

Original citation:

Mah, Alice and Wang, Xinhong (2017) *Research on environmental justice in China : limitations and possibilities*. Chinese Journal of Environmental Law, 1 (2). pp. 263-272. doi: [10.1163/24686042-12340016](https://doi.org/10.1163/24686042-12340016)

Permanent WRAP URL:

<http://wrap.warwick.ac.uk/96192>

Copyright and reuse:

The Warwick Research Archive Portal (WRAP) makes this work of researchers of the University of Warwick available open access under the following conditions.

This article is made available under the Creative Commons Attribution-NonCommercial 4.0 (CC BY-NC 4.0) license and may be reused according to the conditions of the license. For more details see: <http://creativecommons.org/licenses/by-nc/4.0/>

A note on versions:

The version presented in WRAP is the published version, or, version of record, and may be cited as it appears here.

For more information, please contact the WRAP Team at: wrap@warwick.ac.uk

Research on Environmental Justice in China: Limitations and Possibilities

Alice MAH

Associate Professor, Department of Sociology, University of Warwick
a.a.mah@warwick.ac.uk

Xinhong WANG

Postdoctoral Research Fellow, University of Warwick
x.wang.39@warwick.ac.uk

1 Introduction

This note focuses on current sociological research being conducted in China on the concept of environmental justice.¹ It critically reviews how the concept has been used in the Chinese context since the 1990s, evaluating some of its possibilities and limitations. We argue that environmental justice is a useful concept in the context of China, due to its resonance with environmental concepts and axes of social mobilization (particularly in relation to procedural justice and law), its capacity to address social as well as environmental issues of structural inequality together, and its resonance with shared ideas of social justice within Chinese legal traditions.² However, the concept of environmental justice also has clear limitations. Practically, environmental justice has been used predominantly in the academic sphere in China, with very little take-up in civil society discussions about the environment.

Conceptually, the broad and wide-ranging use of environmental justice in diverse academic research could effectively diffuse the critical capacity of the concept. We contend that attention to questions of environmental *injustice*, alongside *justice*, is particularly important for researching environmental (in) justice in China.

1 For brief details about the project see Annex, below.

2 See Paul A. BARRESI, 'The Role of Law and the Rule of Law in China's Quest to Build an Ecological Civilization', (2017) 1 *Chinese Journal of Environmental Law* 9.

We conclude by discussing some preliminary research findings from an empirical case study of environmental (in)justice in Nanjing.

2 The Concept of Environmental Justice in China

Environmental justice has its roots in the 1980s United States, when environmental and civil rights activists drew attention to the disproportionate siting of toxic hazards in ethnic minority and low-income communities.³ In China, as elsewhere in the world, poor and disadvantaged people face the heaviest burdens of toxic pollution. The unequal social and geographical distribution of environmental benefits and hazards is a core problem of environmental (in)justice. Since the late 1990s, researchers in China have written about the applicability of environmental justice in the Chinese context.⁴ This interdisciplinary scholarship echoes similar efforts to extend the concept of environmental justice in relation to other countries around the world, particularly in the global South.⁵ Yet despite receiving increasing academic attention, the concept of environmental justice has not yet become popular within environmental policy or civil society in China. With its western origins, our research prompts us to ask: what is the salience of the concept of environmental justice in China today?

Our review of environmental justice literature in China is based on a systematic search of articles in the China Academic Journals (CNKI) database, in addition to a selection of English-language articles by Chinese researchers. A CNKI search shows that since the late 1990s, there have been around 250 articles that have 'environmental justice' in their titles, and more than 600 articles that have 'environmental justice' in their key words.⁶ Our approach contrasts

3 See Robert D. BULLARD and Beverly WRIGHT, *Race, Place, and Environmental Justice after Hurricane Katrina*, Westview Press, 2009; Dorceta E. TAYLOR *Toxic Communities: Environmental Racism, Industrial Pollution, and Residential Mobility* NYU Press, 2014.

4 From a range of disciplines including environmental ethics, environmental law, sociology, and other social sciences, including articles published in either Chinese or English.

5 For example, see Joan MARTINEZ-ALIER, Leah TEMPER, Daniela DEL BENE and Armin SCHEIDEL, 'Is There a Global Environmental Justice Movement?' (2016) 43 *The Journal of Peasant Studies* 731; David N. PELLOW, 'Environmental Justice and Rural Studies: A Critical Conversation and Invitation to Collaboration', *Journal of Rural Studies*, 2016 Vol 36, 381–386; David SCHLOSBERG, 'Theorising Environmental Justice: The Expanding Sphere of a Discourse', (2013) 22 *Environmental Politics*, 37.

6 The CNKI literature review for environmental justice in China was conducted by searching '环境正义 huanjing zhengyi' or '环境公正 huanjing gongzheng' or '环境公平 huanjing

with perspectives that emphasize the expansion of environmental justice from the United States to other countries around the world, which tend to follow the English language use of the concept.⁷ Rather than proceeding from the perspective of an adapted 'franchise' of a 'global brand' of environmental justice,⁸ we pay attention to the way that environmental justice has been framed within and in relation to China.

The first time 'environmental justice' appeared explicitly in a Chinese article was most likely in 1998 in a column of 'professor talk', but it was used in a rhetorical way, with no clear link to its origin from the western world.⁹ Beginning in the early 2000s, Chinese analyses began to link the concept to its American origins. In the majority of studies about environmental inequalities in the United States, racism is the major driving factor of environmental injustice.¹⁰ However, most Chinese scholars argue that this is not the case in China, where poverty and rural and urban differentiation are considered the main causes. The first academic discussion of the concept of environmental justice in relation to China was in field of environmental ethics. WANG Taoyang argued that environmental ethics should be based on distributional environmental justice

gongping' in titles of Chinese academic journal articles. The categories selected for the search include: Philosophy and humanity, politics, military and law, education and social sciences, and economics and management. When referring to environmental justice, most people used its Chinese translation of 'huanjing zhengyi 环境正义'. However, HONG Dayong and GONG Wenjuan argue that a better sociological translation could be '环境公正 huanjing gongzheng'. According to Hong and Gong, 'zhengyi' emphasizes a moral choice and action, whereas sociology seeks answers by not only focusing on morality but also social structure and construction processes. Moreover, (social) justice [gongzheng] was a key concept in sociology. See HONG Dayong and GONG Wenjuan, 环境公正研究的理论与方法述评 [Review on Theories and Methods of Environmental Justice Study], 中国人民大学学报 *Journal of Renmin University of China*, 2008, No. 6, 70–79. 'Huanjing gongzheng' and 'Huanjing gongping' were also indeed used as alternatives of environmental justice, especially in early studies of environmental justice in China. See, eg, 马缨 MA Ying, 美国环境公平研究概述 [Review of American Environmental Equality Research], 国外社会科学 *Foreign Social Sciences* 2003, Issue 2, 19–23.

7 See Gordon WALKER, 'Globalizing Environmental Justice: The Geography and Politics of Frame Contextualization and Evolution' (2009) 9 *Global Social Policy*, 2009, 355; SCHLOSBERG 2013 (n 5).

8 Julian AGYEMAN, (2014) 54 'Global Environmental Justice or Le Droit au Monde?' (2014) 54 *Geoforum* 236.

9 CAI Shouqiu 蔡守秋, 当代环境法的'民主化' 'The 'Democratization' of Modern Environmental Law', 环境 (1998) 5 *Environment*, 1998, 22.

10 Paul MOHAI, David PELLOW and J. TIMMONS ROBERTS, (2009) 34 'Environmental Justice', *Annual Review of Environment and Resources*, 405.

concerns with different people's interests and living environments, rather than the focus within dominant western environmentalism of protecting 'pure nature'.¹¹ WANG also highlighted the particular relevance of environmental justice, as contrasted with dominant western environmentalism, for exposing historical and contemporary environmental injustices between developed and developing countries.

Before the late 2000s, Chinese academic articles on environmental justice were fairly limited in number and concentrated within the field of environmental ethics. Since then, a number of articles have also appeared in sociology and legal studies outlets. These articles have expanded on debates about environmental ethics and values, to consider the structural problems, possible causes, and legal frameworks of environmental justice. While studies that focus on merely introducing environmental justice into China have continued to play a dominant role, some have started to apply the concept of environmental justice in the Chinese context, and to identify specific patterns and empirical examples.

Most Chinese researchers agree that the most visible and serious environmental justice issue in China is urban-rural environmental inequality.¹² JIN Hai argues that there are clear indications that the 'urban environment improves, and the rural environment continuously degrades' in China.¹³ Farmers are particularly affected by pollution in China, which disrupts not only agricultural

-
- 11 WANG Taoyang, 王韬洋, '环境正义': 当代环境伦理发展的现实趋势 [Environmental Justice]: [The Current Tendency of Modern Environmental Ethics], *浙江学刊 Zhejiang Academic Journal*, 2002, Issue 5, 173-176; WANG Taoyang 王韬洋, 有差异的主体与不一样的环境'想象': '环境正义'视角中的环境伦理命题分析, [Substance with Difference and Different 'Imaginations' of Environment: Analysis of the Theses in Environmental Ethics from the Perspective of Environmental Justice], *哲学研究* (2003) 3 *Philosophical Researches* 27.
- 12 CAO Shuqing 曹树青, 法律效率价值导向下的城乡环境正义探究 [A Study on Urban-Rural Environmental Justice from the Perspective of Legal Efficiency], *政法论丛* (2014) 5 *Politics and Law Review* 62; LI Shuwen, GUO Haixia and REN Dapeng 李淑文, 郭海霞, 任大鹏, 环境正义视角下农民环境弱势群体地位分析 [An analysis of farmers' vulnerable group status from the perspective of environmental justice], *生产力研究* (2011) 4 *Productivity Research* 41; ZHU Li and LONG Yonghong 朱力, 龙永红 中国环境正义问题的凸显与调控 [Environmental Justice in China: Problems and Solutions], *南京大学学报 (哲学人文科学社会科学版)* (2012) 1 *Journal of Nanjing University [Philosophy, humanity and social sciences version]* 48.
- 13 JIN Hai 晋海, 走向城乡环境正义: 以法制变革为视角 [On environmental justice in urban and rural areas in China-from the perspective of legal reform], *法学杂志* (2009) 10 *Law Science Magazine*, 2009 Issue 10 74, 74.

production, but also their families' health and lives.¹⁴ According to ZHANG Dengqiao, researchers have identified the existence of environmental injustice in China in three broad aspects: domestically, the difference between the western and eastern regions in China, whereby the west has contributed to national development but has suffered disproportionately from ecological degradation; internationally, the ecological imperialism through which western countries of the global North continue to consume excessive resources and transfer their waste to the global South; and the current generation's use of natural resources without considering the next generations.¹⁵ Other environmental justice issues in China include NIMBY (not-in-my-backyard) struggles and questions of public participation; and social stratification of different regional and occupational groups, particularly migrant workers.

From a specifically legal perspective, some Chinese researchers (writing in English) have discussed the applicability of environmental justice in the Chinese context. Generally, these researchers agree that environmental justice needs a new definition, interpretation, or model to be applied to the Chinese context. To make the American concept work in China, KE Jian proposed a redefinition of environmental justice in Chinese law as 'a set of political, social, legal, and policy responses to address the disparate distribution of environmental harms and benefits by groups of environmentally disadvantaged people.'¹⁶ KE furthermore emphasized that all affected groups should have a right to meaningful participation, which resonates with David SCHLOSBERG's argument that the global environmental justice movement should address not only distributional aspects of justice, but also issues of recognition and participation.¹⁷

In contrast to race-based models of environmental justice,¹⁸ QUAN Ruixue argued that there are two main axes of environmental injustice in China: first,

14 Ibid; ZHANG Yulin and GU Jintu 张玉林, 顾金土, 环境污染背景下的'三农问题' ['Three Peasant Issues' Under Environmental Pollution], [战略与管理] (2003) 3 *Strategy and Management* 63.

15 ZHANG Dengqiao 张登巧, 环境正义—一种新的正义观 [Environmental Justice—A New View of Justice], [吉首大学学报(社会科学版)] (2006) 4 *Journal of Jishou University (Social Science version)* 41.

16 Jian KE, 'Environmental Justice: Can an American Discourse Make Sense in Chinese Environmental Law?' (2005) 24 *Temple Journal of Sci. Tech. & Envtl. L.* 253, 277.

17 Ibid; SCHLOSBERG 2013 (n 5).

18 Most Chinese researchers (writing in Chinese or English) agree that race-based environmental justice is not applicable in the Chinese context. However, LIU et al (2014) demonstrate that ethnic-related environmental justice issues do exist in Inner Mongolia and argue that environmental justice issues should be considered when industrial

occupational differences, in which people employed in industries such as mining, metallurgy, construction, non-ferrous metal, and chemical industries are more prone to environmental and health effects; and secondly, peasant workers (migrant workers) as a specific group that suffers from environmental hazards.¹⁹ Similarly, LIU Jingjing proposed a broader understanding of environmental justice, referring to ‘the interests of the public at large, rather than a notion that all racial groups should bear the burdens and risks of hazardous waste facilities equitably’.²⁰ Echoing the insights of other Chinese researchers, LIU highlighted three distinctive characteristics of environmental justice in China: the regional difference between eastern and western China, urban and rural environmental disparity, and the plight of certain vulnerable groups, such as migrant workers. LIU further argued that environmental public interest litigation could facilitate an integration of environmental justice into good environmental governance in China.

A common theme in this legal scholarship is that environmental justice should be redefined in the Chinese context in relation to good environmental governance in general, rather than to bottom-up environmental movements. This theme connects to the different legal and socio-political contexts of environmental policy, law, and civil society in China. For example, environmental civil society organizations tend to avoid direct confrontation with the state, instead using laws, regulations, and government policies to demand environmental changes.²¹

Beyond Chinese academia, the concept of environmental justice has rarely been used by environmental organizations in China, nor has it appeared in mainstream news reports or government discourses. A search of the top ten official newspapers in China found a total of only four articles with

development in environmentally fragile and culturally sensitive areas. China's ethnic minorities (non-Han) and migrant workers are among the most marginalized groups in China; see Lee LIU, Jie LIU and Zhengguo ZHANG, ‘Environmental Justice and Sustainability Impact Assessment: In Search of Solutions to Ethnic Conflicts Caused by Coal Mining in Inner Mongolia, China’, (2014) 6 *Sustainability* 8756.

19 Ruixue QUAN, ‘Establishing China's EJ Study Models’, (2002) 14 *Geo. Int'l Envtl. L. Rev.* 461.

20 Jingjing LIU, ‘Environmental Justice with Chinese Characteristics: Recent Developments in Using Public Interest Litigation to Strengthen Access to Environmental Justice’, (2012) 7 (2) *Florida A & M University Law Review* 229, 232.

21 See Joy Y ZHANG and Michael BARR, *Green Politics in China: Environmental Governance and State-society Relations*, 2013, Pluto Press.

'environmental justice' in their titles between 1 January 2000 and 1 July 2017.²² An online search of the grey literature on environmental justice in China conducted in July 2017 revealed only a few news reports where environmental justice was briefly mentioned. There is however a blog entitled 'environmental justice in China' written by a NGO worker who reposted a variety of environmental issues that appeared in the media between 2007 and 2015.²³ The scope of the blog posts is very broad, primarily focusing on local environmental pollution problems, but also including references to environmental accidents and international cases of environmental justice.

To date, 'environmental justice' has clearly not yet become a popular concept for either civil society or the state in China. This highlights a practical limitation of environmental justice at present, but also an opportunity for it to be advanced in the future in the context of mounting ecological disasters and degradation, particularly in relation to their unequal distribution and greater impact upon marginalized groups of people in China.

As WALKER highlights, there are important tensions in the process of globalizing the environmental justice frame beyond its US origins.²⁴ First, the resistance of unwanted development in communities in the US and other western countries could have the paradoxical effect of pushing this to less regulated countries, despite efforts to improve standards around the world. Secondly, there is a risk of incorporation, where the radical edge of environmental justice language is blunted through being reframed and incorporated into managerial and conformist government organizations and NGOs. Finally, there remains a tension between universalism and localism in the impetus for globalizing the environmental justice movement. However, as SCHLOSBERG argues, environmental justice confrontations 'need not come at the expense of the localised, particular places where that power and injustice are experienced, known, and resisted.'²⁵ In other words: 'An environmental justice movement

22 The top ten official newspapers are: *People's Daily*, *People's Daily* (overseas edition), *Guangming Daily*, *Science and Technology Daily*, *Farmer's Daily*, *Legal Daily*, *Workers' Daily*, *Xinhua Daily*, and *PLA Daily*.

23 See at < <http://www.ejchina.blogspot.com> > accessed 18 November 2017.

24 See WALKER 2009 (n 7).

25 David SCHLOSBERG, 'Reconceiving Environmental Justice: Global Movements and Political Theories', (2014) 13 *Environmental Politics*, 2004 517, 535.

can be unified, but it cannot be uniform.²⁶ This idea resonates with Liu's proposal for 'environmental justice with Chinese characteristics.'²⁷

3 Concluding Discussion: Researching Environmental (In)justice in China

We conclude this brief report by reflecting on how environmental *injustice*, rather than environmental justice *per se*, is particularly important to study in the Chinese context. This echoes some of the implicit observations by Chinese scholars, particularly the main axes or characteristics of environmental injustice. By focusing on environmental injustice, we shift attention away from visible environmental justice movements and legal cases, towards less visible yet more prevalent instances of environmental injustice. Our comparative research has shown that environmental injustices only become environmental justice struggles in exceptional cases, and rely on dynamics of social and political mobilisation, rather than the empirical severity of environmental injustice. For example, 'fenceline communities', where people are living adjacent to petrochemical sites in the Mississippi Chemical Corridor ('Cancer Alley') in Louisiana have been at the forefront of environmental justice movements in the US since the late 1980s. However, despite some 'success stories' of relocation (such as the widely cited cases of Diamond and Convent),²⁸ the numerous small rural communities living in 'Cancer Alley' continue to experience toxic burdens associated with petrochemical infrastructures, including controversial oil and gas developments around fracking and pipelines. Even in such a 'classic' case of environmental justice, enduring and less visible injustice remains a core problem.

Much of the literature on environmental justice and the petrochemical industry in China has focused on mass anti-PX (paraxylene) protests in cities including Xiamen, Dalian, and Maoming, amongst several other cities. In China, we chose to focus on Nanjing as a relatively 'quiet' environmental justice case study. Nanjing is dangerously encircled by chemical factories and hosts one of the top petrochemical bases in China. Despite being a heavily polluted city with a great number of smog days and occasional explosions occurring in petrochemical plants, the city of Nanjing has not experienced any large-scale environmental protests to date. In 2016, we conducted qualitative case study

26 Ibid.

27 Liu 2011 (n 20).

28 See BULLARD and WRIGHT 2009 (n 3); TAYLOR 2014 (n 3).

research in two polluted petrochemical peri-urban villages in Nanjing, China, aiming to look at environment injustice issues up close, within everyday lives.²⁹ Our research in Nanjing revealed that people who live and work near to toxic industrial pollution experience environmental *injustices*, particularly anxieties about perceived as well as real health risks, and deeply ambivalent attitudes towards the competing interests of protecting their jobs, families, health, environments, and communities. People expressed awareness of the health risks of living and working with pollution, but overall, they tended to tolerate their situation. Rather than escalating their complaints to legal or collective action, people were compelled to seek small amounts of compensation from industry for contaminated water and lost land. Migrant workers (from elsewhere in China) were among the worst affected. Taking advantage of the cheaper rent and convenient transit, and with a low socio-economic status, they live in places closer to petrochemical plants. However, as outsiders and non-locals, migrant workers have little means of seeking solutions to mitigate the risks of living with pollution.

With its focus on the importance of redressing structural social-environmental injustices, the concept of environmental justice resonates with cultural ideas of justice and equity (*gongzheng* 公正) within long-standing Chinese legal traditions. Despite its practical and conceptual limitations, environmental justice has the potential to offer a meaningful alternative to dominant forms of environmental policy, law and regulation, and civic action within China. In particular, it highlights some of the key problems of environmental injustice facing China today, and demonstrates how these relate to social and spatial patterns of vulnerability, inequality, and political power.

Note

This research is part of a five-year European Research Council-funded ongoing research project ‘Toxic Expertise: Environmental Justice and the Global Petrochemical Industry’ (2015- 2020),³⁰ which examines the contested politics of making scientific claims about the health impacts of

29 The research was based on 24 qualitative interviews and participant observation with workers, residents, factory representatives, and local environmental organizations, conducted by one of the authors, WANG Xinhong. This report highlights headline findings only. See Alice MAH and Xinhong WANG, ‘But What Can We Do?’ Small Compensations for Living and Working in Petrochemical Hazardscapes in Nanjing, China’, 2017, Working Paper.

30 For more information, see <<http://www.warwick.ac.uk/toxicexpertise>>.

pollution. The project focuses on the global petrochemical industry as a significant source of pollution, with unequal regulations and risks across different countries and populations. We examine the global relevance of the concept of environmental justice across different national, regional, and local contexts.³¹ The mixed-method, comparative research includes approximately 150 interviews and participant observation with a range of stakeholders (eg, workers, residents, scientists, lawyers, environmental activists, corporate representatives and government officials); quantitative research on pollution, environmental health, and corporate networks; documentary and mapping research; and participatory research with local communities. The research is being conducted on three overlapping levels: the global level, which examines leading global petrochemical companies and environmental NGOs; the national, regional, and local levels, focusing on in-depth case studies in the United States (starting in Louisiana) and China (starting in Nanjing); and the collaborative, participatory level, which will develop international public resources to address practical challenges of tackling environmental injustice.

Funding

This work was supported by the European Research Council [grant number 639583].

31 See Alice MAH, 'The Challenges of Tackling Global Environmental Injustice', *Lacuna Magazine*, 2017, <<http://lacuna.org.uk/environment/challenges-tackling-global-environmental-injustice/>> accessed 10 September 2017.