Topic: T14 / SUSTAINABLE DEVELOPMENT, ENVIRONMENT AND POLICY

Chair : Jeremy Rayner (University of Saskatchewan)

Second Chair : Margot Hurlbert (Johnson Shoyama Graduate School of Public Policy)

Third Chair : Ishani Mukherjee (Singapore Management University)

GENERAL OBJECTIVES, RESEARCH QUESTIONS AND SCIENTIFIC RELEVANCE

The objective of this panel is to bring together scholars working in a variety of methodological traditions and jurisdictions to learn from each other about new ways of conceptualizing environmental policy instruments. Ultimately, the goals are to move the study of environmental policy instruments beyond the traditional typologies and to cross fertilize two research agendas that are currently somewhat disconnected: the study of the relationship between policy instruments and governance modes; and the study of the effectiveness of different instruments and instrument mixes.

Perhaps more so than in other policy sectors, environmental policy has often been rather simply characterized as the adoption (or failure to adopt) certain kinds of of policy instruments. From "licensing and permitting" to standard setting, from carbon taxes to output-based allowances there has been an almost universal tendency to focus on solutions rather than problems and to group these solutions in rather simple ways using familiar typologies.

Two, largely unrelated, developments are pushing students of environmental policy beyond these classification exercises. One is the attempt to explain instrument choice and the persistence of particular instruments as the product of particular governance arrangements; the other is the study of the effectiveness of instruments in actually improving environmental quality or mitigating damage. In both cases, researchers have been pushed to think about policy instruments differently. In the former case, for example, by considering how notionally similar instruments may behave very differently in different institutional contexts; in the latter case, in considering how similar instruments may differ across dimensions such as intensity or density. Many of the more vexing questions raised by treating policy instruments this way – uncertainty about the dependent variable, vagueness about units of analysis, competing conceptualization of dimensions – have received careful treatment in studies from which researchers working in one field could learn from the other how to advance their own research agenda and even hold out the possibility of a synthesis of output and outcome based studies of environmental policy instruments.

CALL FOR PAPERS

The objective of this panel is to bring together scholars working in a variety of methodological traditions and jurisdictions to learn from each other about new ways of conceptualizing environmental policy instruments. Perhaps more so than in other policy sectors, environmental policy has often been rather simply characterized as the adoption (or failure to adopt) certain kinds of of policy instruments. This may be because problem definitions such as greenhouse gas mitigation or sustainable development are relatively uncontested goals of environmental policy (as opposed to disagreements about the urgency or feasibility of tackling these problems in practice). Whatever the reason, the effect has been to focus attention on how to study the adoption, persistence and effectiveness of particular environmental policy instruments, often in very innovative ways compared with the study of policy instruments in other policy sectors.

We invite papers that illustrate new ways of thinking about environmental policy instruments beyond the traditional broad classifications derived from the familiar typologies: market versus information or authoritative versus expenditure, for example. We are particularly interested in receiving proposals that consider the influence of specific institutional contexts or governance modes on the selection and/or performance of environmental policy instruments; papers which involve the conceptualization of different dimensions of instrument characteristics; papers which focus on the selection and/or use of indicators to measure instrument effectiveness (either institutional selection, such as the indicators that accompany the UN Sustainable Development Goals, for example, or analytical selection); papers which focus on problems of measurement and the construction of indices; and papers which seek to link instrument characteristics or the characteristics or performance more generally.

Comparative papers are particularly welcome but individual case studies will also be considered. Papers employing qualitative, quantitative and hybrid methods are equally welcome.

Chair : Jeremy Rayner (University of Saskatchewan)Second Chair : Margot Hurlbert (Johnson Shoyama Graduate School of Public Policy)Third Chair : Ishani Mukherjee (Singapore Management University)

Session 1Environmental Democracy

Thursday, June 27th 16:30 to 18:30 (MB 3.430)

Discussants

Jeremy Rayner (University of Saskatchewan) Margot Hurlbert (Johnson Shoyama Graduate School of Public Policy)

Public acceptance of emerging technologies: the case of wastewater reuse

Kris Hartley (Arizona State University)

Cecilia Tortajada (Institute of Water Policy, Lee Kuan Yew School of Public Policy, National University of Singapore)

Asit K. Biswas (Lee Kuan Yew School of Public Policy)

Water stress is an increasing burden in regions with arid climates, aquifer vulnerability, and erratic rainfall. Population growth and competing uses are also stretching the capacity of water supply systems. These and other threats are prompting governments to explore alternative sources beyond groundwater extraction, expansion of surface catchments, and inter-basin transfers. Common alternatives are greywater recycling, use of drainage water, and desalination. Reclaimed or recycled wastewater, also known as water reuse with differing qualities, has been used for a variety of purposes including irrigation, street cleaning, industrial processes, and groundwater recharge. However, reused water for potable purposes has been limited, due in part to lack of public acceptance. This article examines the historical development of water reuse and the public acceptance thereof. A mathematical utility model is introduced to conceptualize how governments and the public interact to facilitate or hinder acceptance. The article's theoretical contribution is a systematic and broadly applicable framework for understanding public acceptance of water reuse.

Deliberating for Energy Democracy, Social Learning, and Reflexivity in Community Energy Futures in Saskatchewan, Canada

Mac Osazuwa-Peters (Johnson Shoyama School of Public Policy (University of Regina))

Margot Hurlbert (Johnson Shoyama Graduate School of Public Policy)

Jeremy Rayner (University of Saskatchewan)

David Reiner (University of Cambridge)

Citizen engaged deliberative juries engender reflexivity and advance measurable social learning which improves governance of complex social problems. This article applies a deliberative citizen's jury method to the issue of energy systems transition in Saskatchewan and finds that energy democracy improves, not only procedures of public engagement but also normative outcomes surrounding support for renewable community energy. This conclusion is based on case studies of three communities: a provincial capital, northern pro-environmental community, and coal, oil and gas supported community. Through expertly facilitated citizen juries over two days (one week apart) participants were introduced to energy production, climate change, renewable and decentralized energy and tasked with making recommendations for an energy policy for the province. All three communities overwhelmingly supported renewable energy (solar, wind, and hydro) albeit for differing reasons. The coal, oil, and gas local economy community supported

renewables for the local jobs and economy they could provide. Also, the study indicates that rather than apply an outcome led policy instruments framework for managing a complex social problem, an issue led approach allows governance systems to accommodate the variety of values which influence the positions taken within specific jurisdictions.

How does renewable energy auctions design influence instrument effectiveness

Leonore Haelg (ETH Zurich) Tobias Schmidt (ETH Zurich)

The transition of the power sector from fossil-fuel based electricity generation to renewable energy technologies (RET) is crucial for decarbonisation and mitigating climate change (Geels et al. 2017). In this transition, technology deployment policies play a key role and have been introduced in many countries (REN21 2018) to support innovation and diffusion of new technologies (Sandén & Azar 2005; Fouquet 2016; Haelg et al. 2018). Historically, feed-in tariffs were the deployment policy instrument of choice in many countries in order to establish niches for renewable energy technologies. Yet more recently, with rapidly falling RET prices, many governments are now switching to more cost-efficient policy instruments, such as auctions (REN21 2018). Studies in the innovation literature suggest that instrument design is key in inducing technology innovation and diffusion and thus in determining the effectiveness of the policy instrument (Haelg et al. 2018; Carley 2011; Schmidt & Sewerin 2018; Kemp & Pontoglio 2011; Del Río 2014). In the case of auctions, research has analysed the designs of auctions in various contexts and its role in triggering a specific outcome, such as low prices (Dobrotkova et al. 2018; Del Río & Linares 2014), high effectiveness (Del Río & Linares 2014; Winkler et al. 2018), but also delays in commissioning (Bayer et al. 2018) and project cancelation (Kreiss et al. 2017). Yet, the main body of literature on auctions focuses on single case studies (e.g. Bayer 2018; Steinhilber 2016; Tiedemann et al. 2016; Del Río 2016; Fitch-Roy & Woodman 2016; Förster & Amazo 2016; Hochberg & Poudineh 2018; Shrimali et al. 2016), and only few studies apply a systematic comparative approach which encompasses various countries and design elements (Del Río 2017; IRENA & CEM 2015; Becker & Fischer 2013). Global systematic analyses of all auction design elements and their combinations as well as their effectiveness are still missing. This paper addresses this gap by exploring the causal links between auction design elements and policy effectiveness. Methodologically, we use qualitative comparative analysis (QCA) which is ideally suited to unravel causal complexity in small-and intermediate-N datasets (Meuer & Rupietta 2017; Ragin & Rihoux 2004). The paper thus aims at informing policymakers how they should design their auctions in order to obtain the desired results and a fast transition to more sustainable electricity generation. We think that our paper would fit very well in your panel (T14P19) since we offer one perspective on the effectiveness of instruments in actually mitigating climate change in the form of a comparative, mixed-method study.

Chair : Jeremy Rayner (University of Saskatchewan)Second Chair : Margot Hurlbert (Johnson Shoyama Graduate School of Public Policy)Third Chair : Ishani Mukherjee (Singapore Management University)

Session 2Comparative Environmental Policy

Friday, June 28th 08:00 to 10:00 (MB 3.430)

Discussants

Margot Hurlbert (Johnson Shoyama Graduate School of Public Policy) Sarah Giest (Leiden University)

A cross-national study of local climate change adaptation policy implementation styles in multilevel governance environments

Alexandra Lesnikowski (Concordia University)

Climate change impacts are already being felt around the world, and policies to adapt to these changes are rapidly emerging across countries and levels of government. While climate change mitigation policies have tended to follow from more centralized decision-making regarding policy goals like emissions reduction targets, adaptation has emerged largely as an autonomous and bottom-up process, resulting in a diverse policy landscape containing a variety of goals and policy approaches. Empirical research has documented a growing number of adaptation policy initiatives emerging among local governments, even in the absence of clear, top-down mandates to adopt adaptation policy frameworks.

A substantial literature has grown around the question of what drives adaptation policy adoption in local governments, and how political, institutional, economic, and social factors act as barriers or facilitators of policy adoption. While most of this literature consists of case studies or small-n comparative studies, a few larger explanatory studies have tested various hypotheses about the influence of: i) system attributes such as environmental exposure and demographics; ii) political attributes like political party leaning, participation in climate change networks, and local leadership on adaptation; and iii) micro-level factors like public perceptions of adaptation urgency. While these studies have made important empirical contributions to the study of local adaptation policy change, their theoretical contributions are limited by their tendency to focus solely on adaptation plan adoption as a comparative measurement of adaptation policy, and their use of under-theorized hypotheses that draw primarily on the functionalist 'barriers to adaptation' literature rather than considering institutional and ideological constraints within the context of political processes (Wellstead, Howlett, and Rayner 2016).

This paper adopts a policy instruments approach to measuring local adaptation policy mixes, and applies a policy implementation styles framework to understand multilevel influences on policy choice among 125 local governments across five countries (Canada, France, Germany, Netherlands, United Kingdom) (Howlett, Ramesh, and Perl 2009). The model consists of two dimensions, government capacity and policy subsystem complexity, and proposes four implementation styles: public provision and oversight, regulatory corporatism, directed subsidization, and institutionalized voluntarism. Eight hypotheses are derived from this model and are tested using fixed effects and multilevel statistical analysis. Results suggest that most local government implementation approaches represent hybrid forms of the four theoretical implementation styles identified by Howlett et al., with public provision and oversight and regulatory corporatism being particularly common in these countries. Notably, we found that directed subsidization constitutes a relatively small component of local implementation approaches, with the largest share of these local governments located in Canada. Based on the results of this study, we propose an empirical model of local adaptation policy implementation styles to inform future research directions.

Water Pollution Regulation in S. Korean Local Governments: Going Strict or Lenient?

GOOK JIN KIM (Institute of Governance Design) Heungsuk Choi (Department of Public Administration, Korea University)

In South Korea, around 50 million people are residing in a piece of land that is geographically about 1/100 of the U.S.A. Having quite a high population density, the regulations of environmental pollutions have been a national concern of utmost importance and foci of policy interventions of both central and local governments. In the area of river water pollution, the Ministry of Environment put in place a regulation system of total maximum daily loads(TMDL) for the 4 major rivers and pushed the provincial and local governments rather rigorously for their compliance. The Ministry of Environment has also carried out various regulatory policy tools such as direct preemptive regulations, pollution vouchers, etc. in conjunction with the TMDL. When it comes to financial incentives, the Ministry of Environment has been evaluating local and provincial governments for their environmental regulatory efforts, and providing formula-based central grant incentives in accordance with the evaluation results. Substantial levels of variations exist amongst local governments in terms of the strength of environmental regulations, notwithstanding.

The research question of this study is: "What factors or characteristics of the local governance can explain the strictness of local water pollution protection policy?" To address this research question, we develop an index score, which will comprise the dependent variable, that measures the strictness of water protection policies by analyzing the water protection codes of local governments. Two dimensions of water pollution regulations are adopted to characterize regulatory codes of local governments, which is, ex ante regulation VS. ex post regulation and order-directed regulation VS. market-oriented regulation. Using these two dimensions, local water pollution regulation codes are to be classified into four types: ex ante order-directed regulation, ex ante market-oriented regulation, ex post order-directed regulation and ex post market-oriented regulation. (A qualitative comparative analysis(QCA) would also be considered to be adopted to come up with an empirical typology) It would be assumed that ex ante order-directed regulation is most strict, while ex post market-oriented regulation is most lenient. Using these four types of regulatory codes, a polynomial logit analysis will be conducted. As independent variables for explaining the likelihood of adopting another type of regulatory codes over ex post order-directed regulation(or ex post market-oriented regulation), we will use the variables that measure each local city's political, economic and regulatory environmental characteristics, and central government's incentives for local government to tighten the regulation, etc. The model's analytical examination will be based on pooled cross-sectional time series data from 2010 to 2017.

Our study should help us understand the substantive differences in water pollution protection codes of local governments. We will estimate models to explain what characteristics of local cities determinant the leniency of the policies with the four typologies. Our study will also have short case studies on a number of the cities' policies and how they are constructed. Moreover, in terms of practical implication, this study gives the public and the public practitioners more accurate information about water protection statues in their local cities.

Empirical analysis of the interactions between emission trading schemes (ETS) and other urban environmental policy instruments: case studies of five cities in China

Lili Li (Auburn University)

Araz Taeihagh (National University of Singapore)

Policy mixes or policy packages refer to the cases where a set of policy instruments are adopted by decision makers to achieve one or multiple policy goals. The justification for combining the policy instruments is that some wicked environmental issues, such as the climate change, which has multi-causes and exists in complex systems, cannot be addressed merely by a single policy instrument. The policy mix/policy packaging implies that the interactions between the instruments combined can affect the extent to which policy goals are achieved. Literature has explored the typologies of the policy interactions and how the interactions can happen theoretically in some cases. However, there is a lack of empirical evidence. To fill the gap, we perform a city-level empirical analysis of the interactions between urban environmental policy instruments and how the interactions can vary with local institutional contexts.

Anthropogenic activities in urban areas are a major source of greenhouse gas (GHG) emissions. At the same time, cities are threatened by the same problem they are helping to create: climate change. As such, local policy is crucial for making substantive progress on climate change mitigation. The past decade has witnessed the policy efforts of the Chinese Government at the national and local level to reduce the vast amount of GHG emissions to realize its international commitments. In this study, we will focus on the policy mixes used for GHG mitigation in five cities of China: Beijing, Tianjin, Shanghai, Chongqing, and Shenzhen. The five cities have developed the policy pilots of emission trading schemes (ETS) to reduce CO2 emissions since 2013. Pricing CO2 emissions indicates extra costs for conventional energy technologies

(e.g. coal electricity generation) and the market performance of ETS is of importance to its cost-effectiveness. As ETS was added to the pre-existing policy mix in each city, it is important to investigate: (1) how ETS interacts with other urban environmental policy instruments in each city and (2) how these interactions can be affected by the variations of the institutional contexts across the five cities. To answer the questions, we adopt an event study approach. First, we test how the policy change events (e.g. intensity calibration, instrument changes) of renewable energy support instruments influence the direction and magnitude of CO2 price returns based on statistical analyses. Second, as CO2 and air pollutants such as SO2 both come from fossil fuel combustion to a large extent, we test how the policy change events of air pollution control instruments influence CO2 price returns. Third, we test how the policy change events of CO2 ETS influence the SO2 emission levels of the ETS-regulated firms. Fourth, we analyze the differences in the policy interactions across cities and link them to the local contexts. The study collects the CO2 price data from the Emission Exchanges, and collects the policy documents and SO2 emissions of ETS-regulated firms from the government websites. The time range is from 2013 to 2018.

Transboundary water governance in China: policy instruments and implementation

Fang Xu (Auckland University)

Water pollution prevention and control have become one of the priorities in China's environmental policy agenda, critical questions concerning water policy instruments and implementation styles can address the challenges of environmental governance in transition. Policy instruments have varying effects, so governments make choices depending on different political, social, and economic contexts. How are different water policy instruments used in specific implementation contexts? In order to address this question, the paper first analyses the evolution of water policy instruments, focusing on the shift in key policy instrument combinations within a large context of governing transitions in China. They include regulative, economic, political and administrative instruments in the Chinese context. The focus here is on a range of recent water policy instruments in Huai River Basin spanning from 1995 to 2016. Huai River Basin is the first river basin to adopt an overall national policy on water pollution control. Chinese governments have developed and implemented various policy instruments since 1995. Funds were allocated, and measures were taken. However, early policies were unsuccessful - only 20% of water bodies reached the national standard in 2005. After introducing and implementing new policy instruments, the overall water quality had been improved and the defined major pollutants emission were reduced during the 12th Five-Year-Plan. Based on four in-depth, interview-based case studies, and supplemented with official document analysis, the second section explores how these policy changes contribute to different environmental policy implementation modes from the perspective of governing transitions. Within each case, various instruments have been changed over time to deal with water pollution as the nature of state constraints and policy actors. The analysis suggests that legitimacy is one critical consideration of instrument preferences in most contexts. Current empirical evidence to understand the environmental policy evolution and implementation style dynamics in China is relatively scant. The comparative findings in China may be used to develop the model of basic environmental instrument preferences in authoritarian regimes.

Chair : Jeremy Rayner (University of Saskatchewan)Second Chair : Margot Hurlbert (Johnson Shoyama Graduate School of Public Policy)Third Chair : Ishani Mukherjee (Singapore Management University)

Session 3Environmental Policy Effectiveness

Friday, June 28th 10:30 to 12:30 (MB 3.430)

Discussants

Sarah Giest (Leiden University) Ishani Mukherjee (Singapore Management University)

Environmental Regulation, Local Government Execution and Pollution-intensive Industry Transfer

Guoxing Zhang

Wei Liu

Jeremy Rayner (University of Saskatchewan)

Environmental regulation policy is an important basis for China's environmental issues. Pollution-intensive industries are the focus of regulatory targets in environmental regulation policies, and the degree of implementation of environmental regulation policies by local governments will affect the transfer of environmental regulation policies to pollution-intensive industries. Based on the theory of "contamination shelter hypothesis", this study selects Beijing-Tianjin-Hebei and surrounding areas (Henan, Shandong, Shanxi) as the research object, and quantitatively analyzes the environmental regulation policies promulgated by the central government and local governments in 2004-2016. The formal environmental regulation intensity index measured by the central and provincial environmental regulation intensity is used as the independent variable. The total number of regional environmental pollution letters, environmental pollution disputes, and the number of recommendations of the CPPCC on environmental protection are selected to construct the informal environmental regulation intensity, and the environmental regulation intensity is used as the main control variable. The local government's environmental regulation execution force consisting of the regional environmental pollution control investment and the sewage charge collection amount is used as the intermediary variable of the environmental regulation policy which affecting the pollution-intensive industry transfer, and the industrial transfer index is used as the dependent variable. By constructing a spatial panel measurement model, we study the impact of environmental regulation policies on the transfer of the overall industry and ten pollution-intensive industries, such as paper products industry, under the implementation of environmental regulation by local governments. And explore the role of local government environmental regulation implementation. Firstly, we explore the direct impact of environmental regulation policy on industrial transfer. Secondly, we assume that the local government's environmental regulation execution force plays a completely intermediary role in the process of environmental regulation policy affecting industrial transfer, to explore the impact that the interaction between the environmental regulation policy and the local government's environmental regulation execution force has on industrial transfer. Finally, we assume that the local government's environmental regulation execution force has a part of the intermediary role, to explore the common impact that the environmental regulation policy and the interaction between it and the local government's environmental regulation execution force has on industrial transfer.

Research on Index Construction Method Based on Quantification of Policy Literature

Weichun Lin

Guoxing Zhang

Jeremy Rayner (University of Saskatchewan)

Abstract: Policy literature analysis is one of the important ways of public policy analysis. The interpretation of the policy literature can not meet the needs of large-scale policy literature analysis, and the use of proxy variables to characterize the existence of policy documents is partial and inconsistent. The quantification of policy documents can effectively solve the problem of policy interpretation and proxy variables. The key to the quantification of the policy literature is the reliability assurance of the quantitative results and the validity of the quantitative indicators. The existing research has contributed to these two key points, but no system has been formed. This paper systematically proposes how to optimize the policy document quantitative index construction process and introduce relevant tests to ensure that the two key factors can be achieved, which are manifested in three aspects: First, the coding method in the content analysis method is introduced, and the standard coding and classification are used to achieve the reliability of the quantitative results .The second is to introduce the specification requirements of the scoring operation, and use the RWG coefficient to measure the reliability of the scoring operation. The third is to introduce the robustness test method to make sure the robustness of the quantitative indicators, which is proposed from two aspects: weight selection and synthesis method. At the end of the research, the policy literature quantification and its index construction method proposed in this paper are operated and displayed by a case study. Keywords?Index Construction ,Policy Literature, Quantification

The impact of environmental China's provincial spatial pa

Guoxing Zhang

Zhang Zhenhua (School of Mana Reno)

Shunfeng Song (College of Busin

Based on the spatial characteristics of air pollution, this paper uses the spatial panel data of China's provinces from 2006 to 2014 to explore the impact of China's environmental regulation on air pollution. We first quantify the national environmental policy based on policy quantification and then incorporate the central government's policy formulation and local government policy implementation into the intensity of formal environmental regulation. Then, we use the Lagrange multiplier test (LM test) to verify the existence of spatial correlation of air pollution. Finally, we use spatial econometric models to study the impact of formal environmental regulation on air pollution, and further, analyze the moderating effects of informal environmental regulation on formal environmental regulation and air pollution. The results show that although the negative spatial dependence effect of sulfur dioxide (SO2) emission intensity is not significant, FDI has a significant positive spatial spillover effect on SO2 emission intensity in adjacent areas. Soot and dust (SD) emission intensity has a significant positive spatial dependence effect. Formal environmental regulation has a significant negative impact on SO2 and SD emission intensity. In addition, there are some differences between the impact of public environmental participation and the impact of media environmental supervision. The public environmental participation represented by the environmental letter has a significant inhibitory effect on SD emission intensity. Public environmental participation has a negative moderating effect on the negative relationship between formal environmental regulation and SD emission intensity. Media environmental supervision represented by sudden environmental events has a significant inhibitory effect on SO2 emission intensity. Media environmental supervision has a negative moderating effect on the negative relationship between formal environmental regulation and SO2 emission intensity. Keywords: formal environmental regulation; informal environmental regulation; air pollution; spatial dependence effect; policy literature quantification

Potential of water markets as an effective environmental policy tool in efficient urban water service delivery

Maitreyee Mukherjee (LKY School of Public Policy, National University of Singapore)

Water markets have been repeatedly promoted by economists, as an effective instrument for efficient water allocation between competing users. It is also deemed to be a prospective economic tool in response to the increasing threat of water scarcity all over the world. Water markets target to alter the incentive structure in water resource management, by conferring water rights or entitlements to users, that can be bought or sold as a market commodity. Thus, users are motivated to facilitate reallocation of water from lower value use to highly productive uses in exchange of fair compensation (Ostrom, 1965; Howe et al. 1986).

Evidence from existing water market systems such as those in California, USA; Murray-Darling Basin,

Australia; or parts of Chile; support that a well-manged water market system can potentially facilitate economic flexibility among stakeholders, while negotiating a balance between economic, social and environmental requirements of water. In addition to effective reallocation, water markets have also been found to induce water conservation (Howitt, 1994). By reflecting the scarcity value of water through higher price mechanism and augmented transaction costs, it further encourages policy innovations for demand management, stakeholder coordination and research for alternate water resource development (Ostrom, 1965).

However, existent literature in water markets predominantly deal with water trade between firms in the agricultural sector or transfers from agricultural to urban users. Not much research has been conducted to see how similar water market tools may be used within urban utilities or industrial units to incentivize economically efficient reallocation while inducing reduced consumption. Focussing on this gap, my paper aims to examine – 'To what extent can we apply water market principles to benefit urban water service delivery while inducing water resource conservation?'.

The paper would heavily rely on existent literature to identify the key principles, driving factors, challenges in operation of the agricultural water markets, and draw theoretical hypotheses on applications of water market system in the urban sector. In addition, a cross-country comparative analysis would be conducted to draw lessons from diverse evolutionary development and outcomes of water market systems in different political-economic settings. The findings would contribute to literature by identifying a working model for operationalizing water markets in urban context.

Reference

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