Understanding environmental justice capital in China — a new framework to study environmental justice in contexts

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-- a New Framework to Study Environmental Justice in Contexts

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Abstract. Environmental justice has drew worldwide attention since the 1982 protest in USA to against duping toxic waste. In the globalization era, worldwide scholars and environmental activists are actively engaged in related studies and social movements. However, these researches and movements usually ignore the influences of local contexts on local environmental justice configurations, including related researches in China. Whilst, evidences have been provided that different forms of capital from contexts, such as economic, social, political, natural capital and cultural capital, will affect the local concept of environmental justice. That is to say environmental justice should have different discourse from what has been researched in western countries in different contexts. Thus, this research will discuss the common ground of environmental justice study framework and promote the new conceptual framework "environmental justice capital" for having a better understanding environmental justice in contexts. Additionally, the framework of "environmental justice capital" will be put in Chinese contexts as an preliminary discussion to get an initial image of environmental justice in China.

Keywords: Environmental Justice, Environmental Justice Capital, China

1   Theorizing Environmental Justice

First coined in 1982, environmental justice, a conceptual framework inherited from Rawls' justice theory (Schlosberg, 2009) has been developed as an interdisciplinary concept (Schlosberg, 2013). To cope with conflicts within the social structure, Rawls (1971) put forward "justice" and an important notion of "justice as fairness" in view of contemporary liberal theories. Here, the idea of "justice as fairness" emphasizes just distribution of social, political and economic goods and burdens (Schlosberg, 2009), which has become a dominant academic concept to research what and how to distribute justly over past years (ibid). However, numerous debates towards Rawls' theory have been generated that justice should not solely focus on fair processes of distribution (Schlosberg, 2004; Young, 1990; Fraser, 2000). Young and Fraser have challenged Rawls' justice theories that distributive justice ignores the causes for unjust distribution (Young, 1990; Fraser, 2000). They argued that lacking recognition in social, economic,

political and cultural realms will result in justice damages or unjust distribution to individuals and communities (ibid). Therefore, "justice as recognition" is as much important as distribution to achieve justice (Fraser, 2000). Besides that, Schlosberg (2009) further argues there should also be another dimension of justice --- procedural justice defined as democratic public participation in the political process, which is also often viewed as the way to realize distributive and recognitive justice.

Drawing on the consensus of "justice" as fairness, recognition and participation, various definitions of environmental justice have emerged (ibid). Attention to environmental justice originates in protests against unjust environmental risk distribution including siting hazardous waste sites and dumping PCB-laden dirt in predominately black neighborhoods in the USA (see Bullard, 2000; Pellow & Brulle, 2005; Mohai, Pellow & Roberts, 2009). Subsequently, in the light of the distributive justice study of Rawls (1971), environmental justice is defined as the academic concept focusing on the injustice in the distribution of environmental risks and burdens (Lake, 1996; Bryant & Mohai, 1992; Shrader-Frechette, 2002; Bullard, 2018). However, sharing the critics of "justice as fairness", scholars have argued that the environmental justice concept should also underline the significance of recognition and participation (Lake 1996; Shrader-Frechette 2002; Figueroa, 2004).

Thus, the three-pronged justice schema proposed by Fraser (2005;2009) is widely adopted in the environmental justice research, which includes socio-economic distributional dimension, cultural dimension of recognition, and political dimension of representation and participation (Fraser, 2009; Schlosberg, 2004; Zwarteveen & Boelens, 2014; Jackson, 2018). The socio-economic distributional dimension provides fair opportunities to accesses the environmental resources and services between stakeholders (Walsh, 2011). The political dimension of representation and participation includes procedural justice, which concentrates on involving more people vulnerable to the decision-making process, such as allocation and management of environmental resources (Syme, Nancarrow & McCreddin, 1999). Here, the cultural dimension of recognition remains to be the cornerstone principle of achieving environmental justice, referring to embracing the value of plurality and prompting recognition and validation of local communities (McLean, 2007). As environmental injustice problems have not only caused impacts to individuals but also to social groups and communities, scholars argue that environmental justice should address individuals, social groups and communities at the same time (Schlosberg, 2009; 2013; Schlosberg & Carruthers 2010; Di Chiro, 2008; Sze 2006).

With the development of globalization and increasingly serious worldwide climate change, environmental justice concept has been continuously developed and expanded as an integrative and interdisciplinary concept which could be used both in academic research and environmental movements (Sze & London, 2008; Schlosberg, 2013; Chakraborty, 2017). Nevertheless, just as Parker Follett (1918) called for "unity without uniformity" a century ago, scholars hold the notion that a comprehensive, integrative and inclusive justice concept is not enough, and it is important to have different principles and understandings of environmental justice in various contexts (Schlosberg, 2009; Walzer, 2008; Lyotard, 1984).

2   Environmental Justice Capital

As stated by Schlosberg (2009), "groups emphasize different notions of justice, on different issues, in various contexts". Supporting this idea, findings of various researches prove that different forms of capital including natural capital, economic capital, political capital, and social capital will affect the notion formation and acquisition of environmental justice. The following will be the review of various forms of capital, along with their connections with environmental justice.

2.1   Various Forms of Capital and Environmental Justice

Natural capital here is defined as "the natural resource stocks from which resource flows and services useful for livelihoods are derived" (DFID, 1999), the main value of which to human beings is its contribution to transforming its stock to services, or in another word, other forms of capital (Callaghan & Colton, 2008). Scholars found that differences between the quality and quantity of accessible environmental resources, as well as difference in the proximity to environmental resources or burdens would result in environmental injustice problem (Harvey, 2010; Grineski et al, 2015; Pellow, 2000). In this regard, natural capital plays a significant role especially to those people who heavily depend on natural resources on obtaining environmental justice (Stucker, 2009). Stucker's (ibid) environmental justice research in rural Tajikistan also echoes the discourse the discourse that the arrangement and access of natural resources is influenced by local culture and power (Castree, 1995; Bryant, 1997; Donahue, 1997).

Cultural capital is "an asset embodying cultural value" and contains both tangible and intangible forms. The intangible culture capital including beliefs, traditions and values and others will be shared socially and inter-generationally (Throsby, 1995; Fombrun, 1983), as well as influence the recognition of the society towards justice (Harvey, 2010). Such shared value of cultural capital could contribute to the creation of "regionness" (Hettne, 1999) and "regional identity" (Zimmerbaurer, 2011), which can be interpreted as a collective consciousness, identification and belonging of a region (Zimmerbaurer, 2011; Hensengerth, 2017). Insufficient respect and consideration of regional identity will arouse violent conflicts when utilizing and managing the natural resources (Hensengerth, 2017). Therefore, the cultural capital has a close bond with environmental justice, and helps to form the notion of environmental justice as it brings local perspective of culture into conversation at the very beginning (Schlosberg, 2013). Hensengerth's (2017) research in dams of the Greater Mekong Subregion (GMS) again provides evidence that hydropower projects are prone to local conflicts as the government only focuses on energy production without fully considering the region identity including local water culture and belief system.

Economic capital refers to capital that is "immediately and directly convertible into money and may be institutionalized in the form of property rights", briefly means

money and property (Bourdieu, 1992). Fraser (2000) emphasizes the economic inequality deeply ties to justice. Quan (2001) further discussed that economic status such as income influences environmental justice, specifically the patterns of environmental benefits. Morello-Frosch's (1999) finding on environmental distributive justice also illustrates that the counties with the most serious economic inequalities are experiencing the highest environmental hazards. Segura and Boyce's (1994) research has shown that poverty of communities result in weak resistance to those who come to exploit the forests, such as timber and mining firms. Moreover, with the priority of market value uses of ecosystems, the Capitalist market economy is in an increasing demand for exploitation and extraction of materials and energy from nature where the indigenous, poor and minority often live. That will also lead to continuous negative ecological and social impacts (Schnaiberg, 1980; Schnaiberg & Gould, 2000). Meanwhile, the environmental burdens will reduce the property values, which may hence attract more poor people to move in and exacerbate environmental injustice problems (Mohai & Saha, 2007; 2015ab; Mohai, Pellow & Roberts, 2009). As argued by Pastor (2003), environmental deterioration and injustice always come with economic weakness.

Political capital is defined by Birner and Witttmer (2003) as "the resources used by an actor to influence policy formation and realize outcomes that serve the actor's perceived interests", Drawing on the Hicks and Misra's (1993) political capital research with an emphasis of political resources, as well as McCarthy and Zald's (1977) resource mobilization theory. Environmental justice researches offer the findings that political capital, such as the ability to express their ideas and participation during the decision-making process has impacts on the achievement of environmental justice plan (Mohai, Pellow & Roberts, 2009). For instance, industry and government seek the path of least resistance to arrange pollution and polluting industries (Bullard & Wright, 1987; Mohai & Saha, 2015ab). Knowing that the protest and opposition may happen in some communities where such facilities are placed, industry and government try to avoid controversy or delays to get a smoother and effective plan (Mohai, Pellow & Roberts, 2009). Thus, the communities where the poor, racial, and ethnic minorities live easily become the target locations (ibid).

Social capital is regarded as the set of relationships that have developed around shared values, norms and trust (Coleman, 1988; Putnam, 1993), which is formed via the free and long-term collaboration between individuals and among groups (Adler & Kwon, 2002; Callaghan & Colton, 2008). As a series of reciprocal norms, social networks, and trust, social capital can effectively solve collective action problems, moreover, improve the trust among social group and efficiency of social cooperation in a community (Li & Yang, 2000; Li, 2005; Lin & Lu, 2007). Lin (2000) also links social capital and justice by explaining that the location in a social network, determining the types and amount of resources available, influences injustice formation (Campell, Marsden & Hurlbert, 1986; Green, Tigges, & Browne, 1995). In such circumstances, social capital strongly restricts people's capability to access and mobilize the resources

including environmental resources (Taylor, 2000). Pastor (2003) also addresses the central role of social capital in environmental justice with her findings that unequal exposure of some social groups to environmental burdens results from lacking social capital.

In light of above, different forms of capital in contexts will influence the way of understanding and interpreting of environmental justice. However, The researches discussed above usually focus on a single form of capital and its influence on environmental justice. Besides, the concept of each form of capital is too broad and has been used in the researches of various fields. Taking social capital as an example, it has been used in sociology, politics, economy, and organizational theory studies by an increasing number of scholars of these fields (Adler & Kwon, 2002). Moreover, the interconnection and the convertibility between these forms of capital are usually neglected. Therefore, an integrative conceptual framework to bring these forms of capital together to involve different socioeconomic structures and conditions, sociocultural values as well as and political systems is needed.

The World Social Science Report released by the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2016) recognizes there are different but inter-connecting dimensions of inequality covering economic, social, cultural, political, environmental inequality, etc. Moreover, early in 1994, Viederman (1994) proposed the capitals of sustainability aiming to provide a clear and demystified definition of "sustainability" within a community to the public. As such, the broad capital could also be used to define what are important in contexts for understanding, interpreting and obtaining environmental justice. Sharing the thinking patterns and drawing on the characteristics of five forms of capitals above along with their relations with environmental justice, I propose the "environmental justice capital" framework.

2.2   Environmental Justice Capital

Environmental justice capital is an asset set that an individual, group or community control and prudent use to obtain environmental justice, which has five interconnecting dimensions including natural, cultural, economic, political and social dimensions (see Fig.1). These five dimensions of environmental justice capital have interconnection and convertibility with each other and determine the maximum value of environmental justice can be obtained. Specifically, the various notions of environmental justice could lie into the differences in the ways of controlling and using the environmental justice capital, the differences in quantity and/or quality of capitals accessible, and the differences in capability (opportunity) to access, mobilize or use through the capitals.
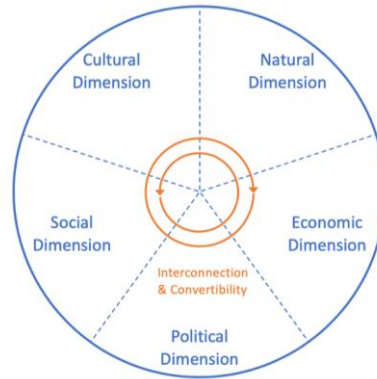
Fig. 1. Environmental Justice Capital, source: the author

Sharing the characteristics of usefulness and durability of "capital" (Castle, 2002) as well as other forms of capital, environmental justice capital may have the following potential characteristics, some of which need to be further explored in future research. Firstly, environmental justice capital is not suitable for quantified measurement, as conventional economic capital, due to it contains intangible and unmeasurable elements, such as cultural value as "collective goods" and social networks. Secondly, like other forms of capital, environmental justice capital can be costed to trade for services and benefits, as well as invested and cumulated with the expectation of benefits in the future. Bourdieu (1992) argued, capital accumulation contributes to analyzing the social world as an accumulated history, which takes historical development into consideration (Birner & Witttmer, 2003). Features of other forms of capital can support this point, for example, cultural capital requires researchers to understand the relation between past, present, and future (Jacobs, 2010).

While, another main characteristic has already been proved in previous study-- interrelation. There are interconnections and convertibility within the five dimensions of environmental justice capital. Such complementarities between various forms of has been largely accepted by economic researchers(Pastor, 2003): economic capital could easily convert to cultural and social capital for its liquidity "(Anheier, Gerhards, & Romo, 1995; Smart, 1993); the strength of social capital could largely determines the strength of economic, cultural and political capital held by the actors (Callaghan & Colton, 2008; Bourdieu, 1992; Pastor, 2003); there is a mutually reinforcing character of natural and economic capital that natural capital is usually to be converted into economic capital for the minority and the poor (Pastor, 2003). However, such convertibility is not equally possible in all directions (Bourdieu, 2012).

Thus, environmental justice capital should pay more attention on the balance between the benefits and costs of environmental justice capital, especially this balance

referring to the disproportionate efficiency among the various dimensions of environmental justice. Simply put, the costs could link to the criteria of efforts and sacrifices – 'individuals who make a greater effort or incur a greater sacrifice relative to their innate capacity should be rewarded more than those who make little effort and incur few sacrifices' and the benefits could link to the criteria of need – 'individuals have rights to equal levels of benefit which means that there is an unequal allocation according to need' (Rawls, 1971; Rescher, 1966). The balance between costs and benefits, in another word, rational efficiency, is of great importance when study environmental justice capital for it is highly related both to the environment "where we live, work, and play" for human (Novotny, 2000), and also environment regarding nature (Schlosberg, 2013). For example, Adams (1965) and Pellow (2000)'s studies have shown that one cause for environmental injustice is unbalanced costs and benefits of environmental justice (natural capital converts to economic capital).

The environmental justice capital could provide an exploratory and comprehensive framework to understand the local configurations and maximum values of environmental justice can be obtained in various contexts. However, the current framework is yet to be completed and needs to be examined and complemented through more theoretical and empirical studies. To conduct a preliminary examination of the feasibility of the framework, I will use newly proposed framwork to discuss how the environmental justice capital manifests itself on Chinese soil.

3   Environmental Justice in Chinese Contexts

With China's active involvement in economic globalization and increasingly important role in global governance since Reform and Opening, environmental justice, a global research and environmental movement trend, has also received the attention of Chinese scholars with a focus on distributive justice. These studies emphasize environmental justice study model should be occupation-based and gender-based with the consideration of the disparities between east and west regions along with urban and rural, rather than race and income-based research models in America (Quan, 2001; Liu, 2012). However, Quan and Liu's researches have not successfully provided how Chinese contexts influencing the environmental justice and what are the reasons behind these environmental injustice issues. In the absence of sufficient literature references and field investigations of the environmental justice in China, this section will provide the very first exploration of Chinese environmental justice capital by understanding China social structure first, and diving in to environmental justice capital in Chinese contexts to understand environmental justice in Chinese contexts, as well as policies and measures in environmental protection over the last 40 years.

Heretofore, leaning about Chinese unique and resilient social structure is inevitable precondition for unfolding any subjects, phenomenon, achievements, or problems in China (Zhou, 2017). As stated by Wang (2004), in the 21st century, China is the only

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society in the world that maintains the size, population and political culture of the former 19th century within the scope of a sovereign state and nation, where the changes brought about by the national movement and state building in modern China have been integrated into the internal structure. So to begin, the ultrastable structure in China since 1840 proposed by Jin and Liu (2010) will be introduced in turn, which could also provide insights of what are the environmental justice capital in today's China.

Contrary to the "shock-response" argument shaping modern China under the Western Centralism (Cohen, 2010), Jin and Liu (2011) argue that the modern China could be observed through two lenses including both internal structure and the impact of Western industrial civilization. They further argue the key that Chinese civilization could continue to today lies into the ultrastable system in China, where there are three sub-systems in Chinese ultrastable system, including ideological identity, political structure and economic structure working in a scenario of mutual adjustment and maintenance (see Fig.2). Its evolutionary mode could be expressed as the disintegration of the traditional integrated structure -- the replacement of ideology -- the establishment of a new integrated structure (ibid). Following this structure, we could try to understand the evolving environmental justice capital in China.
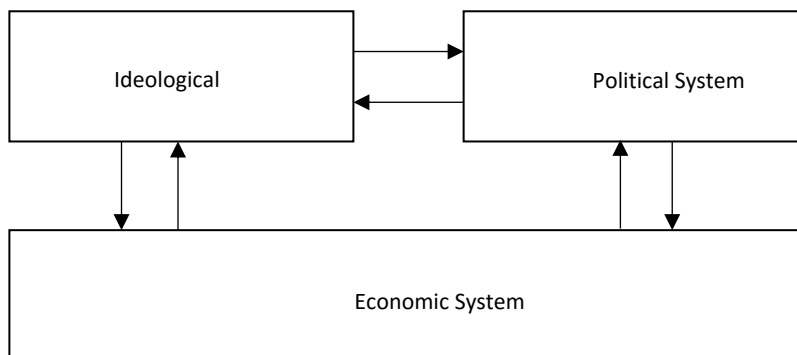
Fig. 2. Ultrastable System in China, source: Jin & Liu (2011)

3.1   Cultural Dimension

In a traditional society characterized by small peasant economy, Confucian Ideology provides a legitimate source of authority for the upper, middle and lower levels of the society, which could integrate and coordinate the three levels of the society (Jin & Liu, 2011; Zhou, 2017). However, during the period of New Culture Movement (1925-1924), this traditional ideological identity was criticized and substituted as People realized they are far behind the world. Since the end of the Qing Dynasty, at the point when the country's very existence is at stake, individuals could sacrifice themselves as long as the ultimate goal of national salvation can be realized (Wang, 2001; Yu, 2004). At

that time, the moral idealism of the group has replaced the moral idealism of the individual, and the utopia of the future has replaced the ancient great harmony ("da tong"). With anti-imperialist and anti-feudal aims, this new ideology differs from Confucianism but combines the deep structure of the traditional ideology, thus possesses greater organizational power to build an independent and powerful modern country and stand on its own among the nations of the world (Xiang, 2007; Jin & Liu, 2011). During the Socialist revolution, the determination of Leninism and the strategy of encircling the city from the countryside meant the localization of the Socialist revolution. The pursuit of individual liberation and social equality in the socialist ideals once again gave way to national worries, which could be viewed as an new ideological identity at that time to maintain the ultrastable system (ibid). Therefore, modernity in China often means a powerful country, a prosperous nation, and a wealthy individual--- these must be in a strict sequence (Yan, 2012). Moreover, individual rights and freedom have to submit to national survival and material satisfaction, which is rather different in the Western society focusing on individual freedom, democracy and justice(Yu, 2004; Yan, 2012).

Entering into the new era of Reform and Opening, Chinese people began again to recognize the outside world. In 1989, with the influences of "end of history" on ideological identity. Chinese people began to have central worship and believe in International and domestic politics are nothing but power competition (Xiang, 2007). That again subtly affect Chinese thinking patterns and development modes. "Lagging behind leaves one vulnerable to attacks" ("luo hou jiu yao ai da") has been summarized as non-forgotten lesson for China's development. Moreover, Western thinking patterns tend to be a binary thinking mode, which usually separates theory and practice. For instance, Rawls' justice theory is a hypothesis theory and the "original position" is an imaginary utopia (Yu, 2003). However, Chinese thought has a very strong tendency to practice. A traditional view "zhi xing he yi" (knowledge as action) supports this tendency (ibid). In recent years, such an idea has become more and more utilitarian, which reflects people are pursuing immediate outcomes in reality (Yu, 2004). The idea can be found both in the Chinese leader's speaking and Chinese policies. Deng Xiaoping's (1994) famous economic-centric slogan in 1960s "it doesn't matter whether the cat is back or white, as long as it catches mice" has influenced China's economic development during the last decades. The main indicator to evaluate the social progress goal today is Materialistic, such as GDP (Yan, 2012). The logic behind the GDP-oriented development can be also interpreted as the intention to strengthen a shared ideological identity to maintain the ultrastable structure for it could improve people's faith in the central government (Zhou, 2017). However, the economic-centric development discourse in China has resulted in different serious issues such as social inequality, environmental degradation, as well as environmental injustice problems (Wang & Zhou, 2014; Chan & So, 2016). China has released the official Environmental Protection Law in 1989, while, it was not until 2003 that China began to initiate Environmental Impact Assessment (EIA)

and publish environmental statistics (NBS, 2003). Before 2005, environmental protection has been neglected, and then in the Eleventh Five-year Plan, the indicators of sulfur disulfide and sewage treatment finally appeared (Zhou, 2017). Meanwhile, The GDP increased from 1717.97 billion RMB of 1989 to 187318.9 billion RMB of 2005 (NBS, 2020).
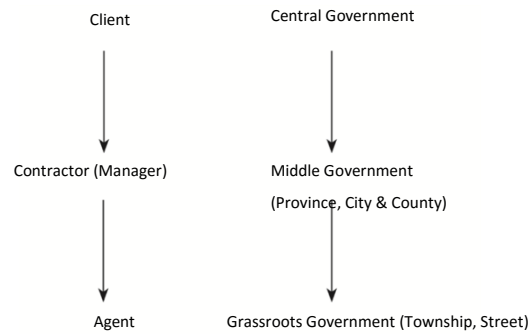
3.2   Political Dimension

Political democracy has been a tradition with a history of four hundred years in western countries (Yu, 2004), which means the individual entitlement and freedom is protected by law, the material needs are no longer the main goal of social progress there (Yan, 2012). In these western countries, democracy has been already well accepted by society and used as a set of principles for daily life and social relations (Beck & Beck-Gernsheim, 2001; Yan, 2012). In such a context, drawing on Kant's theory, Rawls formed his justice theory that guides the development of environmental justice based on Liberalism (Sandel, 1982) which emphasizes fair treatments and rights to individuals (Rawls, 1971). However, the corresponding political background is that China is a bureaucratic-authoritarian, one-party and centralized governance (Yan, 2012; Kroeber, 2020).

The contemporary China has the enormous bureaucracy system including huge coverage of state organizations and the unmatched depth of governance levels compared to any political system in Chinese history (see Fig.3). By the end of June of 2020, there are 91.914 million CCP members and 4.681 million grass-roots party organizations (Central Government of PRC, 2020). That results in the missing of civil society and their voices. As stated in Zhou's (2017) arguments, the political system in China could be understood as a 3-level model --Client, Contractor and Agent (see Fig. 4). He further states that in this upwardly responsible organizational structure, the core task is to efficiently complete top-down tasks, which is contrary to the bottom-up function of conveying public opinion (ibid).
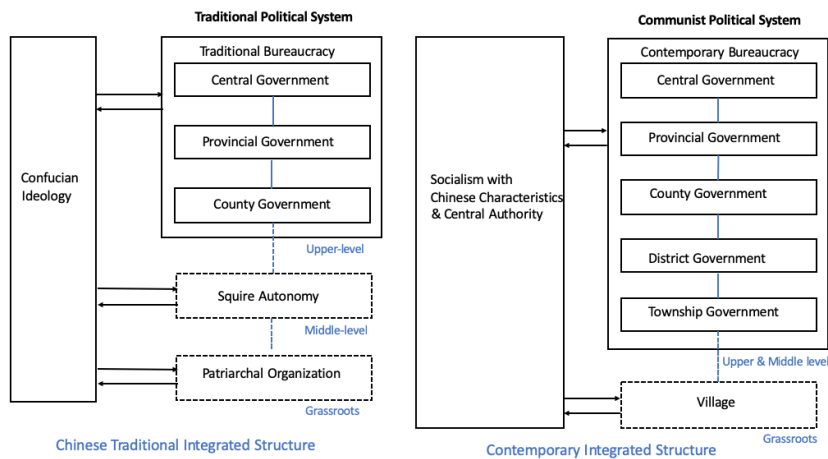
Fig. 3. Traditional and Contemporary, source: Jin & Liu, 2011

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Client                          Central Government

   │                                │
   ▼                                ▼

Contractor (Manager)            Middle Government
                                (Province, City & County)

   │                                │
   ▼                                ▼

Agent                           Grassroots Government (Township, Street)
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Fig. 4. Chinese Political System, source: Zhou, 2017

Moreover, given that the market economy starts from scratch and China is undergoing the period of social transformation, centralized governance aims to promote and maintain a market economy and effectively allocate resources to all levels in the society (Ma, 2006). The market economy has magnified people's profit-making motivations and behaviors, which leads to that people in China have relatively indifferent consciousness of rules and laws (ibid).

Besides that, the deeply rooted tradition of rule by man is another reason causing such a phenomenon, which could be understood as an informal form of social capital. Unlike western society tends to regard justice as the core to realize the rule of law as well as strict compliance with rules and laws, Chinese tend to understand justice within the framework of ethics under the influence of Confucianism with "ren" ("virtue") as the core (Yu, 2004; Yin, 2002; Ma, 2006). To be specific, the Chinese usually adopt the principle that "zun zun" ("hierarchical relationship") first, "qin qin" ("kinship relationship") second then others to decide the rules and resource allocation (Huang & Hu, 2004).

Drawing on above, the political dimension of environmental justice capital is rather different. All these above highly restrict the motivations and behaviors of citizens' political participation, which leads to that people are lacking attention of public affair and public interest (Ma, 2006). That also provides the interpretation that why public participation has no solid foundation for in China. The government would like to turn to specialists for pieces of advice instead of the public, which results in that the public could seldom participate in any decision-making process (Tang, Wong & Lau, 2008). Additionally, EIA, an important approach to achieve environmental justice, is only a planning tool mainly for a smooth project process to gain rapid benefit return. In addition, the result of assessment has limited influence on policymaking in China, rather

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than its significant role in policymaking and environmental governance in western countries (Tang, Wong & Lau, 2008).

3.3   Natural and Economic Dimensions

However, this phenomenon above is common in developing countries (Tang, Wong & Lau, 2008; Sun et al., 2010), and it directs to another two dimensions shaping different notions of "justice" and environmental justice in China – natural capital endowment and economic development. Today, most of the discussions of justice are based on discussions of morality (Rawls, 1971; Sandel, 1982). Yin (2002) states that the pursuit of morality must first meet the basic needs, that is, food, clothing, and housing. If these are not satisfied, the lowest morality will not be guaranteed, in another word, a society that has real morals must have a considerable economic foundation (ibid). As Kong Feili (2014) states in 2014, the time differences between different development levels of various countries should be given enough consideration. This can provide a reasonable explanation of why environmental justice is important but it is still a "luxury good' for many developing countries or less developed countries (Quan, 2001). The main goal of these countries is still poverty alleviation at the expense of the environment (ibid) (convertibility from natural dimension to economic dimension). As illustrated in the Fig.5, the environmental performance is closely related to the economic development of the country. This supports that nations care little about pollution when they are poor and then grow markedly cleaner as they get richer (Kroeber, 2020).
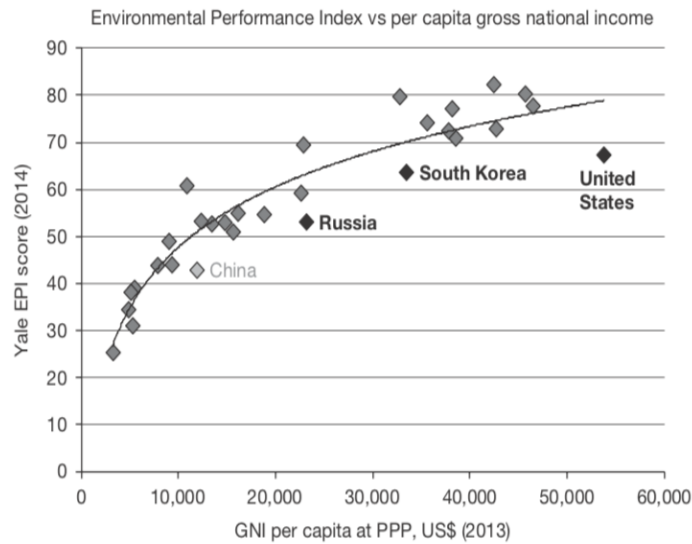

Fig. 5. Environmental Index vs GDP, source: World Bank, 2013

Likewise, distributive environmental injustice is also serious in China due to these two dimensions of environmental justice capital. Western China usually suffers more environmental injustice due to the lack of natural resource endowment and economic weakness (Liu, 2012). For example, the amount of water supply in the coastal areas with higher GDP is bigger than that in western China with lower GDP (See Fig.6).
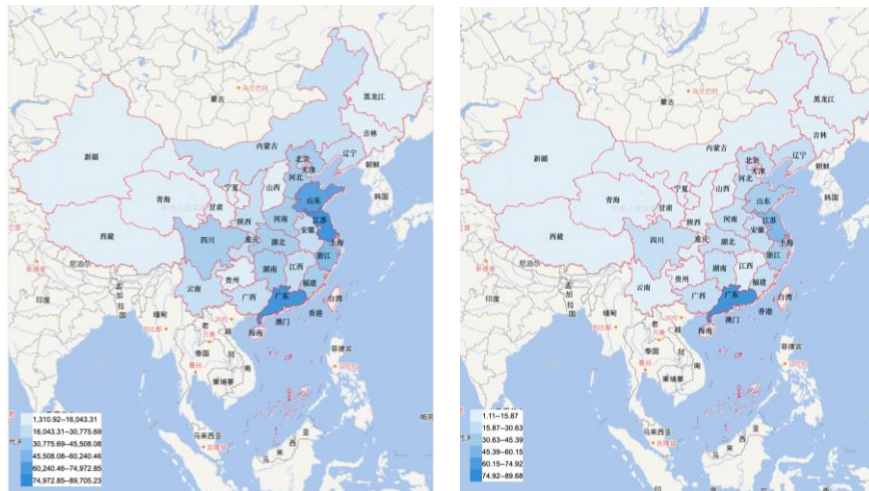

Fig. 6. Provincial GDP and Water Supply in 2017, source: NBS, 2017

3.4   Social Dimension

Relying solely on the market or the government control is unable to achieve justice, the role of social capital is important (Li, 2005). In another word, shared values, norms and trust formed spontaneously between individuals and among the group (Coleman, 1988; Putnam, 1993) is of great importance when realizing justice (Li, 2005). Such characteristic determines that the social dimension of environmental justice capital highly depends on the public's consciousness rather than the authority. Consciousness is usually formed in a highly open political system with full recognition of "individual" (Ma, 2006). However, in China, under the influence of centralized governance, people's "individual" consciousness is awakened with the disappearance of the "working unit" system in recent years, let alone forming shared public norms and trust to solve public affairs and achieve public interest (ibid). Meanwhile, as eastern, urban and economically developed regions in China are often equipped with more transparent and clean governance systems and better education systems, the environmental justice capital of social dimension is with higher density and stock than the western region (Zhou, 2005). This results in that the environmental justice condition in the East is often better than that in the West of China (Liu, 2012). According to the statistics from National Bureau

of Statistics, though the number of CSO has surged in the past two decades, the eastern area still possesses many more CSOs than western region (See Fig. 7, Fig. 8)
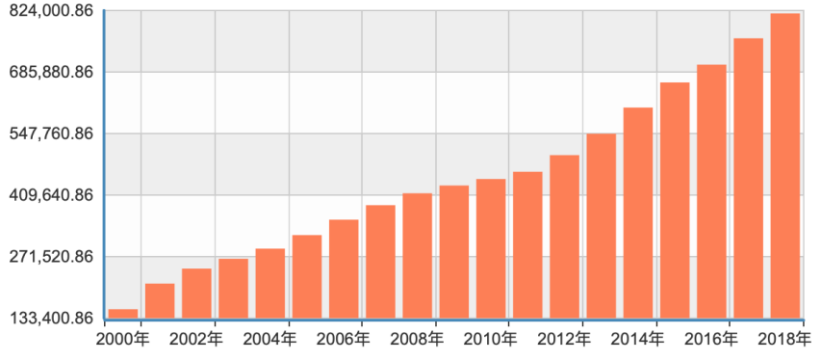

Fig. 7. Number of CSO from 2000 to 2018, source: NBS, 2018


Fig. 8. Number of CSO by Province, source: NBS, 2017

As such, it could be observed that the different notions and focus of "justice" have significant impacts on the understanding and application of related environmental policies Additionally, environmental justice capital is not a stable value, which could change with the different socio-economic and social economic levels.

4   Discussion

Since the Reform and Opening in 1978, China has chosen the path of "taking economic development as the center", which reflects that planned economy is gradually replaced by the market economy. While the development path with the principle of "considering fairness with the priority of efficiency" has prominent limitations that various social problems, such as environmental injustice, began to show up and got worse (Gustafsson, Li & Sicular, 2008; Whyte, 2010). Such issues have caused the whole of society's reflections on justice and efficiency (Shen, 2008; Meng, 2012). Now, China is becoming a more open and modern society, meanwhile, under the influence of globalization (Yan, 2012), consciousness towards social and environmental justice in China has gradually awakened in recent years (Quan, 2001; Liu, 2012). For instance, "lv shui qing shan jiu shi jin shan yin shan" ("lucid waters and lush mountains are invaluable assets") proposed by Chinese President Xi Jinping (Xinhua, 2017) has already been the new core for development. Moreover, taking the development of EIA as an example, the number of EIA laws and regulations at the central level has surged since ecological civilization has been proposed (See Fig.9).
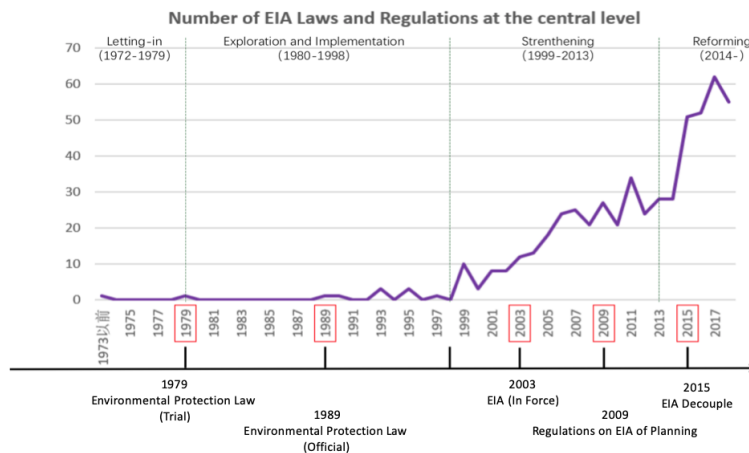
Fig. 9. Number of EIA Laws and Regulations on the central Level, source: He & Bao, 2019

In addition to the state's increasing emphasis on environmental protection, the awakening of personal consciousness of "individual" and disenchantment of the western political and economic system may also have a great impact on the future environmental justice in China. According to Xiang's (2000) statement of Pacific Paradox, the purpose of today's Chinese students studying abroad is no longer for revitalization of the country, but for self-worth. Moreover, the reason why they choose countries like America for studying abroad is not that they recognize their governance system but they admit the high education level (ibid). As discussed before, an important part of

ultrastable system is the ideological identity, while with the "individual" consciousness awakening, what will be the future trend of this social structure and how will the evolving structure affect environmental justice capital remain unknown. One thing we could make sure is that individual rights are important, that is also why China is putting so much effort in poverty alleviation and development of public services.

Last, when we talk about the environmental justice in contexts, besides the time difference, the impacts of other countries should also be took into account. As Premier Li Keqiang has stated that China's accession to the WTO has benefited and meanwhile paid a price at the opening ceremony of the 2013 Summer Davos Forum (ChinaNews, 2013). Waste-importing and consequent serious environmental pollution might be the biggest price. For example, 56% of world imports of waste plastics -7.3 million ton, has been imported to China in 2016 (Miles, 2017). The waste importing has resulted that the Guiyu County in Guangzhou, one of the biggest informal imported e-waste dismantling bases in the past, has been seriously polluted. That has also brought harm to the health of local people. The physical examination results of the students in one of the villages by the local health center has showed that more than 80% of the primary and secondary school students had respiratory diseases (Greenpeace, 2003). Until July 18 of 2017, China's Ministry of Environmental Protection submitted a document to the WTO, requesting an urgent adjustment of the list of imported solid waste, which means a closure of importing the foreign waste (CCTV, 2017). China has always blamed for environmental pollution and GHG emission, however, if it is environmental injustice that developed country transfer the harmful waste to less-developed areas and countries so that they could achieve better living environment and environmental justice. The answer is an obvious no, as problems will never disappear because of the shift.

Like the environmental justice research in western countries, getting a more thorough and explicit concept of environmental justice in China requires more empirical and theoretical studies in the future. But again, when we look at the environmental justice in contexts, every dimension of the environmental justice capital and the connections should be understood and interpreted. Only in this way can we see the world with a more equal perspective and we have the opportunity to achieve higher level of justice ladder.

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