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Toward smart governance and social sustainability for Chinese migrant communities

Yanliu Lin [b, 1], Xiaoling Zhang [a, *], Stan Geertman [b, 2]

[a] Department of Public Policy, Urban Research Group, City University of Hong Kong, Tat Chee Avenue, Kowloon, Hong Kong, China
[b] Department of Human Geography and Planning, Utrecht University, Heidelberglaan 2, P.O Box 80115, 3508 TC Utrecht, The Netherlands

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ABSTRACT

In the regeneration of Chinese migrant communities, which are usually referred to as "villages in the city," various modes of governance have been formed based on the relationships between the three key actors (state, market, and society). These modes of governance are characterized by problems ranging from a lack of a transparent planning process, to ineffective collective decision-making. Rural migrants also play only a marginal role, or no role at all, in the regeneration practices, resulting in actual and potential social conflicts and inequality. This article contributes to current debates on social sustainability by presenting smart governance for the engagement of marginal migrants and other marginal social groups, and the establishment of an equitable relationship between the three key actors in the regeneration process. It firstly analyzes issues and problems of existing modes of governance in the regeneration of Chinese migrant communities. It then sheds light on the further exploration and application of new types of web-based Planning Support Systems, which can be developed based on SoftGIS methodology and easily used in social media on smartphones, in formulating smart governance. This article finally presents a framework on smart governance and social sustainability for migrant communities in China.

1. Introduction

Globalization has exacerbated social polarization between rich and poor through, for example, the generalization of flexible production processes (Kesteloot, 2003). Many cities in developing countries are characterized by high numbers of migrants and, consequently, social inequality. It is almost impossible for governments in the developing world to provide or subsidize sufficient housing for the increasing number of migrants who arrive in their cities. The presence of low-income migrant households in rapidly growing cities thus often contributes to the widespread proliferation of migrant communities.

Engaging marginal migrants and their organizations in the planning process, and thus enhancing social equity, is crucial for the sustainable regeneration of these communities. This refers to current debates on social sustainability. According to the World Commission on Environment and Development (1987), "sustainability" is generally defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." Sustainable development encompasses economic, social, and ecological/environmental aspects of conservation and change (Hediger, 2000; Wang et al., 2014). It was not until the late 1990s, however, that social sustainability received academic interest (Hediger, 2000; Wang et al., 2014). According to McKenzie (2004), social sustainability occurs when the formal and informal processes, systems, structures, and relationships actively enhance the capacity of current and future generations to create healthy and livable communities. Social sustainability includes five key principals, namely equity, democracy and governance, diversity, social cohesion, and quality of life (Hodgson, 2008). In terms of democracy and governance, it is crucial to allow a diverse range of people (especially marginal social groups) to participate and be represented in the decision-making process (Hodgson, 2008). Their information and knowledge will play a prominent role in governance to promote sustainable urban development by

* Corresponding author. Tel.: +852 3442 2402.
E-mail addresses: y.lin@uu.nl (Y. Lin), xiaoling.zhang@cityu.edu.hk (X. Zhang), S.C.M.Geertman@uu.nl (S. Geertman).
[1] Tel.: +31 30 253 3739.
[2] Tel.: +31 30 253 4527.

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dealing with complex social issues (Geertman et al., 2013). Therefore, this article contributes to current debates on social sustainability by presenting smart governance, which is supported by e-participation techniques (Giffinger et al., 2007) and can help to build a balanced relationship between the various actors in the decision-making process (Suk-Joon, 2013), to enable the engagement of marginal migrants and establish a more equitable partnership between the three key actors (state, market, and society) in the regeneration of Chinese migrant communities.

In China, migrant communities are usually referred to as "villages in the city" or "urban villages" (*chengzhongcun*) (e.g., Lin et al., 2011; Hao et al., 2012; Lai et al., 2014). Villages in the city (ViCs) were once traditional rural settlements on the edges of cities. In the process of rapid urbanization, city governments usually requisition the farmland of these villages while leaving residential areas intact. Indigenous villagers adapt their houses to accommodate a large number of rural migrants, who are largely excluded from the formal urban system. Due to ineffective guidelines, ViCs are characterized by poor infrastructure and illegal buildings. However, ViCs provide affordable housing for the majority of rural migrants in many Chinese cities. For instance, 116 ViCs on the urban fringes of Beijing accommodate more than 4 million rural migrants (Bao, 2010), and 320 ViCs in Shenzhen provide cheap housing for more than 5 million rural migrant (Hao et al., 2011). The Chinese *hukou* (household registration) system assigns people either urban or rural hukou status according to their birth place, distinct from housing, employment opportunities, and social welfare. Without urban hukou, the majority of rural migrants cannot access formal housing, formal job opportunities, education, or social welfare in the city (Lin et al., 2011). They therefore develop survival strategies in terms of housing, education, and employment (Lin et al., 2011). The collective industrial land of ViCs also accommodates a considerable number of industrial developments (Lai et al., 2014).

Many scholars have paid attention to various governance approaches in the regeneration of ViCs in several Chinese big cities (Hao et al., 2011; Wu et al., 2013; Lin et al., 2011, 2014a, b). Partnerships between local governments, developers, and the collective organizations have been created to undertake the demolition and redevelopment of ViCs. Nevertheless, more and more social conflicts arearising during demolition processes. Bottom-up approaches in which the collective organizations, villagers, and migrants play a crucial role have also been implemented. However, these approaches encounter bottlenecks such as a lack of effective regulation and cooperation. Although rural migrants usually make up the majority of the population in ViCs, they play only a marginal role, or no role at all, in the regeneration practices, resulting in actual or potential social unrest and instability. New modes of governance are urgently required to engage rural migrants and other marginal social groups in the decision-making process, resulting in an inclusive planning approach (Lin and De Meulder, 2012; Lin et al., 2014a).

This article therefore explores new modes of governance – namely smart governance with web-based Planning Support Systems (PSS) – that will promote the participation of marginal social groups (especially rural migrants) and establish more equitable relationships between various actors, promoting social sustainability within ViCs. After analyzing issues and problems of existing modes of governance in the regeneration of Chinese migrant communities, this article sheds light on the exploration and application of new types of web-based PSS in promoting smart governance. It finally proposes a framework on smart governance and social sustainability for the regeneration of migrant communities in China .

2. Traditional modes of governance and smart governance with web-based PSS

Both "governance" and "modes of governance" are much debated terms. From a Western perspective, governance is the process of interactions and decision-making among the actors involved in a collective issue (Hufty, 2011); modes of governance indicate the different relationships between three actors (state, market, and civil society) (Driessen et al., 2012). In China, urban development has been promoted by various state actors that may have complex roles and be influenced by the market, such as the local corporatist state (Oi, 1992) and the central state in urban land governance (Xu and Yeh, 2009). Unlike regular urban areas, which are dominated by state and market actors, ViCs are formerly rural settlements in which actors from society (*minjian*) played a crucial role in spatial formation (Lin and De Meulder, 2012; Lin et al., 2012). In the past 20 years, various partnerships between new actors (collective companies, external enterprisers, the informal sector, the government, villagers, migrants, etc.) have been formed in the development or redevelopment of ViCs (Lin et al., 2012). Rather than "civil society," "society" is a more suitable term to indicate the collective company, the informal sector, villagers, and migrants (Lin et al., 2012). Based on the relationships between state, market, and society, Lin and colleagues (2014a) developed a conceptual framework on modes of governance for the regeneration of ViCs. There are seven modes of governance, namely centralized and decentralized modes of governance, public–private governance, self-governance, interactive governance, public–collective–private governance, and collective–private governance. Lin and colleagues (2014a) argue that these traditional modes of governance have encountered various issues, and that new inclusive and interactive modes of governance are urgently needed to engage marginal social groups (particularly rural migrants) and establish a balanced relationship between the three main actors (state, market, and society) in the decision-making process.

There is a strong argument that PSS can deal with some crucial deficiencies in traditional governance arrangements, in which the relationships between the state, the market, and society are unbalanced (Lin and Geertman, 2013). PSS are a subset of geo-information based instruments that incorporate a suite of components (including data, information, GIS, statistical tools, and models) that collectively support a unique planning task (Geertman, 2006). Recently developed web-based PSS that promote civic engagement and communication have a potential role in promoting inclusive modes of governance. Online participation PSS can allow citizens, as either individuals or members of civil society organizations, to participate in public debates, to express their opinions, and to hear about or develop new solutions to urban problems (Poplin et al., 2013). SoftGIS (a type of web-based PSS), which can be connected with social media and easily used by lay persons, can allow the majority of citizens to map a city and develop new planning approaches (Kahila et al., 2014). Web-based PSS can play a strong role in helping online participants to understand spatial conditions and can facilitate consensus building (Lieske et al., 2009; Lin and Geertman, 2013). "Citizen participation is a categorical term for citizen power. It is the redistribution of power that enables the have-not citizens, presently excluded from the political and economic processes, to be deliberately included in the future" (Arnstein, 1969, pp.216). By supporting the participation of "have-not citizens" and promoting a more balanced power relationship between actors, web-based PSS can thus enhance social equity and social sustainability. This suggests that web-based PSS can add value to planning participation and even to democracy. Pelzer et al. (2014) conclude that the potential added value of PSS to planning practice at the group level can be