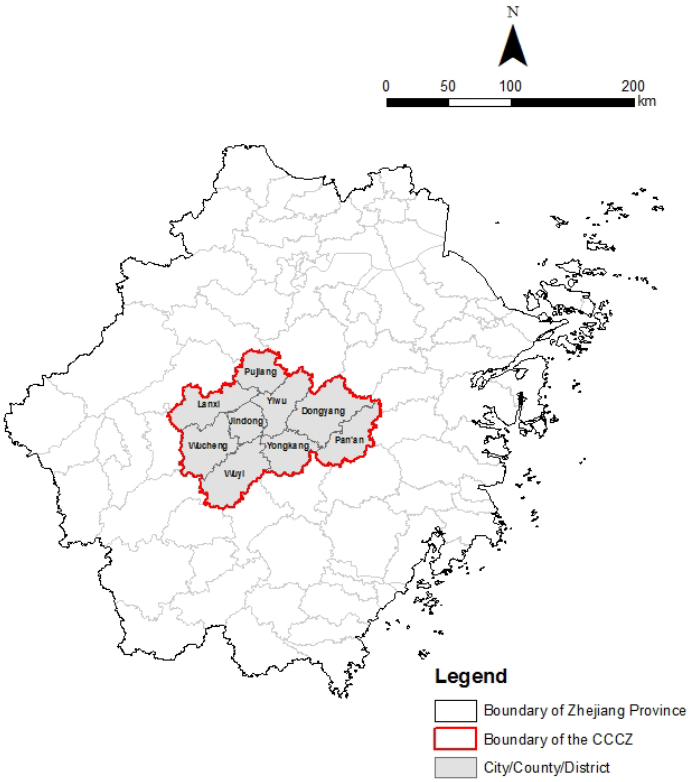

Figure 2. Location of the cluster of cities in central Zhejiang Province (CCCZ)
Source: Prepared by the authors based on shape file from http://www.webmap.cn/

With respect to criticality, the CCCZ represents a critical case where two regional greenway plans have been launched and implemented during two successive periods of time; therefore, we can make comparisons by controlling various background factors. The first region-wide greenway system was conceived in 2011 and launched in 2013 when Jinhua Municipal Government (2013) initiated a three-year Greenway Network and Tourism Development Plan to construct regional greenways connecting nine districts/counties/county-level cities in the city-region (Figure 3). The goals of this regional greenway plan encompass conservation of ecologically significant elements, provision of scenic spots with interconnected trail systems, education about heritage sites, revitalization of rural economy and integration of the city-region. Twelve regional greenways were prioritized, with a total length of 1127.2 kilometers (Jinhua Municipal Government 2013). The interviews with three-levels of greenway implementors showed, however, that only eight county-level cities/counties/districts have implemented parts of the 2013 plan.

Nevertheless, CCCZ's big vision stayed alive and active. In 2017, the Party Secretary of Jinhua sought to protect water quality, build dikes, develop greenways, create forests and improve eco-friendly industries along the ecological corridors, which in particular refer to the water corridors in this city-region. Following the conceptual ecological corridor plan initiated in July, a more specific greenway plan was launched in August 2017. In this new plan, the size of the proposed network has reduced by more than half (530 km) and therefore, greenway projects are doable at a manageable scale (Jinhua Municipal Government 2017). These new greenway corridors are organized along both sides of eight rivers in the CCCZ (Figure 4). A focus on water-based corridors may build a clearly-defined greenway vision in this region.

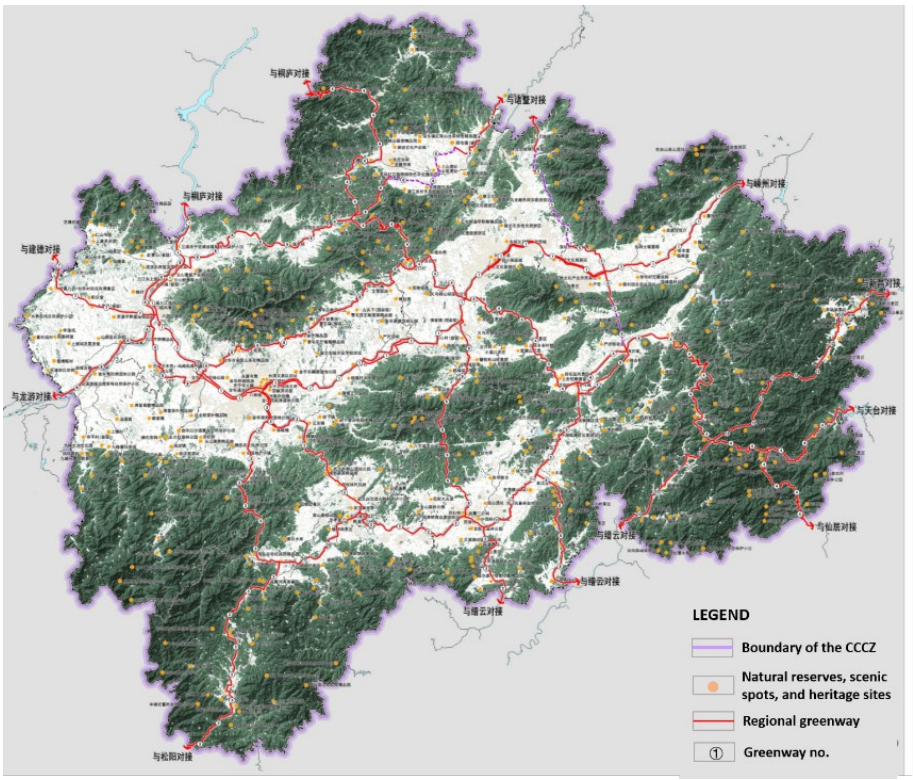

Figure 3. 2013 Greenway network and tourism development plan
Source: extracted from Jinhua Municipal Government (2013)

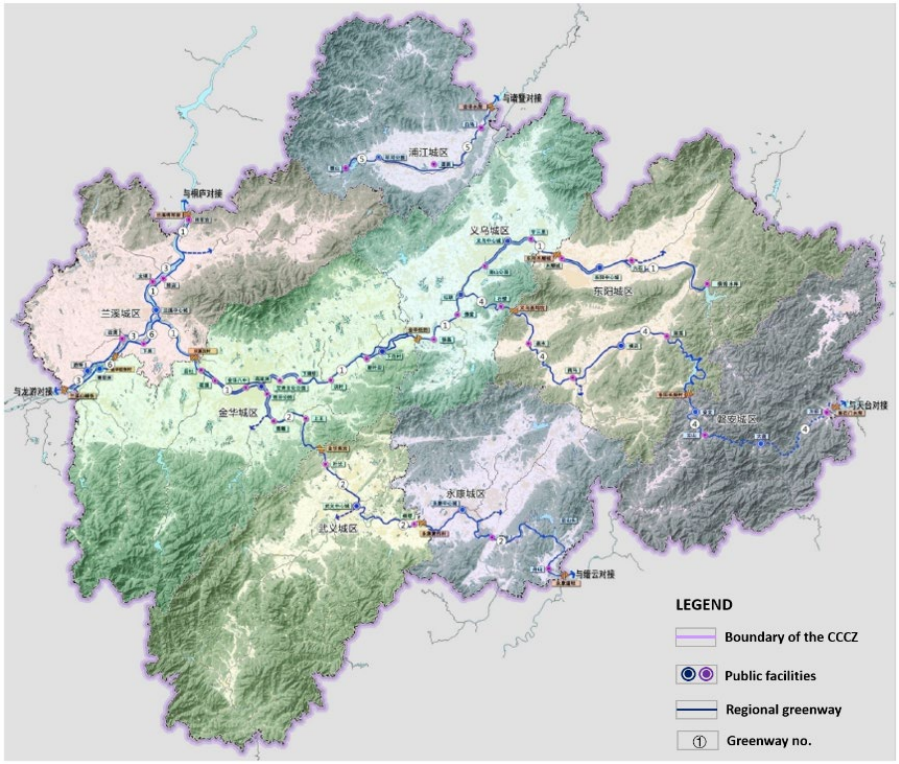

Figure 4. 2017 ecological corridor and greenway development plan
Source: extracted from Jinhua Municipal Government (2017)

Data collection methods

Adopting the methodology used by Erickson and Louisse (1997), we conducted 19 in-depth semi-structured interviews with leaders in three levels of governments, including the city-region, the county-level city/county/district and the basic unit (Table 1). These informants were selected based on their involvement in the two regional greenway projects. The interviews with them were used to understand their organizations' roles, duties, strategies for regional greenway implementation, as well as their interactions with other organizations. Particular attention was paid to the differences between the two governance structures through which the 2013 and 2017 plan were implemented. Interview notes were transcribed into texts, which were further consolidated into common themes representing the five dimensions of governance structure we introduced before. By linking these themes to the core concept in this research, governance structure, we could understand why different governance structures result in different behavioral patterns and implementation results.

Table 1. List of informants' organizations

Category	Organization	No. of informants
City-region	Jinhua Planning Bureau	1
	Jinhua Construction Bureau	1
	CCCZ Ecological Corridor Development Office	2
County-level city/county/district	Wucheng Construction Bureau	2
	Jindong Transportation Bureau	3
	Yiwu Construction Bureau	2
	Dongyang Ecological Corridor Working Group	2
	Pujiang Construction Bureau	3
Basic unit	Langya Town Government	1
	Hangping Town Government	1
	Houzhai Sub-district Government	1

Apart from interviews, documentary evidence was used to corroborate and augment evidence from interviews (Yin 2017). We analyzed CCCZ greenway plans, regulatory detailed plans of greenway development in each city/county/district, greenway technical guidelines, minutes of greenway construction meetings, and news clippings appearing in the mass media.

Original governance structure of greenway implementation: territorial specialization

The influence of sectoral government

Jinhua, the prefecture-level city in the CCCZ, has been facing the administrative pressure for decades. Although it is supposed to administer Yiwu, a county-level city known for its largest market of petty commodity wholesales in the world, Jinhua' economy is significantly smaller than that of Yiwu, making its power base under serious challenge. Responding to political fragmentation, Jinhua has attempted to set up a regional agency to reshape scaler relations and realize a stronger regulatory power. In 2011, Jinhua established the CCCZ Development Committee to develop a list of three-year regional projects (2014-2016). This committee comprises the mayor of Jinhua, the leaders of county-level cities/counties/districts, and the heads of all Jinhua government agencies. While the committee was responsible for making key decisions, the CCCZ Development Office was established to formulate regional plans, with its head the Director of Jinhua Planning Bureau (CCCZ Development Office 2015). The 2013 regional greenway plan was then launched. In terms of greenway implementation, the regional committee appointed Jinhua

Construction Bureau as the CCCZ Greenway Working Group to distribute greenway tasks hierarchically to local governments. The task for each local government was not clearly defined, as it was described in a three-year schedule that the greenway project system should be "basically in place within one year", "linked with the municipal greenway system within two years" and "connected to the community greenway system within three years"(CCCZ Development Office 2015 p. 21). In addition, the Tiao-kuai system presented a challenge to the task assignment process. Organizations in both the Tiao and Kuai systems of governance are assigned to a system of ranks. Wucheng Government, for example, is at the same rank as Jinhua Construction Bureau. This means that Jinhua Construction Bureau could not issue binding orders to Wucheng Government; in other words, Jinhua Construction Bureau's top-down assignment of greenway tasks was not compulsory.

In summary, the greenway governance structure from the outset was marked by a strong territorial specialization (Figure 4): the regional greenways planned at the regional level were to be delivered by local governments which would then appoint local agencies to build portions of the trail according to the geographical area served.

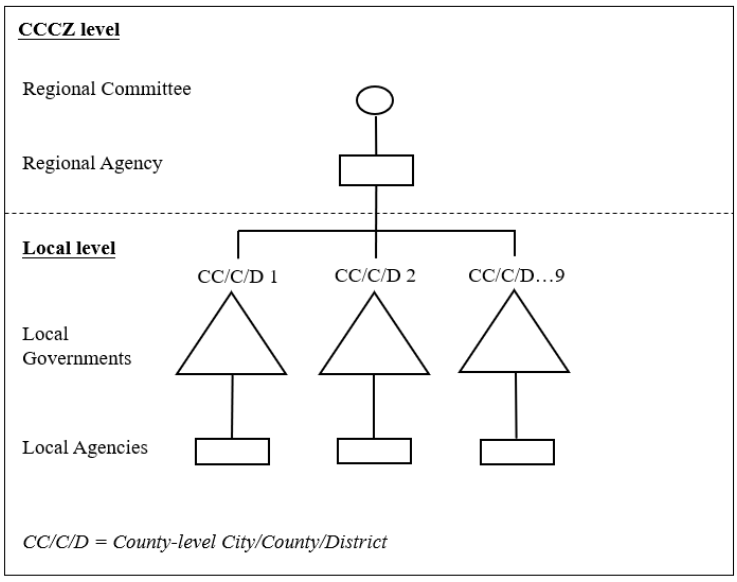

Figure 4. Original CCCZ governance structure of greenway implementation: territorial specialization. Source: Prepared by the authors

The influence of parent/local government

The territorially-based governance structure, characterized by local governments' control over greenway implementation processes within their jurisdictions, has led to the 2013 regional greenway plan being implemented differently across territories. Two dimensions of variation have been observed. First, the agencies appointed by local governments to develop greenways are different. It is understandable that the construction agency was the key greenway implementer in most areas (e.g., Wucheng, Yiwu, Dongyang, Pujiang), as the coordinator of this project at the regional scale was Jinhua Construction Bureau. However, in Jingdong, the transportation agency was responsible for developing greenways, just as one of its officials said:

> *The construction agency deals with the construction of public facilities including roads in the urban area. When it comes to road construction in rural areas, it's our job. Most*

of the planned greenways are in rural areas, and that's why Jindong Government asked our agency to take a lead. (personal interview conducted from 2.00 pm to 2.40 pm on November 27, 2018)

Second, the size of the built greenways varies across territories. Pujiang had built greenways measuring 87.5 kilometers from 2014 to 2016, while only a few regional greenways had been constructed elsewhere during that period, scattered in the region[1]. Despite a priority list of twelve greenways within the 2013 plan, many of these greenways had not been pursued due to local governments' opposition. Lack of funding was the main reason. As greenways were supposed to be funded by each territory without much financial support from the region, local efforts might break down early at the project application stage. An official of Wucheng Construction Agency talked about his experience:

Before 2016, we had not built a regional greenway. Wucheng's government debt level was very high and many projects were rejected, let alone the greenway project which couldn't generate profits. Under such conditions, we had to ignore the top-down assignment from Jinhua Construction Bureau. (personal interview conducted from 10.00 am to 11.30 am on December 18, 2018)

Because of such funding mechanism, the construction agency attached more weight to the concerns of its parent governments than to those of Jinhua Construction Bureau despite the fact that it was by nature 'double-hatted'. As expected, the influence of Jinhua Construction Bureau was weaker where the local implementer was not the construction agency, e.g., Jindong.

Agency characteristics: size, specialization, order, anarchy

During this period of time, the agency appointed by its parent/local government had *sole* responsibility for local greenway projects, e.g., the construction agency in Wucheng, Yiwu, Dongyang, Pujiang and the transportation agency in Jindong. The greenway projects, however, had become an add-on to existing workloads. There were several essential stages that the local agency needed to go through to develop a greenway corridor: project application, feasibility study, preliminary design, construction design, construction bidding, construction supervision, and project acceptance. The local agency was so small in size that they might not be able to manage all greenway projects from the beginning to the end. An official of Pujiang Construction Agency described how his organization dealt with this situation:

We were unable to finish all the planned greenway projects in Pujiang. There were more than 10 greenway projects. Instead, we asked the towns where greenways traversed to build these trails when we finished the preliminary design. The tasks were distributed but we gradually found that the greenways they built were not of high quality since they were not specialized in construction. (personal interview conducted from 2.00 pm to 3.30 pm on December 20, 2018)

Horizontally, multiple government agencies were relevant to greenway implementation, but there was no mechanism through which their efforts could be coordinated and active. Moreover, local greenway implementer, either the construction agency or the transportation agency, was lower in status than other agencies with considerable resources, such as the development and reform agency, the finance agency and the land agency. The inequalities of influence between local government agencies could hamper inter-

[1] Data source: interviews with greenway implementers in Pujiang, Yiwu, Dongyang, Jindong and Wucheng.

departmental cooperation and result in project delays. Pre-construction activities including getting all relevant agencies' permissions for greenway development would take half a year[1], and it might longer if agencies had competing policy expectations. For a local greenway implementer, its parent government funded greenway projects, thus making up its primary structure. The original greenway implementation was therefore structured by a strong government-agency control at the local level, with no 'organized anarchy'.

Recent governance structure of greenway implementation: cross-scale

The influence of sectoral government

In 2017, responding to the new 2017 plan to develop a regional greenway system organized around ecological (water) corridors, a cross-scale governance structure emerged (Figure 5). At the regional level, the CCCZ established an ecological corridor development advisory board of which members were almost the same as those of the CCCZ Development Committee. Instead of appointing an existing agency to implement the advisory board's decisions, the regional committee developed a new agency, the CCCZ Ecological Corridor Development Office. One of its officials talked about this regional agency's member composition:

> *The CCCZ Ecological Corridor Development Office is a temporary working group aiming to improve water quality, build greenways, construct dikes… and develop eco-friendly industries along both sides of a 396 km stretch of eight rivers. It calls for a mix of professional skills. 52 officials from a variety of relevant agencies have been transferred to this new agency. Most of them are the deputy directors in their respective fields like planning, construction, forestry, agriculture and water resources. They usually work part- time in this office, as they still need to administer their own agencies. (personal interview conducted from 10.30 am to 11.30 am on December 26, 2018)*

When locating leaders of diverse government agencies in this working group, it makes up their primary structures, so they are supposed to devote much time and energy to the central Zhejiang Greenway Project. Such an arrangement is characterized by strong inter-sectoral coordination. For example, most of the regional greenways along rivers have been developed through repaving existing pathways on dikes, which is the result of the coordination between the water recourses agency and the construction agency.

In addition, the Deputy Party Secretary of Jinhua takes a lead in this working group, making it higher in rank than any local government, which further strengthens the territorial part of the governance structure. At the local level, each territory has set up an ecological corridor advisory board and a corresponding working group in the same way as the region has done. These local working groups can be seen as 'double-hatted' (Egeberg & Trondal 2018b p. 8), which means that apart from serving their respective parent governments, they also find themselves *directly* linked to the CCCZ Ecological Corridor Development Office. An official in Dongyang working group described it this way:

> *Every month I will report to the CCCZ Ecological Corridor Development Office on the progress of greenway implementation, including the location and length of built greenways along rivers, the projects under construction, and the degree to which*

[1] Data source: interviews with greenway implementers in Jindong and Pujiang.

greenways are linked to those in Yiwu and Pan'an. (personal interview conducted from 10.00 am to 11.45 am on December 29, 2018)

Note that improving the level of greenway connectivity across jurisdictions is a focus of recent work. Actually, it has become one of the key criteria when the CCCZ Ecological Corridor Development Office appraises each local working group's performance at the end of each year. The result will affect all participants' annual bonus and opportunities for promotion. That's why local agencies in adjacent territories may sometimes form a network through which regional greenways at the border will be connected, e.g., Dongyang and Yiwu.

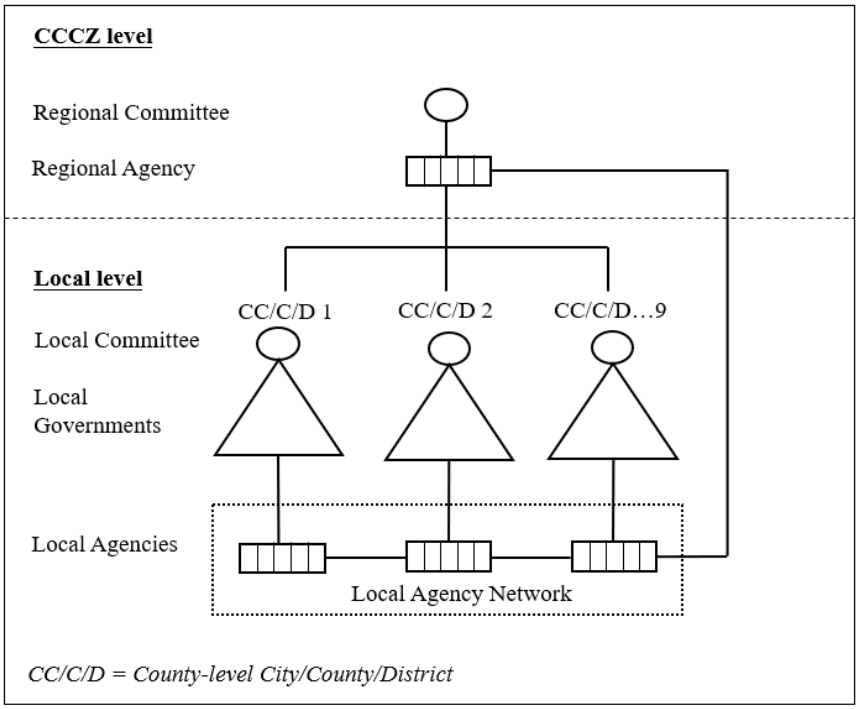

Figure 5. Recent CCCZ governance structure of greenway implementation: cross-scale
Source: Prepared by the authors

The influence of parent/local government

For each territory, the invention of the inter-departmental working group at the local level has been shown to affect the local government-agency relationship in significant ways: by locating the leader of local government and heads of multiple local agencies in the working group, it has become more empowered in relation to its parent government. As all the leaders of a local government are at the same time members of the local ecological corridor advisory board, they are likely to support the greenway development along water corridors. The substantial effort for the new regional greenway project has led to its early implementation success. By the end of 2018, about 356 kilometers of regional greenways had been built along the rivers, leaving only one-third of the plan to be finished in 2019.

Agency characteristics: size, specialization, order, anarchy

The size of a local working group is relatively small compared to its regional counterpart. In Dongyang Ecological Corridor Working Group, for example, Deputy Party Secretary of Dongyang is its head,

administering five officials from relevant agencies. Despite its small size, the local working group is higher in rank than any agency in the local government, so it has the capacity to improve inter-departmental coordination. Another official in Wucheng Construction Agency described how a conflict between local agencies was resolved by the working group:

> *At the feasibility study stage, I asked the permissions of both Wucheng Finance Agency and Wucheng Development and Reform Agency for greenway development. They did not agree with each other on the source of funds for greenways. The finance agency suggested me to use the money borrowed from banks as the government had a budget deficit, but the development and reform agency thought it would increase the government's debt level, which would affect the local economy. I had been to these two agencies for at least five times but the construction agency was too weak to negotiate with them. Finally, the head in Wucheng Ecological Corridor Working Group interacted with Wucheng Development and Reform Agency and got its permission. (personal interview conducted from 11.30 am to 12.30 pm on December 18, 2018)*

When locating local government leaders in working groups, these agencies constitute the leaders' primary structures. Since these leaders also have their positions in local governments, they could mobilize resources to implement the regional greenway plan. Another official in Dongyang working group talked about the working experience with her leader, the Deputy Party Secretary of Dongyang:

> *My leader has regarded the ecological corridor project as his political mission. Although he is very busy in Dongyang Government, he spends at least half a day every week visiting greenway construction sites and resolving conflicts there. I make arrangements for his visit and record what he says as guidance for the group's future work. The Deputy Party Secretary of Jinhua, head of the regional working group, speaks highly of my leader's work. (personal interview conducted from 9.30 am to 10.00 am on December 29, 2018)*

There are signs of 'organized anarchy' in the new governance structure. A number of state-owned companies have actively participated in the construction of greenways. In Yiwu, for example, greenways along both sides of rivers have been built and managed by Yiwu Water Resources Construction Group, a company owned by Yiwu Water Resources Agency. They have brought innovation into greenway projects, e.g., the development of tourism industry along greenway corridors.

Discussion and Conclusions

In this study, we analyze three factors that are associated with the change of greenway implementation from 'territorially-specialized governance' to 'cross-scale governance' in central Zhejiang Province: sectoral government, parent/local government, and agency characteristics.

Firstly, the sectoral government's administration has become more direct. The local agencies appointed by local governments to build greenways were different previously, meaning that the sectoral government (Jinhua Construction Bureau) did not have the capacity to issue binding orders to them. Recent greenway implementation saw the invention of a regional working group for sectoral administration. It consists of the head of Jinhua Government and leaders from multiple government agencies. At the local level, a similar working group has been established in each territory, of which the leader is the head of its parent

government. It can be seen as 'double-hatted' because apart from serving its parent government, each local working group also finds itself *directly* linked to the regional working group. The regional working group steers greenway implementation processes by assigning tasks, appraising performance, and enhancing cross-jurisdictional cooperation.

Secondly, the influence of parent/local government still remains significant, but positively. Early greenway practices have shown that implementation took place through strong local government-agency control. As funding was controlled by local governments, many greenway projects might break down at the application stage due to local governments' opposition. Over time, though, the invention of the local working group has affected the local government-agency relationship in significant ways: by locating the leader of local government and heads of multiple local agencies in the working group, it has become more empowered in relation to its parent government. In addition, leaders of a local government are at the same time members of the local ecological corridor advisory board, and therefore they are likely to support the greenway development along water corridors.

Thirdly, local implementers have become more autonomous, sectorally-specialized, powerful, and inclusive. In early greenway practices, the agency appointed by its parent/local government had sole responsibility for local greenway projects, and consequently, its workloads were extremely heavy. In addition, the local implementer was lower in status compared with other government agencies which had considerable resources. The inequalities of influence between them could hamper inter-departmental cooperation and result in project delays. Recently, instead of using an existing agency as the sole implementer, each territory developed an interdepartmental working group to share responsibility and improve cross-sectoral cooperation. In order to foster a shared perspective, leaders of the local government and multiple agencies have their positions in this group, which constitutes their primary structures. There are also signs of 'organized anarchy' in the new governance structure, with some state-owned companies actively participating in greenway projects. However, minimal public participation and little grassroots support may present challenges to future greenway implementation.

These findings confirm that the 'double-hatted' agency is the crucial element in cross-level coordination (Egeberg & Trondal 2018b). The *administrative status* of such a 'double-hatted' agency, however, requires more attention. In China where the government agency is by nature 'double-hatted' due to the unique Tiao-Kuai system, one may expect strong coordination across levels. However, early greenway practices have shown that local agencies attach more weight to the concerns of their parent governments than to those of higher-level agencies, and this is why greenway implementation still took place through local government-agency control. However, such a strong control has recently been challenged by the newly-established 'double-hatted' agencies at the local level. Leaders of these agencies are at the same time heads of their parent governments, thus making these agencies capable of mobilizing local resources to implement regional greenway plan. In addition, the direct linkage across levels has provided the regional agency with an opportunity to improve inter-jurisdictional coordination and achieve uniform implementation. Another implication is that representatives of relevant agencies could find their positions in the 'double-hatted' agency, which provides a platform for inter-departmental coordination.

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