RESEARCH STATEMENT

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Current Ph.D. researches

Title: Three Essays on Political Economy of Environment in China

My Ph.D. field of research is political economy of environment in developing countries, especially China. Within this field, the three essays of my dissertation revolves around three issues.

First, does environmental inequality among population groups exist in developing countries? To explore this issue, I utilize a methodology involving identifying population groups that are potentially economically and politically disadvantaged, choosing a meaningful spatial unit of analysis, building up dataset for gauging exposure to environmental harms and measuring population social and economic status, choosing and estimating appropriate econometric models, and interpreting the results in specific developing country’s context. And I build a dataset using 2010 China population census and the Ministry of Environmental Protection’s list of air pollution intensive industrial facilities. My research showed that in China, counties with higher percentage of economic and political elites tend to have fewer air pollution intensive industrial facilities.

Second, what contributes to the outcome of environmental inequality? Environmental inequality can happen either because pollution sources tend to go to places whose population’s economic and political status is lower, or because pollution sources reduce a place’s attractiveness so that economically and socially disadvantaged population groups move into those place. To explore this issue, I build another dataset of establishment year of facilities in the Ministry of Environmental Protection’s list of air pollution intensive industrial facilities, and the 2000 and 2010 population census in China. My research shows that disproportionate siting does happen in counties with more non-elite population during 2000-2005 and 2011-2015.

To the best of my knowledge, this is a first research to analyze the presence and reasons of national-level environmental inequality in China. In addition, my research bears two policy implications. First, given there is unequal exposure to air pollution sources, as economically and socially disadvantaged population groups also tend to respond to environmental harms inadequately, my research indicates that more environmental protection effort should be put in economically and socially disadvantaged regions in China. Second, as disproportionate siting does happen, to mitigate environmental inequality, steps are needed to increase fairness of decisions making regarding siting of industrial pollution sources.

Third, how does historical path of state building shape a country’s environmental protection performance? Current environmental economics literature shows evidence that a country’s environmental quality is shaped by many political economy factors, such as income distribution, degree of democracy, corruption, and dependency of local government and economy on pollution industries, et al. Besides using standard variables of political economy, to understand this issue fully, it’s also necessary to theoretically examine the actual formal and
informal institutions that govern the interaction between regulators and public and private polluters in developing countries. To this end, I borrow insights from development economics researches, and explore the question of how does state building sometimes promote environmental protection but at other times impede or even derail it? Specifically, states can be viewed as cross-class coalitions, and the features of this coalition shapes the economic and environmental outcomes in different countries.

In the Chinese context, the post-reform state was built on a strong coalition between political elite and economic elite, while working and peasant class is disempowered. This coalition was able to deliver strong economic performance, which legitimized the coalition. But the provision of public goods such as environmental protection would depend on the political elite’s capability of renegotiating its relationship with the economic elite, the potentiality of protecting the environment without incurring substantial economic costs to the economic elites, and the lower class’s willingness and potentiality to challenge the coalition. The theoretical approach I take in research on the third issue shows a new way of putting political economy of environment in developing country contexts, and provides a framework for future empirical researches.