

1. Introduction

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CHINA AND RUSSIA: CAPACITY TO GOVERN LOW-CARBON POLICIES?

The global climate crisis has become our most urgent environmental problem. Its causes are embedded in the foundations of our fossil-fuel thirsty societies, necessitating an unprecedented global restructuring of economies and societies. Achieving this will require the cooperation of all governments. Open access to and sharing of information and political will are essential building blocks. In addition, governments must have adequate capacity to govern their societies, to formulate and implement concrete measures, in order to adopt and implement policies which can reduce greenhouse gas (GHG) emissions effectively. This may sound simple – after all, adopting policies and getting them implemented is the basic function of any government. However, policy failures are common in all societies. It has even been questioned whether perfect achievement of policy goals should be the key indicator of policy success (McConnell 2015). In addition, policy outputs, i.e. procedural and regulatory results, with less-than-perfect success rates may deliver positive policy outcomes – in this case, effective actions for dealing with the global climate crisis. On the other hand, measuring policy success is no easy matter. Especially in less democratic systems, data on policy results are not always readily available. Also, democratic systems may fail to report sufficiently detailed data to enable objective evaluations of policy success (Hudson et al. 2019). This makes it more realistic to examine the success and failure of policies by focusing on the policy *processes*, particularly in authoritarian systems (Shue and Thornton 2017). That is the approach we have chosen for studying the complex issues facing China and Russia with regard to low-carbon policies.

China is the world's largest emitter of GHGs, with a 26.8 per cent share of total emissions in 2017; Russia occupies the fourth place, with 4.6 per cent (UNEP 2019). Much of the explanation for China's growing emissions lies in its expanding economic and industrial activity, as well as poverty allevi-

ation and the related use of domestic coal resources. Whereas China's total emissions have been rising rapidly, per capita emissions have until recently remained fairly low in a global perspective. Moreover, China has demonstrated political will to address the climate crisis, by launching an impressive portfolio of low-carbon policies.

That is not the case with the Russian Federation, however, where GHG emissions originate from inefficient use of domestic fossil fuels and their export. Emissions declined sharply in the aftermath of the fall of the USSR, with the closure of many inefficient Soviet-era industrial plants. Since then, however, very little has happened in terms of launching and implementing serious low-carbon policies; the economy and society as a whole have remained inefficient in terms of energy use.

The commitment to limiting the growth of GHG emissions is a significant difference between China and Russia. This is an important point, as such commitment is what drives the adoption of low-carbon policies, and achieving policy goals is one of the dependent variables in our study. On the other hand, China and Russia show similarities as well. The Climate Action Tracker, a scientific assessment of the fair contributions of nations to the Paris Agreement target of limiting global warming to 1.5°C, deems China's policies 'highly insufficient' and those of Russia 'critically insufficient' (<https://climateactiontracker.org/>). For both our case countries, there is still a long way to go to achieve a low-carbon economy.

Moreover, even if political consensus has been achieved at the top levels domestically, weak or uncertain policy implementation processes may obstruct the adoption of ambitious low-carbon policies. That recognition has provided the rationale for writing this book. Commitment to genuinely new and additional emissions reductions on the international level requires adequate capacity to govern policy implementation at home. In both China and Russia, this capacity has been compromised: formal and informal institutions have been at odds, due to factors such as planned economy traditions as the foundations for political, economic and societal transformation processes. These governments have experienced significant uncertainty as to the expected success of policy measures, which in turn is likely to weaken their ability and willingness to engage in serious international commitments. This dynamic is not necessarily anything new to Western policy professionals; however, the practical examples of how informal institutions influence policy implementation in China and Russia that we provide here can facilitate a deeper understanding.

AIM OF STUDY

Viewing the influence of informal institutions as a significant factor for achieving GHG reductions, we examine the space that weak formal institu-

tional systems leave for interests exogenous and endogenous to the policy in question. There may be stakeholders bargaining for local, private or network benefits, while also steering policy processes towards their goals in the absence of sufficient formal institutional basis. Aiming to achieve the stated policy goal, or undermining it by diverting the policy outcome – both with the help of informal institutions – is the key dynamic for our analysis regarding the success and failure of low-carbon policies. In terms of theory, we draw on Helmke and Levitsky (2004), who have taken analytical methods of evaluating informal institutions and their impact on achieving stated policy goals furthest.

The key concepts in this book are *formal institutions*, which are legal structures established to govern a state, and *informal institutions*, which can establish socially sanctioned rules where formal institutions are absent or weak. Following Helmke and Levitsky (2004, p. 747), we define formal institutions as rules and procedures that are created, communicated and enforced through channels widely accepted as official. Common examples of formal institutions are laws and regulations. Informal institutions, by contrast, are socially shared rules, usually unwritten, that are created, communicated and enforced outside officially sanctioned channels. Informal networks, such as *guanxi* in China and *blat* in Russia (see Chapter 3), provide examples of informal institutions: informal arrangements regulated by socially established rules and punishments that can be motivated by goals both divergent and convergent in terms of the formal policy goal. We identify informal institutions on the basis of the criteria set by Helmke and Levitsky (2004). To some extent, this methodological choice complicates the terminology, as not all informal actions can be automatically labelled ‘informal institutions’. For cases which remain unconfirmed as well as general references, we use the term ‘informal practices’.

To understand the challenges of policy implementation aimed at achieving a low-carbon economy in the transforming economies of China and Russia, we propose that the influence of informal institutions can provide explanations of why policies succeed or fail. Here, we concentrate on the implementation process rather than policy formulation, which has been the more common approach. Further, our focus on governing practices that develop as a result of informal institutions gaining importance due to the weakness of formal institutions allows us to go beyond the somewhat artificial distinction between ‘democratic’ and ‘non-democratic’ regime types and a narrow focus on formal governing institutions. What mechanisms influential to the outcomes of low-carbon policies do these institutional dynamics create? What do these mechanisms look like in practice, who drives them and why, and how do they influence low-carbon policy processes? As a result of these mechanisms, what do the outputs and outcomes of climate policy processes look like? Finally, how do these mechanisms differ between China and Russia, in terms of institutional anchoring as well as the ensuing outcomes and outputs? That question

is especially pertinent in view of China's increasing commitment and efforts to develop a low-carbon economy, as contrasted with Russia's almost total lack of commitment.

METHODOLOGICAL CONSIDERATIONS

Our analysis involves two main steps: (1) identifying informal institutions through the Helmke and Levitsky approach and categories, and (2) assessing the impact of informal institutions in achieving formal policy goals. The first step treats informal institutions as the dependent variable, as the research task is to identify them; the independent variables are the intentions of those who turn to informal institutions, as well as the weakness of formal institutions that makes this possible. Once the informal institutions have been identified, the second step of the analysis treats them as the independent variable influencing policy outcomes – actions that serve to reduce or limit GHG emissions, which are then the dependent variable.

Our approach builds on fieldwork-based empirical case studies. Through these case studies, we scrutinize the formulation and implementation processes of existing policies that have potential to reduce GHG emissions: installing solar panels and establishing a local emissions trading scheme in China, and improving energy efficiency and limiting associated petroleum gas flaring in Russia. As per our selection criteria, these all had a sufficiently long period of implementation to expect policy outcomes, the potential for generating major impacts on GHG emissions – and data available through interviews. Case studies were a natural choice, because they can allow glimpses into the 'black box' of policy implementation, regardless of possible problems with generalizability, subjective elements and causal determinism (Gerring 2011). However, the secretive nature of informal institutions necessarily affects the clarity of the insights provided into the very core of the dynamics of the policy implementation process.

For comparability, the case studies follow the same structure. After outlining the case and its background, the formal institutions – laws, regulations, etc. – relevant to the informal institutions identified within each case are presented. Then the informal institutions are identified and discussed: have the policy tasks been clearly established and implemented according to the rules set? Finally, our findings on the informal institutions and their links to the effectiveness of relevant formal institutions are discussed in the context of policy success.

We have made ample use of the significant body of literature available on the more detailed occurrences of informal institutions in the two countries. The most relevant theoretical underpinnings about the societies and political systems here include Lieberthal and Oksenberg's 'fragmented authoritari-

anism' (1988) and Mertha's (2009) update to the latter on China, as well as Heilmann and Perry's (2011) edited volume on variations in China's adaptive governance, and, for Russia, Ledeneva's analysis of *sistema* (2013), Sakwa's work on the dual state (2010) and Kononenko's approach to the network state (2011). This body of literature recognizes the importance of informal institutions to the policymaking systems of our case countries.

The small-*N* comparative political analysis employed here leads to further questions: what can be compared between China and Russia? And what do we seek to compare here? Meaningful comparison of Chinese and Russian efforts to achieve low-carbon economies is difficult, because the two countries differ significantly in their commitments to low-carbon action. Comparing the importance and dynamics of informal institutions in low-carbon policy implementation processes provides a useful glimpse into this issue.

Although implementation rarely proceeds according to the definitions established by formal institutions anywhere, this setting is highly relevant, as informal institutions have been found to be influential in policy processes in both China and Russia – in turn indicating that informal institutions are more deeply embedded in the policy implementation system than in, for instance, Western democracies. Still, given the significant differences between the polities of China and Russia, such a comparison can only provide approximate findings, not a completely clear picture. However, we believe this comparative analysis can provide a more nuanced understanding of the complex picture of the socially constructed policy implementation process than single-country institutional analyses. Informal institutions are seen as an arena for this social construction and we argue that policy implementation processes in these countries cannot be understood by focusing solely on formal institutions.

Ontologically speaking our approach leans towards a more reductionist one in the sense that we operate with a fixed understanding of institutions as our point of departure. This will facilitate our analysis and enable comparisons between China and Russia. This also means that we treat the interviewees as sources of information, not as active actors. Further, our interviewees are mostly second-hand informants, as persons actively involved in informal institutions are seldom willing to share their knowledge, and either decline to be interviewed or avoid talking about matters directly relevant to their involvement in informal institutions.

The original contributions of this work include in-depth comparative case studies on informal institutions in low-carbon policy implementation in two polities that have become increasingly difficult to study. Moreover, the low capacities of domestic implementation processes have rarely been presented as background factors to political decision-making on international climate commitments. Our case studies also provide rare in-depth knowledge of the chosen sectors and the relevant policies in these two key countries. Finally,

recent literature has rarely offered comparisons of Chinese and Russian policy implementation processes and the informal dynamics involved.

The concept of informal institution has been painted with quite a broad brush in the literature, and thus sometimes lacks analytical depth. In order to avoid this pitfall, we apply Helmke and Levitsky's (2004) theoretical framework, which examines the efficacy of the formal institutional framework informal institutions are detected in as well as the supportiveness of these informal institutions to the formal policy goals. This framework has been used by Estrin and Prevezer (2011) in studying corporate governance in the BRIC countries, and by Christiansen and Neuhold (2013) regarding informal institutions in EU decision-making – but, to our knowledge, it has not been applied to environmental or climate politics. Thus, a further contribution is our systematic identification and analysis of informal institutions, placing them clearly in the context of the formal environmental institutions that are bypassed by informal institutions.

STRUCTURE OF THE BOOK

Chapter 2 outlines and compares the main background factors of the societies, economies and political systems of China and Russia. An overview of national low-carbon policies is also provided, including the background on the Russian energy efficiency law, which is equally relevant to both case studies 4 and 5. Chapter 2 forms our point of reference for the ensuing case studies.

Chapter 3 presents our theoretical and methodological framework. Institutional analysis, especially the analysis of informal institutions, functions as a point of departure for discussing similarities and differences between the polities of China and of Russia. The chapter begins by outlining our approach to identifying and analysing informal institutions, drawing on the work by Helmke and Levitsky (2004). Their categorization of informal institutions, based on the effectiveness of formal institutions and the motivations of the stakeholders utilizing informal institutions in terms of aiming at achieving official policy goals or some other goals, paves the way for developing wider hypotheses on the policy implementation systems of China and Russia. The chapter also presents relevant background knowledge on informal institutional phenomena detected in the two case countries that function as conceptual lenses of our analysis. Finally, we discuss our methodological choices, defining the chapter-specific research methods outlined.

Chapters 4 to 8 present the case studies. In Chapter 4, Iselin Stensdal examines the establishment and initial years of implementation of the Shanghai local GHG emissions trading scheme, showing the dynamics involved in achieving policy goals and the accompanying motives in China. The informal institutions identified here are mostly related to informal communication

between stakeholders and the local administration, and are generally supportive of formal policy goals. In Chapter 5, Marius Korsnes analyses the implementation of solar PV policy in China. Particular attention is paid to PV access to the Chinese power grid and the payments of feed-in tariffs, which provide examples of informal institutions between the central government and local governments. When local grid operators opted to buy electricity from local coal generators rather than from PV operators, as they are obliged to do by law, that worked against formal policy goals, whereas the flexibility of allowing PV projects to be implemented, even though there was a lack of funds to pay the feed-in tariffs, was supportive of formal policy goals.

Turning to Russia, in Chapter 6, Anna Korppoo presents an analysis of the restrictions on flaring associated petroleum gas by Russian oil companies. This makes clear the importance of the oil sector to the Russian economy and the significant influence of key stakeholders, through informal institutions. Informal institutions in the oil sector have been working against the formal policy goals by undermining fines, licences and watering down the policy goal itself. In Chapter 7, Korppoo focuses on energy-saving companies (ESCOs), which were launched under the energy efficiency law. Despite the fairly weak formal institutional framework, only a few informal institutions could be identified – which serves to underline the marginality of energy-efficiency policy in the Russian political agenda. Recently, the public sector has started hosting ESCO projects, which suggests that the ESCO concept gained some limited relevance in Russia over time. In Chapter 8, Korppoo continues to examine the energy efficiency law, this time focusing on the tax instruments. The role of these instruments is found to be close to redundant while the state is making use of informal institutions to avoid costs related to the wider adoption of the opportunities outlined by the tax instruments, and, thus, using informal institutions against its own policy goal of improving energy efficiency.

Chapter 9 brings together our findings from the case studies, with comparisons both within and between the two countries. In China, the flexibility left in formal institutions for interpretation and their further refinement makes space for the use of informal institutions, supportive of both formal policy goals as well as more opportunistic, typically local, interests. In Russia, it seems that such exploitation potential could originate from both deliberate actions and procedural developments, mostly depending on the centrality of the issue to the policy agenda as more powerful stakeholders have more opportunities to utilize informal institutions. Thus, the presence of informal institutions in policy implementation was clearly influential in both of our case countries. Informal institutions are more likely to be supportive of formal policy goals in China than in Russia, while the role of informal institutions was found to be crucial in policy implementation processes, even though the state was involved in utilizing them in both countries.

In Chapter 10, we offer some concluding thoughts, and outline hypotheses to be tested in further research. We suggest that informal institutions are a deeply embedded key element in policy implementation in both of our case countries, and that informal institutions more often work in favour of formal policy goals in China than in Russia. Still, we put forward that informal institutions can both support as well as water down formal policy goals in both polities. Based on our case studies it also seems that the state is actively involved in launching and utilizing informal institutions in policy implementation in both countries, and partly also therefore, the low data availability is part of the system. In terms of involvement in solving the global climate crisis, our findings are more relevant to China at this point because it has shown political will as well as effort to curb its GHG emissions. Our findings may be relevant also to other realms of policy implementation in both countries, and show that if sufficiently influential stakeholders are involved, informal institutions can also work for reducing GHG emissions in Russia.

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