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Compensation policy for displacement caused by dam construction in China: An institutional analysis

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ABSTRACT

Large scale hydro projects have displaced millions of people in China, and many more large scale projects are expected in future years. Compensation policy for relocated people has evolved over time. We identify distinguishing features in four historical epochs between 1949 and the present, and conducted an institutional analysis of Chinese compensation policy applied to hydro projects based on a multi-dimensional conception of wealth. Transitions between epochs are linked to accountability crises, and adaptive policy responses are seen as strategies to maintain legitimacy and stability. Our analysis demonstrates linkages among state, market, and civil society in compensation policy and in Chinese governance, more broadly.

1. Introduction

Dam construction has long been a means of development. After World War II, large scale hydro projects were advanced by governments across the world and advocated by various international organizations such as the World Bank (McCartney et al., 2001; Shah and Kumar, 2008). Dams became one of the most important symbols of industrialization and modernization. The expansion of dam construction in China has been consistent with that in other parts of the world. China had few large dams before 1950, but the pace of dam construction increased dramatically during the second half of the 20th century. By 2000 China had built more large dams than any other country in the world in order to increase irrigation, flood control, and hydropower (Holz, 2008; WCD, 2000).

The construction of dams and reservoirs often, if not always, involves displacement of communities and livelihoods. It is estimated that 22.8 million people were displaced and subsequently resettled in China as a result of construction of 22,000 dams by 2006 (Wang et al., 2007; WCD, 2000). Due to rapid growth in energy demand and an attempt to reduce the percentage of fossil fuels in the energy supply structure, China has emphasized hydropower in long-term national planning. The expectation is for expansion in the number of hydro projects in the next decade, and the associated large scale resettlement of local populations represents a key challenge. When resettlement is pursued, compensation is recognized as providing critical support to displaced people and to the maintenance of the legitimacy of sociopolitical structures and the modernization project (Cernea, 1997).

Previous studies have addressed social problems caused by large dams in China from a range of disciplinary perspectives. Fu and He (2003) compared income sources and occupations of residents relocated due to the construction of Manwan Dam, and they found that relocation diversified income sources, widened income gaps, and had an overall adverse impact on standard of living. Childs-Johnson and Sullivan (1996) studied the impacts of the Three Gorges Dam on cultural heritage, and they argued displacement would eradicate the unique sources of knowledge of indigenous people in this region. Other research has emphasized decision-making processes. For example, McNally et al. (2009) analyzed administrative structures engaged in dam construction in China using sustainability and geographical analysis of "powersheds". They argued that maintenance of human security demands institutional capacity to buffer physical and socioeconomic changes. Tullos (2009) studied the feedback mechanism between environmental impact assessment of the Three Gorges Dam and scientific research and policy making, concluding that institutional changes in dam decision making were needed.

Most studies to date focus on one or several dams in a certain region, such as the Three Gorges Dam (Edmonds, 1992; Fearnside, 1988; Jackson and Sleigh, 2000; Müller et al., 2008; Stone, 2008; Wu et al., 2004). Additionally, most studies recognize resettlement and compensation as the key drivers and mitigation resources of social impacts on people displaced by dams and reservoirs, but

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few studies focus on resettlement and compensation policy. Exceptions include Li et al. (2001) who reviewed the history and characteristics of reservoir resettlement in China between 1950 and 2000. They claimed that people relocated by construction of reservoirs were discriminated against by national policy and received very low compensation. Jackson and Sleigh (2000) analyzed the decision-making structures, property rights and the incentives to move associated with the Three Gorges Dam, and they concluded that 1.3 million relocated people were unfairly compensated and adversely affected.

While all studies mentioned above contributed significantly to understanding the social impacts of large dams in China, most of them were restricted to relatively small temporal or spatial extents. In order to understand patterns and trends, we seek to analyze compensation policy for resettlement over several decades at the national level through a series of historically situated case studies. We argue that compensation policies in China have distinguishing characteristics in different time periods, and that there is a profound relationship between the evolution of compensation policies and the great social and institutional transformations occurring in China over the past 60 years. Understanding this relationship and the fundamental drivers behind the transitions informs expectations surrounding infrastructure project planning and treatment of displaced people in China's future development. More broadly, the historical analysis offers insights into China's ongoing institutional changes at a time when the achievements of economic reforms of the past 30 years are threatened by the rigidness of the political system.

In Section 2, we derive and specify the key concepts underlying our empirical analysis. We present research methodologies in Section 3, and present our four case studies in Section 4. Conclusions and discussion are presented in the final section.

2. Institutional analysis of compensation policy and adaptive responses

In order to conduct a historical review of compensation policies for dam resettlement in China, we assess losses and compensation in terms of different types of wealth. Wealth is a multi-dimensional attribute (Coleman, 1994) that can be analyzed in a manner parallel to the multiple capitals framework (Emery and Flora, 2006), which differentiates between financial capital, social capital, human capital and natural capital. This approach recognizes the respective contributions of each type of resource to development and security, as well as a degree of non-fungibility among asset types. Following Mulder et al. (2009) and Wang et al. (2013), we identify three dimensions of wealth:

- *Material wealth:* Includes farmland, houses, livestock, crops, forests, etc. This class of wealth can be measured by using prices as proxies.

- *Embodied wealth:* Wealth that is represented by a person and their capabilities. We emphasize skills, knowledge and experience that can be used to make a living, for example, agricultural skills, fishery skills, and business skills. Health, wellbeing and security are directly implicated.

- *Relational wealth:* Two components are identified, social infrastructure (social networks, language, customs, and traditional festivals) and physical infrastructure (transportation, market access, healthcare, and education resources). Wealth in this class derives from capacity to access social and physical resources from one's surroundings. These benefits accrue to individuals, but are not possessed by them.

Relocated people suffer from loss of wealth in different dimensions, but may receive substantial compensation in only one dimension, typically material wealth (Wang et al., 2013). As stated above, different dimensions of wealth are generally not comparable or interchangeable. For example, the loss of access to traditional ceremonies, sacred sites and cultural rituals is difficult to represent in monetary terms and difficult to reproduce. In this sense, specifying what would constitute 'reasonable' compensation across all dimensions of wealth is a conceptual, analytical and political challenge. We seek to understand how various dimensions of wealth have been addressed within Chinese compensation policy.

Following the historical-comparative approach to environmental policy analysis advanced by Mazmanian and Kraft (2009), we argue that compensation policy linked to displacement of people by hydro projects in China can be usefully analyzed through reference to historical epochs. The epochs are defined by sets of bureaucratic practices, and the shift from one epoch to another is premised on a claim that the practices changed in some analytically significant way deserving of reclassification. Further, we claim that we can identify a pattern through study of the epochs and the changes we observe across them. Attention to the drivers of transition from one historical period to another allows us to formulate statements about social processes that produce coherence, instability, institutional innovation and restabilization. This analysis informs our understanding of state–society–environment relations in China and environmental governance, more broadly.

We identify four epochs in the period from 1949, when the People's Republic of China was founded, to the present: 1949–1977, 1978–1993, 1994–2000, and 2001 to the present. The first two breaks derive from standard definitions of Chinese political history; 1978 was the beginning of the "reform and opening-up policy", and 1993 was the official date of establishment of market economy principles in China. The third transition date, 2000, is not as clear-cut as the first two dates, perhaps because we do not yet have sufficient historical distance. We identify the year 2000 as a place holder within a gradual process of emergence and embedding of civil society organizations and new norms of legitimacy regarding the relations between Chinese citizens and national authorities (Castells, 1996). In this sense the year 2000 is a general reference to entry into the present epoch.

As did Mazmanian and Kraft (2009), we emphasize the classic institutional orders of state, market and civil society in defining the epochs and the transitions between epochs. For us, these institutions are coordination mechanisms that support resource allocation, administration and knowledge production, thereby advancing security and socioecological reproduction (Hollingsworth, 2000). Each historical period is associated, nominally, with expansion of the prominence of one of these modes of coordination. Expanded importance of a given coordination mechanism in determining compensation policy for displacement caused by dams is the basis of our assertion of an epochal transition. In making these claims, we acknowledge that there is not a one-to-one mapping between the periods and the coordination mechanisms (i.e., coordination in the real world is almost always the result of institutional amalgamations or hybridity), and the relative significance of the coordination mechanisms is quite uneven. While there is clearly important variance across territories and social problem domains within an epoch, our contention is that there is value in attending to general institutional tendencies.

We characterize the three epochal transitions in compensation policy as follows: