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Implementation in transitional countries: a case study of environmental regulation of the post-Soviet oil industry.

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I hearby declare that this thesis is solely my own work and that it has not been, and will not be, submitted in whole or in part to another University for the award of any other degree.

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Abstract

The puzzle that concerns this research project is that of why even prioritised government policies are not necessarily implemented, either at all or within their allocated time frame. The combined contexts of firstly political and economic transition, and secondly a clash of two distinct policies – economic and environmental – can make it easier to answer this question. The last few decades have seen a growing international drive to reduce the negative environmental impact of economic activity. Government regulations play a pivotal role in this trend, but while their clarity, scope and suitability have been improving across the globe, they often fail to achieve desired outcomes. This is especially true in transitional countries. In the post-Soviet states, industrial development can have significant global consequences, but implementation of environmental protection has often been significantly slower than in more developed countries despite the strong official rhetoric about their importance.

Governments face significant barriers to implementation. To uncover what they are and why they persist, this project draws together interview data from 77 interviews (see Appendix A) from four oil-extracting regions across the post-Soviet space. They are the Nenets Autonomous Okrug in the Russian Arctic; the Republic of Tatarstan in southern Russia; Atyrau, the oil capital of Kazakhstan; and Baku, the capital city and key oil-extracting region of Azerbaijan. Implementation gaps and their causes in each region are contrasted to establish the degree of explanatory power of variables derived from inter-regional differences and from prominent literature on public administration and other disciplines relevant to environmental policy and oil.

The first variable investigated is foreign influence, seen as direct and indirect impact of foreign and international NGOs, oil firms and developmental and financial institutions and organisations. The second is state capacity, seen as the quality of domestic regulation and the capacity of executive government structures to enforce it. The last variable explored is that of economic conditions, which takes into account economic sectors and their contribution to government budgets.

The analysis shows that while all variables can have an impact on implementation gaps, they can do so in unexpected ways. Furthermore, although all variables prove to be important for successful implementation, they do not ensure it, working either together or individually. For example, foreign actors can introduce post-Soviet countries to better practices and technologies through norm diffusion, but their equivocal behaviour means that the new norms are not necessarily internalised. Similarly, the quality of regulation and state capacity for enforcement can drive implementation only so far without the political will to channel them appropriately. The variable of economic conditions is the only one that shows a consistent link with the dependent variable, although it cannot explain implementation gaps in all contexts. Comparative analysis does, however, reveal some clear catalysts: implementation appears least successful in contexts of low political stability, with associated levels of corruption, while polluters' conceptualisation of environmental spending as an investment rather than a cost can help drive implementation.

Key words: policy implementation, environmental policy, transitional states, post-Soviet countries, implementation gaps, norm diffusion, state capacity, economic dependence.

Acknowledgement

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Acronyms and Abbreviations

ACG	Azeri–Chirag–Gunashli (oil fields)
ADB	Asian Development Bank
AIOC	Azerbaijan International Operating Company (consortium)
AOR	Atyrau Oil Refinery
APG	Associated petroleum gas
BP	British Petroleum
BTC	Baku-Tbilisi-Ceyhan (pipeline)
CA	Crude Accountability
CEO	Chief executive officer
CIS	Commonwealth of Independent States
CLC	Conventions on Civil Liability
CMOs	Cabinet of Ministers' Orders
CRTC	Caspian Regional Thematic Centre
CSR	Corporate social responsibility
EBRD	European Bank of Reconstruction and Development
EIA	Environmental impact assessment
EI	Environmental insurance
EINGOs	Environmental international non-governmental organisation
EITI	Extractive Industries Transparency Initiative
ENGO	Environmental non-governmental organisation
EP	Environmental protection
EPC	Environmental Pollution Centre
EPI	Environmental policy implementation
EU	European Union
EWG	Environmental working group
FOF	Foreign oil firm
FS	Federal subject
FSU	Former Soviet Union
GDP	Gross domestic product
GEF	Global Environmental Fund
GGFR	Global Gas Flaring Reduction Partnership
H1-7	Hypothesis 1-7
H_2S	Hydrogen sulphite
HE	Higher education
HEI	Higher education institution
IDWG	Interdepartmental working group
IDI	International developmental institution
IFC	International financial corporation
IFI	International financial institution
IHME	Institute for Health Metrics and Evaluation
IMF	International Monetary Fund
INGO	International non-governmental organisation
Intrv./intrvs.	Interviewee/interviewees
IoT	Internet of things
ISO	International Organization for Standardization
IT	Information technology

JV	Joint venture
KFU	Kazan Federal University
KMG	KazMunaiGas
LENGO	Local environmental non-governmental organisation
MDSO	Most Different Systems Most Similar Outcomes
MENR	Ministry of Environment and Natural Resources of the Republic of Azerbaijan
MNR	Ministry of Natural Resources and Environment of the Russian Federation
MoES	Ministry of Emergency Situations
MOFs	Minor oil firms
MSDO	Most Similar Systems Most Different Outcome
MSG	Multi-stakeholder group
NAO	Nenets Autonomous Okrug
NCOC	North Caspian Operating Company
NGO	Non-governmental organisation
NMNG	Naryanmarneftegaz
NOC	Nenets Oil Company
NPS	National public standard
OECD	Organisation for Economic Co-operation and Development
OKIOC	Offshore Kazakhstan International Operating Company
OPEC	Organization of the Petroleum Exporting Countries
OSCE	Organization for Security and Cooperation in Europe
OSR	Oil spill response
PSA	Production sharing agreement
R&D	Research and development
RPF	Russian private firm
RSOF	Russian state-owned firm
RSPP	Russian Union of Industrialists and Entrepreneurs
RT	Republic of Tatarstan
RTI	Research & training institution
RUB	Ruble (Russian currency)
SEE	State Environmental Expertise
SEZ	Special economic zone
SOCAR	State Oil Company of Azerbaijan Republic
SOFAZ	State Oil Fund of Azerbaijan
SSCRA	State Statistical Committee of the Republic of Azerbaijan
TCO	TengizChevroil
TDEP	Territorial Department for Environmental Protection
UN	United Nations
UNDP	United Nations Developmental Project
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environmental Program
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations International Children's Emergency Fund
USA	United States of America
USD	United States dollar
USSR	Union of Soviet Socialist Republics
WHO	World Health Organisation
WWF	World Wide Fund for Nature

WWII   World War II

Figures and tables

Chapter 1. Introduction

Over the last half-century, governments across the globe have come to recognise environmental protection (EP) as a separate policy area. Today, nearly all countries incorporate such policies into their general policy repertoire. Many have also established environmental ministries, committees or other official structures to deliver environmental policy. The countries of the former Soviet Union (FSU) are no exception. Indeed, environmental politics was adopted there even before the collapse of the Soviet Union, accompanied by the creation of an extensive and relatively cohesive institutional framework to deliver and implement EP policies. Following the collapse of the USSR, these frameworks were often further elaborated by individual FSU governments.

At the same time, the political and economic transition that followed independence from the Soviet regime brought greater awareness of the consequences of environmental damage to the general population of FSU states, leading to increased public calls for better EP implementation. The process of transition has also brought a greater understanding of EP values and principles to the governments of these countries, and many adopted a strong public discourse on the importance of EP. Furthermore, the governments of Western countries, as well as international institutions and organisations, have often provided extensive advice and assistance on updating and improving EP policy, legislation and even state capacity for implementation in the FSU space. As such, FSU governments have for some time appeared set to deliver effective EP implementation.

However, FSU countries have modest EP improvements to show for all their work in the decades following independence. Despite all their preparation, FSU governments appear to struggle to actually implement their EP policy commitments. This represents the puzzle which motivates the current research topic: why is it that even relatively well-designed governmental environmental policies are not necessarily implemented, despite strong political rhetoric as to their importance and the social pressure to implement them? The literature does not have a great deal to say in answer to this question. While the evolution of environmental politics and policy in the FSU space has received substantive academic attention, the question of their implementation has attracted limited research.

Ineffective EP implementation in FSU countries is often explained by the more general academic analysis of implementation issues in this part of the world. While this

literature can be a useful starting point, it does not necessarily capture or help explain the unique challenges of EP implementation; for example, its success tends to be more context-sensitive, and therefore far less centralised, than that of more traditional government policies. Logically, analysis of EP implementation should also be local; however, the majority of research on implementation in the FSU countries takes a national perspective. This is partially due to the paucity of available data on the environment and its protection in the FSU space in general, and at sub-national levels in particular. This research project therefore aims to add to the body of literature on local EP implementation in FSU countries as well as to gather and present new data at the regional level.

This project also adds to the exploration of existing theories relevant to implementation. The project's theoretical framework synthesises a range of concepts from theories from several academic disciplines including political science, economics, international relations, and public administration. These concepts are then tested in a comparative analysis in order to provide thick description and increase analytical depth. The theoretical framework for this thesis also steps away from common practice in comparative implementation literature by comparing a wide range of regions across national and sub-national levels, as opposed to focusing on fewer or very similar cases at the same level.

While still being very similar in key literature-supported aspects, and therefore remaining consistent with the chosen comparative approach, selected case studies display considerable variation in their *implementation gaps* (the dependent variable), explanatory variables, and background factors, which becomes apparent in the empirical chapters. In turn, the extent of this variation within the chosen research design adds to the robustness of the subsequent comparative analysis. At the same time, this approach provides a study of different generalist theories and, given the interdisciplinary nature of the thesis, of the relative capacity of different academic disciplines to explain variation in *implementation gaps* in non-standard contexts.

The next chapter of this thesis further explores the central research problem by reviewing academic literature to date; it considers the different definitions of implementation success and lack thereof, as well as investigating the different approaches used to analyse and explain outcomes. This chapter thus presents a study of the different approaches to the analysis of policy implementation and their evolution. In order to illustrate their origins, which in turn determined their applicability, the chapter also takes the reader on a journey from the cradle of environmental politics

and its guiding principles in the United States, to the spread of such ideologies and associated policies to Europe, and onwards to developing and transitional countries. As a result, the chapter draws together academic theories on the general implementation of public policy as well as on the implementation of environmental policies across developed, developing and transitional settings.

Chapter 3 synthesises this profusion of theoretical and methodological knowledge to suit the purpose of the current study. The theoretical frameworks reviewed in the previous chapter are distilled to define the dependent variable as "implementation gaps". The selection of a comparative, small-N approach is justified for its ability to deliver findings that are useful to both academic and policy communities. The chapter then explains the reasons for the pragmatic approach towards case study selection and the subsequent choice of the Most Similar Systems Most Different Outcome research design, which naturally flows from the characteristics of those case studies.

This is followed by a detailed consideration of potential explanatory variables, providing the rationale for selecting *foreign influence, state capacity* and *economic conditions* as variables to be tested, as well as discussing the rejection of other factors that are usually associated with the chosen topic, the reported case studies, or the theoretical approach used: democratisation, corruption, and the resource curse. Each of the selected variables is then deconstructed into individual hypotheses. Finally, the chapter identifies potential approaches to collecting data in order to test these hypotheses, and indicates reasons for choosing semi-structured elite interviews despite the expected difficulties of conducting such research in the FSU space. Strategies for mitigating expected issues are noted.

Chapters 4 to 7 offer empirical analyses of four case studies. Of these, Chapter 4 explores implementation of environmental regulations in the oil industry of the Nenets Autonomous Okrug (NAO), a region in northern Russia beyond the Artic Circle characterised by permafrost and some of the most fragile and unique eco-systems in the world. Although oil exploration started here under the Soviet regime, most extraction did not commence until the 2010s, meaning that NAO operates some of the youngest and most advanced oil technology and facilities in Russia. A large number of oil firms work in NAO, including international companies as well as state-owned and private firms from a number of different countries. NAO also hosts Russia's first and so far only Arctic offshore oil platform. At the same time, the region lacks domestic environmental civil society and attracts significant attention from international actors. In terms of its economy, NAO can be described as a mono-economic region with oil being

the only sector of notable activity. The chapter considers the impact of these factors on the relationships between the explanatory and dependent variables.

Chapter 5 examines another Russian region: the Republic of Tatarstan (RT). This southern region is markedly different from NAO in a number of respects. Firstly, its climatic and geological conditions are a great deal milder. Secondly, RT has not attracted foreign attention: there are no international advocacy groups, international developmental or financial institutions, or foreign oil firms there. Thirdly, RT possesses some of the most depleted oil reserves, and therefore some of the oldest oil facilities in Russia. Furthermore, in contrast to NAO, RT has only one oil firm, which is local and although no longer state-owned nonetheless remains under the influence of the local government. Fourthly, RT's economy is well diversified. At the same time, RT is distinguished by some of the most developed political and economic institutions in the country and a particularly cohesive social structure. The analysis presented in this chapter indicates that this combination of factors at times challenges the pre-supposed relationships in the selected hypotheses.

Chapter 6 transports the reader to a different former Soviet Union country, Kazakhstan, and focusses on its main oil-producing region: Atyrau, located on the coast of the Caspian Sea in the west of the country. This location represents yet another substantively different geological and climatic context. Atyrau differs from the other two case studies also in other key respects. For example, although it has attracted considerable attention from international entities aiming to improve environmental protection, Atyrau has a much more active local civil society with a keen interest in the issue. Another example is the fact that Atyrau's key oil deposits have been developed exclusively by international firms. At the same time, the region's economy, although more diversified than that of NAO, is nonetheless entirely dependent on the oil sector. The same could arguably be said about the national economy. The analysis of these factors in relation to the hypotheses reveals some unexpected findings.

Chapter 7 moves southwest across the Caspian Sea, to the coastal region of Baku-Absheron (henceforth *Baku*) in Azerbaijan. Out of the four case studies, this region operates the oldest oil facilities; they were developed under the Soviet regime and continue to be operated by Azerbaijan's single domestic oil firm, which is also state-owned. However, the majority of Azerbaijan's current capacity for oil extraction was developed following independence: 75% of all oil in Azerbaijan lies within the Azeri–Chirag–Gunashli (ACG) oil deposits, off the coast of the Absheron peninsula, and have been operated by a BP-led consortium of major international oil firms since 1994. Out

of the four, this case study has also attracted the most interest from non-commercial international actors. Azerbaijan in general is also more dependent on its oil sector than the other countries studied, while its governing institutions are some of the weakest. The analysis presented in this chapter confirms the low explanatory power of some hypothesised factors and the higher relative merit of others. In some ways, this chapter also brings the empirical analysis full circle by casting light on the original selection of explanatory variables, although a detailed analysis of this takes place in the following chapter.

Chapter 8 offers a comparative analysis of the empirical discussions covered in the previous four chapters. This chapter highlights the variation in explanatory variables and discusses their relative usefulness in explaining the variation of the dependent variable (implementation gaps). The chapter also brings out other background contextual factors that may be easily overlooked in the context of individual case studies, especially because they are typically overlooked by selected academic disciplines, but whose significance is revealed when cases are contrasted against each other. As a result, this chapter also offers other possible explanations for the observed differences in implementation outcomes, as well as for the applicability of theoretical concept designed to explain such differences. As has already been mentioned in the previous paragraph, chapter 8 also revisits the merit of factors that were taken to be inappropriate as explanatory variables in the methodological chapter.

The concluding chapter takes stock of the main findings of this thesis. Each variable and its components are scrutinised for the extent of their explanatory power. This chapter also highlights instances where variables showed predictive potential in unexpected ways. The chapter then highlights the contribution of this thesis to the wider academic literature, evaluating its limitations and offering suggestions for further research. It concludes by putting forward a proposal to synthesise natural and social sciences in order to explore the practical difficulties of implementing environmental protection policies and reflect on how policy design and institutional structures can be transformed to overcome these.

Chapter 2. Literature Review

Introduction

At present most, if not all, countries have adopted environmental policies and there exists a rich body of literature about policy-making in this sphere. A vast majority of this literature covers the creation and design stages of the policy cycle with there being an unspoken assumption that once a policy is adopted it will necessarily be implemented and will produce intended outcomes (Knill and Tosun, 2012: 148). However, such results all too often fail to materialise, and the resultant 'implementation gaps' (Dunsire, 1978) are especially significant in transitional countries, such as those in the post-Soviet space. In explaining this situation, it is important to understand the unique implementation barriers that even well-designed policies encounter during policy implementation in this particular sub-set of world states. This understanding may in turn help to minimise implementation gaps there.

An exploration of approaches to studying commonly identifiable implementation barriers in transitional countries is the purpose of the present chapter. However, although there exist a number of approaches, which could produce very different results, not all would be suitable for the analysis of the selected context. It is therefore essential to review the full range of interpretations available in the field of implementation studies in order to select an appropriate explanatory framework for the particular problems to be examined later on in this thesis. This is especially important given the relatively broad variation on some parameters between otherwise very similar case studies to be analysed. This literature review therefore examines general approaches used to understand implementation problems as well as those few that have emerged for analysing transitional countries.

A further challenge is raised by some authors (for example, Carter, 2001) who argue that environmental issues are different from traditional concerns of the state, such as inflation, employment and the balance of payments. Unlike these policy areas, that often have a relatively straight-forward solution, environmental issues are labelled 'wicked' due to their multifaceted nature and difficulty of identifying causes or solutions. Furthermore, environmental issues are often trans-border and therefore potentially require not only intra- but also inter-state cooperation in order to develop and implement effective solutions. Given this elevation of environment policy to a different level, it is also important to review how literature interprets implementation problems specific to the environmental policy, and whether such interpretations differ between

mainstream literature and literature pertaining to transitional states. The matrix in Table 1 below illustrates these categories and sets the structure for the following review.

Table 1 – Literature review structure

	Implementation Problems	**Implementation problems in environmental policy**
General	Part 1	Part 3
Transitional Context	Part 2	Part 4

It should be emphasised at the outset that although the review aims to analyse literature exclusively on policy implementation, there are not a great deal of publications available for category 3 and even less for category 4. Review in those parts in this chapter therefore draws on related literature fields of environmental policy (for category 3), and features of transition (for category 4), which are then discussed in terms of their impacts on implementation of selected policy in the selected context.

Part 1: General approaches in implementation studies

The focus on policy implementation as something that does not necessarily follow from policy adoption arguably took root in academic debates following the publication of Pressman and Wildavsky's work in 1973. Since that time, the issue of public policy implementation has been taken up by several academic disciplines and the aggregate body of literature has grown at an exponential rate (Saetren 2005). Among it, Knill and Tosun (2012) identify three main general categories of approaches to studying implementation. In the first category, the top-down approaches (Bowen, 1982; Mazmanian and Sabatier 1983; Sabatier 1986) measure implementation as the distance between intended and actual policy outcomes, placing responsibility for

successful implementation with decision-makers at the top of policy administration. In the second category, bottom up approaches (Elmore, 1979; Lipsky, 1980; Maynard-Moody *et al.*, 1990;) accord a bigger role during implementation to those who are affected by policy outcomes. Implementation success or failure is therefore measured "by the extent to which perceived outcomes correspond with the preferences of the actors involved" (Knill and Tosun, 2012: 155).

Both approaches have shortcomings, and to address these a further category emerged in the mainstream academic literature: the hybrid approaches that combine the first two and enhance them with secondary factors, such as the level of policy ambiguity or the political conflict surrounding the policy issue under study. For example, this wave of literature combined the field of implementation studies with behavioural theoretical approaches, such as game theory (Scholz, 1984) and principal-agent theory (McCubbins and Lupia, 1994; McCubbins and Schwartz, 1984). Other scholars in this camp aimed to refocus the field's inquiry towards the study of 'policy instruments', that are available to policy implementers, as constraining not only policy implementation but also policy development in view of future implementation (McDonnell and Elmore, 1987; Schneider and Ingram, 1990). In his own review of implementation literature, O'Toole (2000) concludes that academia has delivered enough evidence to prove the value of approaches in all three categories.

Despite the pace of initial developments, prominent authors in the implementation field assess that the study of implementation became unfashionable following a peak in the 1980s and entered decline in the 1990s (Barrett, 2004; deLeon, 1999; Lester and Goggin,1998; Schofield & Sausman, 2004; Winter, 1999). Saetren (2005) indicates that this uninterest was most noticeable in the core scholarship, or that concerned with public policy, which came to regard implementation studies as an "intellectual "dead end"" (p.566). Other disciplines, including education, health, law, and economics continue to study public policy implementation but are less interested in building or developing conceptual frameworks. As a result, the above debate on the best approaches for the study of policy implementation has delivered several conceptual frameworks (Van Meter and Van Horn, 1975; Sabatier and Mazmanian, 1980), but has not culminated in fully-fledged theories on the topic. Literature reviews of policy implementation in the 2010s continued to conclude that the existing body of work remains fractured, mostly descriptive, and too often anecdotal (Hupe and Saetren, 2015; Howlett, 2019).

Before moving on to the next section, it would be useful to take a closer look at the concepts and variables that have developed within the more analytical texts in the implementation literature, especially those that are of direct relevance to this research project. For example, the definition of 'implementation failure' differs in academic texts (Knill and Tosun, 2012; Hogwood and Gunn, 1984). At times, it is defined as non-implementation, whereby implementation is prevented from being competed. In other instances, it is taken to mean unsuccessful implementation, or failure to deliver intended results despite full policy implementation. In turn, different combinations of definitions and approaches to studying implementation lead to different interpretations of key barriers to implementation. These include:

- poor choice of policy instruments;

- vague policy content (which allows for high variance of interpretation of objectives/responsibilities);

- bureaucratic drift (which refers to intentional deviation by implementers based on their superior knowledge/experience over policy-makers; or unintentional divergence from policy guidelines due to high fragmentation in implementation delivery, usually due to a lack of intergovernmental cooperation);

- inappropriate institutional structures (and resistance to change from existing institutions);

- administrative problems (physical capacities of implementers); and

- lack of social acceptance for new behaviours promoted by the new policy.

At the same time, these factors have been summarised as cases of "bad execution, bad policy, or bad luck" (Hogwood and Gunn, 1984: 197) or as amounting to the lack of "political will, state capacity and public support" (Nadgrodkiewicz *et al*., 2012: 1), which gives a simplified but instructive indication of the kind of variables used by analyses within implementation studies. However, academia also warns that these elements are, to a degree, natural and expected. In contrast, 'perfect implementation' has been described as "morally and politically quite unacceptable as well as unattainable in a pluralist democracy" since it would require "perfect obedience" and "perfect control" (Hogwood and Gunn, 1984: 198). In that sense there will always be implementation gaps, and it is arguably their size rather than their existence that should be the subject of social scientific inquiry.

Implementation literature also exhibits a debate on whether implementation is a part of or separate from the process of policy-making. The most prevalent conceptions are of

a linear policy life, which squarely place implementation as a successive stage after policy-creation, often presupposing automatic implementation. Some interpretations have moved away from this view and see implementation as an 'interactive', non-linear process (Thomas and Grindle, 1990). This view positions implementation within the decision-making process, implying that implementation efforts and strategies can continue to change, for example in response to the popularity of a reform being implemented.

A further notable observation is of the trends in literature to move away from descriptive accounts of singular case studies and towards the more analytical works, based on comparative small- and large-N studies (O'Toole, 2000). Implementation research has also become increasingly multidisciplinary, as has already been indicated in the description of hybrid approaches. Meanwhile, experiences of developed countries have continued to attract disproportionately high interest from policy implementation scholars, while health and education consistently remain favourites in terms of popular policies for analysis (Saetren, 2005).

Part 2: Approaches to implementation in transition

Whereas the generalist literature on public policy implementation allows greater scope for developing concepts and theorising about their relationships, the more specific contexts, such as those on transition, call for a more empirical approach. Here, theories, frameworks, models and hypotheses, which have been developed in the generalist literature, could be tested for their capacity to explain the observable differentiation of efforts and outcomes pertaining to policy implementation. The transitional context therefore could allow for the refinement of analytical, methodological and theoretical approaches and some scholars have taken up this challenge. O'Toole (1997), for example, explores the applicability of the 'policy networks' framework to transitional contexts, to show that while such networks might indeed improve implementation, their natural development should not be expected.

Overall, however, transition does not appear to be the implementation scholars' favourite context for investigation and thus there is not as much literature in this camp as could have been hoped. For example, a 2005 review of all publications on public policy implementation between 1948 and 2003 (Saetren, 2005) revealed that only 16% of all scholarship did not focus on North America and Europe.

Most often, works in this camp are preoccupied with drawing up lists and criteria from existing generalist literature. For instance, authors have compared large numbers of cases against such a list of implementation determinants (Struyk, 2007; De Melo *et al*., 2001; Nadgrodkiewicz *et al*.) or assessment criteria (Dutz and Vagliasindi, 2000) to test their explanatory potential. Otherwise, authors apply implementation-related concepts to singular case studies, producing mostly descriptive accounts of policy development and outcomes (for example, Garnet *et al*., 1997). Overall, there is little in the way of building or testing models or frameworks.

It is also common for authors in this literature to take a consultative attitude in reviewing popular approaches for selecting implementation strategies / instruments and comparing these to those used to transitional contexts in order to offer advice on improving implementation there (Lotspeich, 1995; Pleskovic, 1995; Soderholm, 2001). This observation reflects the findings of other scholars about the general state of implementation literature: that it has been slow to advance theory building or to develop consistently rigorous research design (O'Toole, 2000; Winter, 2012; Saetren, 2014).

Scholarship tends to invariably argue that transition negatively impacts on policy implementation, but can take different foci of analysis. Some are premised on factors common across contexts. For example, transition can be seen to inevitably worsen implementation because implementation in transitional contexts usually refers to reforms, rather than to continuation of existing policies. As such, implementation tends to upset the established distribution of power among policy stakeholders, which becomes increasingly obvious as implementation progresses, correlating with rising opposition (Thomas and Grindle, 1990). This is not so different from reform implementation in developed contexts.

Other works focus on the characteristics of transition that are present to a much lesser degree in developed countries, and these works are therefore more context-specific. Eilat and Zinnes (2002), for example, assess policy ineffectiveness as directly related to the presence of shadow economies that characterise most transitions. In this context, the state itself might play an active role in the creation or persistence of shadow economies, engaging in unofficial deals that evade platforms where official regulations and sanctions can take place.

Public feelings of unfairness and distrust towards the state in such contexts are said to potentially lead to the disintegration of social morals, fuelling public and economic resistance to the implementation of official policies (Schneider and Enste, 2000). This

could in turn create perceptions of justified intentional non-implementation by public actors, who instead only pretend to implement the policies for which they are responsible (Pritchett and de Weijer 2010). Once informal social norms are thus entrenched, successful implementation of formal standards via formal channels is said to become increasingly unlikely (Camargo and Passas, 2017). The focus on such conditions conclusively moves analysis away from Western countries and makes it specific to transitional settings. It should be noted that all types of works in this camp largely approach implementation at the institutional level rather than by looking at agency, even when agency is discussed, and thus constitute top-down analyses.

Perhaps not surprisingly, much of the literature that touches on implementation failure in transitional or developing contexts is primarily concerned with economic growth and problems of market and political liberalisation (Armijo *et al.*, 1994; Fidrmuc, 2003; Pei, 2002) – issues that are again more appropriate to developing and transitional contexts and which are not necessarily reflected in the key theoretical frameworks for studying implementation, which were developed to explain developed contexts.

Studies of implementation in developing / transitional countries also tend to identify institutional factors as the main barriers to sustained implementation and may therefore analyse the implementation of institutional reform (Balcerowicz, 1994; Fischer, *et al.*, 1996), as well as of policies. It is, for example, stipulated that unless working legal and economic institutional infrastructures are developed first, countries may never exit the transition stage and implementation of any public policy may continue to lag behind (Havrylyshyn and van Rooden, 2003).

Part 3: Approaches to the implementation of environmental policies

An extensive analysis by Saetren in 2005 of all publications on policy implementation by journals of the core (political science, public administration and public policy), near core and non-core disciplines revealed that only 5% of these, or 185 of over 3,500 academic works, were published by environment-related journals between 1948 and 2003. A broader examination of all publications (articles, books, chapters and PhD dissertations) on public policy implementation revealed that environmental policy attracted only 9% of all scholarship, compared by 38% attracted by education policy and 15% by health policy (Saetren, 2005).

Of the above, the core (political science) publications tend to focus on environmental policy to a greater extent than non-core alternatives (Saetren, 2005). It is also the core publications that are most suited for developing conceptual frameworks and theories on implementation, including in respect to environmental policy. Yet attention to policy implementation in general has waned considerably in the core forums since the 1980s and does not appear to have revitalised. It therefore should not be surprising that the literature on environmental policy implementation (EPI) lacks theory development and evaluation.

That being said, EPI is often treated as deserving separate analysis and debate from the more general literature on policy implementation. This is because, unlike problems that the more traditional public policies aim to solve, environmental problems defy solutions, and also because of the more significant costs of policy failure when it comes to the environment. Unlike traditional matters of state, environmental damage has a certain irreversibility (Perrings and Pearce, 1994; Hepburn, 2012). The contamination of physical geography caused by environmental damage, leading to disease and fatalities, are profoundly difficult to rectify. The truth of this took time to sink in both politics and academia.

Accordingly, interpretations of issues, scope and applicability of environmental policy have become increasingly broad over time. These interpretations, and therefore approaches to studying them, also continued to change as formal environmental politics began to spread from the USA to Europe, and onwards to developing and transitional regions, all the while encountering new challenges. The changing attitudes in EPI literature therefore reflect the changing narrative of environmental policy. Changes in one cannot necessarily be understood without knowledge of changes in the other. The following therefore aims to balance the discussions of environmental policy development and EPI in order to tease out how academic interpretations and explanations of the EPI evolved over time.

The story of environmental politics

The very first academic texts on environmental policies in the 1960s and in the following few decades were dominated by the difficulties these policies faced in the United States (Desai, 2002). This reflects the roots of environmental politics. Having first found their way onto the formal political agenda under the Nixon administration in the 1960s America, environmental issues had been consistently championed by the

United States, which at the time led the rest of the world with its willingness and stringency in addressing environmental problems and in developing technological innovations for doing so (Busch and Jörgens, 2005a; Rosenbaum, 2017; Vogel, 2003).

Environmental issues became more important in Europe around the 1970s and more so in the 1980s (Knill and Liefferink, 2013), which was reflected by greater academic interest in this part of the world around the same time (Haagsma, 1989; Hawkins, 1984; Johnson and Corcelle, 1989; Lowe and Flynn, 1989). The literature that followed largely talked of policy development; analytical accounts of EPI in Europe became common only in the 1990s. This decade also saw an increased internationalisation of environmental issues as scientific research increasingly revealed their global nature and the need for international efforts. As a result, international organisations led by developed nations, such as the World Bank and the OECD, began to actively encourage developing countries to catch up and, in combination with natural processes of policy diffusion and assimilation, this led to the global spread of environmental politics (Busch and Jörgens, 2005a, 2005b).

Throughout this process, resistance to environmental policies became increasingly apparent, then expected, and by the 1990s it became considered normal, given the large-scale changes to human behaviour that environmental policies often aim to achieve (Pearson, 1995). It also became accepted that these policies were inherently difficult to design effectively due to the magnitude of tasks they were meant to solve (Walley and Whitehead, 1994). Another cause for issues with policy design was the frequent political confusion over the exact goals that environmental protection was supposed to achieve (McCann, 2013; Turnpenny *et al.*, 2009).

Over time, the instances of resistance to environmental reforms began to show a consistent pattern: as impacts of environmental policy on established behaviour become more apparent during implementation, whatever initial policy popularity existed among the implementers and the general public begins to degenerate (Pearson, 1995). Political confusion from the early stages of policy design often leads to further political confusion as to which objectives could be compromised should they encounter significant barriers during implementation. Concurrently, EPI often adversely affects the disproportionately powerful, economically strategic, and therefore nationally important enterprises. These can quickly organise into coherent opposition and begin to exert increasing pressure on both implementers and politicians to stop or reverse implementation (ibid.).

Although such trends became noticeable across the globe, their extent and severity varied widely depending on a range of context-specific factors. Transitional contexts are one such example. However, the extent of Western influence on non-Western contexts should not be underestimated. Environmental policy has seen direct policy transfer from developed to developing and transitional countries, as well as the imposition by the international donors (without whom such contexts cannot hope to implement environmental polices) of Western models for EPI institutions and policy instruments upon governments in non-Western contexts (Bell and Russell, 2002). It would therefore be prudent first to discuss how implementation is perceived in the areas of academic literature that focus on developed countries before moving on to the analysis of transitional settings.

Implementation of environmental policy in developed states

Academic literature pertaining to developed contexts appears to be split along three broad interpretations (market-centric, state-centric, and behavioural), which emerged as environmental policy space developed over the decades.

Market-centric interpretations

When environmental policy first emerged, it was not differentiated from other policy areas and scholars therefore tried to understand it in terms of already available knowledge and theories. The policy problem was therefore first defined as a result of failure by both markets and governments (Hepburn, 2010) to deal with negative externalities – an issue typically explored and advised on by economists. Some of the earlier literature therefore saw the path to solving environmental issues through the lens of market behaviour and the role of the state in orchestrating it (Coase, 1960; Buchanan and Stubblebine, 1962; Turvey, 1963).

However, by the end the 1960s, the representatives of the economics discipline began to realise that environmental issues were much more complex than the traditional matters of state to be easily plugged into economic models, and that economics did not therefore have the needed answers (Kneese, 1986). Nonetheless, economics literature continued the debate of the content and strategy of environmental policy for decades to come, contributing hundreds of academic works. Authors, however, concluded that although the economic conceptualisation helped explain the presence of environmental

problems, it still could not offer policy makers 'workable' solutions (Baumol and Oates, 1995: 2).

Towards the end of the 20th century the economic debate moved on to the discussion of policy instruments as a way of predicting compliance in the private sector. The debate began to move away from the analyses of Command-and-Control regulations[1], which often concluded that governments are ill-equipped to monitor their economies to be able to effectively influence them (Xepapadeas, 1991; Hepburn, 2010). Increases in enforcement were shown as potentially responsible for growing non-compliance (Heyes, 2000). Specifically, the increase in the potential costs of being caught was observed as leading rational firms to invest in 'uninspectability' by, for example, creating dummy 'sanitised areas' (ibid., p.6), rather than investing in compliance. Meanwhile, improvements in participation by the general public were observed to also lead to worsening compliance results due to its capacity for upsetting unofficial compliance-maximising deals between public and private sectors (Harrington, 1988; Heyes and Rickman, 1999).

Economics literature therefore moved to the analysis of positive incentives, such as the effects of subsidies (Burrows, 1979; Polinsky, 1979), and on to modelling for economic instruments aimed at incentivising the private sector at the level of the whole industry rather than the individual firm. This body of literature often took as its purpose not to explain or predict implementation issues, but to offer solutions, such as the adoption of environmental taxes / charges, including pollution permits, meant to encourage industry to monitor itself (Hahn and Noll, 1981; Krupnick et al., 1983).

State-centric interpretations

The limitations of the market-centric debates to deliver robust environmental policies attracted increasing attention from other disciplines, including law, political science and public administration. It fell to these disciplines to explain the continued reluctance of government structures to move away from the obviously inefficient Command-and-Control measures despite the progress in the debate on alterative EPI instruments mentioned above.

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[1] Command-and-Control regulations / taxes impose explicit limits on permissible volumes of pollution in the industry.

This led to the formation of the state-centric approaches for analysing EPI. Necessarily, the first few works looked at implementation prospectively and descriptively discussed, for example, options for enforcements (Netherton, 1968). As events in the sphere of environmental politics started to provide academics with greater data, analytical works began to emerge and often took an institutional approach to explaining specific EPI examples (for example, Andreen, 1989). Authors came to describe competition for power, the split of resources and responsibilities (Stewart, 1977), and the confusion of policy objectives (Lester and Bowman, 1989) between different levels of government, especially in federal systems, as key barriers to the implementation of national objectives at local levels. The nature of centrally-set policy was also criticised, for example, for being insensitive to local contexts, while others argued that EPI could not be completed unless both policies and implementing structures innovated first (Cortner, 1976).

However, unlike economic texts, this literature refrained from offering a wide range of its own models or frameworks for predicting and/or overcoming failed EPI. Reflecting developments in the wider implementation literature towards the end of the 1980s, academic works in this tradition began to test generalist conceptual frameworks in the context of EPI. Lester and Bowman (1989: 732), for instance, applied the Sabatier-Mazmanian Model[2] in a comparative study of waste regulations at the state level in the USA, commenting that a comparative approach is "essential in testing theories of public policy implementation". However, works avoided developing new approaches.

These observations are indicative of the difficulties with developing models and frameworks for EPI. Lester and Bowman (1989) found that modelling suffered from limited data, non-operationalization of variables, and the high degree of dependence between results and the context of selected policy. As such, although modelling for EPI can show explanatory power in specific instances, it does not easily generalise across contexts. Testing theories, rather than models, reaped similar results: for example, testing the significance of public participation during EPI emphasised the difficulty of producing generalisations from case-study analyses, on some occasions even precluding the analysis of the variable's impact altogether (Desai, 1989).

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[2] A top-down model developed in 1980, which proposes that the success of policy implementation rests on three factors: tractability of the problem, the ability of the statute to structure implementation, and non-statutory variables that affect implementation.

Behaviour-centric interpretations

The 1980s also saw the emergence of social scientific literature that studied behaviour of individual agents in EPI processes rather than observing institutions or the public / private dichotomy. The behavioural approaches tended to examine issues through a bottom-up lens and were concerned with, for example, the puzzle of why environmental interest, prevalent at the micro level of the general public, does not necessarily translate into environmental action either at local or national levels.

For example, authors in this camp examined factors driving the groups targeted by government regulation in their acceptance or rejection of change that environmental policies aim to produce, and tested hypotheses against broadly defined implementation performance (Durant, 1984; Langbein and Kerwin; 1985). Others assessed that policy makers' preconception, as opposed to investigation of both the policy problem and the appropriate solutions, formed a barrier to implementation (Eden, 1996; Blake, 1999).

The focus on agency also revealed that central government and bottom-level implementers might understand EP goals differently. This was observed to result in the confusion over how and what should be implemented, leading to incompatible implementation efforts (Blake, 1999). However, intergovernmental conflict in the right context has also been shown to lead to productive intergovernmental debates, which could test preconceptions and lead to improved implementation (Gormley, 1986).

Other approaches focused on the capabilities of agents to achieve changes in behaviour they are encouraged to make, even when they agree with the overall objectives. These approaches can be seen as criticising government initiatives for aiming too narrowly and failing to alter external constraints that prevent targeted groups from making desired changes (Guagnano et al, 1995; Hallin, 1995; Myers and Macnaghten, 1998).

It should be noted that most non-economic works in this period of time often took a holistic approach in their analysis and those that took a more analytical rather than descriptive style kept the operationalization of tested variables intentionally vague. At the same time, comparative studies had been more often than not based on large-N samples, typically reviewing the experience of the 50 states of the USA. In-depth analysis, especially that based on interview data, was relatively rare.

The spread of environmental politics

Returning to the narrative of environmental politics, the debates mentioned above mostly focused on the experiences of the USA and the countries of the European Union. The key theories, models and frameworks in EPI literature were therefore developed in respect to these geographical locations. However, the 'diffusion' of environmental politics to less developed countries began to capture some academic interest already in the 1970s (Kruse, 1974). Authors with such interest stressed the contextual differences in implementation barriers between developed and developing countries (Mumme *et al*., 1988). These differences may also explain why these works were more descriptive, at most building taxonomies (Ross, 1984), and avoided testing conceptual frameworks that were developed to explain First World phenomena.

The mainstream literature on the implementation of environmental policies continued to show increasing frustration with the development of the field. The United States was bemoaned for offering inadequate data (resulting from slow implementation efforts), which in turn precluded capacity of longitudinal analysis as well as slowing down theory-building (Lester and Lombard, 1990). Meanwhile, the emerging European literature on EPI tended to offer policy recommendations, rather than develop academic theory, or otherwise to mostly offer descriptive accounts of how environmental policies were delivered given the political structures and institutions of the European Union (Martin, 1994), instead of analysing whether they were actually implemented, and if not, why not. This correlates with academic work on the American environmental implementation experience at that time, which often continued trying to prove that implementation does not necessarily follow policy design and enactment (Walker, 1994), instead of examining factors that preclude EPI.

Against this background, the international aspects of environmental politics began to offer more attractive opportunities for analysis. Academics began singling out environmental policy as a good candidate for building international generalisations given the "constancy in policy goals" across countries, thus helping to control for policy change as a factor (Ross, 1984: 491). Scholars of international relations and comparative politics began focusing on the phenomenon of policy convergence in the environmental sphere between countries at different levels of development (Busch and Jorgens, 2005b; Busch, *et al*., 2005). Yet the majority of literature that emerged focused on policy development, rather than policy implementation, and on developing, rather than transitional states. The following section explores the reasons for this lack

on attention to EPI in respect of transitional countries and looks at the few academic texts that do exist with such focus.

Part 4: Implementation of environmental policy in transitional states

The scarcity of literature on EPI in transitional contexts can be explained by a number of factors. For instance, the early research on EPI in transitional countries was taking place during the reign of the market-liberalisation paradigm, which dictated the importance of economic transition to begetting sustainable, consolidated democratisation (Przeworski *et al.*, 2000), which were together expected in turn to lead to natural improvements in non-economic areas, including the adoption and implementation of environmental policies (Bell, 2000; Wamukonya, 2003). Accordingly, there is a marked scarcity of analysis on policies other than economic reform in relation to transitional states.

At the same time, many scholars might have felt that the transitional contexts did not offer anything new for academic analysis. After all, the majority of environmental policies adopted by transitional states were either directly transferred from or inspired by Western models and designed with the invited or enforced help of Western advisers including First World governments, and International Governmental and Non-Governmental Organisations. Some transitional states even have access to online tools allowing them to directly lift text from USA- or European-based law for use in domestic policy-drafting (Amengual, 2013). Meanwhile, actors that encouraged transfer of environmental policy from developed to developing world seemed so certain of success, they often advised the recipient governments to ignore all previous experience within their own states, believing that regimes other than democracy/capitalism could not produce anything useful (Gille, 2000; Baker and Jehlika, 1998). As such, EPI in non-developed countries may have seemed unlikely to provide new findings, which could in turn help explain the low initial uptake of these contexts by EPI researchers.

As data on environmental policy performance started to accumulate in these states with time, it became increasingly obvious that a) the expected automatic improvements in non-economic spheres failed to materialise despite the on-going economic reform and b) that the foreign origin of policies, such as on environmental protection, often itself presented a significant barrier to implementation. This is because, advised to adopt Western models, transitional countries implemented culturally and

administratively alien policies and instruments, which were designed to address often very different problems (Boyle, 1998; Baker and Jehlika, 1998), and were therefore often inappropriate for challenges at hand.

Given these observations, it also became more accepted that traditional approaches to studying EPI might not be appropriate for explaining phenomena in non-developed contexts. It emerged that approaches in the mainstream literature interpreted EPI issues from the perspective of developed nations by making a number of assumptions that did not apply to transitional or developing contexts. For example, 'Western' theories often assumed that firms were privately owned, that information about environmental problems was publicly available (even if the general public chose not to access it), and that there were channels for industry and the general public to influence government decisions. Transitional contexts cannot support many of these assumptions and exhibit significantly wider gaps between legislation and practice.

Researchers therefore needed to adapt and the literature that emerged in relation to transitional countries is correspondingly more diverse than the traditional, mainstream body of works in the EPI field. Although state-centric and economic interpretations were still common, the non-developed contexts also attracted approaches from theories on globalisation, cultural contextualisation, resource curse, and national security to name a few. While this introduced increasing breadth of academic enquiry, each field contributed precious few works to the discussion. At the same time, much of this literature often mentioned policy implementation only in passing and focused instead on other processes as central units of analysis. Otherwise, literature might speak of processes related to EPI but which are either broader or narrow, such as 'environmental management' or 'policy delivery'. Otherwise, literature might not mention environmental policies at all, but present arguments on policy implementation that could be extended to EPI. Meanwhile, a lot of the literature that could similarly explain issues with EPI does not directly approach policy implementation. The impact on EPI of theories and factors that such studies explore can often therefore be only inferred.

It is difficult to categorise such a diverse body of literature in similar ways as in previous sections and a different method might be more useful. Almost all the literature reviewed below has the following in common: it tends to clearly differentiate between some combination of the common stakeholders involved in implementation before focusing on reasons why they cannot, don't desire to, or don't need to comply with or enforce environmental objectives. These stakeholders, in the broadest sense, include the state,

local politicians and bureaucrats, the general public, the private sector (including individual firms and the industry sectors they comprise), and civil society (including established NGOs as well as temporarily mobilised social movements). To capture the complexity of this wide range of institutions and agency, it is arguably more appropriate to organise the following part of review along the lines of the broad stakeholder groups and explore what the literature says about their roles and motivations in respect to EPI, and how these are characterised by academic analysis. Given that this research project focuses on the post-Soviet space as a particular example of transitional contexts, the following discussion draws largely on examples of academic work with interest in that part of the world.

Macro level: government

Academics attracted to the exploration of EPI in transitional contexts often adopt a comparative analytical approach and focus on countries considered as the biggest polluters. These states tend to be well-endowed with non-renewable natural resources and a lot of the pollution there results from these. A significant proportion of literature concerned with EPI in transitional countries has therefore concentrated on the link between natural resources and poor EPI results.

Some of this literature focuses on the economic and political motivations of national governments that took on similar environmental obligations but had different policy outcomes, observing that transitional states without a single valuable, tradable energy resource were forced to search for new sources of energy once its free supply from the Soviet bloc disappeared in 1991. As such, these states often modernised by turning to green energy and were thus able to meet their environmental commitments (Andonova, 2002). In contrast, states that had at least one non-renewable energy resource, that at the time of the USSR's collapse was in high demand from neighbours, did not have the same incentives, kept their polluting industries and were, therefore, slower to see EPI improvements (ibid.).

This outcome has been tied to the tendency of rents from the sale of natural resources to increase state autonomy. Authors observed that since governments of these states do not need to rely on taxation of domestic businesses and the general public, or on international loans, deals and aid, they become insulated against internal or international pressures to address issues such as environmental protection (Aaronson, 2011; Moore, 2004; Pomfret, 2011; Sandbakken, 2006). States where this

phenomenon is observed are described as 'rentier' or 'petro' states. It can be inferred that the capacity and willingness of a 'petro' state to perceive the needs of its people or the advice of external observers are diminished. This is likely to in turn detrimentally affect the state's ability to deliver and implement public policies, such as environmental protection, in a relevant and responsible manner.

Additionally, natural resource abundance has been tied to corruption, and identified with further reductions in institutional quality. This has been linked with further strain in capacity for implementing government policies (including environmental objectives), which could damage profits from key industries (Buccellato and Mickiewicz, 2009; Aaronson, 2011). Given that the elites controlling such industries are mostly interested in profits, speed and volume of industrial output tends to be prioritised over environmental and other regulation (Feshbach and Friendly, 1992), thus stalling the delivery of non-economic policy goals. Even when direct links between natural resources and poor EPI are not drawn, their significance is nonetheless often inferred. For example, natural resources in transitional contexts often cannot be developed without foreign investment, which is often protected against the unstable nature of transition by forging long-term contracts, which can have an effect of inhibiting EPI (Pomfret, 2011).

Meanwhile, a prominent branch of literature focuses on resource endowment as a barrier to democratisation (for example, Obydenkova, 2010), which is in turn assessed as pivotal to the success of environmental upgrading (Congleton, 1992; Neumayer, 2002; Payne, 1995). For example, some of the most polluting and, concurrently, most resource-endowed states in the former Soviet space (including Russia, Kazakhstan and Azerbaijan) are seen as having failed to transition into democracies, as defined by Western observers. The struggle between elites that should have led to democratisation following a change in regime (Higley and Burton, 1989; Gel'man, 2002; McFaul, 2002; Geddes, 2004) has instead been focused on the control over resources in these states and resulted in the emergence of 'personalist regimes' (Geddes, 2004). The winners of this struggle are then said to be most interested in keeping things in stasis (Ganev, 2001) and any reform, including that which could have improved EPI, is stalled or reversed.

Institutions that emerge from subsequent state building are said to be characterised by 'fuzzy and vague rules and norms' (Gel'man, 2012: 301). Their sole purpose has been further described as lying in the provision of 'fuzzy legality' (Cohn, 2001) to otherwise illegitimate political activity. This institutional 'disease' (Gel'man, 2012) intentionally

orchestrated by transition profiteers (Ganev, 2001) weakens the state and its capacity to implement national policies that may have adverse effects on power-endowed elites. Given that the power of such elites often rests on pollution-intensive industries, it can be inferred that formally adopted environmental policies are unlikely to be pursued in practice.

There is, of course, literature that does not focus on resources and that is instead interested in the more traditional institutional aspects. Authors have explored the relationship between different levels of government, observing that EPI is negatively affected by the aversion of bottom-level implementers to centrally planned policies (O'Toole, 1997), and by frequent political competition, suspicion and conflict between different structures responsible for developing and implementing government policies (Cummings and Norgaard, 2004). Others explore reasons for poor stakeholder engagement when environmental policy and laws are drafted (Soderholm, 2001) and link this to subsequent, inadequate implementation targets that damage implementation outcomes. The inadequate development of meso-institutions to facilitate participation capable of solving these issues has also been cited (O'Toole, 1997).

Some authors have concentrated their analysis on environmental legislation produced by central governments of transitional states and highlight issues for EPI here. These works are quite diverse and can highlight the undue influence of politically powerful firms, which tend to materialise in resource-rich countries, on policy-makers (for example, Urrutia, 1988) leading to legislation that circumvents the goals of environmental policies. Others instead discuss the unrealistic nature of environmental laws in transitional states, which are often seen as symbolic by concerned stakeholders (Soderholm, 2001; Bell, 2000) and as unsustainable by academics (Knudsen, 2010).

Meanwhile, some authors focus their analyses on the more international nature of environmental efforts and explore reasons why transitional states often fail to deliver on their international environmental commitments via binding and non-binding international agreements. These studies have identified the following barriers to implementation: insufficient clarity of international objectives (Aaronson, 2011) or assessment criteria for compliance (O'Lear, 2007); lack of explicit punishment for non-compliance (Harrop, 2013); the aspirational rather than realistic nature of such goals (Victor, 1998); and poor international leadership from the biggest polluters among developed nations (Carter, 2001, pp.237-249).

Micro-level: local government

Academic analyses regarding the subnational levels of government often focus on economic and political conditions in which these levels work. For example, it is frequently pointed out that local officials in the former communist space, especially in the first decade of their countries' transitions, were under severe pressures to alleviate financial crises brought on by transition. This often forced local authorities and other actors to choose between local policy objectives (Hønneland and Jørgensen, 2003; Suopajärvi, *et al.*, 2016), namely between maintaining adequate living standards for the local population, and enforcing policies (such as environmental protection), which could instead lead to increased unemployment and associated social ills. Although it is typical for a government's economic and environmental objectives to compete, the choice between them was made more significant by the context of severe resource scarcity and rising poverty in a context of near economic collapse.

Although authors acknowledge that there exist instances where local governments have successfully implemented environmental improvements despite these significant barriers, they do not necessarily provide a detailed analysis of how this was achieved beyond mentioning strong links between local governments and polluting industries (Thomas and Orlova, 2001). Literature instead seems to suggest that it is far more common for environmental policies to be marginalised at the local government level. The necessity to implement formal, national-level environmental policy has been observed to be crowded out by the realities of countervailing survival necessities of local political, economic and social contexts (Millard, 1998; Swanson et al., 2001; O'Toole and Hanf, 1998). Literature points to single-industry cities and towns, which host some of the most polluting industries in the post-Soviet space, as being particularly affected (Kryukova, *et al.*, 2015). Although these examples could be used to either support or challenge traditional approaches to studying policy implementation, authors do not necessarily mention such formal frameworks of analysis and instead use more holistic methodologies.

Some authors focus less on the capacity of local governments and more on their inter-relationships with other actors, which could be extended to the analysis of EPI performance. For instance, it has been highlighted that local officials often depend on industry for political support (Andonova, *et al.*, 2007) due to close patrimonial links between political and economic elites in transitional contexts, but also due to the need to support local employers and achieve greater economic growth to alleviate welfare struggles brought on by the shock of transition (O'Toole and Hanf, 1998). There are

some allusions to corruption in these discussions, and many studies directly focus on this phenomenon. The impact on the implementation of environmental and other governmental policies can be inferred from such studies, but direct reference is relatively rare. Those that do focus on implementation, arrive at conclusions similar to those in the literature camp mentioned directly above: economic goals win over official commitments to EPI; and when EPI is pursued, only 'reactive', short-term solutions are usually implemented (Millard, 1998; Baker and Jehlika, 1998).

Regulatory agencies

Literature on the processes of actual regulation sits across a wide range of approaches, including those that concern institutional or structural transformations, the extent and quality of state capacity, and the quality of written legislation. The following discussion examines what the different approaches reveal about EPI in transitional context.

In analysing regulators' efforts in EPI, some works take an historic viewpoint, tracing the origins on modern behaviour that impacts EPI. For example, the long period of centralised control in Russia from Tsarist to the communist era has been linked to the development of certain tendencies in bottom-level regulators across the post-Soviet space: namely, the over-dependence of administrative and regulatory structures on upper levels is said to have fostered a perverse tendency for bottom levels to 'wait for the state to act' even when responsibilities for action have been delegated (Walewski, cited in Millard, 1998: 151).

Accordingly, the absence of experience in self-governing has been linked to the failure of governments and regulatory structures at sub-central levels in developing skills necessary for environmental policy enforcement (Kolk and van der Weij, 1998; Lotspeich, 1995), which forms an important part of EPI. Issues with regulatory staff quality have been similarly linked to historical traditions: tribalism rather than meritocracy has been identified as persisting within recruitment processes, including for environmental regulatory agencies. This has been said to perpetuate unprofessionalism and give rise to corruption (Cummings and Norgaard, 2004) that detrimentally affect the agencies' EPI efforts.

Cultural and historic heritage of formerly communist states has also been linked to the regulatory regime's choice of taxation as the main policy instrument (Soderholm, 1999, 2001; Lotspeich, 1995). The traditional function of taxation in this part of the world has

been historically seen as to raise revenue by punishing non-compliance, rather than to influence behaviour, and this conception is still haunting policy implementation today (Groth, 2005). The absence of functioning accounting and auditing system has also been linked to the limited success of economic EPI instruments, since without them regulators have incomplete information about firms' emission levels and compliance costs (Lotspeich, 1995). In the absence of these systems, regulatory agencies are forced to estimate and rely on the trustworthiness of firms' self-reporting. It is, therefore, unlikely that economic policy instruments will be used effectively until *perceptions* as well as market, legal and social structures in transitional countries approximate those of Western economies.

Some arguments have been made to look for causes of poor EPI within the process of transition rather than before it. For instance, the downsizing of the public sector, which often accompanies transitions of this kind, has been said to exacerbate the shortcomings of sub-national regulatory structures. This is because downsizing tends to hit the lesser-prioritised ministries and their delivery and regulatory agencies the hardest. This includes environmental regulatory structures, which have been politically marginalised, understaffed and underfunded for almost as long as they have existed in the formerly communist space (Bell, 2000; Amengual, 2013; Millard, 1998). Meanwhile, the generally low salaries offered by the public sector exacerbated the situation further by failing to attract or retain professional and appropriately qualified regulators (Forowicz, cited in Millard, 1998: 156; Cummings and Norgaard, 2004). The process of public sector downsizing has also frequently seen environmental and energy agencies being merged but losing qualified personnel in the process (Wamukonya, 2003), further reducing regulatory capacity for EPI.

Others have pointed not only to the change of public structures but also to the manner of that change. The process of transition creates institutional instability, in which existing and emerging structures continue to change, split up, backtrack, leap forward and U-turn. The institutional theory, which dictates that institutions largely remain constant with only incremental change, either does not apply to transitional contexts (Peng & Heath, 1996), or has to be viewed as a compressed process with change happening at a much faster pace (Ahlstrom and Bruton, 2010). The rushed nature of environmental reforms has been ascribed with leading to unplanned, unguided and unmonitored implementation, where implementation pace often leaves no time for evaluating how well implementation is progressing (Wamukonya, 2003: 1283).

Literature has also identified that speed and effectiveness of implementation is being affected by the objectives and sources of sociopolitical pressures that drive them, and by the presence, nature and capacity of institutions for mediating such pressures into action (Boyle, 1998, Cherp, 2001). Yet such pressures and institutions have often failed to materialise in states that are further away from Central Europe. Meanwhile, the inability of the state to form cooperative relationships with newly privatised industrial sectors has been identified as having a knock on effect on the ability of the regulatory agencies to ensure regulatory compliance (O'Toole, 1997). Literature speaks of occasions where regulators lack legal powers to access industrial facilities for inspections; or are coerced by politically powerful individuals within and outside government against enforcing penalties following proven violations (Bell, 2000).

Private sector

Mixed in with the state-centric interpretation discussed in the two preceding subsections are some notions of economic analysis. Kerekes (1993), Lotspeich (1995) and Swanson et al. (2001) identify monetary constraints on firms as important barriers to compliance by industries: firms are seen as unprepared or unwilling to cover the costs of meeting environmental standards, and this stalls the delivery of environmental policy goals.

Related to this analysis is Andonova et al.'s (2007) interpretation of implementation problems being exacerbated by the process of globalisation. This branch of literature 'precipitate[s] a race to the bottom in environmental policy' (p. 783) since environmental regulation and other policy instruments could impose additional production costs and damage domestic industries' international competitiveness. Thus, businesses are said to be expected to form opposition and display resistance to environmental regulation, preventing successful EPI.

Concurrently, as economic activity in some of the resource-rich former-Soviet states began to pick up following the signing of oil-related international deals, the phenomenal increases of cash flows from some of the most polluting industries into the treasury, and subsequently into local government budgets, were expected to crowd out political will to pursue environmental regulation whenever environmental and economic concerns come into conflict (Andonova *et al*., 2007).

Perhaps paradoxically, economic developments were to an extent mirrored by extensive development in environmental regulatory legislation. However, this often

produced highly complex, entangled and sometimes nonsensical and unachievable environmental requirements and authors have indicated that these processes may have detrimentally affected EPI since ever-changing regulations can be difficult to keep track of (Ahlstrom and Bruton, 2010: 541).

Frequent legislative change has been in turn accompanied by turbulent shifts in the institutional framework responsible for environmental protection. The number of uncooperative and uncoordinated public bodies with EPI responsibilities quickly multiplied (Bykov, 1999) and this situation has also been linked to poor EP compliance for its tendency to foster corruption (Ahlstrom and Bruton, 2010: 535) and create uncertainty (Zamulin, 2003; Amengual, 2013). Literature indicates that these settings led to private firms investing into finding legislative loopholes (Ahlstrom and Bruton, 2010) and moving into the grey economy outside the regulated framework (Amengual, 2013), instead of seeking ways to comply with environmental laws. As such, the literature paints a picture in which institutional and regulatory environments of the transitioning former Soviet Union (FSU) failed to facilitate a healthy business environment conducive to motivating the private sector to innovate in ways that could deliver successful EPI.

Some authors have also explored the role of international firms in EPI of transitional countries. Pollution haven literature warns that many multinational firms look to settle in developing countries with weak regulatory systems precisely for the ability to outsource polluting behaviour (e.g. Copeland and Taylor, 1994). Corporate governance literature, however, hopes that multinational firms can introduce more environmentally friendly technology (Epstein and Roy, 1998) as well as more environmentally responsible codes of practice (Soderholm, 1999) into developing and transitional countries. It is possible to infer from such literature that the involvement of international firms could have a significant impact on EPI efforts in transitional states.

Civil society

Literature interested in EPI in transitional space often mentions the role of the civil society. For instance, it has been stressed that environmental issues gained political recognition in developed countries as a consequence of strong societal pressures through established channels for translating such pressure into political action (Boyle, 1998), whereas environmental policies in the developing / transitional contexts are often introduced in the absence of such internal pressures and as an attempt of

national governments to keep up with Western fashion (Roque, 1986: 154; Lotspeich, 1995). In other words, authors point to the reversed order of things: whereas in the 'West', environmental policies and their implementation were pushed from the bottom-up, in non-Western states they are instead introduced from the top down without significant public support or cultural attitudes that could accord high socio-political repute (and consequently political power) to environmental institutions responsible for EPI.

Authors have also highlighted the nature of civil societies in transitional contexts as preventing this stakeholder group from playing an active role in EPI as would be typical in the developed countries. For instance, it has been found that public support for politically unpopular policies such as environmental protection in this part of the world tends to be local, widely dispersed and lacking consensus on means and goals (Andonova, 2002: 18). This is seen as preventing civil environmental movements from forming into permanent NGOs that could transfer environmental concerns into a clear, unified voice with political weight and influence over EPI (O'Toole, 1997). Consequently, civil movements remain inexperienced and lacking in skills to articulate and communicate viewpoints between the formal EPI institutions and the wider civil society (Aaronson, 2011). Conversely, some authors put the lack of constructive conversation between public and not-profit sectors on EPI down to the latter's perceptions of prevalent corruption in the public sector (Bell, 2000) and the resulting cynicism towards formal government structures responsible for EPI (Bell, 2000; Slim, 2002).

Otherwise, civil society has been observed to prioritise more immediate needs over interests in the environment (Aaronson, 2012; Bell, 2000: 27), precluding civil participation in EPI. Authors have also identified some instances of corruption within environmental NGOs in the post-Soviet space (Golumb, 2003; Gunaratne, 2008), which could also help explain the low support for EPI across the general public. Other prominent issues addressed in the literature are those of human rights and the increasing tendency of transitional governments to limit freedoms of speech and association in recent decades, especially in the sphere of environmental protection (Feldman and Blokov, 2009). In some countries, even discussing certain politically unpopular matters, such as pollution by big companies, is socially and culturally discouraged (Bryan and Hoffman, 2008). Although not necessarily directly related to EPI, these works also offer reasons for the relative lack of participation compared to developed contexts where it has often been proven to have beneficial impact on EPI.

Conclusions

Overall, it is difficult to differentiate implementation problems in environmental policy from those in other policies in transitional literature. The political, economic and social systems that transitional governments aspire to secure for their countries via transition are often all entirely new. All spheres of society have to develop new perspectives, attitudes and behaviours. In a sense, FSU states must undergo a triple transition (Bunce, 1995): from communism to democracy; from command to free economy; and from an empire to several, individual nation-states.

The main factor that seems to differentiate environmental policy and regulation from other policy fields in transitioning FSU countries is the prevailing cultural misallocation of importance to environmental issues. This is especially strong among the ruling elites, who have traditionally accorded little value to the environment. This ignorance only persisted as attention of the FSU governments became consumed by other major issues brought on by transition, including rocketing inflation and plummeting social welfare (OECD, 2006).

During the communist regime, the concept of unemployment was rare. Once markets were liberalised, many firms either shut down or had to lay off a great number of workers, leaving an even greater proportion of the population in poverty. In these conditions, the state and the regulators could be expected to have little interest in handicapping even the marginal firms with additional costs of production or shutting them down in accordance with the official environmental regulations, for fear of creating additional unemployment, especially in settings where the polluter may be the only employer (Bell, 2000: 22).

This is partly due to the inflexible nature of enforcement tools prescribed by the regulatory regimes in many transitional FSU countries, which aim to punish the offender instead of changing their behaviour. Tools such as 'fees, fines, criminal liability, and the threat of plant shutdown' (Bell, 2000: 30) paint a black and white approach to regulation, and enforcement of this kind is indeed not always in the best interests of the local economy.

As a result of institutional inertia, environmental objectives are often put on the backburner until better times (Andonova, 2002). Indeed, many international financial institutions, who often have been and remain the main source of development / transformation advice and funding, themselves have for a long time treated environmental improvements as expected by-products of achieving a healthy economy

and strong institutional capacity (ibid.) and have thus rarely encouraged a prioritisation, or even pursuit, of environmental objectives.

This is the narrative on transitional states that emerged out of the literature review. In terms of limitations on governments to pursue environmental objectives, authors often cited: poor regulatory capacity; socio-political prioritisation of development over environmental concerns; and lack of transparency resulting in regulatory inaction. In terms of limitations on the general public to incentivise its government to prioritise the environment, literature highlights that environmental awareness or interest among the general public remains relatively poor. This condition either precludes civil engagement with the issue or causes social resistance to environmental regulation due to societal misunderstanding of its objectives (Amengual, 2013). Many authors also identified the transition itself as a reason for problems with administrative and regulatory capacities and for the plummet in popularity of environmental issues among both the general public and the governing elites.

Environmental movements could help mitigate this process by educating both factions about the value of environment and the consequences of environmental damage. However, where environmental movements exist in the FSU space, they tend to be too diverse, or to lack resources and experience (O'Toole and Hanf, 1998). As a result, they fail to amount to a comprehensive, organised political movement or an effective educational body able to generate public acceptance and support for environmental objectives (Knill and Tosun, 2012).

What comes across very strongly in the literature is that there must be a comprehensive, concurrent change among many different elements:

- state capacity must be improved to become consistent, transparent, cooperative, accountable and corruption-free;
- social movements must be prepared to cooperate;
- there must be available, extensive, and evidence-based information;
- industry must be able to comply with the aims of EPI, and
- laws and regulations must be reasonable and appropriately flexible.

If one element is improved but the others remain unchanged, a successful outcome is unlikely to emerge.

Few studies try to apply theoretical frameworks or explicit formal models to explain the process of environmental policy implementation in general. Meanwhile, theory-building

on implementation in transitional contexts is especially scarce. This may well be due to the rapidly changing institutional structures observed under transition, which defy categorisation and predictability (Cherp, 2001), as well as a lack of transparency in political and economic processes resulting in insufficient data on implementation for academic analysis (Andonova *et al*., 2007: 789). When theory is discussed, it is usually in the context of comparative case studies, where existing Western theories or taxonomies are superimposed upon empirical observations in transitional contexts. Overall, too many studies still focus on singular post-Soviet states and either treat them as the only unit of interest, or try to generalise upwards.

Chapter 3. Theoretical framework

Introduction

This chapter sets out the structure of research and analysis in this thesis, as well as explaining how and why this structure was selected. It begins by explaining the interest in implementation gaps as a dependent variable and explores the definition of this concept before deriving the central research question to be pursued in this thesis. Subsequent sections outline the methods and approaches that have been used in order to answer that question. The reason for selecting a comparative approach are explored, as well as the choice of countries and regions within them deemed appropriate for such a comparison.

This is followed by a brief discussion of the range of explanatory variables that have been considered, as identified from the preceding literature review. Reasons are given for selecting some and not other variables. Each of the selected variables is then operationalized, deconstructed into composite parts, and turned into individual hypotheses. The last section of the chapter sets out considered and selected approaches to data collection. This section also mentions limitations of the selected approach and offers measures to mitigate these. The chapter concludes by committing to retrospectively consider the merits of methodological decisions at the end of the thesis.

Theoretical framework

The vast majority of academic attention is drawn to the emergence of policies as the more interesting stage of the policy cycle. A number of models have been developed to explain how and why policies arise and change. Although it has now been widely accepted that policy-making is a non-linear process, of which the implementation stage is an important part, this stage does not seem to incite the same level of interest. The study of policy change in recent decades has shown little interest in how policies perform or why they needed to change. Rather, analysis often presents a narrative of policy change as a natural, dynamic process (Kingdon, 1995; Sabatier, 1999; John, 2003).

However, a number of academics in the literature reviewed in Chapter 2 concede that policy implementation is affected by internal problems, such as poor policy design, and

external factors including those of structural, institutional, social and political nature. Such barriers can distort the appearance of a smooth, inevitable transformation of policies as a natural process. Just because a policy exists and has been put on the formal agenda of a ruling government does not guarantee policy success. As such, the practical reality sometimes reveals a very messy picture of policy performance where implementation is incomplete, counterproductive, inconsistent and contradictory (Larson, 1980; Malen, 2006; Hudson *et al.*, 2019).

In countries chosen for this research project there exist relatively coherent frameworks of environmental policy and associated regulations, as is discussed in the empirical chapters. Policy content and design are of relatively high quality, given that these governments have had guidance and advice from international consultants and governments of developed countries, where these policies originate. Yet, these policies have not been as successful as expected. Most often, this failure has not been the case of unsuccessful implementation, which implies that intended plans were put into action but did not deliver expected outcomes. On the contrary, very few transitional countries witnessed complete implementation; most policy components get stuck during implementation by failing to secure target groups' compliance.

Literature review in Chapter 2 identifies the problem of such non-implementation as a failure on the part of the target groups to comply with government-enforced rules; and as a failure of the government to enforce such compliance. It is important to differentiate between these because they stem from different causes. Lack of *compliance* at the local level may be:

- cultural,
- economically driven (for example, by want for profits), or
- politically necessary (driven by a priority to keep the population above poverty).

Failure to *enforce* may be caused by:

- poor policy design (making the policy unimplementable),
- inadequate legal power of the regulatory agencies to implement / enforce,
- inefficient / non-existent institutions, or
- insufficient numbers, training or other resources needed by implementers.

The *political will* to implement is yet another factor. Implementers might have reasons to intentionally fail. This may be due to their poor opinion of the policy goals or design. It could be because they have other local policy priorities. Alternatively, in a context of

transitional countries with weak formal structures and a lack of transparency and accountability, it might be profitable not to implement. In a system where appointments to all tiers of society are often made by personal recommendation, making business difficult for important individuals might be detrimental to prospects of further personal promotion. It may also be the case that implementers receive unofficial financial or material incentives (bribes) not to implement, or they simply choose to squander government budgets allocated to their implementation unit on personal goals because conditions prevalent in transitional contexts allow for such practices to go unnoticed or unpunished.

In light of the above discussion, policy 'implementation' can be conceptualised as a synthesis of these three components (*compliance*, *enforcement*, and *political will*). Even then, operationalising implementation success or failure is a complex task. Having reviewed a range of literature on the topic in the preceding Chapter, most of which has intentionally chosen vaguely defined approaches to extend the scope of analysis, this thesis has adopted the top-down concept of 'implementation gaps', defined as disparity between intended and actual results, as the most suitable framework for the study at hand. Accordingly, these choices set 'implementation gaps' as the dependent variable for the following analysis, in which a number of explanatory variables are deployed in order to explain variation in implementation success. In line with the conceptualisation of 'implementation' itself, as outlined above, explanatory variables are specifically tested for their ability to impact *compliance*, *enforcement*, and *political will* as interlinked but separate components that are necessary on the path to materialising policy intentions.

At the same time, academic research has shown that relaxed, secretive and informal styles of environmental regulation can be just as effective as the stringent, formal and indiscriminating styles (Vogel, 1986). Therefore, the often-informal nature of regulation in transitional countries might not in itself be the cause of poor policy outcomes. The responsibility may instead lie with the component parts of regulatory regimes, which foster either one or another regulatory style for the purposes of policy delivery. Accordingly, while this research project aims to examine structural purposes, in so doing it approaches the representatives of the stakeholder groups involved in policy implementation. This represents an element of a bottom-up approach, which advocates a view that local actors can exert significant impact on policy delivery independently of policy design and content. As such, this theoretical framework marries top-down and bottom-up approaches in order to increase analytical depth.

This approach also helps determine the groups whose views should be considered in order to understand interaction between implementers and polluters (as policy target groups). They are national and local governments and regulatory agencies; courts, oil firms and their employees and subcontractors; international organisations, investors and institutions; the civil society, academics; and the media. In trying to understand how agency, represented by these groups, affects institutional and structural processes, which in turn produce policy outcomes, this project lends itself to a hybrid theoretical approach in the pursuit of answers to the question: are regulations successfully implemented to produce the desired policy outcomes in transitional contexts, and if not, then why not?

Method

The selection of a method, with the help of which the above question can be answered, should also facilitate another ambition: it should help a researcher fulfil the intentions behind the research project. This researcher holds with Flyvbjerg's (2006: 219) assessment that the primary aim of social science should lay in the development of generalisations. Generalisations based on the analysis of a single case study tend to be fragile. In contrast, the comparative method has been described as "one of the primary means for establishing social scientific generalisations" (Ragin et al., 1996), and therefore appears a logical choice to take forward the present project.

This particular method also complements the aims of this research in a number of other ways. For instance, comparison allows social research to approach the conditions of experimental method, which is considered to be the prime method of scientific enquiry, but is ordinarily unattainable in social disciplines. Comparative approach does this by creating a type of control on variables: similarly to the true experimental conditions, which allow a researcher to hold constant all but a few variable, comparative analysis allows research to focus on a small number of key factors. This becomes possible by comparing across contexts and focusing on either most similar or most different factors between; all other factors are thus controlled for as background context (Collier, 1993). Although variable manipulation is not possible in social sciences, the comparative approach allows analysis to trace existing variation in selected factors and test whether such variations correlate with variation in the behaviour of the dependent variable, or 'implementation gaps' in the present research project.

At the same time, unlike quantitative methods, the qualitative comparative approach does not stifle a researcher's ability to explore the 'why?' as well as the 'what?' when correlations are observed between variables (Lijphart, 1971: 685). Because analysis traces existing, often historic differences in social interactions, rather than causing them through manipulation, this methodological approach can produce 'thick description' (Geertz, 1973) that is necessary to explore causality in observed correlations. Importantly, the comparative approach allows for this process to be applied to the number of variables that is manageable for a social science.

Furthermore, the comparative approach allows for the analysis at multiple levels (Denters and Mossberger, 2006): it reveals differences between social systems and allows for an exploration of how these differences impact on actors and institutions within them (Przeworski and Teune, 1970), as well as exploring the interrelations between the actors and institutions within and between systems. This element is particularly important for the current research project given its compositional structure. For example, even the dependent variable has been defined as essentially consisting of three parts (*compliance*, *enforcement*, and *political will*), each referring to different actors or institutions at various levels of government, and which are in turn inevitably influenced by the social, political and economic systems in which they are embedded.

What is more, comparing across a range of cases allows analysis to make pragmatic observations, which could be useful to policy makers as well as academics. In regard to the present research project, such observations could include whether a particular barrier to implementation represents an international trend, or at least a trend across the selected world region, as opposed to being specific to a singular location. Conversely, the comparative method also allows the testing of concepts from broad theories on causal relationships that are hypothesised to apply across contexts. Comparison can therefore help to discern whether generalisations about social relationships hold and if not, then to identify the particular contexts in which they fail to explain occurrence and variation of the social phenomenon under study, thus helping to refine social scientific theories (Dogan and Pelassy 1990). This is particularly relevant to the present research given its interdisciplinary approach, which presents an opportunity to test which theorises can better predict causes for variation in implementation gaps.

The necessities of data collection, the product of which is used to test the dependent variable, present yet another reason for selecting the comparative method. Given the sensitive nature of social behaviours that stand to be tested, it is highly unlikely that

sufficient quantitative data on these are available. This circumstance predisposes this project to qualitative alternatives, which does not sit necessarily easily with the often-positivistic epistemology of political science. A comparative approach, however, allows for a marriage between them, allowing research to draw positivistic conclusions from the interpretation of qualitative data. Even so, the sensitivity of processes implied within the dependent variable introduces potentially significant barriers to the collection of any type of data. A pragmatic case selection, as opposed to a representative one, could go some way in mitigating such challenges and thus produce useful data (Stake, 2005). The principles behind the comparative method would not hinder such a resolution.

Case Selection

The selection of a comparative method guides the selection of case studies for the following analysis by presenting two main approaches:

1. those that compare very different cases with only a few variables that are the same across them. This approach implies that those variables are probably the true causes of the social behaviour the study wishes to explain. This approach is commonly referred to as the Most Different Systems Most Similar Outcomes (MDSO); and

2. those that compare very similar cases with just a few factors being very different across them. This approach suggests that it is the variation in these factors that produces the social behaviour under study. This approach is known in the field as the Most Similar Systems Most Different Outcomes (MSDO) (Burnham *et al.*, 2004).

Concurrently, and in line with the earlier mention of the merit of pragmatic selection, the choice of case studies should be also guided by the skills that are available to the researcher. In the given case, this researcher is fluent in Russian language and enjoys an extensive knowledge of Russian-speaking cultures. Utilisation of these insights immediately narrows the selection to key oil-producing states of the former Soviet Union (FSU). Decades of direct control from Russia – under Tsars and then the Soviets – left a lasting heritage of literature-supported political, social, economic and institutional similarities between such countries. This closeness, although not absolute, arguably makes these countries as comparable as possible and hence determines the MSDO as the most appropriate choice of research design.

In turn, this design also helps to reduce the number of case studies and thus to avoid a situation where the number of variables outnumbers the number of existing cases, which tends to produce overly contextual findings that defy generalisation. This is because there are relatively few comparative oil producers within the FSU space in terms of volumes of extraction and developments in the hydrocarbon industry. They are the Russian Federation and the Republics of Kazakhstan and Azerbaijan (henceforth Russia, Kazakhstan and Azerbaijan). Physical constraints on this project would in any event prevent an increase in the number of cases, but the extent of similarities between these three countries helps minimise the number of variables, providing for a manageable scope of research. At the same time, although these three are indeed very similar, they nonetheless have a good degree of variation to produce interesting and instructive research findings. This includes variation in a few literature-supported factors that are taken as explanatory variables, and this is explored further in the subsequent section. The variation also includes contextual background factors such as geography, climate, history of industrialisation, and geopolitics – factors that are commonly not considered as important by academic disciplines that guide this research project. Selecting case studies that provide such secondary diversity, despite its literature-assumed lack of relevance, helps maximise experimental variation within the MSDO design.

Consideration of possible variables

Given that the different elements of the method and approaches described above have all derived from the dependent variable (*implementation gaps*), which was in the first instance distilled from the preceding review of literature in Chapter 2, the dependent variable was discussed at the outset of this chapter. The following text therefore concentrates on possibilities for explanatory variables.

Before we begin, it bears restating that the three selected countries have a long joint history. Azerbaijan had been under direct Russian rule for over 150 years: between 1828 and 1991, with a brief period of independence between 1918 and 1920 following the Russian revolution. Kazakhstan has similar historic ties with Russia, having been nominally and then officially ruled by Russia since the mid-nineteenth century and until the collapse of the Soviet Union.

Given such a lengthy period of joint experience, it is only expected for the social, political and economic institutions that emerged in these territories and carried over

into their continued existence as independent states to share core principles. Due to the propensity of institutions' historic grounding to prevent their transformation, the 'institutional stickiness' (Boettke *et al*., 2008) can be further expected to remain for several decades more, ensuring the continued relevance of this thesis. Nonetheless, elements of behaviours that are of interest to social science have diverged between these states and, according to the selected research design, should be pursued for their potential to explain variation in implementation success (dependent variable) between these countries. This section explores these elements further. A number of variables that do not seem to vary between selected studies, but that are commonly tested in existing literature in isolated cases, are also discussed but their applicability is refuted.

Perhaps the most striking differences between case studies are the Russian and Azeri governments' intolerance of civil society, and Kazakhstan's relative (although still rather poor) tolerance of its proliferation – at least in the first two decades following the collapse of the USSR. There had been several domestic / international NGOs operating freely in Kazakhstan (at the time of writing this chapter), whereas Russia has hindered operations of foreign-funded NGOs (Feldman and Blokov, 2009: 732; The Economist, 2013), and Azerbaijan has exhibited similar practices – for example, the broadcasting of foreign (especially political) media has been outlawed (O'Lear, 2007: 216).

There is also good variation in state capacity vis-a-vis domestic and foreign oil firms, deriving from differences in contractual and licensing connections between the state and the private sector, with Russia and Azerbaijan being polar opposites. Although both countries' formal institutional capacities are relatively weak compared to Western states, Russia has achieved significant control over the oil industry by increasing its business share within private firms or by forming joint-ventures with foreign firms and thus increasing its ability to collect taxes, regulate industry and incentivise economic growth (Vanteeva, 2012). In comparison, the Azeri government has sacrificed much of its regulatory functions to oil profits in its contract with a BP-led consortium of foreign oil firms in 1994 (O'Lear, 2007; Sovacool, 2011). Accordingly, the variation in regulatory capacity between the case studies appears significant. There also appears to be good variation in the scope and quality of legislation that forms the basis for the work of the different countries' regulatory agencies.

Economic conditions are another source of difference. Russia has a recent history of a relatively stable economy and relatively well-diversified economic activity. Although

economic *growth* depends on oil and gas exports, and therefore upon global oil and gas prices, the economy is unlikely to collapse should oil profits vanish. Kazakhstan's economy would likely suffer more, but might be rescued by exports of other natural resources of which it has abundance. Azerbaijan, however, has witnessed a 5-fold increase in oil exports since the beginning of the century, but all other economic sectors, apart from those directly related to oil, have seen a significant decline (O'Lear, 2007). As such, the Azeri economy could be said to depend entirely on oil exports.

Other factors, popular in academic disciplines relevant to the selected case studies or topic (oil), were also considered but not adopted because they did not pass the methodological test of the selected approach. These factors included democratisation, corruption, and the prevalence of the resource curse and the Dutch disease, among others. For example, available indices that measure the levels of democracy showed more similarities than differences between the case studies: the Economist Intelligence Unit Democracy Index 2014 (EIU, 2015) ranked them relatively close together and described all three as authoritarian regimes; the same year, Freedom House (2014) gave almost identical scores to all three countries, identifying them as "not free". Furthermore, whether or not resource-wealthy states perform well in terms of transitioning to democracy is arguably irrelevant in the discussion about regulatory performance. Autocratic states often have the potential for better enforcement and a more consistent regulatory performance than democratic states where governments and policies can change every 4-5 years.

Similarly to democracy indices, indices on corruption show insignificant variation. For example, the Transparency International's Corruption Perception Index (2014) ranked Kazakhstan and Azerbaijan as sharing the 126th place, and Russia was close behind as 136th. Moreover, although it is true that natural resource industries are usually associated with corruption and rent-seeking, scholars suggest that these practices might in fact constitute a type of informal state capacity and an unofficial regulatory regime (Ledeneva, 2006; 2013). This, of course, does not suggest or presuppose that official regulations are upheld and enforced, but it does not necessarily preclude their successful implementation by default either.

Similarly useful indices are not available to compare the prevalence of the other economic factors mentioned earlier in this section, but available academic literature does not suggest that the selected country case studies are appropriate for their study. Many of the problems that the resource curse literature tends to attribute to the curse sufferers – economic stagnation and exceptionally slow economic development (Sachs

and Warner, 1995; Auty, 1993; Gelb and Associates, 1988; Leite and Weidmann, 1999: Gylfason *et al*., 1999; Isham *et al.*, 2002), exceptionally poor governance (Ascher, 1999), regime destabilization and 'irrational and volatile' policies (Humphreys, 2005; Karl, 1997), gang/militia warfare to protect extractive industries (Ross, 1999: 320-1; Englebert and Ron, 2004; Obi, 2010; Pegg, 2003), or an outright civil war (Rosser, 2006; Collier and Hoeffler, 1998, 2002; Reynal-Querol, 2002; Ross, 2004) – did not seem to materialise in Russia, Kazakhstan or Azerbaijan; or at least not for long or to the extent claimed in this literature's theories.

The latter three named factors have therefore been passed over for the reasons just outlined and the three that are being taken forward are foreign influence (private sector and not-for-profit); state capacity, and economic conditions. This brings case and variable numbers into equilibrium – three each. In order to avoid the 'many variables, few cases' problem (Burnham *et al.*, 2004) mentioned above, it was decided to take country regions as sub-cases. In the case of Kazakhstan and Azerbaijan this was relatively straightforward as the majority of oil works are situated within one (or very few) geographical area. Accordingly, Baku-Absheron was chosen in Azerbaijan and Atyrau in Kazakhstan.

In Russia, which has multiple major oil-producing regions, two locations were selected to further increase the welcome variation within the 'most similar' design. The Republic of Tatarstan was selected as one of the oldest oil-extraction sites with established physical, legal and economic infrastructures in relation to oil. Furthermore, initial analysis suggested that the Republic of Tatarstan had no foreign oil firms operating on its territory, thus introducing further contextual variation into the MSDO design. The Nenets Autonomous Okrug – a contrasting Arctic region – was chosen as the second Russian sub-case study, for it houses some of the youngest and most advanced oil related infrastructures and governing institutions. Its location is also relevant to global environmental challenges, on which there is still relatively little research to date, in great part due to the Arctic's remoteness and associated scarcity of data. Despite this challenge, the Nenets Autonomous Okrug was judged well suited for academic investigation given the recent international attention it received in the wake of Greenpeace activities boarding Russia's only Arctic offshore platform located there.

Operationalisation of variables

In the empirical chapters of this thesis, the dependent variable (*implementation gaps*), is assessed as the inter-relation between: a) whether there exist formal laws, standards and penalties as well as relevant institutions for setting and enforcing these (Nadgrodkiewicz *et al.*, 2012: 6); and b) improvements in environmental indicators in a region. Data pertaining to b) are often available on government websites, or can be deduced from news articles and court hearings, but it is recognised that such data might not be reliable for a number of reasons. For example, data collection that leads to governmental environmental statistics in post-Soviet countries often suffers from inadequate monitoring practices and methodologies or relies on often un-validated self-reported data by polluters; otherwise, government sources may intentionally withhold environmental data from the public (Denis *et al.*, 1998; WHO, 2004; openDemocracy, 2015; Oldfield; 2016). Meanwhile, media outlets may publish biased information, whereas courts of justice are well known to suffer from corruption in this part of the world. Therefore, measurement along the above parameters is supplemented with data collected through elite interviews.

This measure, however, delivers a series of subjective implementation gaps that are not well suited for comparative analysis. Although very similar in principle, the three country case studies do not have identical environmental legislation, regulatory regimes, or wider institutional structures. Therefore, a) – as defined above – is measured through a looser interpretation of 'regulations' as encompassing all forms of formal rules that govern the conduct of oil industries, including local, national and international sources.

The country case studies also face not-entirely-comparable challenges to implementation, and their data on environmental performance indicators are not necessarily similar in scopes or publicly available documentation, or based on entirely similar methodologies, making the definition quite subjective. Furthermore, Russia is a federal state, meaning that its regions have the power to pass local legislation to supplement national policy intentions, whereas Kazakhstan and Azerbaijan do not have equivalents, introducing yet further non-comparability between them.

As such, elements listed under b) in the preceding paragraph cannot be expected to be directly compared across case studies. To mitigate this issue, this project draws on observations in literature, reviewed in the preceding chapter: the dependent variable in a comparative study of implementation requires a degree of vagueness to facilitate

comparison and studies that fail to do this appear context-dependent and often struggle to produce generalisations. This is the other reason for this study's conceptualisation of the dependent variable (*implementation gaps*) as *compliance*, *enforcement* and *political will*, as approached and defined on pages 43-45 at the start of this chapter.

These three distinct elements are sufficiently inclusive and comparable to support analysis across the case studies despite differences in what is being implemented and the data that is available about the success of implementation efforts. A hypothetical example can help illustrate this: comparing implementation of a 5% reduction in greenhouse gas emissions with a 18% reduction in toxic waste by two different countries would be difficult given the difference in abatement efforts, costs, methods, stakeholders, and environmental impact. It would be more meaningful to instead compare whether there has been a change in enforcement efforts by regulators, and in the corresponding compliance efforts by polluters. The distance between a) and b) in the comparative chapter therefore refers to the extent of change produced in *compliance*, *enforcement* and *political will*. This approach has also proved useful for empirical analysis in instances where data described in the preceding paragraph, such as on changes in environmental indicators, is incomplete or publicly unavailable.

A number of explanatory variables are to be measured against *implementation gaps* across explained definitions in order to understand which factors produce causal differences in the dependent variable. Three explanatory variables have been identified, as discussed in the previous section. Table 2 illustrates the variables' components.

Table 2 - Variables

Dependent Variable	Explanatory Variables	Sub-variables
Implementation gap	Foreign influence	Foreign advocacy groups
		Foreign oil firms
		Exposure to international processes
	State capacity	Quality of environmental regulation
		Quality of regulatory agencies
	Economic conditions	Presence of non-oil related sectors and their economic contribution relative to the oil sector

The presence of foreign advocacy groups and foreign oil firms is fairly straightforward. Each of the case study regions is investigated in terms of what foreign actors are present there, their conduct, interactions with other actors, and consequent impact on environmental policy implementation (EPI). Interactions with international processes are similarly operationalised – by exploring any international treaties that the case study regions might fall under, and whether local actors interact with international financial or developmental institutions, or have benefited from overseas education and travel. The impact of such exposure is then analysed in relation to the EPI. The presence of foreign NGOs and exposure to international processes are analysed in view of their impact on the *political will* to a greater extent than on other components of the dependent variable (*implementation gaps*), and the presence of foreign oil firms deals mostly with *compliance*.

State capacity is often described as incomplete, partial, unofficial and selective in analysis of post-Soviet countries, and thus the effect of state capacity can be harder to operationalise in comparison to the above variable. Measurement has therefore been done along more practical lines: regions have been investigated for the quality of national and regional EP regulations; existence and type of environmental enforcement agencies; and quantity and quality of regulatory personnel and available equipment. Differences in these are analysed in relation to their impact on *enforcement* and, to a lesser degree, *compliance* components of the dependent variable.

Economic conditions are operationalised based on key economic data for each region detailing the regional economic composition and the relative fiscal contributions of

existing economic sectors. Analysis focusses on the impact of these circumstances on the *political will* and *enforcement* as components of *implementation gaps*.

It was expected that information on some of the above measures for operationalisation would be difficult to collect in the post-Soviet space for reasons similar to those mentioned in the opening paragraph of this section. Data from elite interviews were therefore expected to be useful not only in regard to *implementation gaps*, but also for explanatory variables. These supplementary data have been collected with the help of a semi-structured interview design pursued with a wide range of stakeholders. The concluding section of this chapter further explores this approach.

Meanwhile, the following section explains in greater detail the hypothesised relationships between the dependent variable and the component parts of the explanatory variables. The role of stakeholders and the rationale for the proposed causal direction of these relationships is discussed in view of the observed events in the case studies.

Hypotheses

Explanatory variable 1, Hypothesis 1 – Foreign Advocacy Groups

Civil society can be of great value, if not indispensable (Brinkerhoff, 2005), for successful, durable (Gopakumar, 2009) and sustainable (Koc *et al*., 2008) implementation of state initiatives, especially in transitional settings (Wampler and Avritzer, 2004). For example, it can bring "flexibility and adaptability to the decision-making process" (Cumming and Notgaard, 2004: 699). It also has the potential to mediate the immediate problems faced by a policy target group, and this can aid with policy design and thus increase chances of successful implementation. Civil society can also help with policy implementation by acting as a watchdog and thus providing independent monitoring to supplement the work of official regulatory and enforcement agencies.

Meanwhile, focused civil movements that grow out of the wider civil society can increase political traction of an issue by educating the general public of the issue's existence/importance and thus increasing the general public's awareness. In turn, this could lead to greater public participation in regulatory activities or increased public pressure on politicians to pursue implementation of government policies. Civil movements could also provide an alternative venue of policy enforcement where

official regulatory agencies fall short of performing their duties. For instance, members of civil movements can come in numbers to sue offenders in local and national courts in order to force compliance. The potential for the work of civil movements is quite high in states that formed upon the collapse of the USSR. This is because although such movements, and the more focused NGOs that may grow from them, might make very little impact on national politics in such states, they can command significant influence in regional affairs, where political parties are starting to be more receptive to public moods (Podyachev, 2014).

However, despite such potential, evidence on the ground often leaves much to be desired. To fulfil the roles indicated above, civil movements and NGOs that form from them need to attract and recruit grassroot members, they need the trust of the public in order to claim to represent it and to gain political power, and they need access to political processes. Furthermore, although environmental movements were at one point strong at the national level in several FSU countries (Peterson and Bielke, 2001; Oldfield, 2002), it is difficult to ascertain how much of their work went beyond policy writing and towards improving policy implementation.

In the first decade following the USSR's collapse, there was little evidence of environmental movements at the local level in FSU states given the hardships and uncertainties of the turbulent economic and political transitions. The concept of 'citizenship' had a very narrow definition for the general public outside capital cities (Crotty, 2003; Ahl, 1999). Environmental activism seemed alien to ordinary people in the regions (Crotty and Crane, 2004) and was perceived as work for experts rather than ordinary people (Avdonin *et al.*,1997; Tikhomirova, 2005). Even where environmental governance existed and successfully achieved changes, these were mostly symbolic rather than institutional (Henry, 2010).

In large part, the issue was that of funding. Unlike in Western countries, donations to civil causes and volunteering are scarce in the FSU space and this limits activists' budgets. NGOs in this part of the world therefore tend to depend on government grants, which in turn limits their independence and thus their ability to pursue functions that their organisations would need to perform in order to improve the EPI. At times and in some locations, government funding has been so inconsistent that local civil movements collapsed altogether, leaving a vacuum.

International NGOs (INGOs) have the capacity to fill this vacuum where local civil society has failed, and take over the function of an independent watchdog. Where local civil organisations exist, INGOs can support them by offering an alternative source of

funding, and access to international expertise, resources and assistance. INGOs can also offer training to fledgling civil movements on mobilising grassroots, planning and delivering strategies, campaigns and projects, and on ways to work constructively with other actors, such as those in the public and private sectors. At the same time, INGOs can assist with building the capacity of states as well as of the civil society (Lukaszczyk and Williamson, 2010). Furthermore, INGOs are able to represent local environmental issues on the global stage and mobilise international pressure on individual national governments to prioritise and address such issues (Madon, 1999). Among selected case studies, Russian and Azerbaijan appear to have become increasingly autocratic, and have actively sought to curb foreign involvement in their civil space. In contrast, Kazakhstan has seen a blossoming civil society comprising both domestic and international actors (at the time of writing this chapter), and can therefore be expected to have better EPI. The following causal relationship is therefore to be tested:

> Hypothesis 1: The greater the presence of international advocacy groups within a region, the smaller the implementation gap.

Explanatory variable 1, Hypothesis 2 – Foreign Oil Firms

There is a similar argument (although resting on different premises) in favour of the involvement of (often international) foreign oil firms (FOFs) in the post-Soviet states. Given their extensive research, resources and experience, FOFs can be expected to bring advanced and therefore less polluting technologies into FSU oil industries that are often marked by poor funding and aged technological capacities. FOFs can also introduce environmental codes of practice that are better at achieving compliance than those used by local firms (Soderholm, 1999). Furthermore, FOFs often tend to exhibit greater transparency and administrative efficiencies that are greater than those of domestic firms. This is turn makes them easier to regulate for implementers of environment policy.

All of these factors can be expected to make for better regulatory compliance by FOFs than by local oil firms. We could therefore expect *implementation gaps* to be smaller where oil fields are developed by foreign rather than domestic oil extractors. In two of the selected case studies, FOFs dominate the oil sector. Following the collapse of the Soviet Union, the Azeri state lacked the necessary funds to develop the oil industry and make it profitable, or to find efficient ways of transporting crude oil via channels other than Russia. Investment offered by a BP-led consortium of FOFs in 1994 was at the

time the only solution to these problems. The Atyrau region in Kazakhstan has similar circumstances – Italian and American oil firms are developing its giant oil fields on the Caspian Sea.

These international, foreign firms only arrived in the 1990s, when the Soviet Union collapsed and foreign capital was no longer barred from these territories. This in turn means that the majority of the oil infrastructure in these locations is much younger than in most of the oil-extracting regions of Russia, where many oil facilities have already passed their use-by dates. As such, oil facilities in Baku and Atyrau can be expected to be more environmentally friendly, and thus environmentally compliant. In light of the above, the following causal relationship is tested:

Hypothesis 2: The greater the presence of foreign oil firms within a region, the smaller the implementation gap.

Explanatory variable 1, Hypothesis 3 – interaction with foreign entities

The third component of the first explanatory variable plays on the difference between what goes on in the domestic and the international arenas. National governments are rarely tolerant of interventions in their domestic state affairs by governments of other countries. International interactions, however, provide channels for less direct types of intervention – for example, those produced by the perceived need of an individual government to uphold a certain international reputation. It is reasonable to hypothesise that engagement of the post-Soviet states with international actors and institutions might have some impact on these states' domestic policies and implementation efforts. In other words, this factor may have a positive impact on the *political will* to pursue implementation within transitional states.

This engagement may include being a signatory to international environmental treaties and trade standards agreements. It is worth acknowledging, however, that such treaties are more often than not non-binding and in practice rarely achieve the desired outcome. It is also worth mentioning that direct policy transfer resulting from interaction with interactional organisations has also had limited success. However, there have also been significant opportunities for transfer in culture resulting from the ever-increasing globalisation. The increasing ease of transnational movement of goods, people, and technologies increases the concurrent movement of values and norms. In turn, the

'transfer of cultural forms produces a redistribution of imaginative energies, [and] alters in some way pre-existent field of force' (O'Connor, 1986: 7).

Apart from facilitating a cross-cultural awareness, globalisation has also brought forth an increasing emergence of such notions as global goals or norms, which include the protection of wildlife (Peterson, 1992), and even global business ethics (Husted *et al.*, 1996). Clean environment and sustainable development are evolving into such globally accepted (or at least theoretically so) norms (Dobson, 2004; Elliott, 2002; Litfin, 1994; Kellow, 2007). Academics argue that there is an impact from this transnational, universal level on the local, national level (Finnemore, 1993; Finnemore and Sikkink, 1999), and that eventually, 'foreign' norms – as promoted by transnational movements, organisations and institutions – become borrowed and adapted by domestic agents in the process of their own identity-building, and thus become 'diffused' into local ideologies and processes (Acharya, 2004).

The diffusion is helped along by the increasing popularity of overseas education, pursued by students from transitional countries in countries of the First World. The exposure and immersion in the new culture that these students undergo during their study abroad is said to have significant transformative potential (Brown, 2009; Gill, 2010: 373; Lindsey, 2013). Furthermore, upon their return home, these students are said to become willing human bridges between the cultures of their former host and home countries (Brown, 2009; Bochner, 1981; Cushner and Karim, 2004). Tourism is likely to have a similar culture transfer effect, although to a lesser degree. Norm diffusion from all sources recounted above could be expected to impact on the will to pursue, enforce or comply with EP regulations and standards – all three components of the dependent variable – depending on the sector in which the individual experience such diffusion works. The following causal relationship can thus be expected:

> Hypothesis 3: The greater the exposure of local agents to transnational
> elements, the smaller the implementation gap.

Explanatory variable 2, Hypotheses 4 and 5 – State capacity

Explanatory variable 2 mostly deals with *enforcement* and *compliance* as components of the dependent variable (*implementation gaps*). To begin, enforcement of EP regulations pre-supposes the existence of such regulations, and institutions and procedures for their implementation. This can also be called the regulatory capacity of a state.

State capacity can depend on a number of factors such as:

- the coherence of the law the state produces,
- the agencies the state sets up for enforcing the law,
- the resources it allocates to those agencies, including legal power,
- whether or not there are institutions for allowing the state to take into account the target groups' ability to comply with the law,
- whether there are ways for the state to ensure that the created enforcement agencies do indeed enforce rather than waste the public budget,
- the degree to which these institutions of implementation are embedded (Evans, 1995; Weiss, 1998; Hobson, 2000: 207) or autonomous (Skocpol, 1979; Evans *et al.*, 1985; Leftwich, 2000) from the society in which they exist, and
- the degree to which the implementers and the target groups of government regulation accept or reject these institutions.

The above list of factors applies to managing the behaviour of domestic as well as foreign target groups or, in this instance, polluters operating within an economy.

There is a good degree of variation between selected FSU states as to how well they've mastered the art of statecraft. Even before the formation of the Soviet Union, many of the (now) states were run and administered by Russia, which therefore continued to build its knowledge of statehood. In comparison, being dependent on Moscow to make decisions, write laws, create programmes and generally dictate how things ought to be done (Sabonis-Helf, 2004), did little to develop the individual territories' capacities to run their own affairs (Kolk and van der Weij, 1998; Lotspeich, 1995).

Unlike Russia at the time of independence in the 1990s, the Azeri state lacked a skilled, professional bureaucracy and significant elements of day-to-day financial, social and physical infrastructure. Azerbaijan's state capacity was therefore at best partial (Kamrava, 2001). Although marginally more effective, the Kazakh state similarly failed to fulfil its key tasks at that time (Cummings and Norgaard, 2004), such as collecting taxation, building roads, paying wages or ensuring universal provision of basic public goods. Instead, the Kazakh state often arranged for foreign investors to take on these roles in lieu of paying taxes (Sabonis-Helf, 2004).

As such, the states that emerged following the collapse of the USSR had very unequal experience of statehood with widely varying state capacities (Fortin, 2010). However, the following decades brought issues that were new to all FSU countries. As such,

although new agencies, ministries and committees were set up to deal with these, they largely remained staffed with the old personnel that possessed little knowledge of how to deal with these new challenges (Wamukonya, 2003). New personnel have been difficult to attract due to low salaries (Millard, 1998), or have been purposefully turned down in favour of existing, 'loyal' employees (Trochev, 2012, 2014).

For this and other reasons, the overall improvements in state capacity even in Russia have been described as modest, despite the plentiful opportunities brought on by relative economic and political stability (Taylor, 2011). It is perhaps tautological to state that inadequate state capacity to pursue implementation of government policies likely leads to increased *implementation gaps*. In light of the above, it is taken as given that implementation of EP is likely to be low across case studies, but differences are nonetheless expected. To test reasons for these differences, if present as expected, the following hypotheses are tested:

> Hypothesis 4**:** The better the quality of environmental regulation for the oil industry, the smaller the implementation gap.

> Hypothesis 5**:** The greater the quality of environmental regulatory agency in the sphere of the oil industry, the smaller the implementation gap.

Explanatory variable 3, Hypothesis 6 – Economic conditions

Selected countries exhibit pronounced differences regarding the composition of their export and GDP and these can be taken as proxies for the relative differences in oil revenues enjoyed by each country ahead of closer analysis in the following empirical chapters. Russia, for example, exports a relatively wide range of products but the bulk of export income comes from the sale of crude oil and oil products – approx. 46% in January 2014 (Federal Customs Service, 2014). On average, trade has accounted for 51% of the country's GDP between 2004 and 2014 (World Bank, nd., a). This makes the export of crude oil and oil products responsible for approx. 23% of Russia's GDP.

This may seem relatively high, but not in comparison to Azerbaijan's circumstance. Here, the volume of oil (crude and products) as percentage of total exports is almost double that of Russia. Export of crude oil and oil products constituted 90% of all exports in the first month of 2014 (The State Customs Committee of the Republic of Azerbaijan, 2014) whereas the share of trade in Azerbaijan's GDP between 2004 and

2014 has been on average 82% (World Bank, nd., a), making the total oil exports accountable for approx. 74% of Azerbaijan's GDP.

Kazakhstan's revenues from the export of mineral products are similar to those of Azerbaijan – 87% of total exports in January 2014 (Customs Control Committee of the Ministry of Finance of the Republic of Kazakhstan, 2014). Trade has contributed on average 90% to Kazakhstan's GDP (World Bank, nd., a), making the export of mineral products accountable for approx. 78% of the GDP. Figure 1 below illustrates the above percentages based on cited sources.

Figure 1 – Mineral exports as % contribution to GDP in 2014
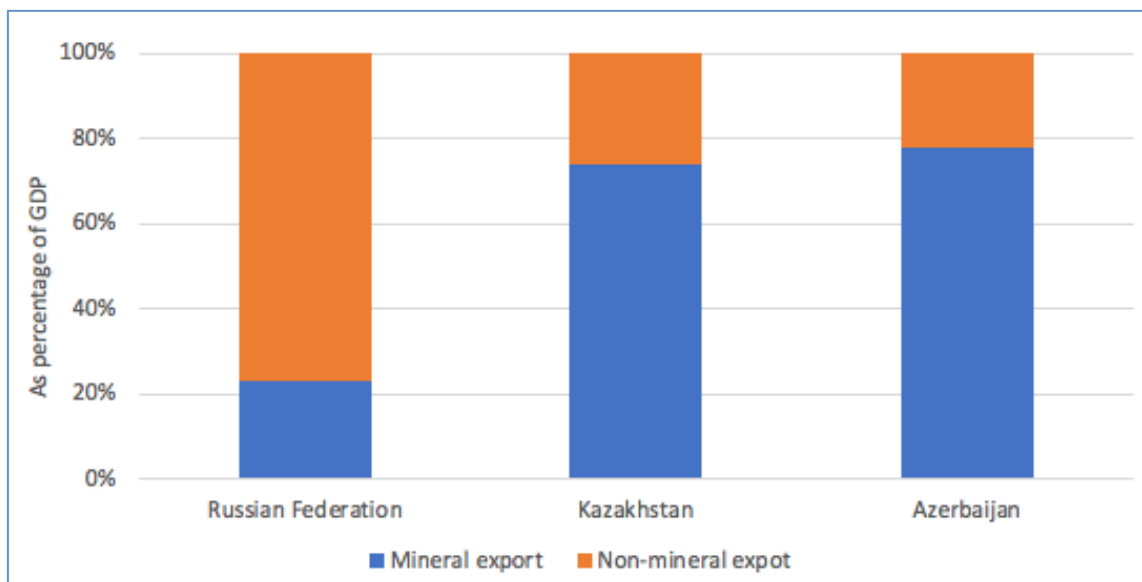
Source: based on figures referenced in the text above.

Such heavy reliance on natural resources, especially in the two Central Asian states, is usually associated with the resource curse in academic literature. Although the strict relevance of these theories to selected countries has been refuted earlier in this chapter, the varying extent to which the case studies' economies depend on their oil industry appears significant at this stage.

The composition of economies, which may or may not be the result of oil dependence, also seems to differ. At the point of the USSR's collapse Azerbaijan had a weak economy that was geared to the needs of the USSR. It mostly consisted of agriculture and oil extraction. Following independence and an influx of foreign direct investment primarily into its oil industry, Azerbaijan's GDP growth has been the strongest out of the three case studies. However, non-oil sectors have declined, apart from the oil-related construction industry. In comparison, Kazakhstan had already been producing a variety

of natural resources at the point of independence, and has since also developed a fairly coherent and efficient financial sector. Russia has traded in an even wider range of natural resources. Of the three, Russia relies on oil revenues the least and its economy is the most diversified.

Another element worthy of mention is the access that governments enjoy to oil profits. In Azerbaijan, the President is involved in all oil-related deals despite having also appointed trusted supporters to lead and manage the state-owned oil industry. In Kazakhstan, members of the presidential family hold all key economic positions. In Russia, however, oil revenues are generated and collected via more official means, reflecting a somewhat different cleavage of interests in the struggle for control over oil revenues. Here, the focus has been on concentrating power (regulation, taxation and licensing) over the oil industry in the federal centre, in Moscow, by limiting the regions' powers. Meanwhile, the two biggest state-owned companies – Gazprom and Rosneft – have been steadily buying out independent oil firms to shift control over oil from the private back to the public sector.

What all three states appear to have in common is the use of thus centralised oil revenues to ensure stability. Control over such a lucrative source of income removes these states' reliance on taxation to fund the delivery of government policies. Concurrently, it allows states to keep income taxes and national insurance contributions at relatively low levels. In other words, such states can substitute a regular fiscal regime, observed in developed countries, with oil rents / revenues (Karl, 1997). Such developments are not necessarily caused by the presence of oil. For example, it has been found that emerging states in general tend to concentrate on developing institutions for spending and delivering, but retain very poor capacity for collecting taxation from labour and regulating the private sector (Garaibeh 1987; Chaudhry 1994; Luciani, 1987), and that this is especially true of states that are undergoing state-building (Karl, 1997), as in the context of the post Soviet collapse. Whatever the reason for these developments, the presence of oil in such economies often provides the main or only source of government spending. This in turn means that should the oil money pause even temporarily, government spending could all but cease. This could reduce the states' willingness to pursue any actions with potential negative impact on the profitability of their oil industries.

Furthermore, oil-rich, transitional and developing countries have also been known to use their oil revenues to buy political stability. This is achieved by paying off political opponents, paying for support of the general ruling elites, and 'buying' legitimacy from

the general population through public spending that raises the standards of living despite the lack of political representation (Herb, 2003). A pause in oil revenues in such scenarios could therefore lead to unrest at all levels of society. This presents another reason for governments to avoid actions that may impact the consistency and volumes of oil revenues they receive.

Environmental and other types of industrial regulation fall within the category of factors that could negatively affect the oil industry's profitability. In general terms, although industry regulation could produce a significant positive impact on industrial productivity (Berman and Bui, 2001; Piot-Lepetit and Le Moing, 2007; Telle and Larsson, 2007; Yang, *et al.*, 2012; Chu and Lai, 2014) and profitability, such benefits manifest in the long term. In the short term, the industry could face significant readjustment costs, thus affecting its profits and government revenues. When it comes to most-polluting industries, such as oil extraction, some academics argue that the effect of environmental regulation on productivity is either inconclusive (Fleishman *et al.*, 2009), insignificant (Barbera and McConnell, 1990; Martin *et al.*, 2014), or even conducive to a fall in competitiveness and productivity (Gray, 1987; Gray and Shadbegian, 1993; Baily *et al.*, 1993; Jaffe *et al.*, 1995: 132-6; Stewart, 1993; Hernandez-Sancho *et* al., 2000; Nicoletti and Scarpetta, 2003; Haskel and Sadun, 2011).

The above discussion gives rise to the following hypothesis:

> *Hypothesis 6:* The more advanced the economic conditions in a regional economy, the smaller the implementation gap.

where "economic conditions" in this context are defined as economic diversification and the extent of a government's dependence on oil revenues.

Research Approach

This section outlines the different approaches to data collection that were considered for this project and sets out reasons why each was turned down in favour of semi-structured elite interviews. The selected interview approach is then explored further for potential setbacks and mitigation strategies for ensuring sufficiently high quality of data. This section and, consequently, this chapter conclude with some remarks on the direction of the text to follow and mention other instances where the discussion on method and approach is revisited later in the thesis.

Relatively little data has been previously collected pertaining to the narrow area of interest pursued by this research project; and given the sensitive nature of the topic, this researcher is sceptical of the usefulness of data that is already available. For instance, there are various accessible statistical data and analyses produced by domestic and international think tanks, NGOs and other monitoring organizations, including the World Bank, IMF, OECD, and EU. However, these are likely to be of limited utility for sub-national analysis: the data such bodies produce are often available only at the national, not regional level. Furthermore, such data are often presented as averages, unbroken by policy area, economic sector or geographic location. It is also often unclear what definitions or criteria are used for measurement or how data were collected or coded. Therefore, although such data would of course still be useful for triangulation, it cannot form the primary basis for proposed analysis. Meanwhile, collection of new data suitable for quantitative analysis is not possible due to time and physical constraints of this research project.

In terms of documentary analysis, a good body of records and reports is likely to exist at national and regional levels within the country case studies. These might include the websites of oil firms, which often provide some environmental data. Similarly, government websites often provide some information regarding pollution-control standards, procedures and regulation. Furthermore, local governmental offices often have (and might be willing to grant access to) specific data on pollution control in their regions. At the same time, the law codices are available for general access and international trading organisations provide regular updates and analyses of new industry-related legislation. Even sufficiently granular statistical data might be found at these sources.

However, oil extraction is often considered as an issue of national security and is therefore often politicised, and thus quite sensitive. Because of this, publicly accessible sources in oil-extracting countries are likely to provide data that is incomplete or intentionally augmented. Furthermore, compliance records of relevant law might be unavailable because not all laws or regulations require it. For example, some laws might exist for symbolic reasons without any intention of implementation. At the same time, compliance even in developed nations is at times achieved through shadow bargaining rather than through official channels (Kambhu, 1989; Hawkins, 1983). Such practices and their consequences are unlikely to be recorded within official documentation.

Indeed, Kalyuzhnova and Nygaard (2008: 1835) identify the Russian legal system as a tool for unofficial governance, used for state-building and regulating citizen and business activities. Ledeneva (2006) finds that this unofficial, informal governance actually works and Feldman and Blokov (2009) indicate that public trust in informal social networks is also on the rise. Similar patterns can be expected in Kazakhstan and Azerbaijan. Given the extent of regulatory work done behind the scenes (which is undocumented, but is business as usual), documentary analysis is likely to produce only a very superficial picture of policy performance, although it can complement the main data collection discussed further below.

The use of questionnaires could produce statistically significant quantities of data. However, this method is unlikely to deliver the needed depth of information. Besides, this method is not a common means of data collection in the selected countries. More broadly, very few academic publications that this researcher has come across are based on this method in relation to elites, suggesting that it delivers negligible results. Observation is also unlikely to deliver the needed data given the time constraints and the magnitude of sources to be researched and analysed.

By process of elimination, qualitative interviews appear to be the best approach. In addition, one of the great advantages of small-N study and of qualitative research in general is that it often forces the researcher to physically engage with contextual detail of the phenomenon, leading to 'the most advanced form of understanding' (Flyvbjerg, 2006: 236). Given the aims of this research project, qualitative interviews are the most salient choice of method, and given the context, interviews would deliver the most relevant data if conducted with elites: those that command some influence over the dependent variable. However, it is recognised that such data can be highly subjective and thus produce questionable conclusions, or fail to deliver conclusions at all.

To reduce the subjectivity of interview-based data, this research project has aimed to interview representatives of as many different groups of relevant actors as possible. These include those that have an interest, power over, or impact on the implementation (including compliance and enforcement) of EP regulations in the oil industry in the chosen sub-cases. It is important to differentiate between interest, power and impact because one does not necessarily entail the other. As such, interviews have been conducted with representatives of the following groups:

- **public sector**, represented by sub-national governments, regulatory agencies at appropriate government levels, and the judiciary,

- **private sector**, represented by oil firms, their subcontractors, and research institutions, and
- **not-for-profit sector**, represented by international and domestic environmental NGOs / civil movements, academics, and the press.

Up to five interviewees have been sought for each of these categories for each case study. Collected data has been triangulated to determine data validity. Additional interviews per stakeholder group / sector were no longer sought upon reaching the saturation point: lack of new data.

This approach is not without problems. Elites represent a hard-to-reach population, access to which is usually protected by various gatekeepers. Gaining trust of these gatekeepers (if not of the targets themselves) has therefore been essential to gaining access. Various techniques assisted with this task, including snowballing (Vogt, 2005: 300) and sampling / networking at conferences and meetings. Letters of recommendation / introductions from established academics in the field (with experience of interviewing relevant elites) have also helped towards gaining the 'insider' status (Atkinson and Flint, 2001). Even then, it was expected that it would not always be possible to interview all desired candidate or groups.

This is another reason for having identified such a wide range of stakeholder groups, as this can help secure a reasonable degree of triangulation despite setbacks. Even when it was not possible to access a particular stakeholder sub-group, such as regulators, interviews were secured with at least two other sub-groups per sector, ensuring good coverage of all sectors. Interviewing very similar, if not always entirely the same, groupings of stakeholders across case studies also ensured comparability of collected data. Meanwhile, inclusion of a broad range of stakeholders with quite different interests and loyalties from the not-for-profit sector produced a balance of reflections on data collected from and about public and private sectors, thus strengthening triangulation while also allowing for any gaps to be plugged. Thanks to this approach, collected data represent a balance across different types of stakeholders in each case study, while ensuring data comparability for final analysis.

In terms of the actual conduct of interviews, it was expected that direct questions about unsuccessful EPI would be likely met with resistance, especially with interviewees from the public and private sectors. Interview questions therefore instead concentrated on establishing the extent and depth of interviewees' knowledge of environmental legislation, mechanisms for compliance / enforcement, and of EPI stakeholders and

their interactions. Examples were requested to illustrate each answer in order to check respondents' understanding of questions asked and also to establish the comparability of concepts as understood by different individuals, groups and sectors. Questions of this type were intentionally vague, allowing an interviewee to lead the discussion, in order to establish trust and provide the basis for follow-up queries. Where discussion deviated from the framework of comparable concepts and processes relevant to the research project, several prompts were used to re-direct discourse back to the topic of interest and cover a number of balanced perspectives. Both the framework and the associated list of prompts were expanded as research progressed in order to reflect new findings while ensuring continued comparability.

Interviewees' willingness and capacity for compliance / enforcement, as well as the extent of their personal and their organisations' impact on EPI were then inferred from their answers. As it was expected for non-implementation issues to be less of a sensitive topic for interviewees from the not-for-profit sector, especially NGOs, more direct questions were often used. Members of this sector were also asked relatively direct questions about the relevant performance of the private and public sectors, and vice versa. Where earlier interviewees offered examples to substantiate their answers, interviewer introduced additional questions in subsequent interviews about these (after allowing interviewees to contribute examples of their choice) in order to capture a range of perspectives on corresponding events / practices. Data from interviews were then triangulated to validate findings. This structure was successfully used to cover all variables analysed in this thesis; a full interview topic guide can be found in Appendix B.

It was also recognised that collected data are likely to include political beliefs and potential information about illegitimate activities, making the data sensitive. Accidental disclosure of such data might pose significant risks to research respondents. To avoid such risks and to ensure that data is collected, stored and shared ethically, a detailed data management plan was prepared prior to research commencement and followed from then on. All research has been conducted in accordance with proper academic codes of practice. For the purposes of research analysis in this thesis, some of the respondents have been anonymised. For convenience of presenting references to such sources, all interviewees are referred to by individual numbers within in the thesis – for example 'intrv.1' for interviewee 1. A detailed table in Appendix A then matches each number with that interviewee's affiliation and other relevant information.

Having set out the expectations for analysis in the empirical chapters, this discussion now moves on to the case studies. The Russian case studies will be discussed first, before moving south across the post-Soviet space to Kazakhstan, and then to Azerbaijan. The four chapters on case studies are then followed by a comparative chapter that pulls together and compares key findings. The concluding chapter returns to some of the questions on method and approach discussed in the present chapter, and retrospectively comments on their usefulness.

Chapter 4. Empirical analysis: Nenets Autonomous Okrug, the Russian Federation

Introduction

Nenets Autonomous *Okrug*[3] (henceforth, Nenets or NAO) lies in the Russian Arctic. This region hosts some of the most fragile ecosystems in the world. It is also vastly abundant in natural resources and hosts Russia's first and so far only offshore Arctic oil platform – Prirazlomnaya. Concurrently, Nenets is one of the youngest oil-producing regions in Russia and can therefore be expected to possess newer, greener oil technologies. Furthermore, Prirazlomnaya has attracted close international attention and considerable pressure for improved environmental control. However, monitoring and regulation of the Nenets oil industry is complicated by its remoteness and relatively little is known about the actual environmental impact of the sector. This chapter examines whether the proposed variables and their constituent hypotheses can help explain what is known about environmental performance in this federal subject (FS) of the Russian Federation. The next section provides context on Nenets' political, economic and environmental circumstances. The following section analyses hypotheses and the final section concludes the chapter. It is shown that all variables at the very least have the potential to make tangible, positive impact on the implementation of environmental protection (EP) regulations in Nenets.

Background

Political context

Nenets falls under the administrative jurisdiction of the Arkhangelsk *Oblast*[4] (see Figure 2) and responsibilities for certain policies frequently move from one to the other. At the same time, taxes collected in Nenets are shared not only with the federal authorities but also with those of Arkhangelsk. The Scandinavian countries have shown strong interest in environmental protection in Russia's north-western FSs, including Nenets, due to transboundary pollution.

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[3] The Russian Federation consists of 7 regions, which in turn comprise several smaller territories, commonly referred to as federal subjects. The types of federal subjects include republics, *oblast*s, autonomous *okrug*s, *krai*s and federal cities.
[4] A type of federal subject (see footnote 3)

Figure 2 – Nenets Autonomous Okrug

[Arkhangelsk – red; Nenets – pink]

Industrial development and environmental impact

Nenets is relatively new administratively, lies beyond the Arctic Circle, comprises an area half the size of Germany and supports 44,000 people (in 2019), 15% of whom are indigenous nomadic reindeer herders. Due to difficult geological conditions, there is no physical infrastructure within Nenets save a few kilometres of road. The only way to travel to and across Nenets is by air or boat (along rivers), or – in winter – by snow- and ice-going vehicles.

Due to its remoteness and very low population density (the lowest in Russia), the Soviets judged Nenets appropriate for nuclear testing and dumping of space industry waste. The discovery of oil led to aggressive exploration for further deposits, with oil extraction beginning in the 1980s. At the same time, Nenets' remoteness and small population are conducive to low political interest in addressing the environmental impact of these activities on its unique and very fragile ecosystems (Sosnovskaya and Orlov, 2017).

Following the collapse of the Soviet Union in 1991, the oil industry – Nenets' only economic activity – continued to grow and attracted international interest. By 2009, oil extraction volumes were 15 times higher compared to the 1990s (Ilina, 2013), indicating that the majority of industrial development in Nenets took place after improvements in Russia's EP legislation and state capacity, as well as with the help of

foreign firms. One would therefore expect that the implementation of EP in the sector would be significantly better in this young oil-producing Russian FS. However, levels of environmental damage have been continuously high (AMAP, 1997).

The Russian federal programme, *Environmental Protection 2012-2020*, seems to have brought some improvements, but data are equivocal. For example, according to a government report, airborne emissions have fallen by 65% in Nenets in 2010-2017, but the same report states that there is no monitoring of air quality in the FS (MNR, (2018a), meaning that whatever the source of the above figure, it cannot be validated by government services. An interviewee from WWF Russia also challenged this percentage based on the data their organisation collects in the region (intrv.22). However, WWF Russia does not collect comparable data across Nenets, only at individual sites. Other independent EP watchdogs, such as the Green Patrol (National Environmental Rating, 2018) and Interfax-Era (nd,a), assess Nenets' environmental performance as average to poor, even though in absolute terms Nenets produces less pollution than neighbouring FSs because it is not as industrially developed. However, their assessments are based on similarly biased or incomplete information.

As there are no other notable sources to either confirm or contradict official figures for Nenets, it is difficult to make conclusive observations about whether there are changes in environmental pollution, which could indicate the existence of changes in EP implementation. The following analysis is therefore unable to always offer concrete examples of impact on implementation gaps, since it is not clear whether or to what extent these gaps are changing in size. Instead, the analysis is carried out in relation to how likely an independent variable is to impact implementation.

Current hydrocarbon industry

Over 80 oil fields have been discovered in Nenets, the majority of which are on land. There are some 30 oil firms working these, varying in size, assets, composition, and ownership structure. Firms compete with each other and no one organisation appears to dominate. The majority are Russian, although many foreign oil firms have tried to enter the territory. Of these, only four succeeded. *Total* (France) and *Equinor* (formerly *Statoil*, Norway) have been working there since 1994, when they entered a Production Sharing Agreement (PSA) at Kharyaga – one of Nenets' largest oil deposits. *Petrovietnam* (Vietnam) joined the PSA later. Until 2015, *Total* served as the PSA's operator, but was superseded by a Russian that year, reportedly as a result of

continuous failure to utilise Associated Petroleum Gas (APG) (Newberry and Matyl, 2018). The rest of Nenets' oil deposits are developed through licensing. *ConocoPhillips* (USA) had two Joint Ventures (JVs) with Russian firms and worked in Nenets for 23 years, but left in 2015 due to western sanctions barring its future ambitions.

The above relates to oil deposits on land, but Nenets also hosts Russia's (so far) only offshore platform – *Gazprom's Prirazlomnaya*, which started extracting oil in 2013 but whose development took 15 years and has been marred in scandals over operational safety (Galkina, 2013), despite being described by UK experts as "relatively simple to develop" (Pritchin, 2018). In 2015, *Gazprom* formed a JV with *Petrovietnam* to pursue other offshore deposits. They have already completed exploratory works at the Dolginskoe deposit, which is thrice the depth of Prirazlomnaya and further out in the Pechora Sea. The first oil extraction is expected in 2021 (Offshore Technology, nd., a).

Nenets' Arctic region also holds other substantial, untapped hydrocarbon reserves. Given Russia's Arctic Policy for this zone to become Russia's main base of strategic resources in the near future, the pace of hydrocarbon development in Nenets can only be expected to increase.

Main environmental challenges

Implementation of EP in the Nenets oil industry suffers in four main areas. Firstly, as with the rest of Russia, Nenets has struggled to achieve 95% APG utilisation. In 2012, most oil firms in Nenets were in violation of required standards (Prokuratura NAO, 2012). Six firms were still non-compliant in 2016 (Prokuratura NAO cited in Naryana-Vynder, 2016) and five in 2018 (Prokuratura NAO, 2018a), according to official data. Some of the largest projects are still non-compliant today. For example, WWF Russia's research has shown that Kharyaga PSA utilises only 25% of its APG (intrv.22). Secondly, oil spills remain a major issue, and it is not uncommon for reindeer herders to find their livestock covered in oil (intrv.8,9,16,17,13,18). The main causes of such incidents, as cited by Nenets' administrative and judicial structures, include problems with the aged oil infrastructure (indicative of poor maintenance), severe weather conditions (indicative of inadequate preventative measures) and mistakes by oil workers. Thirdly, oil firms frequently attempt to hide, misreport and downplay such incidents (Prokuratura NAO, 2018b), which, apart from preventing EP enforcement, is in itself illegal under Russian law. Fourthly, there are also frequent violations of contractual and licensing requirements. These include failure to implement EP

measures, such as APG utilisation, as well as working without licenses, permits, environmental impact assessments or mitigation plans (Dallmann *et al.*, 2010). (For recent history of the evolution of USSR-Russian EP legislation and implementation practices, see Appendix C).

Results

Explanatory variable 1 - Foreign influence

Hypothesis 1: The greater the presence of international advocacy groups within a region, the smaller the implementation gap.

In regions such as Nenets, the scope of industrialisation and subsequent environmental issues that could stimulate the establishment of environmental non-governmental organisations (ENGOs) did not pick up until well into the 2010s. As such, Nenets' environmental issues missed the initial hype, which saw the birth of the longest-living and strongest ENGOs in the 1990s Russia. At the time of fieldwork for this research project (in 2014), there were no Russian ENGOs in Nenets that were both registered *and* active, apart from one that was established by a representative of a foreign ENGO (intrv.7). In this context, foreign and international NGOs (henceforth INGOs), which usually enjoy far greater organisational and financial stability as well as relative independence from public and private institutions, could fill the void left by the absence of domestic ENGOs. There are two environmental INGOs (EINGOs) that show the most active and consistent interest in Nenets: WWF Russia and Greenpeace Russia. This section focuses on whether they have had an impact on EP implementation there.

These EINGOs are also the largest in Russia. They are registered as Russian NGOs and run by Russian staff despite their foreign roots and funding. Both oppose oil development in Russia's Arctic, but due to different principles. While the opposition of Greenpeace Russia is final and inflexible (intrv.20) and therefore more campaign-based, WWF Russia is "more pragmatic" (intrv.22): its opposition is to existing technologies and methods, which the organisation assesses as insufficiently advanced or environmentally friendly. WWF Russia therefore chooses to work with both government and industry stakeholders in order to improve these. The following text analyses each organisation's motivations, methods and potential impact in turn before concluding that the EINGOs are capable of driving significant positive impact on

environmental policy goals. As such, the following discussion concludes that there is evidence to support the existence of the hypothesis relationship at least in principle, although evidence of tangible impact is difficult to discern based on existing data.

WWF Russia

WWF Russia recognises Nenets' (and Russia's) economic dependence on oil revenues. In light of this, the organisation mostly pursues a cooperative relationship with both state and industry, aiming not to impede them but to stimulate and assist both to become more environmentally responsible. Such work spans a wide range of activities in Nenets, including:

- proposing the establishment of natural reserve areas to keep out industrial works – which was supported by the Nenets government and subsequently approved at the federal level (intrv.3,7), demonstrating positive impact;
- cooperating with and securing grants from international developmental and financial institutions (IDIs and IFIs) such as the UN Developmental Project (UNDP) / Global Environmental Fund (GEF) and Global Gas Flaring Reduction Partnership (GGFR, by World Bank) to pursue individual environmental projects, for example building a digital database of pollution, which was welcomed by the Nenets government;
- cooperating with GGFR and foreign and domestic oil firms working in Nenets (*Total* and *Lukoil*) to pilot test remote (satellite) imaging as a tool to monitor flaring (intrv.22; Kutepova *et al.*, 2012) after state regulators showed interest in this method but questioned its validity.

These examples demonstrate that WWF Russia can help improve EP implementation. The organisation is supporting official regulation by developing, funding and facilitating new tools for its delivery. Of course, there is no guarantee that the regulatory system will in the end make use of the fruits of such assistance, effectively or at all. However, WWF Russia's initiatives may have indirect positive influence. For example, *Lukoil* most likely agreed to participate in the WWF Russia's remote imaging pilot in Nenets because *Lukoil*'s facilities there are showing relatively high environmental performance there. Should the pilot confirm this, *Lukoil* will likely use this to improve its public image, which may encourage other oil firms in Russia to follow suit. Such outcomes have already been observed with another of WWF Russia's initiatives: annual rankings of oil firms' environmental responsibility in Russia based on the analysis of their published

documents. The UNDP and a local interviewee credited this initiative with improving transparency and encouraging the development of environmental policies in the Russian oil industry (intrv.22; Sheynfeld, *et al.*, 2018).

This non-confrontational nature may help explain why the local stakeholders welcome WWF Russia's permanent office in Nenets. For example, an interviewee from the Nenets government (intrv.11) talked at length about the cooperation agreement with WWF Russia and an agreement on data sharing with UNDP/GEF (which appears to be funding WWF Russia in Nenets: both organisations are represented by the same person in Nenets). Furthermore, having physical presence in Nenets allows WWF Russia to register there, which in turn secures its participation in the Environmental Public Council within the government of Nenets and grants the organisation influence over local affairs and access to other stakeholders, including researchers and oil firms. According to another interviewee, WWF Russia had also signed a multilateral agreement with federal and FS-level structures and those in charge of nature conservation areas. In other words, the organisation has significant presence and cooperation capacity in Nenets, thus allowing it opportunities to exert relatively high indirect influence even on those structures with which the WWF might not have direct contact in the region, such as the key oil regulatory bodies (the federal Rosprirodnadzor and Rostechnadzor) as well as the Prosecutor's Office. (These agencies are explored in the H5 discussion).

Greenpeace Russia

Greenpeace Russia also often supports the work of official regulators and could therefore be considered cooperative. For example, significant waste (including oil pollution) has accumulated across Russia's Arctic zone since before the USSR's collapse. However, the lack of information on the locations of such waste has considerably slowed down its clean-up. In 2016, activists from Greenpeace Russia took it upon themselves to find and catalogue such sites, designed a digital map of these and passed it on to Minprirody[5] and the Arctic FSs' governments in 2017 (Greenpeace Russia, 2017). This stimulated action from official regulators: multi-stakeholder planning (TASS, 2017a) (including all levels of government) and allocation of the federal budget for a clean-up operation, including for a (non-oil-related) site in Nenets (TASS, 2017b). Greenpeace Russia also actively participates in conferences and

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[5] Ministry of Natural Resources and the Environment

forums on issues related to the Arctic, including those organised/hosted by the Nenets government. In these ways, Greenpeace Russia also has some influence on implementation by locally based actors, although arguably not as great as that of WWF Russia.

With regards to the Arctic oil, however, Greenpeace Russia is mostly interested in changing federal EP legislation rather than improving implementation of existing EP law. For example, the organisation would like to see oil works outlawed altogether in the Arctic offshore. This kind of goal is best pursued at the federal level, where legal provisions for such activities are created. This concentrates Greenpeace Russia's activity in Moscow. It could also explain why the ENGO chooses not to open local branch offices in the Arctic, which in turn releases it from needing to maintain good relationships at the local level, allowing it to use more confrontational methods.

The "Arctic 30"[6] is one of the most well known examples of this and has become linked to terrorism within Russia. It is worth noting that terrorism is becoming an internationally recognised issue in the Arctic (Elgsaas, 2018), and energy facilities elsewhere in the world have become common terrorist targets (Luft and Korin, 2003). These issues appear to have found traction with authorities and the population of Nenets. The likeliest reason for this is the region's mono-economic nature, making the locals arguably over-sensitive towards any real or perceived dangers that may compromise the condition of oil facilities.

It appears that such concerns in the present example were not necessarily linked to fears that Greenpeace could or would damage the platform, but to the potential presence of terrorist groups with such aims acting under the guise of the well-known IENGO. In either case, the incident appears to have significantly soured Nenets' attitudes towards Greenpeace. Some interviewees (independent experts, oil firm staff, public associations) (intrv.1,15,16,17,18) referred to the organisation as "frauds", "hooligans", "children", "vandals", "reactive", "radical", untrustworthy, and as an organisation that acts illogically and has a negative impact on NGOs' overall reputation in Russia. Interviewees from public sector structures refrained from voicing opinions.

At the federal level, Greenpeace Russia continues to receive invitations to (and to actively participate in) large-scale EP events across the country, including those organised and hosted by different government levels. This included being invited, along with WWF Russia, to roundtable talks with *Gazprom* about *Prirazlomnaya* (intrv.4) –

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[6] 30 Greenpeace activists were detained for piracy (but later released) after attempting to board the *Prirazlomnaya* off the coast of Nenets in 2013.

the focus of the Arctic 30 incident. This implies that in spite, or perhaps because of, Greenpeace's choice of methods, key stakeholders (regulators and polluters) continue to respect or at least take note of Greenpeace's opinions, which implies that the organisation has some influence on EP implementation.

Conclusion

Although Greenpeace Russia might, unlike WWF Russia, provocatively disagree with individual EP laws or regulations, both IENGOs are nonetheless dedicated to improving the implementation of the broader EP policy and appear to be driving positive impact, at least by drawing public attention both within and outside Russia to issues requiring EP, especially in the Russian north. The former (federal level) Minister of Environment even assessed that without the WWF and Greenpeace, Russian environmental civil activity might disappear altogether, adding that radicalism witnessed from IENGOs such as Greenpeace might actually be essential for effective environmental protection, especially in a context like Russia where the concept of EP is not generally understood (intrv.19). Despite such assessment, it is very difficult to point to any tangible impact of these organisations on the implementation of EP in relation to the Nenets' oil industry due to the absence of sufficiently comprehensive and trustworthy data. The above analysis strongly implies only that these IENGOs are in a position to make an impact, but has not shown conclusively that they do. Nonetheless, their significant potential and their successful work in stimulating continuous policy debate on this issue at the federal level are evidence in support of this hypothesis.

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Hypothesis 2: The greater the presence of foreign oil firms within a region, the smaller the implementation gap.

The 1991 dissolution of the USSR made it possible for foreign firms to enter Russia, while the country's damaged economy made foreign direct investment (FDI) and partnership highly desirable. At the same time, the new Russian government saw great potential for the hydrocarbon industry to pull the country out of its economic turmoil. FDI was therefore especially welcome here. Consequently, many foreign oil firms entered into PSAs and JVs with their Russian equivalents to develop oil fields for which there was no capacity nationally.

The 1990s were also characterised by a collapse in state capacity to monitor and regulate industry. However, even as the ability to do so developed and improved over the following decades, the federal government tended to prioritise hydrocarbon development over EP, so the latter arguably remained ineffective. In the resulting context of a minimal regulatory regime, could foreign firms, with experience of complying with higher international standards, be expected to hold the bar? The presence of a large number of Russian firms in Nenets essentially makes this a question of which firms – Russian or foreign – behave better. The discussion begins by describing foreign oil firms (FOFs), their interactions with Russian firms, and the contextual difficulties of analysing the Nenets situation. The main analytical section reveals that compliance can be better explained by factors other than firms' origins. It also shows that notwithstanding FOFs having better initial capacity for compliance, contextual factors even out compliance records, making it difficult to determine EP leaders and followers.

Local players

Nenets hosts a wide range of oil players with varied histories and just as varied legal inter-relationships, allowing for far-reaching influence from FOFs. There are between 13 and 30[7] oil-producing firms working in Nenets. They can be classified as FOFs, Russian State-Owned firms (RSOFs); FS-owned firms; Russian Private firms (RPFs); JVs between these types; and, firms that moved from one type to another, for example by being taken over. Many are daughter companies of bigger entities: *Norsk Hydro* is a division of *Equinor* (formerly referred to as *Statoil* in Nenets) and *Lukoil-Komi* a division of *Lukoil.* For convenience, firms are referred to by their parent company's names. Table 3 below summarises relationships that FOFs have had with different firm types in Nenets. (See Appendix D for the history of oil players, their interactions and impact on EP in Nenets).

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[7] Depending on sources or how firms are counted

Table 3 – FOFs / Russian firms relationships

FOF	Influence on	Type of Russian company	In what capacity?	How long?
ConocoPhillips (USA)	Rosneft	RSOF	Polar Lights JV	1992 - 2015
	Lukoil	RPF	Naryanmarneftegaz JV	2005 - 2011
Total (France) & Equinor (Norway)	Nenets Oil Company	NAO-owned	Kharyaga PSA	Since 1994
	Zarubezhneft	RSOF	Kharyaga PSA	Since 2009
Petrovietnam (Vietnam)	Gazprom	RSOF	Rusvietpetro JV	Since 2002
	Zarubezhneft	RSOF	Vietgazprom JV	Since 2008

As agreed by international observers and confirmed by a member of Russia's diplomatic services in London (intrv.23), RSOFs currently lack the knowledge, experience and technologies required to work on the Arctic shelf and offshore. Meanwhile, RSOFs refuse to partner with RPFs with relevant experience, and Western sanctions prevent partnerships with Western equivalents. RSOFs appear to have chosen another option: partnering with Eastern/Asian FOFs and buying technologies from China. However, *Gazprom*'s Vietnamese partner has been criticised, based on its activities in the Rusvietpetro JV, for being the least energy-efficient and environmentally friendly of all oil firms in Nenets (Interfaks-Era, nd,a). A FOF interviewee agreed that Vietnam might not be able to bring appropriate technologies or practices to the Arctic, since it has no relevant experience (intrv.6). This is also true of Chinese technology suppliers used by firms in Nenets. Involvement of these foreign entities, thus, might only exacerbate environmental impact, but it is too early to be sure. The following analysis therefore focuses on firms' behaviour on land, rather than offshore, in recent decades.

Barriers to analysis

The impact of FOFs operating onshore in Nenets is difficult to assess for a number of reasons. Firstly, Russia's circumstances make the country less susceptible to external influence. A WWF interviewee (intrv.7) indicated that this is because Russia has never been a Western colony, enjoys (relative) economic and political stability, and has developed its own capital, technologies, and socio-environmental awareness. This, continued the interviewee, cannot be said of many of the oil-rich developing countries, in comparison to which Russia does not depend on FOFs to the same extent.

Stakeholder groups within Russia are therefore better able to maintain independence from foreign investment and from each other, which reduces FOFs' ability to directly impact local circumstances (intrv.3,6,9,12).

Secondly, Nenets' industry is relatively young and the *okrug* scores high in energy and environmental efficiency in comparison to FSs with longer industrial history (Interfaks-Era, nd,a). All oil firms operating in Nenets use comparatively modern technology, reducing differences between them in this respect. Furthermore, all are affected by the age of infrastructure left over from Soviet times, which quickly corroded in extreme Arctic conditions but is rarely replaced since there are no explicit legal requirements to do so (intrv.10,11). This further evens out differences in capability between firms.

Thirdly, internally, Russian firms are no longer so different from international ones. Most enjoy direct access to varied, international expertise through shareholders: *Rosneft*, for instance, is nearly 40% owned by British, Chinese, Swiss and Qatar firms. At the local level, firms in Nenets either have foreign partners or many foreign experts (ibid.) and FOFs have Russian equivalents. This facilitates free transfer of culture and experience in both directions. Furthermore, Russian firms compete globally using methods including international accreditation on environmental performance (intrv.11), further closing the gap in between them and international firms.

Fourthly, transparency of oil firms in Nenets is relatively low (Interfaks-Era, nd,a), resulting in a paucity of publicly available data on pollution and EP measures (Bellona, 2014). This obscures true compliance by all firms and complicates assessment of their relative behaviour. And lastly, Russian and foreign oil firms in Nenets are reported to have equally active public relations teams that propagate powerful green messages (intrv.4) and act to foster certain societal perceptions. This influence may affect interview data. In light of the above factors, objective analysis is very difficult.

Who behaves?

In terms of formal compliance with EP regulations, many interviewees were confident that FOFs are subject to the same rules as Russian oil firms (intrv.4,5,14,16,17) and that all firms in Nenets comply to the best of their ability (intrv.4,5,7,11,15). Concurrently, all firms are equally placed to conceal non-compliance, which is easy for polluters to achieve and hard for regulators to trace in the remote sub-Arctic. Several interviewees with regulatory functions observed that, in their experience, there is no difference in compliance between FOFs and Russian firms (intrv. 10, 12, 14, 15). For

example, an interviewed subcontractor confirmed that all firms are guilty of burying oil spills instead of properly treating and reporting them (intrv.9). A Rosprirodnadzor interviewee (intrv.12) agreed, observing that oil firms tend to report incidents only when information had already leaked out and, even then, might still deny it. In terms of overall green performance, a few interviewees believed that foreign firms are better, but significantly more interviewees believed that compliance is better predicted by factors other than a firm's origin. These factors can be broadly broken into two categories:

1. financial and technological resources
    a. budget
    b. technological capacity
    c. length of contract
    d. scope of work
2. quality of personnel
    a. top management
    b. leadership
    c. internal firm culture
    d. rig supervisors
    e. bottom level employees
    f. sub-contractors.

Some of these factors, such as budgets, technology and culture, are more prevalent in western FOFs, implying that they have better capacity, if not necessarily intention, to comply. However, Russian firms are catching up, meaning that these factors might lose their significance in the future. A RPF interviewee commented that Russian firms are already using the same technologies as FOFs (at least onshore) (intrv.5) and other interviewees said the same in regard to internal firm policies and standards, at least in relation to *Lukoil* (intrv.8,9,13). The issue, they advised, is with Russian firms failing to effectively implement their own policies (intrv.9), thus delaying modernisation (intrv.7). Furthermore, Western sanctions are said to be further slowing down this transition (intrv.7).

Regarding the intention, rather than capacity, to comply, several interviewees pointed out that FOFs are likely to experience stronger incentives for compliance. For example, INGO and RPF interviewees suggested that FOFs plan longer-term, and are more interested in securing their place in the Russian markets than in immediate profits. This, argued interviewees, motivates FOFs not to attract negative publicity through

noncompliance (intrv.5,7). However, Western sanctions dampen long-term opportunities in Russia and remove that incentive. Concurrently, the Russian government has demonstrated its leniency towards foreign violators in the Arctic, signalling official acceptance of non-compliance. For example, *Total* was accused of extensive flaring and was stripped of its Kharyaga PSA operatorship (losing half its shares) - but its contract to remain a part of the PSA was nonetheless extended until 2031. These developments likely reduce incentives for compliance by FOFs.

Other factors, including the quality of employees, rig supervisors, and subcontractors, affect all firms equally and thus even out their compliance records. These factors, and those that affect intentions, seem to outweigh technology- and practice-based capacity, and interviewees could not agree which firms are greener overall. For example, both federal regulators and a subcontractor spoke poorly of *Rusvietpetro* (intrv.9,12,13) and another subcontractor of *Total* (intrv.15). An interviewee from WWF Russia also commented on *Total*'s poor decisions over APG utilisation (intrv.22), which resulted in substantial difficulties with compliance to this day. *Polar Lights* was consistently mentioned as an environmental leader (intrv.4,7,9,11,12,13,14,16,17,18), but there was no consensus on what made it successful. An FS government official and a Rostechnadzor interviewee (intrv.4,13) credited *Conoco*'s presence for this but did not reflect on *Naryanmarneftegaz, Conoco*'s other JV (with *Lukoil*), which was not as popular across interviews. Meanwhile, a Rosprirodnadzor interviewee pointed out that *Rosneft* continued to uphold the bar with *Polar Lights* even after *Conoco* left the JV (intrv.12). Additionally, FS and federal regulators implied that the success of both *Conoco* JVs might be due to Russian experts working there (intrv.13,14) rather than due to *Conoco*'s origin.

Furthermore, *Polar Lights* did not perform well on all EP parameters. Interviewees' praise of the firm related to its compliance with official paperwork requirements, quality of its policies (intrv.9), recultivation works (intrv.14,18) and superior operational safety measures, which allowed the FOF to escape causing significant incidents in contrast to Russian firms, which frequently experience major oil spills. However, official FS data on firms' compliance with airborne emission targets – Nenets' biggest environmental problem (UNEP, 2011) – tell a very different story. As per Figure 3, when 95% APG utilisation became not just a target but a legal requirement in 2012, FOFs and their JVs, including *Polar Lights*, performed significantly worse than Russian firms. A major investigation by Nenets Prosecutors' Office two years later revealed continued noncompliance (Nenets Autonomous Okrug Prosecutor's Office, 2014). *Naryanmarneftegaz* was also caught extracting 53.6% over its legally permitted oil

volumes. The contradiction between these data and interview observations is unexpected. Nonetheless, their validity is at least partially confirmed by satellite data analysed by WWF and KPMG (Kutepova, *et al.*, 2012), and during interviews with FOFs in Nenets, all of whom stated that emission control (95% utilisation of Associated Petroleum Gas) was "impossible" or "hopeless" (intrv. 6,16,17), despite Russian firms having seemingly found effective solutions.

Figure 3 – Utilisation of APG by individual oil firms in Nenets, 2007-2012[8] (NFSDNRE, 2014)
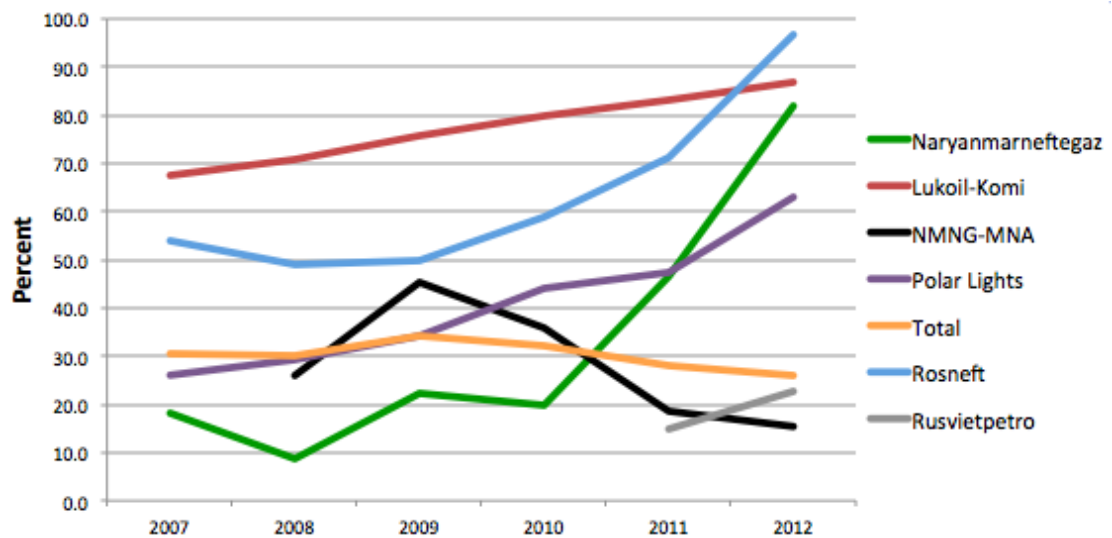
Conclusion

The heterogeneous nature of the data presented above makes it difficult to draw defensible conclusions regarding the performance of Russian firms against international ones. Nonetheless, the presence of FOFs has been credited with fostering healthy competition within the Nenets oil industry and allowing all firms to learn from each other's mistakes (intrv. 6, 7, 14). Even so, the impact of this factor is complicated given that different firms show different levels of compliance on different parameters but without identifiable trends. The American JV *Polar Lights* and the Vietnamese JV *Rusvietpetro* have been praised and criticised the most, respectively. The French *Total* was also criticised (for failing to deliver its PSA volumes, as well as to comply with EP commitments). Meanwhile, Russian firms experience the most oil spill incidents in Nenets, seemingly due to poorly implemented operational safety norms, but appear to

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[8] In 2013, these responsibilities passed from FS to federal regulators, who do not supply equivalent data.

have done well at cutting emissions. As such, the jury is still out on which firms can be called environmental leaders. The above analysis does, however, suggest that in terms of FOF presence, long-term (15 years+) JVs are better for EP implementation than shorter-term partnerships and PSAs. This is surprising given that under a PSA a host government commits to reimbursing firms' spending, including on EP — unlike under a JV, which places the onus on the firms and thus theoretically provides less motivation.

These observations are based on land-based oil development. In regard to offshore and the continental shelf, there are no FOFs working in the Russian Arctic today. It is highly likely that involvement by Western FOFs could be beneficial in this area, whereas non-Western FOFs might increase environmental risk. For now, however, evidence is inconclusive..

Hypothesis 3: The greater the exposure of local agents to transnational elements, the smaller the implementation gap

This hypothesis concerns the effects of a country's participation and interaction with foreign entities, including formal agreements, involvement with international developmental and financial institutions (IDIs and IFIs), and public participation in overseas education, international research, and tourism. Some of these, such as international agreements, are more relevant to the whole nation rather than specific regions. (For a short analysis of the impact of international agreements on Russia's nationwide EP performance, see Appendix E). However, there are also some bi- and multi lateral arrangements between Russia's Western Arctic and neighbouring countries that are not relevant to the rest of Russia. The latter examples are therefore included in the following analysis. What these and other aforementioned entities often have in common is their capacity, direct and indirect, to help Russia improve both EP quality and its implementation. This section explores whether such improvements materialise. It is shown that although the identified factors' contributions may not be consistent or significant, at least some positive impact is nonetheless highly likely, thus supporting H3.

IDIs

The increasing socio-economic development in the Arctic has revealed a range of

unusual environmental issues to all states that share this region[9]. Some of these issues still lack (effective) solutions: academics assess that adequate international or national regulatory regimes for preventing or eliminating oil pollution in the specific conditions of the Arctic do not yet exist (Gulas, *et al*., 2017). In part, this is due to the slow development of appropriate technologies (Wilkinson, *et al*., 2017) despite the growing commercial interest in the Arctic's natural resources that are becoming increasingly accessible as the ice cap melts away. In this context, environmentally focused IDIs can utilise their considerable international resources, connections and influence to stimulate governments to search for solutions to this issue, as well as to assist them in developing and implementing appropriate regulatory legislation in view of available extractive methods and technology. Additionally, foreign donors and partners are said to have stricter reporting requirements that increase the likelihood of project completion and implementation by the governing structures of the host country (intrv.7).

The GEF and the UNDP have already been mentioned in connection to Hypothesis 1; between them they have pursued a range of projects directly in Nenets and with wider application to the Russian Arctic. These appear to have positively impacted the behaviour of a range of implementation-related stakeholders. Arguably, their main contribution is in bringing together Russian actors and international expertise, and facilitating productive conversations between them. These conversations can lead to the involved stakeholders internalising the ideas that are developed during their course, as well as ensuring that those ideas are in line with internationally accepted standards. In turn, this tends to lead to regulation that is implementable rather than idealistic. Perhaps the best example of this is the UNDP/GEF promotion of biodiversity protection as a way to encourage the extractive sector to proactively incorporate policies on environmentally friendly approaches and technologies. In the 2010s, the two IDIs even helped develop these policies by arranging collaborative work groups between relevant government structures, the oil industry, academics, experts, the non-profit sector and international experts (IUCN, nd).

This project appears to have also stimulated the appearance of complementary measures: new EP regulations from the Russian government and the WWF's annual ranking of Russian extractive firms (mentioned while discussing H1). The combination of these efforts is said to have led to twice as many firms adopting appropriate strategies within three years of the start of that UNDP/GEF project (Sheynfeld, *et al.*, 2018). The IDIs then tested the implementation of new norms by organising practical

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[9] Arctic states include Canada, USA, Russia, Denmark, Finland, Iceland, Norway, and Sweden.

training for *Lukoil*. For this, the IDIs again drew on their international resources and invited a leading European NGO on the matter to deliver the training. The NGO's general manager later voiced his surprise at the extent of interest the initiative stimulated within *Lukoil*, including at the top levels of management (Nijkamp, cited in Sheynfeld, *et al.*, 2018). This interest, encouraged and supported by international actors, led to *Lukoil* developing and in 2019 patenting a range of new oil-spill-response technologies for Arctic conditions (Offshore Technology, 2019). In this way, IDI involvement contributed to the improvement of government regulations, complemented by guidelines on how to comply with them. It also secured willing cooperation from involved polluters, eventually leading to the development of new technologies. All of these outcomes work towards the closure of implementation gaps.

IFIs

Since 1991, Russia has received assistance for EP implementation from a wide range of IFIs including the World Bank, the European Bank for Reconstruction and Development and the Nordic Environment Finance Corporation. The projects supported by such IFIs ranged from improving Russia's state capacity to pursue EP to resolving specific problems, such as reduction of emissions (for examples, see NEFCO, 2013). However, most of these projects were implemented at the federal level and Nenets-based interviewees did not mention any of them. The interviewees' ignorance of the impact of IFIs on processes in their FS suggests that it is minimal. Furthermore, many of the IFIs have stopped their EP investment or simply chosen not to prepare further projects following the Russian-Ukrainian conflict and consequent sanctions against Russia (Ministry of Environment, 2017). As such, there is insufficient evidence to make conclusive arguments about IFIs' impact.

However, the recent geopolitical conflict has not necessarily affected the financial aid for EP that Russia receives from Nordic countries, with which Russia enjoys long-term, productive relationships both on bi- and multilateral bases. Aid from these sources has been channelled through organisations such as the multilateral Barents Euro-Arctic Region Unit and the Norwegian Barents Secretariat. Apart from funding, these institutions also maintain several working groups together with Russia aiming to solve common and exclusively Russian environmental problems. The level of support ranges from addressing Russia's challenges with reducing air emissions to delivering specific training for personnel at oil firms' facilities, improving technologies and even supporting organisational costs of Nenets' EP conferences (Intrv.8). These conferences entail

cooperation between national governments (Hønneland and Jørgensen, 2003) as well as fostering regional-level cooperation between local governments across borders (intrv. 4, 8, 11). Similarly to IDIs, these channels have been transferring knowledge, skills and technology into Russia – albeit in different ways. Perhaps that is why their impact is more difficult to trace.

However, most of the EP projects and funding from the Nordic partners do not reach Nenets (intrv.8). This is because industrial activity in Nenets is not as environmentally dangerous or as close to the borders as in other Russian FSs. Murmansk's nickel plant, for example, emits over four times Norway's annual air pollution (Antonova, 2008), which travels across borders into Scandinavia. Since 1985, Scandinavian countries have continuously pledged to help modernise the plant (Hønneland and Jørgensen, 2003), yet failed to deliver significant improvements. This suggests that their impact on FSs such as Nenets (that are further away and where the largest producers are also state-owned or politically powerful) is likely to be minimal or may even serve purely diplomatic objectives.

International research and academia

There is little evidence of Nenets' citizens being exposed to other cultures through education or travel abroad. Those who can afford to, tend to leave Nenets early on in their careers for better climates and job opportunities elsewhere. Those who work in the oil industry and in federal regulatory structures usually come from other Russian FSs, as Nenets does not have the educational institutions required to train personnel locally. Concurrently, staff turnover is high due to the extreme working conditions of the Arctic. As such, it makes little sense to talk of consequences of the Nenets actors leaving and returning to the FS.

The Nenets government has been bringing international influence to its citizens instead. It hosts recurring as well as one-off conferences and similar platforms that gather interest and attendance from a wide range of stakeholders across all sectors within and outside Russia. This includes representatives of other Arctic nations, who share Russia's challenges but are often closer to solving them. These events include the two-yearly EkoPechora conferences on environmental issues in Nenets, which alternated with EuroArktika conferences that focused on sustainable development. In 2017 the two conferences were merged, bringing together debates on socio-economic development, associated environmental problems and possible solutions.

Nenets started EkoPechora in 2008, a year after losing jurisdiction over EP in the oil industry to federal regulatory structures. This suggests that the government of Nenets might have envisaged the conference series as a way to exercise soft power over the industry given that such forums act to:

- expose existing environmental problems (including those that lead to legal non-compliance) to the public eye;
- put pressure on firms and different government levels to address them;
- present existing solutions from elsewhere in the world; and
- provide a forum for productive, multi-stakeholder discussion of effective and contextually appropriate solutions for Nenets (and neighbouring FSs), thus improving the likelihood of effective implementation.

Documentary data suggests that these conferences can indeed provide effective solutions (NAO Administration, 2014). This success may be why central-level Ministries chose to be involved in the organisation of EuroArktika, which started in 2011.

The increasing range of participants and a high turnout of local stakeholders from across sectors appear also to have fostered cooperative relationships between them outside these forums. One such example was the collaboration between *Gazprom* and the Nenets Nature Conservation Area to monitor *Prirazlomnaya*'s environmental impact (intrv.2). The events also help boost environmental awareness among the population of Nenets, and this might be responsible for the increase in the number of EP-related appeals to the Nenets' Prosecutors' Office (intrv.10), suggesting tangible impact.

The Arctic Council, established in 1996, also exists to stimulate research and consultation on how to solve environmental challenges in the Arctic through multinational cooperation. Even more so then the international conferences described above, the Arctic Council is an apolitical institution driven from the bottom up by Arctic experts, scholars, civil society and the indigenous peoples from all Arctic countries. This mix of participants tends to foster trust and cooperation rather than political or economic partisanship. It also allows the least powerful stakeholders from all Arctic countries to participate in the creation of a globally shared understanding of the Arctic's problems (Koivurova, *et al*., 2015) and to contribute to the development of contextually appropriate strategies and norms that individual country governments are then asked to adopt.

This approach has strong potential to create norms whose value can be easily understood and accepted by all stakeholders, while fostering good relationships

between them. This inclusivity may, for example, explain the Nenets reindeer herders' productive relationships, established in response to environmental incidents, with the Nenets government, the Prosecutor's Office and even with oil firms (intrv.6,10). However, as with previous examples on this topic, there is insufficient data to show conclusively whether these outcomes have had real and consistent impact on implementation.

Conclusion

There is considerable international interest in the Russian Arctic and in the level and effectiveness of EP that Russia can deliver there. The previous discussion shows that this interest has materialised through a range of international actors and approaches, while examples given in its course indicate that those methods that encourage interaction with and between Russian EP stakeholders appear to be the most effective at raising EP quality – in terms of both content and implementation. Despite the variance in effectiveness between these different manifestations of international norm diffusion, the impact is overall at least neutral, but often also tangible. As such, although weak, evidence nonetheless points in support of the hypothesis, at least in principle..

Explanatory variable 2 - State capacity

Hypothesis 4: The better the quality of the environmental regulation for the oil industry, the smaller the implementation gap

Russian environmental regulation has developed rapidly since the collapse of the USSR, but has also been criticised for being overly stringent, prescriptive and unimplementable (Elgsaas, 2018; Belkina and Sarkova, 2015). At the same time, rapid legislative change in Russia raises questions of legislative consistency and ability of both regulators and the regulated to keep up with ever-changing requirements. This section reviews EP legislation at different government levels in relation to oil extraction in the Russian Arctic and the tundra biome. The discussion reveals that those working with this legislation generally perceive it to be mostly sufficient, or at least agree that it is changing for the better. However, although the law is becoming increasingly sensitive to contextual differences, it is still not sufficiently tailored to protect particularly fragile biomes such as the tundra, and this complicates its enforcement.

Federal law

When first asked to assess the quality of the Russian EP legislation, interviewees described it as "very good", "clear" and "adequate" and in many ways more stringent than the European EP law (intrv.4,5,7,9,10,15,16,17), which was seen as a positive factor. However, a more in-depth discussion almost always revealed underlying issues. The stringency of requirements was criticised the most. The issue here is that if fully enforced, Russian EP regulation could risk bankrupting Russian oil firms (intrv.7), which support most of the Russian economy. To prevent that outcome, "the stringency of Russian law has usually been compensated by non-enforcement" (intrv.4,14,19). The law therefore only appears to be stringent, concluded a former Environment Minister (intrv.19). Lawmakers have been working to reconcile the requirements of EP legislation with realistic plausibility of compliance. However, despite moving in the right direction (intrv.6,7,12), legislation seems to fall short of achieving timely and substantively better outcomes (intrv.12), necessitating further legislative improvements. This process perhaps helps explain the relentless legislative change in Russian EP.

A lawyer for WWF Russia (intrv.21) indicated that the hierarchical nature of Russian legislation might be one of the main factors that produce this result. Federal provisions usually build a strong and effective framework in this hierarchy, but the bulk of implementation rests on sub-laws, which in turn rely on directives and other legislative tools. This is similar to legislative systems in more developed countries. The issue in Russia is that the development of the subsidiary legislation in such a legislative chain typically falls to different government bodies at different levels. These separate legislative projects tend to be uncoordinated and the bodies in charge of them might not share a single vision of what outcomes the legislative chain should strive to achieve. For example, one part of the law requires firms to compensate oil spills *in full*, whereas other legislative provisions give them options not to do so (intrv.11,20).

At the same time, lawmakers working on parallel legislative chains of subsidiary legislation (for example, on water and on air pollution) do not necessarily interact with each other (intrv.14), which means that laws that should theoretically complement and strengthen each other can instead end up competing, contradicting (intrv.9,15) or cancelling each other out. In these instances, explained a member of the Nenets FS government, it is sometimes possible to pick the lesser evil, but at other times, the legislative contradictions are impossible to navigate without the courts' involvement (intrv.14). However, even the courts tend to be inconsistent, assigning fault to different actors in similar situations (intrv.12). This allows violators to challenge regulators'

judgements and court rulings (intrv.18). For example, oil firms and their subcontractors frequently push responsibility onto each other with neither delivering the legislative requirements as a result (intrv.12,18).

Furthermore, the lowest links of subsidiary legislation in a single legislative chain – without which the law as a whole often cannot be properly enforced – can take several years to develop after the top links have already been passed. During that time, the law essentially remains in limbo: it is difficult to assess whether a target group has complied with it or not, or whether any enforcement is necessary. For example, Russian firms successfully challenged a federal law that provided for environmental payments when the subsidiary legislation for calculating these was scrapped in the early 2000s (although the constitutional court later reversed the ruling).

Another issue is that when lawmakers further down the chain attempt to catch up with upper legislative steps, they might skip important stages of law-making that could help improve legislative quality. For example, Ministries or committees might skip testing draft legislation with cross-sector stakeholder working groups (intrv.14). Moreover, each legislative chain can end up with different gaps and inconsistencies (intrv.10). The above factors create what the head of Greenpeace Russia's Energy Unit termed as "grey areas" or "loopholes", which oil firms use to escape legislative compliance (intrv.20).

Fast legislative change in the above conditions is said to have produced a colossal, highly complex legislative framework (intrv.13) with too many EP laws, which are highly heterogeneous (intrv.7). Interviewees (intrv.2,6,7,9,11) described the resulting legislative framework as "incomprehensible", "absurd", "contradictory" and "dysfunctional", with some parts of the same law being too vague and others too convoluted, leaving one guessing at intended meaning. Rectifying this could take decades, observed a Greenpeace interviewee, noting that the adoption of voluntary industrial standards and environmental insurance might be a more time-effective alternative (intrv.20).

Notwithstanding the above evaluation, the majority of interviewees in 2014 agreed that, however slowly and painfully, Russian EP legislation at the federal level was nonetheless changing for the better and that many issues described above were due to be addressed by the adoption of a new law, which is already used in developed countries. This replaces outdated and ineffective practice of setting maximum permissible pollution volumes and relevant charges with the principle of best available technologies. The law was passed in 2014, became effective in 2015, but has a

transitional period until 2025. Evidence of its effects might not therefore be ready for academic analysis for yet some time.

FS level

One of the key remaining issues is that federal law is general and does not always take into account local contextual variation (intrv.1,14,15) between Russian regions. For example, the concept of recultivation under federal law requires polluted land to be returned to a fertile state suitable for agriculture, which is irrelevant to the tundra biome, marked by marshland and permafrost (intrv.15). The harsh, inhospitable climatic conditions and the absence of physical infrastructure also make it much harder for Nenets to adapt other parts of the federal law to its context than for other FSs (intrv.14). According to interviewees from both public and private sectors (intrv.14,16,17), federal legal requirements are in some cases physically unachievable given a) contextual circumstances and b) available resources of both regulators and polluters. Although provisions exist to allow FS legislatures to supplement federal laws with local legislation in order to make the former more suitable, it can be very difficult to write local laws that reflect local needs without contradicting federal laws (intrv.15).

In light of the above, some believe it would be more appropriate for environmental laws to be developed at the FS level rather than the federal level, since regional stakeholders are better able to render laws both useful and effective (intrv.3,4,7). Not only do they better understand local challenges through their own work in Nenets, they can also take advantage of the various conferences on Arctic issues (for example, see H3 discussion) that bring debates on appropriate solutions to Nenets, rather than Moscow. Furthermore, in line with a nationwide requirement, the government of Nenets has created formal forums for a range of local stakeholders and experts to transfer gained knowledge into FS legislation (intrv.4). The institutional infrastructure and motivations to deliver quality EP laws therefore appear to already exist here.

However, any laws the Nenets legislature writes in the current budgetary system must be delivered from the smaller FS budget (intrv.7), which does not always stretch that far. This further intensifies calls for greater devolution of EP responsibility (intrv.1,15). However, not all FSs have similarly strong views and motivations on EP as Nenets. Full devolution of EP to the FS level in the 2000s only reduced its effectiveness (intrv.19). Therefore, devolution of EP to all FSs might not be desirable, whereas partial

devolution – for example, only to northern FSs – might be seen as political favouritism and could therefore also be disagreeable.

The Arctic

Despite the conclusion to the previous subsection, region-specific regulation – at federal if not local level – is desirable in an extensive and difficult zone like the Arctic, and the government of Russia has been developing a range of regulatory tools to encourage sustainable development specific to this area. These include Russia's 2008 Arctic Policy, which holds EP as one of its priorities. Increasing contextual detail within Russian legislation on Oil Spill Response (OSR) in another example. Meanwhile, there is also industry and expert led development of such soft tools as the National Public Standard (NPS) on environmental safety in the Arctic.

Each of these has its individual shortcomings. For instance, Elgsaas (2018) assessed some strategies in the Arctic Policy as ambitious but unrealistic. In relation to OSR legislation, various academics and practitioners assessed it as too prescriptive and (still) contextually insensitive (Belkina and Sarkova, 2015); inconsistent, vague and poorly defined (Bizhanova, 2018); as well as scattered and failing to fully regulate all relevant activities (Ivanchiv, 2014). Meanwhile, soft tools such as NPS are voluntary and do not necessarily reflect the EP needs of mono-industrial towns (Gutman and Teslya, 2018), which are so common in the Russian North (Chuprov, 2017). However, these legal and soft tools seem to work well in tandem with each other and their variety, dynamism and breadth of engagement help weave together a comprehensive regulatory regime with significant potential. For example, despite its non-obligatory nature, the NPS promotes leading international standards tailored for Arctic circumstances, which could plug gaps and offer alternatives to unachievable policy targets and legislative requirements.

Conclusion

The above discussion centred on issues with Russian EP laws that prevent effective implementation in the Arctic. This suggests that improvements in legislative quality are at least necessary, if not sufficient, for the improvement of implementation, and both Nenets and Moscow interviewees appear to hold to this view. Hypothesis 4 is therefore supported by collected data. However, what also emerges from this analysis is that meaningful legislative change might not be happening quickly enough and continues to

fall short of facilitating effective environmental protection. At the same time, Russia seems to have begun to recognise the potential of non-legislative tools in complementing formal legislative requirements on the path towards effective EP implementation. This, however, lies outside the scope of the present analysis.

Hypothesis 5: The greater the quality of environmental regulatory agency in the sphere of the oil industry, the smaller the implementation gap.

The regulatory regime that was adopted by Russia in the 1990s was based on the reactive principles of "*find and fine*", and its effectiveness became measured by the volume of identified violations and subsequent fines. This fostered a conflictual relationship between the regulators and the regulated, constraining Russia's significant potential economic growth without delivering policy objectives for which said regime was developed. Having realised this in the 2010s, the Russian government embarked on the 2016-2025 reform project to fundamentally transform the principles, methods and evaluation criteria of government regulation. The outdated system is to be replaced by "regulation as service", based on cooperation between stakeholders aimed at proactive *prevention* of negative impact. Both systems have theoretical and practical advantages and drawbacks, resulting in varying quality of regulation, which does not necessarily address the atypical context of Nenets. This section explores the impact of this variation on the implementation capacity of key EP regulators for the oil industry – the Ministry of Natural Resources and the Environment (*Minprirody*), Rosprirodnadzor and Rostechnadzor. It is shown that better quality regulation could lead to better implementation, thus supporting H5. However, the following analysis also shows that although proposed improvements in Russia's current reform could lead to significant improvements in EP in general, they might not do enough to improve EP in the specific conditions of the North.

Transport

One of the main problems with Russian EP regulation is that it is based on physical inspections of the sources of pollution. In Nenets, however, there is no transportation infrastructure between regulators' offices and oil facilities, and the only way for environmental inspectors to reach them is usually by helicopter, which is expensive (intrv.9) and not covered by the federal budget (intrv.10,11,12). There exist agreements

between regulators and oil firms for the latter to provide transport to environmental inspectors for scheduled inspections (inrv.13), but this type of inspection cannot deliver EP regulatory objectives, according to academics (for example, Danilova, 2015). This is because these inspections are agreed between regulators and firms in advance and relate to specific activities. This removes the possibility of catching violators red-handed. Surprise inspections that could achieve this were not permitted until the most recent reforms. However, oil firms are unlikely to provide regulators with transport for such inspections; as a result, several months can pass between an environmental incident and a physical inspection, by which time firms may have already hidden all evidence of EP violation (intrv.7,9).

A more meaningful aspect of the current reform, in terms of the Nenets context, is the change in frequency of scheduled inspections from triennial to annual at industrial facilities with the highest potential negative environmental impact, which includes oil facilities. Oil firms will likely continue to fund travel for these and the increased regulatory pressure may produce positive results. However, arrangements will still be made on the terms of the oil firms, which have been known to take advantage of this situation to conceal violations (Henry *et al*., 2013).

A related problem is that (until recent reforms) evidence had to precede unscheduled visits by inspectors, but given Nenets' large physical area, low population density and very limited transport infrastructure, violations at remote oil facilities and pipelines often go unnoticed. Recent developments in volunteer-based "public" environmental control – including the introduction of a 24/7 environmental hotline, an interactive online map of waste dumps, and free training for citizens to become *public environmental inspectors* – could help regulators identify sites in need of visits, but are ineffective in remote locations where volunteers are unlikely to venture. There is potential for these tools to be used by indigenous, nomadic reindeer herders, who do travel past hydrocarbon extraction sites, and Nenets interviewees confirmed that nomads already actively report incidents (intrv.6,10,13,18). However, there is also evidence (Belyaeva, 2015; intrv.18) of oil firms making deals with nomads to stop them reporting violations and coercing them into silence (Dallmann *et al.*, 2010).

In light of the above, the risks for an oil firm of being caught violating EP regulations are sufficiently small to be negligible. Firms have therefore been known to forego their legal requirement to report environmental incidents to government structures. In fact, the bulk of regulation relies on firms self-reporting while regulators often have no means of verification. An interviewee from the Nenets government estimated that 90%

of reports submitted by oil firms to the regulators downplay pollution levels (intrv.11). Combined with insufficient alternative sources of reporting, the interviewee estimated that regulators in Nenets find out about only approximately 20% of all EP violations (ibid.).

Institutional structure

Incoherence within and among EP regulatory agencies can be linked to insufficiencies within EP legislation, which have already been discussed concerning H4. Such legislation, which is supposed to set out the powers and responsibilities of various regulatory bodies, does not do so unambiguously. Instead, environmental law has fragmented EP regulation into several areas, such as air, water and soil, and endowed several regulators with responsibility for each of these. Furthermore, each EP area follows its own rules and involves a different set of regulators (intrv.12), each of which in turn often comprises a different set of sub-structures. This can create considerable confusion over responsibilities even in such sectors as hydrocarbon extraction, which is today primarily overseen by a few federal regulators (Gamidullaeva, 2015). Table 4 below provides a non-exhaustive list of environmental regulators and their indicative relationship with the oil industry as well as each other.

Table 4 – Key environmental regulators

Regulators	Subordination	Powers / Responsibilities relevant to the oil industry
Minprirody Ministry of Natural Resources and Environment of the Russian Federation	Directly subordinate to the *Government of the Russian Federation*	The federal policy- and regulation-maker for the use and protection of natural resources, pollution control, waste management and environmental monitoring
Rosnedra Federal Agency for Subsoil Use	Subordinate to *Minprirody*	Administrates the regulation of oil and gas extraction. This includes issuing, suspending and revoking licences for the use of subsoil
Rosprirodnadzor Federal Service for Supervision of Nature Use	Subordinate to *Minprirody* but has a degree of independence	Oversees compliance with regulations on the use of subsoil and environmental protection
Rostekhnadzor Federal Environmental, Industrial and Nuclear Supervision Service	Directly subordinate to the *Government of the Russian Federation*	The federal policy- and regulation-maker for matters related to technological, environmental and nuclear supervision. Also issues safety certificates and operating licences
Rosgidromet The Federal Service for Hydrometeorology and Environmental Monitoring	Subordinate to *Minprirody*	Monitors the environment and environmental pollution
Environmental Public Prosecutor's Department	Subordinate to the Prosecutor General's Office	Enforces environmental law
Rospotrebnadzor Federal Service for Supervision of Consumer Rights and Human Well-Being	Directly subordinate to the *Government of the Russian Federation*	Formulates and enforces policy, regulation and guidelines on sanitation and epidemiological welfare. This can include issuing of permissions for air emissions.
Rosleshoz The Federal Forestry Agency	Subordinate to *Minprirody*	Oversees matters of forestry (and carries some responsibility for oil pollution from oil pipelines, majority of which lie in forested areas)
Rosvodresursy The Federal Water Resources Agency	Subordinate to *Minprirody*	Oversees protection of water bodies (which can be affected by oil works and oil pollution)
Rosrybolovstvo Federal Service for Fishing, a subdivision of the Ministry of Agriculture of the Russian Federation	Subordinate to the Ministry of Agriculture	Responsible for the conservation and protection of marine biological resources (which can be affected by oil pollution)
Rosselkhoznadzor Federal Service for Veterinary and Phytosanitary Surveillance	Subordinate to the Ministry of Agriculture	Overseas the quality and safety of grain and livestock (which can be affected by oil pollution)

As an example of confused responsibilities, the government of Nenets is responsible for regional environmental performance, but EP regulation is mostly carried out by federal structures there. Yet, similarly to oil firms, these regulatory structures are not obliged to share environmental data with the regional government. This means that the actor with overall responsibility for environmental performance in the region does not itself know the extent of environmental impact for which it is accountable (intrv.4,11). In a different example, *Statoil* (now *Equinor*) works and provides social support in Nenets

but, without an obvious reason, is regulated by the Murmansk FS, which does not have a clear administrative tie with Nenets (intrv.13).

There is a certain circumstance that makes EP regulation more confusing in Nenets than other FSs: in terms of FS-level EP regulation, Nenets falls under the jurisdiction of the neighbouring FS Arkhangelsk, and regulatory responsibilities frequently move back and forth between these two, and between them and the federal centre due to changing political and economic contexts. Interviewees explained that when powers pass from Nenets to Arkhangelsk, FS-level EP efforts in Nenets often stop, since Arkhangelsk concentrates on its own problems (intrv.7,14). In terms of federal regulators that oversee Nenets and the neighbouring Arctic FSs, each regulatory structure can consist of FS-specific, cross-FS, multi-FS (with jurisdictions over different groups of FSs) or regional [10] departments. For example, Rosprirodnadzor runs a Nenets-specific department, but Rostechnadzor's operations in Nenets are overseen by its main decision-making office in Arkhangelsk. As a result, Rostechnadzor is less effective in Nenets compared to Rosprirodnadzor. Its response is slower – because it has to go through a longer chain of command. Its capacity is also lower: due to its lower status, it does not have necessary equipment, such as a laboratory, and other regulatory bodies in Nenets are not allowed to share theirs with Rostechnadzor (intrv.12).

Such variation in structures also considerably complicates arrangements for joint environmental inspections, which have become increasingly common and can involve up to seven different regulatory agencies. Determining who should attend, coordinating their availability and securing financial means to fly the group to the inspection site can be no mean feat, according to an interviewee from the Prosecutor's Office (intrv.10). Concurrently, involvement of so many actors with often competing perspectives makes it difficult to reach a joint agreement on next steps and post-inspection responsibilities (intrv.18).

Ways of working nonetheless seem to emerge among regulators based on practice. However, this natural process can be easily jeopardised by the continuous policy and legislative change taking place in Russia. The current reform is planned to take effect over an 11-year span and other changes or new reforms are likely to materialise in that time. This prospect fosters a sense of constant transition towards an unknown goal, which is potentially confusing for both the bottom level EP implementers and for firms in terms of what is required of them. A new announcement has already been made in

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[10] The Russian Federation is broken into 7 great regions, which in turn include several federal subjects.

April 2019 on the creation of two additional regulatory bodies in the Arctic within the General Prosecutor's Office, whose responsibilities will likely duplicate those of Rosprirodnadzor (intrv.22).

Human Resources

Primary EP regulators responsible for the oil industry in Nenets face substantial problems with human resources. Back in 2014, when interviews were conducted, federal allocation allowed only a handful of staff in both Rostechnadzor and Rosprirodnadzor despite the intense workload. That year, Rosprirodnadzor carried out 17 scheduled inspections (see Figure 4), each taking up to 20 days, as well as seeing to their other duties. Perhaps (at least partially) in recognition of such unrealistic regulatory workload across Russia, central government has been pushing for fewer inspections since the start of the decade. Figure 4 shows that in Nenets Rosprirodnadzor was managing to comply until 2017, when the number of scheduled inspections rocketed back up (Upravlenie Rosprirodnadzora po NAO, nd). This significant increase corresponds to the implementation of a new reform the same year, which saw a re-categorisation of entities subject to regulatory inspections based on their potential for negative environmental impact. This change was intended to make the regulatory system more realistic by matching regulatory pressure with the severity of EP risks. In 2018, scheduled inspections were for the first time planned in accordance with this new categorisation.

Figure 4 - Total planned inspections of firms/enterprises by Rosprirodnadzor in Nenets 2011-2019[11]

Total planned inspections of firms/enterprises

The reform was supposed to free up regulators' time and resources by redirecting them towards entities most in need of regulation – those showing the highest risk of negative impact. Nationwide, this approach was effective, having cut the number of regulated entities from 79,000 in 2016 to 22,000 in 2017 (Rosprirodnadzor, 2017). However, in a mono-economic FS like Nenets, where economic activity almost exclusively poses high environmental risk, the reform instead led to an increase in both the number and frequency of scheduled inspections. Even the increasing automatisation of regulators' other duties and the growing use of online communication are unlikely to adequately offset overall climbing workloads. At the same time, the range of Rosprirodnadzor's responsibilities continues to grow. For example, in 2018 *Minprirody* asked Rosprirodnadzor to lead the reform of nationwide waste management systems as well as to regulate the three nature reserves and national parks created in Nenets in 2017 and 2018 (MNR, 2018a: 437) until relevant government structures are created to take over (MNR, 2018b).

While Rosprirodnadzor's Nenets website suggests that new staff are being hired, the number of current staff is unclear and in 2014 interviewees indicated significant barriers to finding new personnel to staff the offices of federal regulators in the Artic. These problems include:

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[11] Based on annual reports from Rosprirodnadzor, available at http://83.rpn.gov.ru/.

- lack of local experts, since there are no institutions of higher education in Nenets (intrv.2);

- low salaries relative to those in FS-level structures and to the high costs of living in extreme Arctic conditions, making federal service in areas like Nenets unattractive to qualified (or any) staff (intrv.2,12,14,18);

- difficult working conditions (8-month continuous polar winters); and

- the general incommensuration of regulators' salaries with their workload and occupational risks (Skoryh and Perelygina, 2018).

These factors were said to substantially reduce the pool of available candidates and to increase staff turnover (intrv.9,11,12,18). Although budgetary increases and the nationwide worker incentive scheme proposed by the central government might bolster the uptake of these jobs to a degree, they will not help resolve all of the above issues of the Russian North. Meanwhile, the high pressure and difficult conditions in which EP regulators work likely engender mistakes or unintentional clemency upon EP violators, and necessitate selective enforcement.

Conclusion

This section explored the specific problems faced by Nenets as an example of the wide-ranging differences between Russian territories and how this variation affects the effectiveness of largely standardised, nationwide regulation. It is these contextual barriers that exacerbate existing shortfalls of formal government regulation. For instance, the consequences of the general institutional complexity and insufficient resources prevalent in regulatory structures become especially acute in the Russian North. Meanwhile, despite general improvements in the regulatory regime, the specific conditions of different territories may require far more tailored approaches to be effective. As such, the above discussion strongly implies that low quality of environmental regulation can have a significant negative effect on implementation. While it is not possible to conclude that better environmental regulation would necessarily lead to better implementation, the evidence reviewed nonetheless strongly suggests that the tested factor is a necessary if not sufficient condition. H5 is therefore supported.

Explanatory variable 3 - Economic conditions

Hypothesis 6: The more advanced the economic conditions in a regional economy, the smaller the implementation gap.

Nenets is mono-economic: its entire economy rests on oil extraction through royalties (at the Kharyaga PSA), taxation (on profit, property, and extraction), and payments for environmental impact. The distribution of these tax and non-tax payments continues to vary between budgets at different government levels (due to legislative changes), but Nenets' dependence on oil remains constant. Academic theories focussing on the relationship between oil and government spending tend to predict that overdependence of government budgets on oil revenues often leads to regulatory capture (for example, Shaxson, 2007) with consequent negative impact on regulatory implementation. At first sight, it seems plausible to apply such theories to the present case study. Nenets is one of the richest Russian FSs and a major contributor to the federal budget. Reductions in oil profits in Nenets, due to oil firms' increased production costs brought on by effective regulation, could therefore affect not only local but also nationwide spending. This section explores whether this logic applies to Nenets and what impact the situation has on EP. It is shown that the presence of oil indeed creates strong economic priorities above environmental concerns at all levels of government. However, this outcome has materialised more as a result of a clash between government policies rather than due to regulatory capture. The absence of other economic sectors in Nenets, which could take the place of government revenues collected from oil, leaves no alternative but to continue to prioritise economic policy goals.

The mono-economic nature of Nenets might in itself be an issue for balancing between local government objectives, but the economy's existence specifically around oil seems to exacerbate the situation. According to the head of the energy unit at Greenpeace (intrv.20), over 50% of federal-level government spending depends on oil taxes from oil-producing regions such as Nenets, and such spending is planned and divided between different policy areas before oil taxes are even collected. With this level of oil dependence at the national level, the central government has been curbing state power since the early 2000s. This has manifested in a number of ways; for example, the distribution of oil related taxes collected from the oil industry steadily changed in favour of the federal budget. Prior to 2002, oil-extracting FSs could retain 60% of tax on oil and gas extraction, with the other 40% going into the federal budget (Kurlyandskaya, 2007). By 2019, however, Northern Russian extracting regions were sending between

88% and 92% of all payments collected from the oil industry to Moscow (Afanasev, 2019).

Furthermore, responsibility for environmental regulation of the oil industry has moved to federal agencies. Several interviewees from Moscow (intrv.19,20) commented that having thus removed the ability to enforce EP from local agencies, the central government then intentionally kept the number of EP regulators in federal agencies too low (and therefore their workload disproportionately high) so as to limit the enforcement of EP regulation. Moreover, the responsibilities for issuing licenses for the use of subsoil also moved to Moscow. This change made it more appropriate for oil firms to influence the central government if they hoped to reduce or avoid their legal obligations. Accordingly, these changes saw the oil firms' head offices also moving out oil-producing FS such as Nenets to Moscow.

As a result, the government of Nenets finds itself caught between powerful interests of the federal government and of the oil firms that support its public spending. The factors described above have effectively removed both the direct control and the indirect influence that Nenets-level government could exert on its major polluters in order to encourage them to comply with EP legislation (intrv.14,18). Yet despite these changes, the overall responsibility for environmental protection in Nenets has remained with the Nenets-level government even though it is in theory powerless to do much about it. The situation could be interpreted as the central government taking economic and financial control from the FS, leaving in place a political lever to control the FS's reactions. In this situation, local environmental concerns of Nenets have become hostage to the national economic interest.

Should an EP regulator exercise their full legal powers, they could suspend oil works until non-compliant practices were eliminated. According to a Greenpeace interviewee, were an oil firm to complain to central Ministries in such a scenario, the Ministries would likely take the company's side and might pressure regulators to back off (inrv.20). A pause in oil extraction for any period of time could mean a substantial fall in federal spending, which could in turn have a significant impact on the delivery of government policies across the board. Each Ministry, including that responsible for delivering EP, might therefore be expected to have a strong interest in opposing EP regulators. In essence, national economic interests can be expected to prevail over local environmental concerns. At the same time, Russian oil firms tend to hold considerable assets across the country, granting them yet further political power with which to bargain with central government. In the words of the interviewee:

> "…oil is the holy cow and the government will never help those poor regulators… There is an unvoiced governmental-commercial agreement whereby the [central] government says [to the oil firms]: 'Give us export and taxes and what you do and pollute in a region is the region's problem… So let the regions bite you, but consider us on your side." (ibid.)

Without an alternative source of finance (as there are no other economic sectors in Nenets) and in the face of these powerful interests, EP regulators and the government of Nenets have almost no cards to play. The one saving grace is perhaps the lack of unity within Nenets' oil sector. There are a significant number of oil firms operating there in direct competition with each other and without any organisations representing their common interests against state structures at the Nenets level. Theoretically, this should give the FS government and locally-based federal EP regulators greater power to enforce EP against individual non-compliant polluters: if one left, production and taxes from others would continue and another firm would eventually take over freed oil deposits. In practice, however, Nenets' budget is under considerable pressure to maintain an acceptable standard of living for its population in the extreme Arctic conditions. Furthermore, since 2006, when major oil projects began to operate, 17-27% of Nenets' permanent population has been directly employed by the oil industry (Federal Service for Government Statistics, n.d.). In the absence of alternative economic sectors in Nenets, closing down oil works could mean job losses and therefore an increased strain on public services as well as a (however temporary) reduction in Nenets' government budgets. All of these factors make it less likely that industry regulation that could have these outcomes would be enforced.

Local and federal regulators in Nenets appear unwilling to test such a scenario, for even interviewees from oil firms working in Nenets admitted that the local government might give firms "a hard talking to" but that "the regulators cannot shut down a firm" (intrv.16,17). Instead all parties find a balance in which regulators "do not impose regulation too harshly as long as the firms don't behave too poorly" (intrv.16,17). The same interviewees indicated that this usually results in firms choosing to pay fines without much change to their environmental performance. In fact, unlike taxes on oil, the majority (95%) of environmental payments – collected by the federal *Rosprirodnadzor* – stays in the Nenets' budget, thus constituting an additional source of income (Upravlenie Rosprirodnadzora po NAO, nd). It might therefore be in the Nenets government's interest for oil firms to continue paying fines, although evidence to support such a claim is understandably hard to deliver.

Oil firms also complement official public spending in Nenets through various corporate social responsibility projects such as the construction of much needed kindergartens,

schools and recreation facilities (intrv.5). This gives Nenets' governing structures another reason to stay on the oil industry's good side, commented an interviewee from a Nenets research institution (intrv.9). In this context, structures at all levels of government with an interest in EP are constrained by the socio-economic priorities of jurisdictions directly above them.

At the same time, those most affected by pollution also stand to lose most from improved EP. As already mentioned, a significant proportion of the local, permanent population works in oil and there are few alternative employment opportunities. Oil works are located inaccessibly far from main human settlements in Nenets and the effects of any pollution considerably outweigh the immediate perceived losses as a result from potential unemployment. Furthermore, the oil industry pays the highest wages in Nenets (Stammler and Peskov, 2008). As such, the local population also has a strong interest against any measures that could hurt the oil firms' profits and in turn cause firms to lay off local workers. Such awareness likely limits public pressure on government structures to improve their EP implementation. Local political will to enforce EP is therefore likely to remain low.

There is little data to conclusively prove or disprove the proposed arguments. However, the possibility of the hypothesised causal relationships in this subsection was supported by interview data. The presence of oil does not necessarily preclude the development of other economic sectors or other general improvements to the economic conditions in this locality. It is the geological, geographic and climatic conditions of the *okrug* that make economic activity here almost illogical. Had oil not been discovered in Nenets, there would have likely been little rationale for any economic activity here at all, and the region would have likely been left to the indigenous population. However, the presence of oil brought an increased human population to Nenets, whose socio-economic well-being is difficult to maintain and takes priority over EP concerns. In light of the present circumstances, both factors (presence of oil and the overall local economic conditions) combine to lower the likelihood of EP implementation. H6 is therefore supported.

Conclusion

Data discussed in this chapter supports all but one hypothesis: the remit of H2 could not concluded due to lack of conclusive evidence to support a causal relationship in either direction. However, this conclusion does not necessarily detract from the

applicability of other types of foreign and international influence contained in variable one, including international NGOs, financial and developmental institutions and academic expertise. These actors were shown to have at least a strong potential for positive impact on implementation. As such, the above analysis implies that all three variables – foreign influence, state capacity and economic conditions – have substantive hypothesized impact on the implementation of environmental protection in relation to the oil industry in Nenets.

Chapter 5. Empirical analysis: Republic of Tatarstan, the Russian Federation

Introduction

The Republic of Tatarstan (henceforth RT or Tatarstan) is one of the smaller Russian FSs[12]. It has a relatively high population density and is located in the southern part of European Russia as per Figure 5. RT is thus strategically well located between Europe and Asia, even though it does not share direct borders with other countries. In terms of environmental wealth, Tatarstan has a relatively large number of water bodies, including rivers, lakes, marshes and bogs, some of which have unique ecosystems.

Figure 5 – Republic of Tatarstan

RT is in many ways an unusual Russian region. This applies both to its relationship with Russian federal government and to its internal characteristics compared to other oil-extracting Russian regions. Tatneft, RT's main oil company, is also distinctive – its environmental performance has often been better than that of other Russian oil giants', at times exceeding legal requirements.

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[12] The Russian Federation consists of 7 regions, which in turn comprise several smaller territories, commonly referred to as federal subjects. The types of federal subjects include republics, *oblast*s, autonomous *okrug*s, *krai*s and federal cities.

This chapter explores reasons for RT's relative success in complying with environmental protection (EP) regulation in the oil sector. As in other chapters, the independent variables of *foreign influence, state capacity* and *economic conditions* are tested, but the analysis reveals that they have low explanatory capacity. The effect of a particular combination of local factors is shown to be more important for implementation. These factors include strong political, societal and commercial interests in EP that developed against the backdrop of relatively high political and economic stability. Supporting this conclusion, the next section sets the context by outlining RT's political and economic status, its sources of environmental problems, their impact, and the EP measures taken to resolve them. The following section discusses the relevance of proposed hypotheses; the final section concludes by reviewing their applicability.

Background

Political context

Since before the Soviet era, and despite being a part of the Russian Empire, Tatarstan identified as an independent nation and had its own government, culture, language, religion, customs and traditions. Under communist rule, its governing institutions gained further experience and were only strengthened by the Communist Party's decision to designate Tatarstan as a machinery-producing and oil-extracting region (Kalimullin, 2015). Assets such as labour, capital and equipment were redirected here from other regions and Tatarstan became a centre for technological and methodological innovation in the prescribed economic activities. This meant that by the time of the USSR's collapse, Tatarstan's economy resembled that of a fully-fledged nation. This fuelled existing separatist tendencies (Shakhray, 1997), leading to, among other things, Tatarstan proclaiming itself a Republic and refusing in the early 1990s to sign the Russia-wide agreement that would include it in Russia's new, federal structure.

To pacify RT's pursuit of independence, Moscow compromised signing a contract-style (Lysenko, 1997) bilateral agreement with RT in 1994. This granted RT significantly more independence and influence than other federal subjects (FSs). The treaty also allowed for RT to endow itself with additional responsibilities and to pass laws that could contradict both Russian federal law and the Constitution of the Russian Federation. Under its special status, RT formed its own government (including an elected President), wrote its own constitution and legislation, set taxes, controlled its

natural resources and even pursued its own foreign (economic) relations. However, many of these powers were withdrawn when the original treaty expired and a new version was put in place in 2007. Thereafter, RT was obliged to cooperate with the federal centre on decisions relating to natural resources and other policy areas. RT retained the power to set its own economic and environmental policies, as well as some others, but these also had to be approved by Moscow.

Nonetheless, the relatively strong state capacity of RT's governing institutions, RT's success in further growing its economy, and its drive to protect its rights against the federal centre, have made RT one of the most influential of Russian FSs (Gallyamov, cited in Kozlov, 2017). Moscow appears to be continually trying to reduce RT's political power: for example, when the above-mentioned 2007 power-sharing treaty expired in 2017, Moscow decided not to develop or sign a new one, thus refusing to recognise RT's special status any longer. Economically, RT presents one of the best investment climates in Russia and is a major donor towards the federal budget[13].

Industrial development and environmental impact

Industry and pollution (Soviet era)

Tatarstan suffered from extensive water, air and soil pollution during and after the Soviet era. Much of this results from the aggressive industrialisation that followed the Soviet decision to establish a special research-and-economic area in RT. As part of this, industrial production of oil began in the 1940s with production volumes being prioritised over efficiency. This often resulted in extensive pollution but was not perceived as problematic. Similar attitudes permeated RT's other industrial sectors and RT rapidly became one of the leading industrial regions towards the end of the 1950s. During the 1960s, 1970s and 1980s, RT produced almost a third of all oil extracted in Russia. By the 1990s, Tatarstan's oil industry had grown 6-fold from its 1960s levels (Kalimullin, 2015).

Environmental impact

Such turbulent economic development and the disregard of its impact led to severe environmental damage (Petrov, *et al.*, 1997; Mirzagitova, 2015). By the 1970s, oil

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[13] A donor FS is one whose share of collected taxes (and revenues from inter-budgetary transfers) is less than the share transferred into the Russian federal budget.

pollution had already become common in all aquatic ecosystems (intrv.8) with water in many becoming unsuitable for bathing or drinking (Ivanov and Tafeeva, 2006). By the 1980s, RT was on the brink of an environmental catastrophe, as assessed by Mirzagitova (2014). Problems included extensive oil spills, including on riverbanks (due to close proximity of oil works) and flaring/venting of Associated Petroleum Gas (APG) due to the use of inadequate equipment, poor soldering, and missing latches and valves (Mirzagitova, 2015). Pollution was further exacerbated because oil workers often dealt with spilled oil by burning it - rather than cleaning it away, which is the standard practice today. By the end of the century, RT was emitting 22% of all air pollution in the Volga region[14]. RT's total pollution levels of all types exceeded the Russian average by 3 to 5 times (Kalimullin, 2014). At the same time, there was a lack of emission control and water purification facilities at all stages of oil production (Mirzagitova, 2015), adding to the significant pressures on human and animal wellbeing in this industry- and population-dense region.

Improvements in environmental protection

Despite the extensive issues just described, there were some early EP successes. Tatneft, at the time Tatarstan's only, nationalised oil producer, could be described as a pioneer in this sense: already in the 1970s, it was the first industrial entity to start taking steps to reduce its impact. For example, although APG venting remained a big problem at sealed wells and along oil pipelines, by 1973 Tatneft pressurised 80% of operational oil wells so as to minimise the issue at least there. In the 1990s improvements in water pollution followed when Tatneft and the government of what was then already the Republic of Tatarstan together commissioned extensive research into (and subsequent implementation of) environmental safety in oil production and transportation (Ivanov and Tafeeva, 2006). As a result, by the early 2000s, surface water salinity levels returned close to the pre-oil-development average (Galeev, *et al.*, 1995). By 2010s, new oil-related pollution in RT became the exception rather than the norm.

Tatneft had the financial resources to invest in clean technologies, unlike the majority of RT's other less profitable and mostly non-oil-related, industries. This meant that while the oil industry became noticeably cleaner, overall pollution levels remained high relative to other, usually much larger oil-producing FSs in Russia due to the general

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[14] An historic region of Russia encompassing territories adjacent to the discharge and watershed of Volga River – the longest river in Europe that flows from northern Russia into the Caspian Sea.

high concentration of dirty industries in RT. Better EP in the 2000s helped Tatarstan to reduce its overall air and water pollution by about 20%, although by volume RT was still one of the biggest polluters (Energoeffektivnost i energosberezhenie, 2009). Meanwhile, the 2010s brought new environmental problems: growing levels of traffic increased emissions from mobile sources by 21% in 2010-2017 (MNR, 2018a). However, there have also been improvements: water pollution, for instance, decreased by another 35% in the same time period (MNR, 2018a: 540-542).

The trustworthiness of Russian official figures is questionable, but evaluation of RT's environmental performance from other sources suggests positive overall results. For example, Iterfax-Era (n.d., b) – an independent observer of industrial energy-efficiency – ranked Tatarstan's firms tenth of 84 Russian FSs in 2018, highlighting relatively high technological improvements. The National Environmental Rating, which utilises a broader set of indicators including EP and socio-environmental education, ranked RT 39th out of all Russian FSs (2019), which is a relatively good result considering RT's extensive environmental damage at the end of the Soviet era. (For recent history of the evolution of USSR-Russian EP legislation and implementation practices, see Appendix C).

Hydrocarbon industry

Since its creation in 1950, Tatneft has dominated RT's oil industry and still does so now. It was owned by the government of Tatarstan until 1994, when Tatneft commenced a transition to a joint stock ownership. This process finished in 2008 (Rukavishnikov, 2013), but the RT government has retained a controlling share and has the power to veto commercial decisions. Over the decades, Tatneft developed into a vertically integrated holding of firms capable of oil exploration, extraction, refining, petrochemical production (via a complex of plants named *Taneko*), fiberglass and tyre manufacturing[15], high quality diesel and petrol production, petrol stations and other economic activities.

Tatneft develops around 80% of all oil in Tatarstan and 32 almost entirely Russian Minor Oil Firms (MOFs) develop the other 20%. MOFs were created in accordance with a directive by the government of RT back in 1997, which makes RT quite unusual, given the trend of larger oil firms to aggressively absorb smaller ones in the rest of Russia. Observers of RT's oil history explain this situation by pointing to the highly

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[15] Tatneft is Russia's biggest tyre producer, supplying 27% of the Russian market.

specific requirements at the 67 oil deposits that MOFs work with, which could only be developed by highly specialised firms and would not be of commercial interest to bigger ones (BusinessOnline, 2017).

RT's MOFs could be described as Tatneft's extensions, implying that similar EP attitudes and norms are present across the piece. This is because RT's MOFs are either directly connected to Tatneft or are to a large extent dependent on it for exploratory works, infrastructure and even personnel, according to industry observers (ibid.) and research interviewees. The following analysis therefore focuses on Tatneft as the key representative of RT's oil sector.

Results

Explanatory variable 1 – Foreign influence

Hypothesis 1: The greater the presence of international advocacy groups within a region, the smaller the implementation gap.

None of the international advocacy groups have chosen to actively engage with RT's oil-related environmental issues either within RT, or at the federal level in Moscow. The largest non-governmental organisations (NGOs) with foreign roots – Greenpeace Russia and WWF Russia – do, however, keep an eye on RT. For example, Greenpeace Russia includes data on Tatarstan's Tatneft in its reports on oil spills by Russian firms, but has spoken favourably of Tatneft (Solovyova, 2016) and does not appear to pursue any direct projects in RT. Similarly, WWF Russia includes Tatneft in its nationwide analyses of Russian hydrocarbon firms' environmental responsibility and openness (which give Tatneft relatively high scores) but does not pursue any oil-related projects in relation to RT or Tatneft. The above rankings were designed by these NGOs to stimulate environmentally friendly competition between Russian oil firms, but Tatneft's interest in environmental responsibility predates these measures. There does not, therefore, appear to be any obvious causal link between these organisations' actions and EP implementation in relation to Tatneft.

Interviewees (1,4,6,7) did, however, speak at length about the strength of local civil society in RT, but none of the identified NGOs or individual environmental activists in Kazan, Tatarstan's capital city, worked on oil-related environmental issues. Existing civil organisations in Kazan, where interviews were conducted, are concerned with environmental problems in this physical locality, which is not at close proximity to oil

works and is not therefore exposed to immediate oil pollution. Even then, neither these organisations nor the interviewed public officials were aware of any environmental civil movements or organisations with an interest in oil elsewhere in RT.

This implies two most likely explanations. The first is that the absence of organised, civil interest in RT's capital might hint at the "local" nature of environmental issues in Russia, which are perceived and pursued in the immediate physical location of the issue despite the local (municipal) government having the least power to address such problems. It would arguably make more sense for such movements to have some kind of contact with those state structures that have the power to influence the oil industry – federal regulators Rostechnadzor and Rosprirodnadzor, or the government of Tatarstan, whose offices are all situated in Kazan. Lack of knowledge of such movements in Kazan therefore suggests the second explanation: that civil environmental interests in oil pollution either did not materialise at all or have already dissolved. This explanation suggests that oil pollution is no longer an acute issue in RT, which may in turn explain the absence of foreign and international advocacy groups in RT as well, and their generally positive comments about RT and Tatneft elsewhere. As such, there is insufficient data to establish any causal relationships between real or potential foreign NGO presence and oil-related EP in RT. As such, there is insufficient evidence to support H1.

Hypothesis 2: The greater the presence of foreign oil firms within a region, the smaller the implementation gap.

RT's oil sector is dominated by Tatneft, controlled by the government of RT, and its daughter oil firms. The only traces of foreign involvement are a small *Tatex* joint venture (JV) between *Tatneft* and the American company *Texneft,* and *Makoil*, owned by Herculis Partners SA (a Swiss family-investment boutique) until 2016. However, industry observers advise that the presence and influence of the American partner in *Tatex* is negligible, whereas powerful Russian individuals with direct connections to Tatneft were partial owners of the companies of which *Makoil* is a subsidiary (BusinessOnline, 2017). Additionally, *Shell* and *Chevron* showed interest in partnering with Tatneft in 2007 to develop RT's bitumen, but negotiations fell through in 2008 when deposits proved to have been overestimated. As such, it can be said that there is no meaningful involvement by foreign oil firms in Tatarstan.

The reason this hypothesis concerns engagement by foreign oil firms is because it is commonly argued that leading, international firms implement better, more environmentally friendly technologies and practices, not least because they are constantly subject to international opinion and therefore need to maintain a good reputation. RT's Tatneft was not subject to such international pressure and Russian federal regulation of the oil industry does not impose particularly high penalties for violations of environmental laws; however, Tatneft's green development has nonetheless been significant and therefore deserves a brief analysis. This section outlines Tatneft's key achievements compared to those of other Russian and foreign oil firms operating within Russia, and offers some reasons for this success before concluding that foreign investment, were it present, might have had a detrimental effect on the dependent variable. As such, there is no evidence to support H2 in relation to this case study.

In terms of practice, Tatneft proclaims 'respect for the environment' as one of its main priorities championed by its top-level management (Tatneft, nd). The firm started developing environmental policies in 1990, when EP became an official policy of the RT government, and has been pursuing corporate environmental programs since then. As an indicator of the resulting programs' effectiveness, Tatneft and its daughter companies have repeatedly won local and nationwide competitions in areas including environmental management, sustainability and transparency. Tatneft has also successfully secured various international certifications in environmental management and transparency, marking Tatneft's compliance with international standards. Interviewees working closely with RT's oil industry (intrv.2,6) confirmed that these are more than symbolic achievements, and that the firm has significantly reduced its environmental impact, maintained compliance with changing legislative requirements (intrv.2), and even exceeded formal obligations. This includes Tatneft's investment into improved pipeline technologies despite not being obliged to replace outdated pipelines by the Russian legislation (Chuprov, 2016).

Progress is also evident in terms of technological advancement. The firm has been well-placed in a range of international rankings and indices. For example, in 2016, Tatneft took first place among world innovators in the Thomson Reuters ranking. Developments that formed the basis for such awards allowed Tatneft to easily comply with Russian environmental regulations. For example, Tatneft easily met the 95% APG utilisation target in 2012, having already hovered close to the mark in the previous decade (Kutepova, et al., 2011). Given that Russia flares more than any other nation despite significant efforts to solve this issue, Tatneft's achievements in this area are

especially meaningful. Furthermore, Tatneft drives innovation throughout the Russian hydrocarbon industry, such as by working with Russian suppliers to develop alternatives to Western products (Maganov, Tatneft's General Director, cited in Zavalishina, 2015) since these became too expensive or unattainable following Western sanctions and the devaluation of the Russian currency.

The likeliest driver of Tatneft's increasingly green credentials might be its size and therefore its relatively modest profits. Compared to larger oil firms, Tatneft is relatively sensitive to external shocks. To mitigate against these, Tatneft appears to have chosen to develop and implement energy-efficient technologies as a way of cutting costs and therefore securing both the stability of its market share and the growth of its profits. In this way, utilising APG has provided additional resources and therefore increased profits. Improvements in environmental performance, and thus EP compliance, can therefore be seen as by-products of mainly commercial interests.

A related but reversed line of reasoning is commonly used to explain inadequate environmental performance among the rest of the Russian oil firms. The argument goes that the principles behind Russian EP regulation have failed to conceptualise investment in environmentally friendly technologies as advantageous to the industry (for example, OECD, 2006). Instead, EP requirements in Russia rest on the principles that frame EP compliance as a cost to firms. As such, EP regulation in Russia tends to provide insufficient incentives for firms to strive for compliance. This was the case at least until the recent regulatory reforms and the introduction of the law on best available technologies, which has started to reconceptualise the issue.

In the case of Tatneft, conditions other than government regulations appear to have made the firm see economic advantages in becoming green. Were Tatneft to acquire a foreign partner with substantial capital and a technological base that could cushion it against market instability, it is highly likely that the pressures, which forced Tatneft to innovate and go green, would not have materialised. Tatneft's potential for EP compliance could have thus been reduced. In light of this, there is no evidence to support H2 in Tatarstan.

Hypothesis 3: The greater the exposure of local agents to transnational elements, the smaller the implementation gap.

This hypothesis derives from academic theories which propose that institutional change can be achieved through exposure to other value systems, for example by cooperating with international institutions and organisations, signing up to international treaties, and international travel, including for educational purposes. However, this research project found no evidence of transnational environment-focused entities engaging with issues in Tatarstan. It is also difficult to trace any relationships between international environmental agreements and Tatarstan specifically, since such agreements are signed at the federal level, placing the ultimate responsibility for delivering commitments with the national government. Citizens of Tatarstan do, however, travel abroad for purposes of education and tourism, and, although not in great numbers, foreign experts also work in RT. The passive norm transfer, which may result from this type of exposure, is therefore the focus of this section. Since norm diffusion is difficult to measure empirically, analysis is based on interviewees' assessments of whether norm diffusion of western values is taking place in Tatarstan and to what effect.

Based on collected interview data, there does not appear to be a causal link between international norm diffusion and the implementation gap. Interviewees outright rejected or questioned both the existence of norm diffusion and whether it could have any positive effect. Regarding the former, interviewees commented that the Tatar society already has a high level of environmental awareness and rejected the usefulness of value systems in developed countries (intrv.1,4,8). One interviewee also expressed the view that values and principles are adopted during childhood (intrv.1), adding that by the time most people are exposed to foreign values – through education, travel or foreign colleagues – it is already too late for this interaction to provoke change.

Although some interviewees accepted that travel abroad could lead to new experiences, if not to the internalisation of new values, they largely rejected that these could in turn be useful or applicable in Tatarstan (intrv.2,6). Interviewees explained that this is because any knowledge, skills or principles gained would be met with resistance (intrv.6,7). An interviewee (intrv. 4) from Tatneft explained that this is because the Tatar context is unique and specific, and can therefore only be understood by locals and addressed by locally-designed solutions. Applying approaches sourced from elsewhere may therefore impose disproportionately high costs upon the individual (intrv.7).

Having said this, there is some limited evidence that effects can be achieved through greater exposure to the outside world, but not in the hypothesised way. This observation relates to Tatarstan's participation in international events. For example, a series of EP improvements took place in the run-up to the XVI World Aquatic Championship hosted by Tatarstan in 2015. However, such improvements do not derive from newly learnt norms during the event; instead, they are proactive, suggesting that local actors already know what measures are needed but accord low value to them day-to-day. As such, there is no evidence of long-term change in attitudes as proposed by the theories of norm diffusion. In light of all of the above, there is insufficient evidence to support H3 in Tatarstan.

Explanatory variable 2 – State capacity

Hypothesis 4: The better the quality of environmental regulation for the oil industry, the smaller the implementation gap.

RT interviewees' extensive comments about the quality of environmental legislation boiled down to one central issue: the content of the legislation fails to sufficiently incentivise compliance. However, these observations contradict Tatneft's seeming environmental over-performance, which was discussed in relation to the previous hypotheses. This suggests that something other than EP regulation is driving Tatneft's environmental conduct and this observation is supported by the fact that none of the interviewees' comments about the quality of EP regulation at either governmental level were made in connection to Tatneft. Interviewees instead offered other explanations for Tatneft's environmental conduct that have, perhaps inadvertently, assured its formal legal compliance. These observations resonate with the findings of Thurner and Proskuryakova (2014) – that Tatneft, among other industry leaders, "inform government regulation and thereby lift up the greening of production also in late followers" (ibid.) instead of falling in line with the rest of the industry actors.

The question remains: what is driving Tatneft's interest in EP? Factors identified by interviewees in relation to this question are best summarised by a former academic, project leader of a Rosprirodnadzor expert committee: "any firm chooses to behave environmentally responsibly due to pressures from the government, the public or due to [the firm's] internal culture. In Tatarstan there are all three" (intrv.6). Interviewees did not refer to government regulations when speaking of such "pressure from the government", leading to another question in relation to H4: how *does* the government

stimulate Tatneft's environmental responsibility, if not through regulation? This section answers this question to show that, where governmental and commercial interests are close and aligned, formal regulation might play a less important role.

In terms of political pressure, interviewees credited the severe environmental crisis Tatarstan experienced in the 1970s-80s with triggering strong interest in EP among the region's political leadership at that time. This was said to lead to technological developments in the RT during the second half of the 1980s and the 1990s, which saw substantial improvements in the equipment and processes used across oil facilities and infrastructure (intrv.6). It is plausible that political interest could have produced these results without the help of formal government regulation for a number of reasons. Firstly, Russia was under a communist regime at the time, meaning that all economic activity was controlled directly by the state. This reduced the need for measures that act to steer an industry at arms length, such as government regulation. Furthermore, it was the Tatar Autonomous Soviet Socialist Republic[16] that was directly responsible for Tatneft, rather than the central Soviet government. This minimised the chain of command over the firm as well as placing local stakeholders – those that were aware of and likely directly affected by Tatneft's negative environmental impact – in control of the firm.

This line of reasoning holds up after the collapse of the Soviet Union, since the connection between Tatneft and the government of Tatarstan arguably remained largely unchanged. Although Tatneft has transitioned from a state-owned to a joint stock firm, the RT government has retained the largest share (34%) within the firm as well as a special privilege (or "golden share") to veto commercial decisions. Moreover, the President of RT is the Chair of the Tatneft's Board of Directors. Thus, the government of RT could be said to have retained direct control over the firm.

The government seems to have also retained a keen interest in EP, judging by the firm's continuing green performance. Previous academic work seems to agree, having identified the ideals of Tatneft's top management as being the main driving force behind the firm's largely environmentally responsible behaviour (Thurner and Proskuryakova, 2014). International orientation was found to be a less important factor, which supports the findings of the analysis of H2 and H3. Government regulation, in turn, was found to be the least important factor influencing Tatneft's behaviour (ibid.). At the same time, the interview data collected for the current project supports the assertion that Tatneft's management has a deep interest in EP. For example, one

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[16] Denomination for the Republic of Tatarstan under the Soviet regime

interviewee suggested that the main reason that Tatneft participates in EP-related competitions (see H2 discussion) is because it is important for Tatneft's top management that their firm receives central government's formal acknowledgement, "however nominal or symbolic", of their firm's green achievements (intrv.6).

The alignment in EP interests between the RT government and other management levels within Tatneft can in turn be explained by factors already discussed in relation to H2. These are the limitations to Tatneft's continued economic activity: the fields that Tatneft works in Tatarstan are some of the oldest in the Russian oil industry and up to 80% of their reserves have already been depleted. Once these fields are exhausted, a significant proportion of Tatneft's often highly contextualised and thus non-recyclable[17] capital investments might be irrevocably lost. This has likely been the driver behind Tatneft's desire to recover every drop of oil at each RT oil deposit. Maximal hydrocarbon extraction in turn often requires advanced and highly specialised methods and equipment. Coincidentally, these also tend to be more environmentally friendly.

At the same time and for the same reasons, Tatneft also pursued maximal hydrocarbon retention by cutting down on waste (Glazkova, 2012; Strelakova and Avilova, 2014; Solyashinova and Garrapova, 2012). This may, for example, help explain Tatneft's achievements around APG utilisation. Furthermore, implementation of green technologies seems to have brought quick, tangible results, thus signalling their high value to the firm and likely helping to cement its EP values. For example, Tatneft's 2010 annual report boasted of how much more oil the firm extracted and how much money was saved thanks to green technology (cited in Thurner and Proskuryakova, 2014).

In these ways, a strong political interest in EP via direct influence over a firm appears to have combined with a strong commercial incentive within the firm to increase capacity. This has led to more environmentally friendly behaviour and subsequent legal compliance, and even over-compliance, with official EP regulation. Where the interests of public and private entities are so closely aligned, the need for formal regulation seems to largely fall away. Indeed, the relationship seems to be reversed: Tatneft's achievements often inform nationwide regulations instead of being driven by them (Thurner and Proskuryakova, 2014). As such, formal regulation does not appear to be necessary in the specific context of Tatarstan, and H4 is therefore unsupported.

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[17] Due to very specific characteristics of RT oil and RT oil deposits.

Hypothesis 5: The greater the quality of environmental regulatory agency in the sphere of the oil industry, the smaller the implementation gap.

In comparison to many developing and transitional hydrocarbon-rich countries and Russian regions, RT possesses relatively experienced political leadership, embedded and well-developed political and economic institutions, and effective state capacity. Accordingly, during or after the communist regime Tatarstan, unlike many other FSU territories, did not need to engage in significant state-building, which has been linked to the exacerbation of oil-related challenges to state capacity (Karl, 1997) and, in turn, negative effects on regulation. Following the establishment of its special status within the structure of the Russian Federation, the Republic of Tatarstan retained its own president, ministries, and legislature and enjoyed a great degree of sovereignty over its own affairs. RT also enjoyed relative independence from Moscow in regulating its hydrocarbon industry between 2007 and 2017, when the treaty between Moscow and RT was re-signed without such privileges. The above factors gave RT the space to develop its fiscal and other institutions to a greater extent than other regions, thus allowing RT greater scope to ensure implementation of its policies. These include supporting the development of MOFs and incentivising them to employ new methods and develop new technologies.

RT has also maintained some EP regulatory agencies that have been dropped elsewhere in Russia over the decades, and even set up some of its own. The RT government's freedom has therefore led to a further increase and fragmentation of the regulatory apparatus that oversees Tatarstan's economic activity. In the academic literature, multiplicity and fragmentation of the regulatory framework are theorised to reduce the effectiveness of implementation, and this section analyses whether this has been the case in Tatarstan. The discussion begins by reviewing the *political will* to enforce EP in Tatarstan and its impact on regulatory capacity and Tatneft's behaviour. The discussion then takes a broader look at how different regulatory structures operate, separately and together, before concluding that although their individual effectiveness might be low, the aggregated uncertainty they create for the private sector has had an unexpectedly positive impact on Tatneft's compliance. Although in this context quantity appears to have more impact than quality, the hypothesis is nonetheless considered as being supported.

Political will

In contrast to many other Russian regions, Tatarstan placed unusually high significance on its environmental policy following the break-up of the Soviet Union. Taking advantage of its concentrated industrial expertise, of its relatively high state capacity and later of its special federal status, Tatarstan set its own EP goals and implementation strategies. The former Russian (Federal) Minister of Environment and an RT academic explained this as being due to strong, personal interest in EP among RT's political leadership (intrv.19, Nenets chapter; intrv.2, present chapter). For example, the first Tatar Minister of Environment (1992-2001) was an environmental scientist by profession. Both of RT's Presidents [18] are also said to have good understanding of the industry's impact on the environment.

Further reasons concern the region's high population density, higher than usual proportion of locally hired oil labour force and close physical proximity of industrial works to human settlements. These factors allow for environmental damage to be directly observed and its negative consequences directly experienced by the local population, and Tatarstan is unusual also in this respect. Typically, oil-extracting Russian territories tend to be sparsely populated or their oil works take place in remote and often inaccessible locations, and their operations thus remain largely unobserved.

Moreover, it is usual for non-locals to be employed to work oil deposits in Russia. In contrast, Tatarstan was developed by the Soviets as a special oil-extracting/scientific centre that allowed for the labour force to be trained and hired locally. These factors were said to make Tatars generally more environmentally aware than other segments of the Soviet and then Russian population (intrv.3,6). In turn, high employment of local citizens in the oil industry acts to further increase the population's awareness of its environmental impact, as well as increasing the chances that non-compliance is spotted and addressed.

At the same time, given its history, the government of Tatarstan enjoys a far greater degree of internal cohesion, capacity, and understanding of local needs than those of other territories. This is what, for example, allowed RT to seize the initiative over a number of policies in the decade immediately after the USSR's collapse, at a time when central government was struggling to find its feet (Stoner-Weiss, 1999). This factor, combined with high societal environmental awareness, is said to have made the RT government highly accountable to its people (Chuprov, cited in Solovyova, 2016)

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[18] There have been only 2 presidents of RT since the collapse of the USSR.

compared to other territories either under the Soviet regime or, later, in federal Russia. Although, such accountability does not necessarily take place through what is recognised as formal democratic channels in Western traditions.

Combined, the above factors cultivated a strong political will for EP pursuit and implementation. For instance, in 1992, Tatarstan set up and has since retained a Ministry of Environment (henceforth "Ministry"), whereas the federal government lost its equivalent in 1996. Similarly, while most FSs started to cut down on EP spending in the 1990s, Tatarstan managed to find resources to establish new, additional structures, such as sub-regional regulatory offices. This allowed for targeted, context-specific implementation of EP. In yet another example, when federal Environmental Funds were abolished in 2000, Tatarstan chose to independently continue funding those that existed on its territory through its regional budget.

Although RT's political power has since decreased (in favour of that of the federal authorities), local political interest in EP appears to have remained. The reduction in formal powers seems to have motivated new, unofficial approaches in an attempt to retain some control over EP policy. For instance, RT has developed several new EP methods that utilise the relatively high density and digital literacy of RT's population. These methods invite the public to become unofficial regulators of official regulatory agencies (federal Rosprirodnadzor and Rostechnadzor, and the RT Ministry of Environment) and to supplement their work. Some of the more obvious examples include the establishment of volunteer EP inspectors and of Ministry-funded and issue- and location-specific NGOs (intrv.11). (See Appendix F for broader examples). Hypothetically, this allows RT to keep an eye on areas that it can no longer regulate directly, including oil-related pollution. Take-up within Tatarstan has been relatively high and other FSs have started adopting methods developed in RT.

Federal-level EP regulators also fare better in RT than in many other FSs. Rosprirodnadzor and Rostechnadzor, for instance, have access to state-of-the-art laboratories (intrv.10), enjoy well-staffed central and sub-FS offices, and have access to experts from local HEIs, many of whom specialise in oil and environmental protection disciplines. In these ways, high political will for EP implementation in Tatarstan has resulted in an unusually high concentration of relatively good quality official and unofficial regulators. Furthermore, the Ministry holds frequent seminars for industry representatives with the aim of explaining legal environmental requirements, methods for achieving compliance (such as self-audit) and to facilitate productive

cooperation with regulatory structures. These measures are also aimed at reducing corruption and improving compliance (intrv.11).

Impact on Tatneft

In regard specifically to Tatneft, the benefits of local ownership have already been discussed in the preceding section. A previously unmentioned element worth pointing out in this section is the physical presence of Tatneft's headquarters in Tatarstan. This leads to closer connections between federal and local regulators, other EP stakeholders, EP interests of the RT government, and polluters. In contrast, many other oil firms moved their headquarters to Moscow once the responsibility for issuing licenses for subsoil use was stripped from FS-level governments and reserved for the federal centre.

According to an interviewee from a Russian region where this took place, the shift in responsibility over licencing decreased the FS-level governments' ability to cooperate or put pressure on firms to comply (intrv.18, Nenets Chapter). The former Russian Minister of Environment advised that this meant that in order to achieve government action on EP, EP proponents also needed representation in Moscow in order to be heard (intrv.19, Nenets Chapter). The situation extended the range of stakeholders and the chain of communication between them, which is necessary for a government reaction to materialise in response to legal violation. In Tatarstan, however, the situation and response remained local, allowing for faster and arguably more effective regulatory action.

Institutional complexity

Despite the positive potential identified in the above discussion, RT interviewees observed that some of the same elements present significant challenges to EP implementation. The first identified issue was the number of regulators and the complex rules of their relationships with each other and with regulated polluters. How responsibilities are divided between them is not always clear, leading to situations where, for example, the power to collect data that are relevant to the work of a particular regulatory agency might lie with a different regulatory agency. What the latter collects, however, might not be useful to the former (intrv.5).

Furthermore, cooperation between different regulatory agencies is often maintained through interpersonal relations rather than through formal processes. This means that when an individual regulator moves to a different job, cooperation between EP regulatory agencies may lapse. This also affects institutional memory regarding promises made and subsequently broken between relevant structures and is said to have provoked competition instead of cooperation between regulatory agencies in RT. This can lead to individual agencies and organisations feeling that their work is irrelevant, thus sapping their morale to pursue implementation (intrv.8).

High staff turnover across regulatory structures and perceived shortcomings of the new, younger staff, educated differently to the older generation, have also been linked to "the horrible, terrifying de-professionalisation of all spheres of government" (intrv.6) conducive to failed implementation and unintended policy outcomes. However, agencies that choose to retain older staff also face problems, but of a different nature: corruption and incompetence (intrv.8), which can in turn lead to incomplete, selective or overly discretionary implementation.

A different problem derives from the effectiveness of Russia's regulatory regime, until recent reforms, being measured by the volume of paperwork. This practice meant complications for both regulators and the regulated, tying down the former in a battle with 'paper dragons' and taking time from meaningful enforcement (intrv.6). For the latter, it made compliance unnecessarily complicated, leading to a juridical interviewee calling for its "maximal simplification" (intv.7). The presence of so many regulators, each with their own methodology and subject to different motivations, further exacerbates this issue.

At the same time, individual fines tend to be too small to necessarily motivate change. The tendency of different stakeholders to produce widely varying environmental assessments of the same situation (intrv.5) creates opportunities for polluters to question what they are asked to do / pay. According to an interviewee from a prosecutor's office, this has fostered a "what if" attitude in RT, whereby polluters gamble on a chance of getting away with non-compliance (intrv.7); this increases the incidence of non-compliant behaviour.

In light of the above and when considered individually, regulatory agencies could be described as ineffective; but together, they create significant uncertainty for those they regulate, which interviewees said has had a positive impact on Tatneft's compliance. Firstly, the sheer number of regulators was said to intimidate the firm into compliance (intrv.3). Secondly, firms are said to be aware that the substantial, "unavoidable" (ibid.)

duplication of responsibility that accompanies RT's extensive regulatory fragmentation can result in multiple penalties for the same violation (intrv.5) instead of opportunities to play regulators off against each other in hopes of avoiding such penalties.

While, on their own, penalties might not be that significant to a well-performing oil firm, they can combine to become "respectably large" (ibid.). Furthermore, few polluters in RT other than Tatneft can afford to pay EP fines, meaning that regulators often blame Tatneft for any identified pollution without necessarily first establishing the true source (ibid.). This was said to have contributed to Tatneft's decisions, relatively early on, to invest into minimising its environmental impact and into better understanding that of other pollution sources in RT in relation to its own impact (ibid.) – all in order to secure legal grounds to fight against frequent, unfair environmental fines and to concentrate own EP efforts for the future (ibid.).

This situation appears to have also motivated Tatneft to become a watchdog of the regulatory agencies' performance. Mistrust towards the regulators' calculation of penalties seems to have created precedent for Tatneft to challenge them in the courts. As a result, fines tend to reduce "from tens of millions to tens of thousands of RUB… because there are different methodologies for calculation and many numbers entered [into the equations] are made up" (intrv.5). The ability to successfully disprove unfair penalties was said in turn to provide further motivation to Tatneft to reduce its own impact, including by taking pre-emptive measures. These elements have likely played part in helping Tatneft become, in 2011, the Russian industry leader in environmental transparency (Agenstvo neftegazovoj informacii, 2011). WWF Russia's Environmental Responsibility Rating has also marked Tatneft as a consistently good performer since 2014, when the index first appeared.

In these ways, regulatory complexity appears to have stimulated significant positive results despite shortcomings of individual regulatory structures. Although the impact of regulatory quality has not been illustrated, similar compliance results might have been harder to achieve without regulatory presence and activity. H5 can therefore be considered supported, although it is recognised that regulatory presence, if not quality, is a necessary but insufficient condition in relation to the dependent variable. Other factors need also be present for regulation to have effect. These include but are not limited to political interest in EP (leading to political will to pursue its enforcement), a high level of overall institutional capacity (including functioning courts, educational and research institutions, and established channels for civil participation), and, as shown by

the preceding analysis, the presence of unusually many regulators, which is in many ways unique to Tatarstan in the context of the post-Soviet space.

Explanatory variable 3 – Economic conditions

Hypothesis 6: The more advanced the economic conditions in a regional economy, the smaller the implementation gap.

It should be mentioned at the outset that RT's economy is far more advanced than that of a typical Russian (or, before that, Soviet) oil-extracting region. Given its geographic location, RT has a rich variety of natural resources, which promoted the development of many different economic sectors even before the formation of the USSR (intrv. 8). The Soviets diversified RT's economy further, adding such sectors as defence (aircraft and ship-building), manufacture of civilian and commercial machinery, and oil extraction and refining. Preference for economic diversification also remained after the communist regime ended, with the RT government adding further economic sectors over the decades, including alcohol production, tourism, information technology (IT) services and development of frontier technologies. Unlike other FSs, RT also has made effective use of its special economic zone (SEZ), whose activity has become so extensive that it pays the majority of taxes generated from all SEZs across Russia (for example, 42% in 2016) (Procenko, 2018).

The RT government's willingness to pursue and support such developments appears to have created a perception among interviewees that Tatarstan does not depend on oil. Even some environmental activists were of this opinion (Intrv.8). In reality, however, some of RT's larger economic sectors do not contribute much in taxation, whereas others, such as IT and frontier technologies, are being developed at a loss (likely for their prestige value). As such, the hydrocarbon industry continues to make the most significant contributions to RT's economy and could not be substituted by other economic sectors, despite their great number and variety (relative to most other FSs' economies). For instance, despite increasing economic diversification during the 2010s, RT's hydrocarbon industry made up nearly 60% of RT's total industrial production (RT Ministry of Industry and Trade, nd.) and contributed around 60% of all tax and non-tax payments collected in RT (Inform Devon, 2014). Tatneft alone generated up to 50% of RT-level budgets depending on methodology for estimation (Osmanov and Skryabin, 2018).

In light of the above, it could be reasonably said that the RT's economy is over-reliant on the oil industry. In accordance with academic theories (for example, on resource curse), we could expect this factor to make RT's economy highly vulnerable, including to external shocks such as variation in global oil prices or international agreements that limit oil extraction (as in 2017 with OPEC). According to Shafer (1994), the dependence between the government and the industry in such scenarios can become mutual and lead to a lack of regulatory enforcement. This usually applies to regulations that damage the key industry's profitability, such as strict EP requirements.

Similar academic theories connect hydrocarbon money to political (in)stability (Bjorvatn and Farzanegan, 2015) whereby resource rents become a tool for buying peace (Fjelde, 2009) often from other influential individuals or groups, meaning that only small segments of society benefit. In other words, oil profits are used to ensure political support, and often by resorting to corrupt practices (Kendall-Taylor, 2011), instead of being used as intended in a political system based on the rule of law: to support state capacity in delivering the government's policy commitments, such as EP. As such, oil money could become 'misused', which could further destabilise a political system, in turn perpetuating the government's reliance on oil rents in order to remain in power and fund its inability to pursue its own policies.

However, analysis in the previous sections indicates that, in spite of such expectations, Tatarstan has a) shown relatively strong internal political stability before and during the development of the hydrocarbon industry on its territory, and b) achieved relatively high EP implementation specifically in relation to its oil industry. Indeed, RT government showed a perhaps surprising level of foresight and long-term planning at the start of the 1990s in choosing not to reap immediate rewards – by protecting the industry against regulations or maximally extracting rents. Instead, similarly to the findings of the developmental state literature, the RT government aimed to ensure continuation of future profits by motivating the industry to innovate, which inadvertently made it more EP-compliant. This was encouraged despite the high initial costs of investment by the industry and associated reduced short-term profits for the government. The government lost further tax revenues due to targeted tax breaks and other financial incentives aimed at encouraging innovation.

This section is therefore concerned with the question of whether the structure of RT's economy can contribute towards explaining this unexpected outcome. Subsequent analysis shows that diversification within an industrial sector might be more important as a factor than the number of different industrial sectors and their contributions to

government budgets in an economy as a whole. It is also shown that, under certain circumstances, the presence of many sectors can nonetheless create unexpected motivation for compliance in individual sectors. Evidence therefore indicates that this hypothesis is supported, but not strictly in the expected ways.

Diversification within the oil sector

Interviewees' perceptions of economic independence from oil could be explained and perhaps even justified by the relatively high degree of development *within* RT's oil industry. This acts to reduce the sensitivity of RT's economy as a whole to external shocks, and has secured relative economic stability despite continued reliance on taxation from the hydrocarbon sector. For example, RT had its own refinery facilities and, importantly, good access to export infrastructure before the USSR's collapse, which allowed RT's economy to recover faster than many other oil-extracting regions (and post-Soviet countries). It has also meant that instead of depending entirely on the export of crude oil, RT has had the capacity to produce oil goods and, seeing the advantage in this, has aggressively pursued an expansion of such capabilities, increasing both the range and volume of produced oil goods. For instance, RT has recently entered the global leadership in the supply of synthetic rubber, and Tatneft's developments in petrol and diesel production have allowed it to meet 100% of RT's fuel needs.

Such achievements have made RT's economy more self-reliant in the sense of being able to collect enough taxes to pursue its own agenda on public expenditure, instead of relying on transfers from the federal budget aimed at federally approved public policies. This has in turn reinforced RT's greater economic stability relative to other oil-extracting Russian regions. It has also provided greater space and freedom for the RT government to address its social issues and environmental problems than can be seen in other Russian FSs. It must be noted that corruption and rentierism, which often materialises in similar situations, have not emerged in RT to the same degree as they have elsewhere. As such, the RT government cannot be said to have become less accountable because of the oil profits; at least not to the extent of most other post-Soviet oil-rich regions.

The reason why oil products, rather than crude oil, have been able to deliver the above is to a large degree due to the high proportion of added value in the oil products' cost structure. Firstly, a larger proportion of taxes on such goods is kept within an FS,

compared to taxes on extraction and sale of crude oil. This gives an FS government greater control over its own affairs, including the ability to pursue environmental goals. Secondly, as explained by a member of the RT Academy of Sciences (Khomenko, V. cited in Procenko, 2018), this means that external factors, such as changes in global oil prices, often find minor reflections in Tatneft's profits. In other words, the diversification of the hydrocarbon sector has lowered both the industry's and RT economies' exposure to the economically sensitive upstream oil, dampening the need for RT government to protect this industry, including from regulation.

For example, the recent series of external and internal economic shocks could have been expected to cripple a typical economy that relies on oil-extraction. These shocks include the onslaught of Western sanctions, a sales-limiting agreement on crude oil with OPEC, plummeting global oil prices and the general turndown of the Russian economy in 2015-2018. In the former-USSR republic of Azerbaijan, the fall in global oil prices alone caused a devaluation of the national currency and the start of a recession. It might not be appropriate to compare national and regional economies, since the latter has the buffer of the national economy; nonetheless, given that RT is a major contributor to the Russian economy, the above comparison is perhaps not so misplaced. A look inside Russia reveals a similar picture: economies of more than a third of Russian FSs began to shrink relative to RT, whose economy remained stable and then quickly resumed growth (Ekspert Tatarstan, 2018). In turn, this has meant that RT could maintain its EP programmes – a policy area which is often among the first to be deprioritised and scaled down during challenging economic periods.

Other sectors

Although the above discussion may have implied otherwise, the presence of non-oil economic sectors in RT remains relevant to this hypothesis. Firstly, the presence of many different economic sectors significantly increased volumes and sources of pollution in RT. Perhaps ironically, the intense, aggregated environmental damage they created over a short period of time brought a proportionate increase in public awareness and subsequent government response (as discussed in H4 section). Oil-sector and juridical interviewees indicated their agreement with such an observation, commenting on a positive correlation between economic diversification and environmental awareness (intrv.3), and between severe environmental damage and EP action (intrv.7).

Secondly, as already mentioned in the discussion of H5, the existence of many different sectors in RT has not necessarily meant that all have been equivalently profitable. As such, few have been capable of paying environmental fines and EP regulators have therefore often accused Tatneft of EP violations, even if knowingly unjustly, as Tatneft is often the only entity capable of paying for the clean-up of environmental damage that can result from such violations (intrv.5). Concurrently, indemnification for damage caused by oil-related pollution is of particular interest to poorer industry sectors, such as agriculture, as it can supplement farmers' income and thus provides an incentive to slander the oil industry.

Economic diversification is said to have therefore drawn a disproportionately high amount of regulatory attention towards Tatneft, giving the firm a strong motivation to reduce its environmental impact so as to have grounds to challenge EP penalties (intrv.5), which it is able to do successfully thanks to the generally high degree of institutional capacity in RT. The existence of one profitable sector and many relatively unprofitable sectors in this context seems to have created a perverse drive on the part of the latter to pass environmental responsibility on to the former, thus (in addition to other already identified factors) motivating the sole profitable sector to improve its EP performance and, thus, compliance.

Thirdly, economic diversification appears to be able to catalyse improvements in specific types of pollution abatement; that is, those types where waste can be re-utilised by the economy. For instance, the varied and rapidly growing economic activity during the Soviet era created significant need for energy, which was not met by Tatarstan's existing power supply or by imported energy. This appears to have incentivised the government of Tatarstan to direct Tatneft to utilise APG (Mirzagitova, 2014, 2015), for it presented a free energy source. This may be why improvements in air quality came first in RT – already in 1973 (Galeev, et.al., 1995). In comparison, water in RT has been abundant; accordingly, water pollution did not see equivalent improvements until the 1990s (ibid.).

In these ways, economic diversification within and alongside the hydrocarbon industry has allowed RT's economy to maintain a relatively high degree of stability and even growth, despite its reliance on the hydrocarbon industry as the main source of income. In turn, this situation appears to have limited the extent to which economic and environmental interests clash in RT, and the region has been able to pursue both alongside each other, at least in its oil industry. H6 is therefore supported.

Other factors

During the course of research, it became apparent that the above relationships between hypothesised variables could in turn be explained or supported by a set of other factors. Such factors could, for example, help answer the following questions:

1. Severe environmental damage was not unique to Tatarstan under the Soviet rule or after. Why then did similar political interest in EP and subsequent government action materialise in Tatarstan when they failed to do so in most other post-Soviet oil-rich territories?
2. How and why was Tatarstan's government able to pursue EP policies despite the severe economic crisis of the 1990s, when many other FSs struggled to provide basic public services?

Political interest in EP in the 1990s

Some factors that help answer these questions have already been mentioned. They include the close proximity of oil facilities to inhabited areas and the high proportion of locally hired oil workers at all company levels, both of which result in higher societal awareness of environmental risks, and of the presence and consequences of EP non-compliance, which can translate into political pressure on the government to act, even if not necessarily through standard democratic channels as conceptualised by Western models of governance. Personal interests in the environment within the political leadership have also been mentioned. It is, however, questionable whether these factors were enough to stimulate implementation of government objectives that were deprioritised seemingly everywhere else in Russia at that time.

A yet unmentioned but arguably more significant factor was the sharp fall in Tatarstan's oil output in the early 1990s. This occurrence was not entirely a consequence of the general economic downturn in Russia. The main cause was that Tatarstan's deposits of relatively easy oil had neared depletion. Tatneft already achieved its maximum rate of extraction in 1976, and by 1991 its extraction rate had fallen by almost 70% - from 101.5 million barrels to just 32.5 million, with a forecast of only 14.5 million by 2000 (Malikov, 2018). This forecast was based on the use of existing oil extraction methods and technologies, which could not extract the more difficult oil, of which there was still a great deal in Tatarstan. This situation likely provided a strong incentive for Tatarstan's

government to evolve its oil industry rather than to let it stagnate. In turn, innovation inadvertently led to cleaner methods.

State capacity in the 1990s

Tatarstan had for a long time enjoyed a far better-developed fiscal system than most other regions in Russian. Combined with factors mentioned at the outset of the H5 discussion, this has meant that in the 1990s, RT did not face desperate economic conditions on par with those experienced by most other oil regions in the FSU space – the kind that often 'forced' their governments to sacrifice future growth (and environmental wellbeing) to ensure a semblance of public good provision in the present. At the same time, the Tatarstan government's prior successful experience of economic management under the Soviet regime had likely cultivated a positive perception of the economic crisis among RT's political leadership in the 1990s. This likely made the crisis seem ephemeral and thus less of a reason to deter long-term planning.

Furthermore, RT's often boisterous, and in many ways self-sustaining, economy was designed by the communists to favour innovation and was endowed with the means (multiple, specialised HEIs) for doing so (Kalimullin, 2015). It therefore had readily available capacity to evolve, as well as the experience of having already done so. These factors arguably help explain why, despite its dependence on oil profits, RT has seemingly escaped some of the expected resource-rent-driven economic stagnation (Auty, 1993) and institutional degradation that was observed in many of the post-Soviet regions following the USSR's collapse (Pomfret, 2011b). At the same time, the capacity and willingness of the RT government and Tatneft to continuously modernise the industry appears to have further strengthened official and unofficial economic and political institutions necessary for the pursuit of effective implementation of government policies.

Conclusion

Of the six hypotheses, presented data supported only H5 and H6. The impact of foreign influence as an independent variable was not substantiated. In large part, this is due to the RT's lack of exposure to international factors: there are no advocacy groups, financial or development institutions or non-Russian oil firms working in RT or

significantly collaborating with RT-based stakeholders. The self-reliance that this has likely cultivated may also explain interviewees' rejection of the possibility that norm diffusion could produce positive effects. With regard to state capacity, one of the hypotheses that composed this variable was supported, and one was not. The presence of regulatory agencies was shown to have a positive effect, although not in the hypothesised way. However, the quality of environmental legislation in relation to Tatneft's behaviour proved largely unimportant because of the close ties between Tatneft and the RT government, which allows the latter to effectively influence Tatneft in other ways. The final variable concerns economic conditions. Here, financial over-reliance on the oil industry did not appear to have reduced EP implementation; the presence of economic sectors other than oil did appear to have a positive impact, although again not in the hypothesised way.

What then can explain Tatneft's relatively strong environmental performance? The analysis revealed several factors with stronger explanatory power than the proposed independent variables. They included political accountability of the RT government to its population; relatively strong commercial interests in technological and methodological innovation, which coincided with the objectives of EP policy; and certain economic circumstances. The last factor is arguably the most important, as it has a complex relationship with the first two. For example, economic decisions regarding the design of RT's economy eventually resulted in heightened public awareness of environmental problems (due to high density of both population and industry). They also created commercial and political incentives not to pollute in order to secure additional energy and increase commercial output. They also endowed RT with the scientific capability, required to solve the issue, in the form of RT's many HEIs and research institutions.

Lastly, state capacity proved important in ways other than those hypothesised. RT had better developed political and economic institutions than most other Russian FSs when transition commenced in 1991. It was also more (internally) politically stable and economically self-reliant than most post-Soviet territories. These factors appear to have liberated the RT government from needing to worry as much about immediate economic well-being, instead allowing a greater degree of foresight and long-term policy planning. As a result, the RT government encouraged and supported (incidentally green) innovation in its oil industry.

Chapter 6. Empirical analysis: Atyrau Oblast, the Republic of Kazakhstan

Introduction

This chapter analyses the explanatory capacity of selected hypotheses in the example of Kazakhstan, the second largest USSR republic before independence. Endowed with a variety of natural resources, vast agricultural potential conducive to economic self-sufficiency (Pomfret, 2005), popularity with foreign donors and willingness to adopt international norms and standards, there were big expectation of fast development in this country, including in governance and state capacity. In exploring whether this was the case in relation to the implementation of the governmental environmental policy, analysis focusses on the western Atyrau *oblast*[19] as seen in the figure below.

Figure 6 – Atyrau Region, Kazakhstan

The chapter explores the role of environmental regulation in this power play by approaching selected hypotheses with the ultimate goal of showing what holds back policy implementation. Analysis focusses on Kazakhstan's oil capital, Atyrau, and begins by outlining the *oblast's* contextual background before analysing selected

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[19] region or state

factors' impact on the dependent variable. The chapter concludes that environmental regulation has become a political tool for achieving aims not related to the environment. As such, the political will to deliver the intended EP outcomes is shown to remain low, meaning that hypotheses related to this element of "implementation gaps" (those included in variable 1) do not have expected explanatory power. In contrast, variables that deal with the internal situation of Kazakhstan (state capacity and economic conditions) are shown to be relevant but insufficient to explain implementation gaps.

Background

Political context

Driven by rising world oil prices, economic development followed as could be expected. Already in the 2000s annual real GDP growth averaged at 9% and although the 2010s were hit by falling oil prices, GDP still grew at an enviable average of 5% (World Bank, nd., b). Subsequent improvements in public service provision and other factors of state effectiveness (Bhuiyan and Amagoh, 2011) led to the general public accepting the development and solidification of a soft authoritarian regime in the country (Schatz, 2009; Kendall-Taylor, 2012; Dave, 2005). With strengthening GDP and political stability, the politically powerful clans that make up the Kazakh elites became increasingly resentful of what they increasingly came to see as undue revenues they gave to outsiders in the original oil Production Sharing Agreements (PSAs). This appears to have provoked a power struggle among the Kazakh clans and between them and international interests present in the country. In this context, institutions of public administration emerged and developed to support the Kazakh state in its struggle for control over its natural resources (Palazuelos and Fernández, 2012).

Industrial development and environmental impact

Atyrau - natural resources and conditions

Kazakhstan is within the top 15 oil-producing countries, with the largest of its oil fields located in the Atyrau *oblast*; they are Tengiz and Kashagan (see Figure 7). These are commonly considered the world's largest oil discovery in the last 35 years; further discoveries are expected. This makes Atyrau politically and economically important, attracting major oil firms' headquarters as well as oil-related universities and research

institutions. Both Tengiz and Kashagan are contracted out on 40-year agreement to a mixture of foreign firms with the Kazakh national KazMunaiGas (KMG) representing the interests of Kazakhstan.

The type of agreements is different for the two fields. Tengiz is under a joint venture – TengizChevroil (TCO), operated by the USA's Chevron, which holds a 50% stake. This makes Chevron the largest private oil producer in the country. Kashagan is under a production sharing agreements (PSAs). The Italian Eni's Agip KCO operated Kashagan on behalf of the Offshore Kazakhstan International Operating Company (OKIOC) until the North Caspian Operating Company (NCOC) took over operatorship in 2009.

Supporting oil infrastructure surrounds the city of Atyrau, making it an environmentally sensitive location. Substantial oil facilities and infrastructure across Atyrau *oblast* also place great strain on its biodiversity, which includes hundreds of unique species (Morteza Aminmansour, nd.; CASPINFO, nd.).

Figure 7 - Giant oil fields in the North Caspian
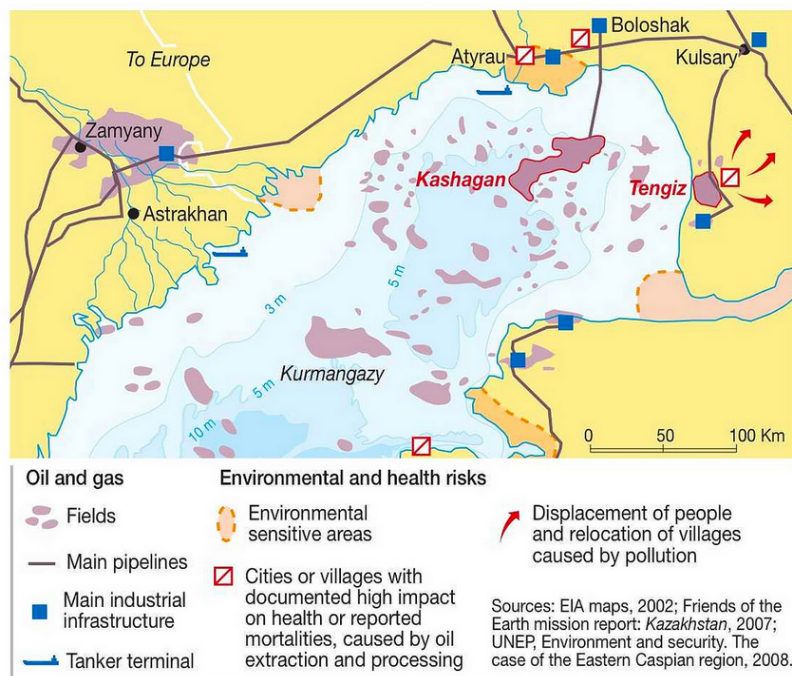
Source: (Pravettoni, 2012)

Overview of the hydrocarbon industry

Commercial quantities of oil were extracted in Atyrau as early as the 1910s. In 1945 an oil refinery was built in the region, receiving oil from various small, local deposit fields.

However, volumes of crude and refined oil in Atyrau remained relatively small, and thus of low economic value, throughout much of the twentieth century. Meaningful hydrocarbon development commenced only after independence from the Soviet Union, with the start of oil production at the massive Tengiz field in 1993 (discovered in 1979) and the subsequent construction of the Caspian Pipeline Consortium pipeline (operational from 2001) exporting western Kazakh oil from Tengiz and other fields. The discovery in 2000 of the gigantic Kashagan deposit field – Kazakhstan's only offshore field – secured Atyrau's reputation as a national oil capital. Development of Kashagan began a year later, although oil production did not commence until 2016.

The Soviet legacy

The Soviets believed that Kazakhstan was too big for pollution to make an impact (Alimbaiev, 2000) and Kazakhstan became "the junk heap where Russia threw its garbage" (Feshbach and Friendly, 1992: 22). This damage combined with that wrought by the Soviets within the country, including in Atyrau, where the discovery and subsequent exploitation of oil subjected the *oblast* to treatment as dire as underground nuclear explosions (employed for oil exploration) for most of the 20th century. Poor environmental consciousness during that time and the subsequent economic hardships of the 1990s resulted in many hydrocarbon facilities, built and exploited during the Soviet era, being abandoned without proper treatment, and often leading to uncontrolled oil leaks and spills. In the 2010s, the Kazakh Government admitted to not knowing the total number nor the locations of potentially leaking oil wells (Azernews, 2012) and to not having the means for locating and rectifying the resulting environmental damage (Neftegaz.RU, 2001). Consequently, the Caspian Sea continued to deteriorate (International Science and Technology Center, nd.) at an increasing rate (Tehran Bureau, 2015), parts of it having already become dead zones by 2000 (CASPINFO, nd.).

On-going risks

Hydrocarbon development carries substantial environmental risks in the north Caspian for a number of reasons. Firstly, Caspian oil's Associated Petroleum Gas (APG) contains uncharacteristically high volume of highly corrosive, toxic hydrogen sulphite (H_2S). At Tengiz, oil purification from H_2S resulted in the accumulation of 9 million tonnes of lump sulphur stored in the open air. Oil companies refused to release

information on its impacts (ibid.) but local health data for 2006-2011 showed an associated 21% rise in lung diseases (Head of Regional Department for Environment, cited in Shilov, 2011), making it the most common health problem in the region (D'Have and Ulens, 2014). In the nearby oil village Kulsary, sickness rates rose tenfold (Shilov, 2011) between 1993 and 2011; another nearby oil village, Sarykamys was officially closed in 2002 for similar reasons and its residents relocated. At Kashagan, the lethal concentration of H_2S is the highest ever witnessed in offshore oil (Urbaniak, *et al.*, 2007) and is highly over-pressured, making Kashagan one of the costliest and most challenging (North Caspian Operation Company, nd.) oil projects in the world. Continuous miscalculations have resulted in a string of environmental incidents (intrv. 1) delaying oil extraction by 11 years – until 2016 (Chazan, 2014). For example, a 95-kilometer pipeline that connects the offshore field to the land-based facilities leaked immediately upon exposure to the first oil flowing through it, taking 3 years to replace (Williams, *et al.*, 2014); all H_2S in the pipeline had to be flared, causing substantial environmental damage.

Secondly, Caspian conditions increase the likelihood of environmental incidents, necessitating the strictest environmental regulation to ensure that oil firms take appropriate preventive measures. These conditions include a sea depth of only 3-5 metres, meaning: a) very high pollution to seawater ratio in the event of a spill or leak; b) unsuitability of standard oil pollution clean-up technologies (Neftegaz.RU, 2001); and c) increased risks of oil cargo ships capsizing. These make every incident a potential environmental disaster (Pravettoni, 2012), with potential costs as high as US$2 trillion (Kosolapova, 2014). Furthermore, the Caspian Sea freezes for up to 5 months a year, slowing down maintenance works. Dramatic fluctuations in water level (Sheppard Software, nd.) further exacerbate offshore risks at extreme low tides and risk inundation of shore-based oil facilities at extreme high tides. Moreover, offshore drilling and APG re-injection have increased earthquakes in the area (Urbaniak, *et al.*, 2007), further increasing the risk of incidents.

History of environmental regulation

Legislation

The Kazakh government has worked hard to bring national environmental legislation in line with international standards. Public access to environmental information became obligatory in 1990 (Soltys and Orynbassarova, 2013) and raising environmental

awareness became a policy objective in 1992 (Zhunusova, 1996). Many independent laws followed since and, in 2007, were synchronised in the Environmental Code, along with conditions of key international environmental agreements, such as compulsory Environmental Impact Assessments (EIA). The Code unified scattered legislation into a comprehensive framework. In the oil industry, the Environmental Code permits firms to work only after receiving environmental permits, applications for which must include plans for incident prevention and mitigation, and the organisation of public hearings where members of the civil society, press, and academia can scrutinise proposal details.

Implementation

In sharp contrast to the above legislative developments, the implementation structures that could bring them to life have been struggling ever since independence, with insufficient data presenting the biggest problem. By the early 2000s the majority of air and water quality monitoring facilities were closed, and the remaining ones struggled to fulfil their functions (Ballance and Pant, 2003). Scarce staffing, lack of expertise, and insufficient top-level data also made it difficult to keep up with annual inspections. These challenges made regulation reliant on firms' self-reporting; however, the Asian Development Bank (ADB) and an interviewed regulator revealed that few firms have capacity for self-monitoring (intrv. 8), and they therefore submit only estimates (Ballance and Pant, 2003) with frequent under-reporting (Carbon Limits, 2013) making this approach a poor proxy. Such data cannot support sound environmental policy (Ballance and Pant, 2003), making updated legislation unenforceable (Ballance and Bishnu, 2003). This has been further exacerbated by frequent changes in the regulatory landscape, resulting in a structure described as incoherent and "surprisingly complex", marked by a fragmented and often "unrealistic division of labour" and subject to frequent overlaps of responsibility by bodies that do not necessarily process or share data (ibid.). In 2014, the environment ministry was unexpectedly abolished and key environmental functions passed to a Ministry of Energy, which is now simultaneously responsible for advancing and obstructing energy development. The purpose behind this reorganisation is not clear, but the resultant conflict of interests may counteract any improvements in monitoring and regulatory capacity.

Results

Explanatory variable 1 - Foreign influence

Hypothesis 1: The greater the presence of international advocacy groups within a region, the smaller the implementation gap.

Kazakhstan was unusual among the core post-Soviet states in terms of its tolerance towards, and the consequent extensive proliferation of, domestic non-governmental organisations (NGOs) in essentially an authoritarian regime in the 1990s and 2000s. This boom was largely driven by foreign funding from international NGOs (INGOs), and apart of this type of assistance, INGOs often chose not to act within Kazakhstan directly. Atyrau was no exception: the key environmental INGOs (EINGOs), such as Greenpeace or WWF, have not directly intervened here. However, unlike in other major cities, the local environmental NGOs (ENGOs), of which there are a great number in Atyrau, do not appear to have any permanent or long-term links to INGOs either.

A WWF interviewee (intrv. 2) explained this absence by commenting that stopping Kashagan's development was probably the only sufficiently big cause that could have drawn and united international interest (and organisations) in Atyrau. However, perhaps because said development was seen as inevitable, that action did not materialise. Another likely reason for EINGOs' absence in Atyrau may be the relative youth of Atyrau's oil facilities and infrastructure, meaning that environmental damage has not yet accumulated sufficiently to attract the attention of such organisations. For instance, Crude Accountability has been working on oil-related environmental and social issues in Kazakhstan since 2003, but has focused its efforts on a neighbouring region of West Kazakhstan where oil extraction started in the 1980s. Nonetheless, EINGOs do make occasional appearances in Atyrau. Their actions in 2007 are arguably the most notable and are therefore taken as a case study for this section.

Essentially, Hypothesis 1 takes as premise the popular academic theories that hold NGOs as key players in successful policy administration. As such, this hypothesis tests whether INGOs improve local NGOs' capacity to fulfil their functions in this process. The following analysis indicates that although EINGOs have a great potential to improve enforcement and compliance, they do not necessarily affect the *political will* that motivates these processes. Without the *political will* to pursue environmental aims, the Government appears to be using EINGOs/ENGOs as a "raiding tool" (intrv. 15) in its struggle for oil profits with foreign oil companies operating within the country.

The case study at hand concerns a group of international institutions and organisations, including Friends of the Earth, working with local Atyrau activists to assess the environmental impact of the Kashagan project. This work culminated in a comprehensive report with, at the time, the only up-to-date, independent, and statistically accurate data in the first seven years of Kashagan's development (Urbaniak, *et al.*, 2007). On the one hand, this exercise had great potential to aid the work of the government regulators, whose enforcement usually relies on subjective data reported by the oil firms. The 2007 EINGO/ENGO project therefore provided said regulators with otherwise inaccessible data. It should be noted that without funding and expertise from the international actors, the project would not have been able to collect said data. The positive impact of international actors is therefore clear. On the other hand, the exercise did not produce meaningful environmental outcomes. The government used findings in the report to stop operations at Kashagan until environmental violations were rectified. However, this ban was lifted after the OKIOC agreed to give more shares to the Kazakh government's firm. No tangible environmental improvements were made as a result, suggesting that the true purpose behind the Government's actions was economic rather than environmental.

This observation is, however, unsurprising when one looks closer at the relationship between the public and non-profit sectors within Kazakhstan. While the Kazakh authoritarian government might have been tolerant of the non-profit sector, at least in the first two decades of its rule, it has not afforded this sector any political influence. Theoretically, conditions for allowing civil society to influence government policy and implementation are laid down through Kazakhstan's membership of the Extractive Industries Transparency Initiative (EITI) and the Aarhus Convention, which supersede national legislation. In practice, however, the State engages in mock compliance (Walter, 2008) without substantially altering existing policies (Tilcsik, 2010). Those changes that are made, such as mandatory public hearings on new oil projects' environmental and social impact, are designed in ways that prevent substantive outcomes (Meyer and Rowan, 1977). For instance, a hearing's final vote is not binding on oil firms' activities and a local NGO representative spoke of loyal voters being brought in or others being bought off to tip the vote in the oil firms' favour (intrv. 1). A representative of Aarhus noted that apart from public hearings, there are no other channels for civil society to exert formal influence (intrv. 17) on the oil works in Atyrau. Thus, although Kazakhstan might appear to have a healthy non-profit sector, its capacity to bring about change is substantially undermined.

This begs the question of the purpose of the non-profit sector in Kazakhstan, and answering this question will help explain the government's seemingly contradictory behaviour towards the sector. The Kazakh government appears to see NGOs as entirely collaborative 'extension[s] of government structures' (Axyonova and Bossuyt, 2016), fulfilling non-political roles (Ziegler, 2015; Kreiser and Lachmann, 2003) such as providing education. Some academics assess that foreign funding, which brought about the NGO boom in Kazakhstan in the 1990s, may have only served to encourage local ENGOs to comply with this vision of their role, causing all but one Kazakh ENGO (Green Salvation) to abandon political activism (Luong and Weinthal, 1999). NGOs as service providers can be seen as convenient for the Kazakh government in a number of ways. Firstly, the sector provides services the state cannot or does not want to provide. Secondly, it limits political opposition. In so doing, it reduces the demand for change: the output of non-confrontational kinds of NGO work can be reframed away from actual implementation. As an example, public hearings on the proposed oil projects mentioned above have been reframed in such a way: instead of providing a productive platform for public scrutiny, the government is said to be using them to monitor public mood (Nurmakov, 2017).

Given this context in which local ENGOs operate, there is arguably very little that EINGOs can hope to achieve either by funding local ENGOs, by working with them in other ways, or by entering the country and pursuing campaigns directly. The government's positive disposition towards the 2007 EINGO/ENGO report could be most likely explained by other, relevant events that took place that year: Kashagan's operator OKIOC announced yet further delays and costs to the project (Reuters, 2007), thus further delaying the government's access to much needed revenue. The government was already looking for ways to motivate OKIOC to increase their contractual commitments and the EINGO/ENGO environmental report offered a convenient and timely lever (Gorst, 2008), but one far removed from environmental aims.

Indeed, this sort of cooperation is common in Atyrau, according to interviewees from the non-profit sector. The government is known to ask ENGOs to "cause commotion" "only when [it] needs something against foreign oil firms" (intrv. 2). Here, by "something", the interviewee implied economic rather than environmental goals. The end result, the interviewee continued, is successful negotiations between the government and the oil firms, where the former usually secures the result it sought; and the ENGOs are officially credited with saving the environment, but in practice nothing changes in regard to environmental protection (EP). At all other times, the

government's treatment of ENGOs in Atyrau is quite different: persecutions of civil society are common; all environmental activists in Atyrau are said to have been detained or threatened at one time or another (intrvs. 1, 20).

In the mid-2010s, the Kazakh government started to crack down on civil society, at first by limiting domestic NGOs' access to foreign funding and thus forcing them to switch to state funding, and then by closing down several big INGOs and NGOs with foreign connections on the pretext that they were working to undermine political stability (Amnesty International, 2017). These events have created substantive barriers for INGO's future involvement in Kazakhstan's affairs, thus reducing the applicability of this hypothesis.

In light of the above, it cannot be said that the intervention of INGOs necessarily leads to better implementation. INGOs may substantially improve local ENGOs' ability to act as watchdogs, but this does not necessarily improve the latters' ability to hold either the government or the oil firms accountable. Both the government and the oil firms appear able to ignore or to forcibly suppress the non-profit sector and its work. In the few instances that the government positively acknowledges the non-profit sector's output (whether with or without INGO input), it seems to do so with the aim of pursuing non-environmental objectives. In other words, the government's reaction to ENGOs would probably be the same whether INGOs were involved or not. As such, INGOs do not seem to have impact either on enforcement, compliance or political will to pursue EP. There is therefore no substantive evidence to support this hypothesis.

Hypothesis 2: The greater the presence of foreign oil firms within a region, the smaller the implementation gap.

Foreign oil firms tend to have more advanced technologies and practices than domestic oil firms in transitional countries. It is therefore likely that international firms would be better able to comply with local and international EP requirements. Many Atyrau interviewees, however, argued this has little bearing on actual compliance. In the words of one NGO interviewee, "it would be very naïve to believe that such firms, when working in a highly corrupted country, would support legal compliance… if that is disadvantageous to them" (intrv. 1). Indeed, in Atyrau, foreign firms have strong incentives to cut corners. This is because of the high environmental costs associated with the peculiar qualities of Caspian oil and because Kazakh legislation is much stricter than international standards, requiring substantial investment to achieve legal

compliance (World Bank, 2013). At the same time, firms know that they are unlikely to get caught cheating, since the state relies on oil firms' self-reported pollution data. Given the above, this hypothesis tests whether foreign oil firms comply with Kazakhstan's EP laws in Atyrau by virtue of being able to do so, or whether they choose to ignore the law given the lack of effective incentives for compliance. The largest Atyrau oil projects, TCO and Kashagan, are used as examples to explore the true nature of foreign firms' impact on the dependent variable, *the implementation gap*. It is shown that although oil firms have poor compliance records, this has nonetheless led to marginally better implementation outcomes.

Superior technologies

It is worth testing two distinct assumptions about technologies – whether foreign firms in actual fact have better technologies, and if they do, whether they use them. The example of Kashagan sheds light on the first question. As stated by a local ecologist, technologies suitable for Caspian offshore oil did not exist before the discovery of Kashagan necessitated their development (Kosolapova, 2014). As such, any firm – Kazakh or foreign – would have faced unprecedented challenges. Granted, Kashagan probably would not have been developed without foreign investment, but Agip's 8-year delays, mistakes and scandals caused even its foreign partners to doubt whether it was up to the task (Callus and Jewkes, 2014). In 2009, Agip's partners took over the operatorship as a committee called the North Caspian Operating Company (NCOC), but also struggled to make progress for another 7 years, raising similar questions about their ability to develop appropriate technologies.

At first sight, TCO seems to present a success story in stark contrast to the Kashagan example. In 2012, Chevron (as part of TCO) was internationally celebrated for achieving a 94% reduction in routine flaring at Tengiz between 2000 and 2012 (Trend News Agency, 2012). However, local EP regulators tell a different story of 700 flaring violations between 2006 and 2011, amounting to over 70% of all such violations in the *oblast* (Shilov, 2011). Independent observers have also reported that frequent, illegal flaring continued after 2012 (Interfax Global Energy, 2015; Inform Bureau, 2017). These occurrences could be written off as due to the inflexibility of the Kazakh law, which banned all flaring between 2006 and 2010, without allowances for emergencies (Carbon Limits, 2013). Usually, fewer infringements would be expected when regulations are relaxed, because fewer behaviours become illegal. However, legislative inappropriateness does not explain TCO's continued violations after laws were

sufficiently relaxed in 2012 (ibid.), or why Chevron was found guilty of hiding incidents from authorities (Panorama, 2007), which in itself is illegal in Kazakhstan. Furthermore, the frequency of reported incidents, as confirmed by interviewees from all sectors, further implies that Chevron might not be using its flaring utilisation technologies or practices to their full capacity.

Superior practices

As noted in the previous subsection, having practices on paper does not guarantee their implementation. The main regulator in Atyrau (intrv. 13) stated that "both Agip and Chevron have beautifully written environmental policies... But in practice, 90% [of their actions] are the opposite of what they promise". Collected data presents numerous cases that support this view. For example, foreign oil firms could have been expected to use EIA in accordance with international norms even before Kazakhstan formally legislated for this requirement in 2007. However, ENGO interviewees asserted that Chevron frequently tried to "wash their hands" (intrv. 1) of environmental-protection commitments by rejecting the existence of environmental risks (intrvs. 1, 18). During project design in 1993, for instance, Chevron tried to justify skipping sulphur mitigation measures because winds would allegedly blow it around or away from human settlements, recalled ENGO interviewees (intrvs. 1, 16), despite academic (intrv. 18) and common knowledge to the contrary (intrvs. 1, 16). Notwithstanding the regulators' corrections at the time, TCO proceeded with storing sulphur in the open air, defending its actions by denying their environmental impact – even after local environmentalists proved their negative impact (intrvs. 1, 18, 19) and after the State officially closed down and relocated 3,500 nearby Sarykamys villagers due to severely worsening environmental conditions in the area.

The history of the Kashagan project is also laden with poor practices and frequent misconduct, uncharacteristic of the typically positive reputations accorded to Western oil firms. For example, Agip KCO was caught grossly underestimating environmental impact in their EIA in order to obtain production permits (Tasbulatova, 2012) under Kazakh law, and of illegally dumping toxic wastewater (Martynyuk, 2012). Furthermore, project delays caused by frequent technological miscalculations, which have led to substantial environmental damage on several occasions, could have been avoided had Agip KCO hired local oil experts with greater understanding of the make-up of the Kashagan oil and the environmental conditions described in the *Background* section. Agip KCO intentionally excluded them, instead giving contracts at inflated prices to its

own subsidiaries and affiliates outside Kazakhstan (Crude Accountability, 2017); this affair was later investigated by Milan prosecutors as part of a broader corruption and bribery investigation of Agip's work in Kazakhstan. Such practices led an Atyrau journalist (intrv. 15) to attribute "Kashagan failure" directly to Agip, commenting that "even easily corruptible Kazakhs could take lessons from the Italians on stealing". The above examples indicate that foreign oil firms' practices should not be expected to be in compliance with local or international regulations.

Impact on regulation

International institutions (Carbon Limits, 2013; OECD, 2017) have described early Kazakh environmental legislation as overly strict, to the point of being impossible to comply with, and an interviewed lawyer working for an oil firm (intrv. 7) advised that foreign companies continuously lobby the Kazakh government with the aim of changing laws. However, it is worth questioning whether such lobbying goes too far. Foreign oil firms, after all, are politically powerful in transitional countries whose economies depend on oil sales. An environmental activist agreed that this is the case in Kazakhstan, describing such firms as the "Shadow Cabinet of the Government of Kazakhstan" (intrv. 1), in the sense that they are actively competing for political power over the country, and in that the official government often needs their consent in running its own country.

Their power to demand legislative relaxation therefore could just as easily lead to worse environmental outcomes, and in Atyrau this appears to have been the case on several occasions. For example, environmental activists (intrvs. 1, 18) asserted that in the 1990s foreign firms exploited the host government's desperation for investment - and inexperience in international negotiations - to mostly exclude mention of environmental responsibility in their contracts. This complicates EP implementation today by shielding firms from many of the improvements to legislative requirements that took place since those contracts were signed. Other examples also exist, such as NCOC missing its deadline after failing an EIA and trying to pressure the Government to give it more time before the winter ice set in by altering legislation that suspends construction in the Caspian Sea between certain dates in order to protect the reproduction of fauna (Suleimenova, 2015). Such pressure for legislative relaxation, driven by vested interests rather than environmental conscience, would indeed make regulations easier to comply with. This would technically narrow implementation gaps,

but would further reduce the effectiveness of EP, and therefore is not the type of *implementation gap* closure tested for here.

Ironically, foreign firms' poor behaviour appears to be the main indirect driver for environmental legislative innovations in Kazakhstan. According to interviewees across sectors, long-term contracts signed with foreign oil firms gave Kazakhstan unfairly low stakes in profits compared to foreign partners', although exact shares are unclear. The host Government seems to have instead envisaged environmental fines as a way to recover more revenue (OECD, 2017), and went on the offensive. At times it seemed that the Kazakh government was improving EP legislation and increasing EP fines in order to fill up the Treasury rather than to prevent environmental damage. This conclusion is supported by the observation made in other literature focusing on the implementation of environmental policies in Kazakhstan, including the OECD (2009), Crude Accountability (Shaternikova, 2010 cited in Solyanik, 2012), and the OSCE. The international consultancy firm Deloitte (2018: 4) assessed such penalties as having "a significant impact on [subsoil users'] business". Meanwhile, UNECE (2008: 49) observed that environmental fines do not lead to environmental impact being addressed "in most cases" (UNECE, 2008).

Legislative changes therefore did not necessarily lead to better compliance. Foreign firms started rebelling against fines they perceived to be too high, and instead of making efforts to improve their compliance took the Government to court (Golovnina, 2007), sold shares in projects, or left Kazakhstan altogether (The Economist, 2007). Regulatory enforcement remained ineffective (OECD, 2017) and EP essentially became a proxy battlefield for the growing power struggle between the Kazakh government and international commercial interests. The resulting tension did, however, appear to draw shareholders' attention to the firms' environmental performance (Carbon Limits, 2013) and some improvements appear to have followed: TCO, for example, finally removed its sulphur mountains (Guzikov, 2015; Shilov, 2012).

Conclusion

The above analysis implies the equivocal nature of foreign oil firms' influence in Kazakhstan. While they might not always comply with EP regulations, their presence seems to have delivered some positive outcomes, such as improvements in EP legislation - although the value of this is questionable, given that firms do not necessarily comply with legal rules in general. Furthermore, such improvements

appear to have the wrong motivations and have facilitated the development of a regulatory regime that "impedes energy efficiency and pollution control", according to the OECD (2017). As such, it is difficult to conclusively state whether this hypothesis is supported, but further refinement of future analysis could help distil the causal relationship. For example, rather than looking at 'foreign' firms, analysis could concentrate on a more specific origin, as this seems to make a difference. For example, local journalists assessed that north European and Russian firms behave better than southern European ones (intrvs. 14, 15). Furthermore, the Kazakh state appears to react to foreign firms differently depending on their origin: whereas it hounds Western firms for the smallest violations, it failed to notice for three years that a Chinese firm disappeared from the country, having abandoned open and leaking oil wells (NurKz, 2016).

Hypothesis 3: The greater the exposure of local agents to transnational elements, the smaller the implementation gap.

This hypothesis concerns academic theories on institutional change through elites' and individuals' exposure to international (often "Western" or "First World") ideas – through international treaties, cooperation with international institutions and organisations, and education and travel abroad (Kellow, 2007; Elliott, 2002; Acharya, 2004). Such change may include improvements to institutions' and individuals' skills, methods and expectations, which may in turn drive improvement in implementation efforts. In relation to the public sector, this could manifest as improved willingness and ability to enforce legislation. This does not include paper-based improvements – such as international actors' help with drafting EP legislation (which will be discussed separately in relation to H4), since this does not necessarily produce behaviour change. In the private sector, it could manifest as changes to employees' attitudes towards legal compliance, which may also drive changes in firms' culture. It has already been mentioned that in Kazakhstan voluntary self-regulatory agreements (such as EITI) and ratification of international obligations (such as the Aarhus Convention) have been mostly unsuccessful. This section will further discuss reasons for these and other sources of international norm diffusion having achieved limited effect, before concluding that this hypothesis is unsupported.

International agreements

Since the 1990s, Kazakhstan has signed up to a number of legally binding and voluntary international agreements on EP. However, its persistent failure to honour its subsequent commitments calls into question whether it ought to remain a signatory (Tairova, 2014a). For example, at the end of Kazakhstan's chairmanship of OSCE, which Kazakhstan promised to dedicate to EP, the organisation concluded that Kazakhstan failed to make any improvements and has instead shown "open disrespect for its international obligations" under a range of agreements (OSCE, 2012). This implies that Kazakh elites are now no closer to internalising, and thus implementing, international values than they were before initial exposure.

An Atyrau-based journalist confirmed that the *oblast* is not complying any better than the rest of the country (intrv. 14). In fact, of all signed international agreements, Atyrau interviewees only mentioned the Aarhus Convention, ratified by Kazakhstan in 2000. In 2009, Aarhus established a resource centre in Atyrau, and has been actively working with local stakeholders to promote environmental rights there ever since. This explains interviewees' knowledge of the Convention; yet all interviewees who mentioned it indicated non-implementation of its principles in Atyrau. Interviews conducted in 2018 confirmed continued noncompliance (intrv. 4, 5). Kazakh civil society has approached the Aarhus Compliance Committee on several occasions; out of 47 signatory countries, citizens of Kazakhstan send 10% of all the complaints received by the Committee. In response, the Committee has issued several warnings and recommendations to the Kazakh government, but it does not have the power to issue any sanctions, as explained by an interviewee from the Atyrau Aarhus Centre (intrv. 17). Other international agreements appear to have suffered similar fates. This confirms Öge's (2014) findings that in the absence of strong incentives to comply, elites' opinions of international values likely remain unchanged.

International financial institutions

There are several international financial institutions (IFIs) that invest in infrastructural developments in Kazakhstan. Such developments include building or improving roads, train tracks, ports, power plants and factories, and employ large numbers of local staff. These institutions include the European Bank of Reconstruction and Development (EBRD), the International Monetary Fund (IMF), the International Financial Corporation (IFC), the Asian Development Bank (ADB) and the World Bank. Such IFIs usually

adhere to strict health-and-safety and environmental impact criteria for subcontractors and staff they hire, and their projects are usually labour-intensive. Kazakh legislation requires foreign projects to hire a high proportion of employees locally, and IFIs' work is therefore a convenient space to diffuse norms to large numbers of local stakeholders.

Research findings, however, imply that IFIs do not necessarily have positive impact. For example, interviewees from Crude Accountability, who have done extensive research into this question, found that IFIs' EIAs often intentionally obscure their projects' true impact (intrvs. 3, 21; Crude Accountability, 2012). They also found that obligatory public hearings for IFIs' projects are often organised to intentionally prevent proper scrutiny (Crude Accountability, 2012). Once projects commence, they usually run with many violations of environmental laws and cause significant, negative environmental impact (intrv. 17), noted an interviewee from the Atyrau Aarhus Centre. Such behaviour makes IFIs bad role models. While they help to reduce environmental impact by replacing the current, outdated infrastructure, their behaviour in doing so is likely to reinforce current attitudes and modes of behaviour. For example, when Kazakh civil society reported IFIs' violations, the environmental ministry indicated that economic interests, which IFIs fulfil, trump environmental concerns (Crude Accountability, 2012).

International developmental institutions (IDIs)

The IFIs discussed above, as well as the EU, the OSCE and such IDIs as the UN Developmental and Environmental Programs (UNDP and UNEP), often run a variety of programmes aimed at improving social, political and economic development in transitional countries. Apart from financial and technological assistance, such programmes may include staff training, recommendations to the Government or awareness-raising campaigns – all good candidates for norm diffusion. However, these programmes are often offered only at federal government level or only in central cities. As such, explained a former oil firm employee (intrv. 11), attendance at IDI events is usually dominated by "all the same faces", and these elite players do not seem to be influenced by the experience. In terms of physical distance, a local government interviewee in Atyrau commented that IDI projects usually take place in Astana or Almaty and that local government can rarely send any staff to these locations (intrv. 8). An interviewee from the Aarhus Centre (ibid.) explained that even if such benefits were directly available in Atyrau, they would be unlikely to make a significant impact, because although such programmes train, recommend, raise the awareness of and

otherwise try to influence the local population, there are insufficient opportunities for newly learnt norms to be exercised.

Norm diffusion and individuals

The above discussion indicates that international entities, especially IFIs, do not always diffuse good values and that their behaviour can contradict the official liberal and ethical values promoted by international organisations and institutions. This inconsistency might be responsible for Kazakh elites and institutions not accepting, nor internalising international values in general. It may also be negatively affecting elites' trust in international organisations' motivation to promote those values. Elites may also resist because international norm implementation could reduce their ability to self-profiteer. Either account could help explain the elites' resistance and their actions to prevent norm diffusion affecting the broader population, as argued by Vanderhill (2017).

There is, however, also a different type of norm diffusion taking place - one which affects individuals rather than institutions or groups. This is driven by increased opportunities for international travel, especially for educational purposes. In 2017 more Kazakhs were studying outside Kazakhstan (UIS, nd.) than was the case for students from any neighbouring post-Soviet country. Furthermore, the Kazakh government has been sponsoring its employees to study abroad, and was in 1994 the first FSU government to do this. The programme obliges such students to remain in public sector employment for a period of time upon return, thus providing a perfect opportunity for norms to diffuse directly into governing structures. Academics (Brown, 2009; Husted, *et al.,* 1996; Gill, 2010) propose that this process could eventually transform patrimonial hierarchies into something more ethical.

Interview data collected for this project suggest that such norm diffusion is not having the desired effect and offer a number of explanations. Firstly, interviewees questioned whether individuals actually internalise norms. An Atyrau journalist, for example, observed that although individuals may learn new methods abroad, the experience does not necessarily affect their mentality (intrv. 15); a local activist agreed, observing that those changes that do occur tend to be temporary, reverting after 3 to 4 years as returnees are re-assimilated by the local system (intrv. 20). Secondly, those interviewees who agreed that individuals could change instead questioned their ability to apply and live by these new values. A private sector interviewee explained that the

creative, analytical way of thinking taught in the West is incompatible with conservative, change-resistant Kazakh institutions (intrv. 6). Elaborating further, interviewees from the oil sector, activists, and journalists all observed that the widespread corruption that permeates all government institutions in Kazakhstan (Kazday, 2016) has rendered good jobs in government structures accessible only through bribery or personal connections rather than through merit (intrvs. 1, 11, 22, 14, 15).

In this context, observed an interviewed journalist, governing structures have become a "psychologically unhealthy" and "dishonest" environment that requires people to sacrifice their principles (intrv. 14). Interviewees from across sectors (intrvs. 1, 11, 14, 19) observed that being forced to work in this environment motivates reformed individuals either to permanently move to the private sector or to leave Kazakhstan. Foreign education, explained an oil industry interviewee, makes Kazakhs internationally competitive, and more likely to seek out contexts where they can apply their new skills instead of "stagnating back at home" (intrv. 11). The limited, obligatory time that they spend in the civil service might bring some positive change, but, as noted by an interviewed academic (intrv. 19), such individuals are rarely allocated to environmental regulatory structures or placed in high enough positions to effect meaningful change.

Some interviewees (intrvs. 11, 14, 17) were hopeful that the situation would change for the better when the older generation, which still remembers conditions under Soviet repression and favours material well-being over ideological principles, retires. Others, however, are pessimistic that any positive regime change is possible either now or in the future (intrvs. 9, 21). For example, one environmental activist observed that upon return, some Kazakhs start behaving exactly the same as established senior Kazakh public officials (intrv. 1), implying that the current regime's values are sufficiently entrenched to repel new behaviours. Collected data do not indicate which assessment is closer to the truth, but the above discussion does appear to strongly suggest that if norm diffusion exists at the level of an individual, it has at best minimal impact.

Conclusion

The above analysis did not find support for effective norm diffusion at the institutional level, but it did imply that exposure to international formal and informal international processes can have positive effects at least on the level of individuals, who could in turn bring about bottom-up institutional change by affecting perceptions of what is

important and eventually impacting the political will to pursue EP implementation. However, interview data did not support the idea that this is having a sufficiently tangible effect on executive government structures or, therefore, on enforcement of environmental regulation. Some interviewees hope that the situation will improve once the older generation leaves power. Meanwhile, hypothesis 3 is unsupported.

Explanatory variable 2 - State capacity

Hypothesis 4: The greater the coherence of environmental regulation of the oil industry, the smaller the implementation gap.

Upon independence from the USSR, Kazakhstan's limited environmental legislation for some time remained based on Soviet conceptualisations of the environment, in terms of its utility, and notions of means for protecting it. These were already unsuitable for regulating the emerging environmental and economic challenges. Kazakh environmental legislation has come a long way since then, but changes implemented at great speed and characterised by a lack of law-making experience risk being unimplementable. This section analyses the relative effectiveness of developments in Kazakh environmental law aimed at achieving sound regulation of the oil industry. It is shown that, although issues exist, legislation is robust enough in quality; yet, without the political will to support relevant application, the question of legislative quality can lose relevance.

Kazakhstan's first attempts at new environmental legislation have been described as too bureaucratic and suffering from "a low level of ecological and juridical knowledge by state functionaries" (Soltys and Orynbassarova, 2013: 106). However, in 1995, the government made a pivotal change in its approach to drafting environmental law. It requested assistance from key international actors, engaged some 2,000 Kazakh specialists from across sectors and held a series of nationwide seminars to identify key environmental issues in the country. This inclusive, frank review of real problems provided a more solid foundation for developing an appropriate regulatory regime than what could have been hoped for with the more theoretical Soviet approach[20], or from direct, untailored policy transfer from more developed countries. Although environmental goals that emerged as a result were at the time described as "oversimplified" and "short-term" (Kuratov, *et al*., 2000), the legislative reforms that

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[20] Environmental norms under the Soviet regime were often set in line with scientists' opinions of permissible levels of pollution without taking into consideration the polluters' capacity for meeting them.

followed produced "good laws" and were followed by some effective implementation, according to the main Kazakh ENGO (Krylov and Kuratov, 2017), perhaps precisely because the provisions set out in those laws were simple, short-term, and thus deliverable. Such laws included bans on flaring and outdoor sulphur storage in 2004 (Orazgaliyev, 2018), and in 2007 the first Environmental Code of the Republic of Kazakhstan attempted to systematise all relevant domestic legislation with standards from 22 international environmental agreements already adopted by Kazakhstan (Soltys and Orynbassarova, 2013). The Code also set the roles and powers of government bodies responsible for monitoring and enforcement, and was commended as a significant achievement by international organisations such as the Asian Development Bank (nd.).

Intent over quality

The introduction of the Environmental Code did not prevent the emergence or frequency of legislative contradictions and unforeseen side effects, but this can only be expected in transitional countries, explained interviewees from academia and the judiciary (intrvs. 9, 10). Economic, political and social changes continuously reveal new issues that need to be reflected in law, but contradictions with existing provisions may not become apparent until the law is applied or challenged (intrv. 10). A juridical interviewee further indicated that frequent changes are partly explained by the need to allow an adaptation period for affected parties as domestic law is gradually brought in line with international legal standards. Accordingly, in the first 10 years of its existence, the Code was amended 52 times (Krylov and Kuratov, 2017).

The main problem with this, as the same lawyer explained, is that legislative improvements do not apply to key polluters – the big oil firms, who are instead regulated by their contracts and permits, based on laws that existed when these documents were finalised. This bureaucratises and reduces the effectiveness of environmental control, since environmental inspectors do not have a uniform set of standards against which to judge performance. It also problematises any attempt at a broad measurement of legislative effectiveness for the same reason. Although firms might over time become increasingly environmentally unfriendly relative to new standards, they might not be breaking any laws as different stationary assets (if they are located in different cities / regions) even belonging to the same firm can end up operating under different, entirely legal environmental standards. Yet, despite contracts

having frozen some rules in place, interviewees assessed that the oil firms' environmental and social responsibilities were not comprehensively covered (intrv. 1, 4, 6). In other words, the language is vague enough to allow for different interpretations of the extent of commitments. This, they advised, is what allows the Kazakh government to press oil firms on the environmental responsibilities. Furthermore, contracts might prevent the Government from changing pollution standards, but not from increasing fines for non-compliance with those standards.

Overall, many interviewees agreed that Kazakh environmental legislation is relatively sound, robust, well-written and coherent (intrvs. 1, 9, 10, 14, 17) or at least conceded that it is changing for the better; but there is merit in the local ENGO's (intrv. 1) advice to instead focus on how legislation is interpreted, used and enforced. Irrespective of changes in quality, environmental laws do not appear to be solving the issues they are supposed to address in Kazakhstan (Krylov and Kuratov, 2017: 78.). Responsible factors include poor enforcement, mainly due to corruption and limited economic mechanisms to motivate target groups to innovate in ways that could help achieve compliance (Asian Development Bank, nd.; Krylov and Kuratov, 2017). The following discussion examines why this is the case, showing that the political context in which Kazakh environmental legislation developed has affected the purpose of its implementation.

Environmental protection as a fiscal tool

Modern environmental legislation began developing in Kazakhstan in a context of low oil prices, shrinking economy, and weak national identity, which, among other things, contributed towards the weakness of governmental structures. The government's priority was in preserving political stability, which it chose to do by securing foreign direct investment (Kennedy and Nurmakov, 2010; intrv. 1). Endowed with very weak bargaining power, Kazakh government signed contracts with large foreign oil firms on poor terms for Kazakhstan. For example, as recalled by a local ENGO, out of 200 amendments proposed by Kazakh negotiators in the early 1990s, Chevron accepted only 5-10% and the government did not push for more (intrv. 1). Political lenience continued after contracts were signed. The right to a favourable environment was excluded from the national constitution in 1995, followed by the relaxation of legal standards and the condoning of continuous gross violations of already weakened legal obligations (Tairova, 2014b).

At the same time, the entry of foreign investors facilitated formation of domestic elites along the hydrocarbon / environment axes. Poor economic conditions kept the clans that constituted these elites aligned, but once oil prices rose and the economy picked up in the 2000s, some chose to follow their own interests (Junisbai and Junisbai, 2005) and the governing clan started to lose control over other clans. Meanwhile, an unexpected resilience in both the national economy and the political regime begun to shift the balance of power between foreign investors and Kazakh elites, who now sought to compensate for poor contracts signed in the 1990s. Against this backdrop, environmental legislation became a tool used by domestic elites in their struggle for power with each other (Tairova, 2014b) and in their collective opposition to foreign oil firms. Environmental legislation, or at least the State's willingness to use it, revitalised once more, but with the purpose of forcing foreign oil firms to re-distribute their profits (ibid.) and rents (Orazgaliyev, 2018).

As governing elites became bolder in the early 2000s, they introduced more burdensome taxation and environmental regulation regimes. These were applied aggressively against foreign oil firms compared to domestic enterprises, reflected a local journalist (intrv. 14); however, the state usually agreed to substantially decrease fines against foreign entities when challenged. These traces of former leniency eroded in 2007, when Kashagan's operator announced further delays. Under the original PSA conditions, the new delay would have cut expected Kazakh state revenues by almost US$20 billion (Muttitt, 2007) up until 2017, while allowing foreign partners to continue collecting higher returns than the average rate (Kennedy and Nurmakov, 2010). Kashagan's oil was already sorely needed by Kazakhstan to sustain economic development and the government took this news as an insult, announcing that it was a breach of contract (The Economist, 2007) and passing new laws that allowed amendments to or even annulment of contracts with foreign investors.

The oldest contracts (Tengiz and Kashagan), however, remained to an extent immune, protecting foreign partners from many of the costs incurred due to legislative change, save for those to do with the environment, health and safety of local citizens. With the latter two fitting neatly into the former, environmental regulations with a stress on national strategic security proved the most effective lever for the state's retribution. The government demanded increasing large environmental payments and levied increasingly hefty and eventually "extremely large" (OECD, 2017: 177) environmental fines that "create unreasonably high administrative barriers to business and have a high propensity for corruption" (Khamidullina and Hu, 2014). In this sense, nothing has really changed with respect to environmental protection – the aim of legislation

remained not to improve the environment, but to fill the ruling elites' coffers. Collected fines went straight to the Treasury rather than to government structures tasked with EP. This encouraged perceptions of corruption and non-environmental goals among non-public sector stakeholders (Kuratov, et al., 2000; Tairova, 2014a; Krylov and Kuratov, 2017) and demotivated compliance more generally.

Currently, tactics of strict control are again being relaxed and a local interviewee explained that this is because tighter measures were doomed to fail: the government overestimated its own power, forgetting that its own experts were aging, that replacements were far from ready, and that it had to rely on foreign expertise in the meantime (intrv. 15). This has created for a new phase in Kazakh environmental legislation, where it is still used as a fiscal instrument (ibid.), while simultaneously maintaining old and passing new legal provisions that again increasingly play to firms' interests and reduce the potential for regulatory implementation. This may be because a reduction in pollution is not in the government's interests, since this would also reduce pretexts for environmental fines. A lawyer involved with the industry agreed that this design better secures foreign oil firms' cooperation with the wishes of the Kazakh government (intrv. 7), while a local regulator confirmed that some of the new legal provisions do not make sense (intrv. 8) and could disincentivise firms from innovating. As a result of these political motivations, and mixed messages to the industry, the latest phase of Kazakhstan's EP regulatory regime has been assessed as not leading to "actual environmental improvements" (OECD, 2017: 181) and even of "imped[ing] energy efficiency and pollution control" (OECD, 2017: 161).

Conclusion

The quality of environmental legislation in Kazakhstan continues to oscillate, but this does not appear significant in terms of impact of actual EP, since those responsible for EP implementation in the hydrocarbon industry seem uninterested in environmental goals. Instead, the current system of public administration is aimed at driving economic growth, with environmental legislation being just one of the tools to that end. As such, the *enforcement* of EP, manifested through continuous environmental fines, does not seek environmental aims (intrv. 11) and sends mixed incentives in regard to *compliance*, essentially confusing target groups of the policy about what they are being asked to do. As summarised by an interiewed journalist, Kazakhstan's environmental

legislation is "super; it is very good, but it is impossible to apply it [as intended because] it constantly comes into conflict with other State interests" (intrv. 14).

Pursuant to the above, it is possible to conclude that while sound laws are an indubitable prerequisite to good implementation, they does not necessarily deliver implementation in the 'right' policy area. Legislative improvements have better enabled the Kazakh government to enforce environmental regulation, but with the aim of fiscal gains. Were the state to change its underlying agenda towards environmental outcomes and continue enforcement with the same zest, it is highly probably that better compliance with EP would materialise and that implementation gaps in EP could shrink significantly as a result. This outcome is, however, difficult to imagine as long as the political agenda remains misdirected. In other words, the *political will* to pursue environmental goals needs to align the growing capacity of EP as a policy tool with the 'right' (i.e. environmental) goals towards which it is directed.

As such, while legislative quality might be necessarily to improve *enforcement* and incentivise *compliance*, it is insufficient in affecting the *political will* to pursue intended outcomes. *Political will* must materialise independently and work in combination with legislative improvements. In its absence, the evidence to support this hypothesis is weaker than expected.

Hypothesis 5: The greater the quality of environmental regulatory agency in the sphere of the oil industry, the smaller the implementation gap.

Legal provisions such as those discussed above are but one resource that is necessary for regulatory bodies to be able to effectively and efficiently implement the policy goals under their jurisdiction. Factors such as access to a sufficient supply of well-trained staff, relevant equipment, independence of action, and clear lines of responsibility also play important roles in enforcing regulations. This hypothesis concerns the question of whether these conditions are fulfilled in the Kazakh EP regulatory structures, especially given their frequent re-organisation. In exploring this, this section reviews major structural developments at the Ministerial and local levels and analyses their impact. It is shown that poor quality of regulatory agency has had a detrimental effect on *implementation gaps*, but that improvements in the former might not necessarily lead to the proportional improvements in the latter. In parallel with findings in the previous section, regulatory quality is shown to be necessary, but insufficient without the associated *political will* for the delivery of environmental goals.

Central level

The history of Kazakhstan's public administration is one of continuous change, and the EP ministry, established in 1992, has been no exception. Its reach, scope and status fluctuated continuously, but in general they increased over time: in 1997 the Ministry absorbed the abolished Ministry of Energy and Natural Resources; in 2007 it took over responsibility for structures that were previously run by regional authorities (Tairova, 2014b); in 2012 its budget increased by 80% despite the economic crisis (Elkin, 2015); and it even took over some responsibilities from the Ministry of Industry and New Technologies (Tengri, 2013) in 2013. This positive trend made the Ministry's dissolution in 2014 both "surprising" and "unexpected" (Ospanova, 2014). Key EP responsibilities in the area of natural resources passed to the Committee for Environmental Regulation and Control within the re-established Ministry of Energy. The latter swelled into a mega-Ministry by also absorbing other responsibilities related to energy resources.

The then President of Kazakhstan, Nazarbayev, explained the move by claiming it was illogical to split the responsibility for natural resources into several ministries and that it should instead be controlled by one entity. This statement indicates that the Soviet mentality of the governing elite seems to have survived the country's political and economic transition. Within this mentality, the environment is still perceived as important only insofar as it can be utilised for delivering immediate human needs (such as shelter, food and heating), rather than for securing broader human needs over a longer time horizon (such as preserving drinking water, clean air and arable land for future generations).

This reversal in the official political approach to EP can be explained by the economic context of the 2014. Kazakhstan's economy had been growing up to that year, not least stimulated by the promise of long-delayed Kashagan oil, which was expected to emerge at any moment. However, 2014 brought news of further project delays at Kashagan and a collapse of Kazakh exports to Kazakhstan's main trading partners: the revolution-hit Ukraine and the Western-sanctions-affected Russia. This had severe consequences for the Kazakh economy and seems to have triggered a re-prioritisation of government objectives away from non-essential policies such EP. With energy as the main pillar of the Kazakh economy, the government shifted focus to developing this sector seemingly at all costs. An interviewed Atyrau journalist confirmed these assumptions, commenting that the system of checks and balances was intentionally destroyed for political reasons "in anticipation of a world [economic] crisis" (intrv. 15).

As such, implied the interviewee, the Ministerial abolition was a signal of good faith towards the oil firms: a desperate attempt to secure existing investment and attract more in a context of international – or, at least, central Asian – crisis.

Interviewees from the public sector gave evasive comments on the impact of this latest re-organisation on EP (intrvs. 8, 12, 13), but those from other sectors expressed unfavourable views, with journalists commenting that they lacked logic (intrv. 14, 15). The Aarhus Centre interviewee assessed that, in practice, this has led to the destruction of the regulatory system, commenting:

> "Within the new Ministry, the body responsible for environmental control answers to the body responsible for overseeing oil. How can a subordinate not give a permit to its superior?"

In addition to problems created by this top-down consolidation, there are problems at lower government levels. Here one can see the continuation of the Soviet practice of creating posts in accordance to the number of important people who need them rather than the tasks that need completing (intrv. 15). As a result, estimated one interviewee, some 128 regulatory bodies still exist in the hydrocarbon industry at lower government levels despite top structures getting streamlined. At the same time, all levels are often staffed with people who know or care little for the environment (intrv. 1, 15). Combined, these issues have led to a situation where "no one knows who holds what data" or responsibilities, leading to duplication, counterproductive implementation (intrv. 17) and sometimes lack of any implementation – because agencies that share responsibilities expect the others to have already done the job (intrv. 15). Interviewees summarised this system as a "manual economy" with "absurdly stringent" regulatory control (intrv. 20) that is "entirely ineffective" (intrv. 15). Its unpredictable nature makes it very difficult to understand (intrv. 20) for implementers and target groups alike. By hindering *enforcement*, this leads to growing *implementation gaps*. The situation also has high potential to disincentivise *compliance* by polluters, who come to expect being fined by one regulator or another no matter their effort to comply with all regulations.

Central / regional divide

Whereas responsibility for monitoring and regulating lesser environmentally damaging economic sectors has been passed to *akimat* (local government), environmental regulation of the hydrocarbon industry has never been delegated and remains reserved for the central government, which delivers its mandate through its territorial Department for Environmental Protection (TDEP) (now under the Ministry of Energy) in the oil

regions. However, the practical split in responsibilities between central and regional governments in these regions is not straightforward. A Crude Accountability interviewee (intrv. 3) explained that all major infrastructure that the local government now answers for is of vital importance to the oil industry. In other words, by enforcing regulations regarding such infrastructure, the local government could essentially be opposing the central government, whose priorities were discussed above. In a system where public appointments are politically driven, this course of action would be ill-advised for local regulators and politicians. As such, although in theory the reorganisation brings control closer to affected citizens (intrv. 4), in practice it changes little. This is especially so in the absence of formal processes via which citizens could hold different government levels to account (intrvs. 14, 16, 17).

At the same time, *akimat* budgets are small and salaries unattractive, whereas responsibilities have increased while capacity has diminished (intrvs. 8, 14). According to interviewees from the Atyrau *akimat*, the substantial increase in the workload, marked by shortening deadlines (as a result of structural reorganisations), was not compensated by an equivalent increase in human resource or salaries (intrvs. 8, 12). This seems to apply not only to EP, but to other policy areas as well, putting considerable pressure on *akimats* to deliver public services. In such contexts, *akims* (governors) tend to prioritise their regions' economic development (intrv. 16, 14) and can turn a blind eye to transgressions by economically important industries, such as oil in Atyrau. As such, observed a local journalist (intrv. 14), the structural changes in government act to simplify the development of the whole oil industry by reducing scope, capacity, and will to pursue environmental protection.

The TDEP suffers from its own issues. Firstly, individuals appointed to lead these departments are said to be selected by the central government for their political loyalty rather than their merit. Post holders therefore rarely have appropriate skills and too often concentrate on extracting short-term personal benefits (intrvs. 1, 6, 9, 11, 22, 14, 15, 16). Those that concentrate on their formal duties and prove too effective are kept on a "short leash" (intrv. 6) or get transferred (intrvs. 1, 6, 9, 11, 22, 14 , 15, 16). This is what seems to have happened to Atyrau's former head regulator, who was widely respected for his work (intrvs. 1, 4, 5, 6).

One of the key issues with frequent changes in appointments is that senior civil servants often move with their whole team. This means that a whole office could be left without knowledge of local challenges, slowing down developments in capacity and

organisational learning necessary for effective, consistent and continuous implementation.

Missing mechanisms

Despite the proliferation of regulatory bodies noted above, some vital functions remain missing. The most important example is the inadequate system for environmental (and resource) data collection in the country. For example, at the time of interviews, there was no national-level monitoring of extracted or transported oil, affecting the State's capacity to effectively spot and react to oil leaks, spills or theft (intrv. 4). At the regional level, it was impossible to know the true extent of environmental impact caused by the extractive industry (Svetlana, 2010) because all regulators were forced to rely on questionable self-reporting by the industry without having the means to validate submitted data. In 2008 all large enterprises installed a series of monitoring stations whose data is shared with government regulators and therefore assists them in fulfilling their duties (Guzikov, 2015). However, such equipment is privately maintained and is known to under-report emissions (Morozova, 2015) and fail during substantive illegal emissions (Ovozi, 2014). It is also impossible for regulators to know which pollutants monitors are equipped to measure at any one time (intrv. 22).

One of the interviewees, a foreign firm's specialist, holds that their company's emission monitoring stations have shown "absolutely no impact" following "any of our big incidents at all" (intrv. 11). Despite such statements, neither firms nor the State allow public access to data collected from these stations and there are significant discrepancies between reported figures and estimations calculated from satellite images (for examples, see Carbon Limits, 2013). Despite the limited number of suspects the above problems make it difficult for regulators to identify culprits in Atyrau, especially with air emissions rather than solid or water-based pollutants, because strong, constantly changing winds easily confuse the source of pollution if data are not immediately collected at source (for example, because monitoring equipment was out of order) (NurKz, 2015). This appears to endorse a slack attitude towards compliance from polluters and an Atyrau regulator commented that illegal pollution has become a gambling game for firms (intrv. 13). It does not, however, seem that the state is willing to rectify the situation – it rejected emissions data supplied free of charge by capable, local actors (intrv. 19) and closed down the specialised environmental protection prosecutor's office. What remains of the system of checks and balances appears to serve vested interests and to prevent, rather than facilitate, policy implementation.

Conclusion

This section has highlighted several barriers that prevent all levels of Kazakhstan's EP regulators from meaningful implementation. In this context, regulators have few incentives to continue to attempt delivering their formal objectives. This is because the barriers they face are not only poor staffing, resources or organisational structures, but also political opposition to EP implementation. The Kazakh government appears to have prioritised the development of energy resources far above environmental protection and as a result, pursuing EP implementation at the regional level could effectively be equated to acting against the central government, leading to the loss of one's job as a result of such political disloyalty.

Against this background, improvements in structural organisation, human resources or equipment could be described as only cosmetic because they would not necessarily translate into better regulation. A more fundamental change might be required to make regulation effective and close *implementation gaps*, starting with the re-introduction of the system of checks and balances. However, as long as the central government sees EP as a fiscal tool, this is unlikely to happen. As such, regulatory capacity is undoubtedly a necessary factor for successful implementation, as it could impact on *enforcement* and *compliance*; however, it cannot affect *political will*. A reverse relationship - *political will* to allow regulatory capacity to pursue its intended course – is required for regulators to close *implementation gaps*. Given that, similarly to H4, H5 can affect at least two of the three elements of the dependent variable (*enforcement* and *compliance*, but not *political will*), , this hypothesis is supported, although evidence is not as strong as expected.

Explanatory variable 3 - Economic diversification

Hypothesis 6: The more advanced the economic conditions in a regional economy, the smaller the implementation gap.

After the difficult decade following independence, economic growth in Kazakhstan stabilised and quickly picked up in the 2000s. However, economic growth based mostly on a single industry is fragile, and Kazakhstan has been no exception. The global economic crisis of 2008, for example, brought Kazakh economic growth from approximately 9% (between 2000-2007) to 1.2% by 2008. Although it recovered the following year, economic problems in Russia and Ukraine in 2014 adversely affected economic growth in Kazakhstan once again, and it dropped to 1.2% from an average of

6% in the previous five years. This may be what prompted the central government to abolish its Ministry for EP that year and may have exacerbated the subsequent EP implementation issues, as discussed in relation to H5. The present discussion takes a closer look at the relationship between poor economic diversification, the economic fragility it has fostered across Kazakhstan, and EP implementation in Atyrau. The section concludes in support of H6.

Before focusing on Atyrau it is worth pointing out nationwide economic issues in Kazakhstan than stem from poor economic diversification, for these also have a knock-on effect on the regions. Instead of experiencing incremental economic development, Kazakhstan saw almost no economic activity in the 1990s before a substantial boom in the 2000s: economic growth jumped from -1.9% in 1998 to 13.5% in 2001. At the same time, prospects for continued growth were strong and the anticipation of Kashagan oil by the end of the 2000s allowed that hope to continue into the late 2000s despite the temporary economic downturn. Positive expectations were also maintained despite further delays at Kashagan throughout most of the 2010s. Throughout this time, growth translated into government budgets via oil revenues.

The structure of contracts in the key oil projects in the country meant that the government collected its share of oil profits through royalties or shares more than through industry taxation. Concurrently, these revenues were substantial enough as for the state not to need other forms of taxation to support its spending. This gave the state independence from its population, and a functional taxation system was slow to develop in Kazakhstan as a result. This led to two important issues for EP implementation. Firstly, it made the economy sensitive to external shocks. Fluctuations in the global oil markets could easily impact oil profits in Kazakhstan. Meanwhile, the government could not easily draw on other sources of revenue. To address this, a National Fund was established in 2000 to collect surplus oil revenues, which could help stabilise the economy, but government revenue was still inconsistent. Not only has this made the government even more dependent on its foreign oil partners and more willing to compromise on EP (as seen in discussions of previous hypotheses), but also the state's independence from its population seems to have reduced state accountability. Issues that may be of importance to the general populace – such as environmental conditions – therefore do not necessarily filter up into political agendas.

In the case of Atyrau, the economy appears entirely dependent on oil-related industry. Although the *oblast*'s *akimat* boasts one of the most economically diversified regions in Kazakhstan (Atyrau Akimat, 2018), other sectors probably could not exist without oil.

For example, the petrochemical industry processes oil extracted in Atyrau; the engineering and construction industries have expanded to cater mostly for oil-related construction; and the farming sector has grown to feed the influx of workers from within and outside Kazakhstan attracted by developments in formerly mentioned industries (intrvs. 16, 17; An, *et al.*, 2017). Between 2008 (Zakon, 2008) and 2017 (Malik, 2017), the population of Atyrau Oblast swelled by 24%. Because the majority of the population work directly in oil or cater for it (intrvs. 9, 10, 17), should the oil industry falter, the local economy would likely collapse. Individuals already live from oil project to oil project, with high intermittent unemployment (for both skilled and unskilled labour), and high sensitivity to external shocks such as fluctuations in global oil prices, explained a local journalist (intrv. 14). As a result, local government decisions regarding the oil sector are significantly influenced by the sector itself, as confirmed by a former foreign oil firm employee (intrv. 16). Consequently, the hydrocarbon sector has grown much faster than other sectors (ibid.). The undue political power that the situation lends to the oil industry could explain its easy dismissal of legal requirements for environmental protection measures as being economically disadvantageous. Perhaps tellingly, Atyrau was the worst performing region in terms of environmental compliance in the early 2010s (Erbol Kuanov, cited in Shilov, 2011) while simultaneously having the second largest regional GDP in the country (after the region hosting the capital).

The combination of government policies and the economic effects makes oil both a curse and a blessing to local citizens' livelihood and inadvertently further increases the oil industry's power. Despite the high GDP, Atyrau *Oblast* is obliged to send the lion's share to the central level of government, which is said to do a inadequate job of re-distribute accumulated wealth (Kennedy and Nurmakov, 2010; Sakal, 2014). At the same time, foreign oil firms tend to mostly hire unskilled workers in Kazakhstan with best-paid jobs being filled by foreign experts. Foreigners are usually paid at international rates, unlike local workers. This acts not only to increase inequality, but also to reduce circulation of money in the local economy (intrv. 9). Atyrau's per capita GDP is by far the highest in the country (see Figure 8), but as a result of the above, this means little to the local population: oil-producing regions have in practice become some of the poorest in Kazakhstan (Kennedy and Nurmakov, 2010; Sakal, 2014).

Figure 8 – Regional GDP per capita
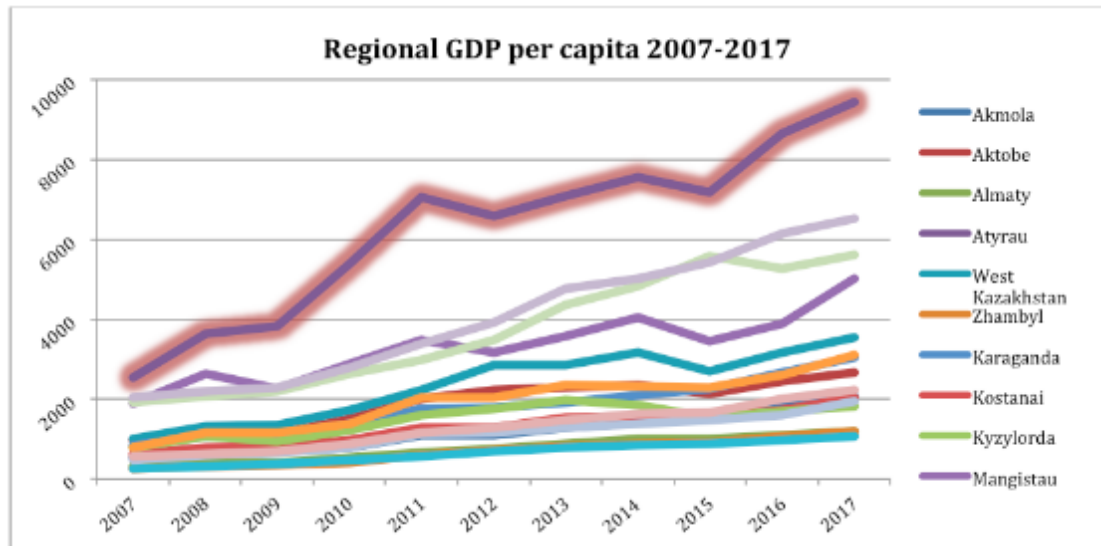
*Source: based on data from the Ministry for Economics of the Republic of Kazakhstan (*Ministerstvo Nacionalnoj ekonomiki, nd.) *[Atyrau is the top line, outlined in red]*

In this context, it is arguably unsurprising that regulators struggle to enforce environmental and other regulations that could adversely affect local jobs and salaries. As a result of the often unpersecuted environmental violations by the industry, life in towns and villages closest to the deposit fields had often become unbearable; the high sickness rates in Kulsary village and the closure of Sarykamys village have already been mentioned. In another example, in 2011, protests broke out against intolerable working conditions in the city of Zhanaozen, resulting in numerous fatalities (BBC, 2012). Similar examples have occurred in other oil producing regions in Kazakhstan. The above discussion indicates that the slow advance of economic conditions in Atyrau appears to indeed have strong negative impact on the *political will* to implement EP regulation. The impact of the absence of the *political will* on EP *enforcement* and *compliance* has already been discussed in relation to H4 and H5 and shown to be detrimental to effective implementation of environmental objectives. Discussed evidence can therefore be said to support H6..

Conclusion

A key observation of the above analysis is that the Kazakh central government lacks the *political will* to pursue environmental objectives. This is possibly why the main

hypotheses with potential impact on *political will* (as one of the three elements of the dependent variable) proved the most difficult to substantiate. INGOs, for instance, were shown to have little impact on the government's tolerance of the general non-profit sector as an environmental watchdog. More generally, there was insufficient evidence to suggest that civil society had any effect on the government's behaviour vis-à-vis environmental goals. Similarly, international organisations, institutions and agreements could not be conclusively shown to have positive impact on the Kazakh government's perception of the importance of the environment. As such, they do not appear to be able to affect *political will* in this sphere either. Kazakh elites remain resistant to international environmental values and maintain economic, political and social structures that prevent the application of international norms on the level of the individual.

The remaining hypothesis concerning Variable 1 (*foreign influence*), relating to the impact of foreign oil firms, proved weak for different reasons: these firms were not found to be particularly compliant or environmentally conscious. Interestingly, a 2017 report by WWF Russia rated the Kazakh national KazMuniaGas as the most environmentally responsible extractive firm in Kazakhstan, with TCO coming seventh (Knizhnikov, *et al.*, 2017). NCOC was excluded, probably because it does not share its data (Urbaniak, *et al.*, 2007). Nonetheless, the political tension between foreign oil firms and the Kazakh central government appears to have led to some positive developments, such as improvements to EP legislation. Its fervent use appears to have in turn attracted the attention of the firms' shareholders and on occasion led to some tangible environmental improvements. However, evidence is too inconsistent and therefore unsuitable for building generalisations.

Without *political will*, the factors tested by the two hypotheses on *state capacity* (H4 and H5) were found necessary but insufficient in closing *implementation gaps*. In recent decades, *political* will at the highest level of government appears to have been aimed at sustaining economic growth by all means possible. The system of public administration that emerged around this central goal appears to use other policy areas, such as EP, as tools to support this central aim. This means that although environmental policy has been pursued quite aggressively, although unevenly, this exercise does not appear to aim for environmental goals. EP regulation has instead been used extortionately against foreign oil firms, failing to promote environmental compliance among them. In real terms, despite its many shortcomings (touched upon in preceding sections), Kazakh *state capacity* has been relatively high compared to many other post-Soviet states. However, without the *political will* to use it for its

intended purpose – to pursue EP – even higher state capacity could be hard-pressed to deliver meaningful environmental outcomes in Kazakhstan.

Underlying the above findings is the central government's pursuit of economic growth as its main aim. This factor dominates in what can be seen as a clash of economic and environmental policy priorities. Analysis of the last hypothesis, which deals directly with this issue by investigating *economic conditions*, supported the strongest relationship of all reviewed hypotheses. The *de facto* poverty in (almost mono-economic) oil-producing regions appears to motivate leniency in regulatory *enforcement*, with environmental conditions and overall quality of life continuing their degradation, testifying to the growing *implementation gaps* in environmental protection. However, the opposite relation cannot be proven: there is no guarantee that better local economic conditions would necessarily lead to better local implementation, since local implementation and enforcement stakeholders compete against national interests. A wider view of the H6 relationship might, however, be more instructive: *economic conditions* at the national level paint a picture of an unstable economic regime sensitive to external shocks and lacking a secure and consistent source of funding for government spending. This is likely the reason for low *political will* to pursue post-material policy objectives such as EP, which in turn drains meaning from *state capacity* despite its improvements, as discussed in relation to H4 and H5. Once profit oil from the slow Kashagan project begins to flow in earnest, and the state starts to feel more economic stability, it may finally have time and freedom to pursue at less immediate policy goals.

Chapter 7. Empirical analysis: Baku-Absheron, Republic of Azerbaijan

Introduction

This chapter examines the case of Azerbaijan – a small, oil-rich state on the Western coast of the Caspian Sea, and in many ways a country of extremes. Azerbaijan's real GDP has shot up from -23% in 1993, during a recession following the collapse of the USSR, to a peak of 34.5% in 2006. Gross National Income per capita also rose substantively, before falling again into negative figures in 2011 and 2016 (World Bank, nd., c). Despite these fluctuations, in the same period of time the country made strong progress in reducing poverty and inequality, and raising human capital and general public service provision (UNDP, nd.). The economic and welfare objectives of the Azeri government have also been supplemented by some post-materialist goals, including the pursuit of environmental protection (EP). Azerbaijan's EP legislation has improved over the decades and the Ministry of Environment and Natural Resources (MENR) was formed in 2001, and has grown in size and scope since. However, despite these formal developments, there has been limited success with environmental policy implementation (EPI).

In solving the puzzle as to why this is the case, this chapter begins by presenting relevant background details before moving on to the analysis of the hypotheses in the *results* section in relation to the Azeri oil industry, most of which is located on- and off-shore of Baku-Absheron region as indicated in blue in Figure 9 below. Here, analysis reveals that the *political will* to pursue EP implementation remains low in the country and that, accordingly, those factors (pursued in variable one) that could influence this part of the dependent variable have not shown the expected impact. In turn, factors that focus on *state capacity* (variable two) to enforce EP and incentivise compliance by oil firms are indicated to be necessary, but insufficient in closing *implementation gaps* (dependent variable). Only variable three, on the relationship between *economic conditions* and *implementation gaps*, is fully supported, although it has been difficult to make conclusive observations given the paucity of data that is available on the environmental damage in Azerbaijan. The last section concludes by summarising findings.

Figure 9 – Baku-Absheron region (ACC, nd.)

Background

Political context

The inconsistency in economic performance mentioned above is to an extent reflected in the political settings in Azerbaijan, but in the sense that there appears to be a significant disparity between official discourse and reality. Officially, Azerbaijan is a presidential democracy based on the rule of law, although most international observers class it as corrupt and authoritarian. A closer look at this seeming paradox highlights the gap between formal and informal processes in the country, and reveals that formal institutions do not necessarily convey the power structures within the society. Instead, power lies in informal organisations and politics centred around powerful families, or clans, that defy and transform formal institutions as perceived and conceptualised by First World principles and processes (Collins, 2004). Consequently, although Azerbaijan has many of the formal institutions one would expect to be present in a democratic state, there is often little observable Western-style democracy in practice.

A brief glance at Azerbaijan's experience in the early 1990s, immediately following its independence, reveals some of the roots to the harsh regime currently in place. With the USSR's collapse, the ethno-territorial conflict over the Nagorno-Karabakh region that escalated between Armenia and Azerbaijan towards the end of the USSR was no longer suppressed and spilled into violence. 20% of Azeri territory (UN, 2018) became occupied by Armenia and 10% of the ethnic Azeri population was displaced as a result (UNDP, nd.). The consequent discontent of the Azeri elites with the leadership's

performance led to the termination of four presidencies in short succession, making the post of the President of Azerbaijan both unappealing and uncontested. In the aftermath, the Aliyev family took over presidency without opposition in 1993 and has since intensified autocratic practices in the country in order to ward off risks of repeat political events of the early 1990s (Kendall-Taylor, 2011). A series of constitutional amendments over the last three decades have continuously increased the powers of the president, essentially granting the post holder unchallengeable tenure.

These political developments seem to have become tied ever closer to economic conditions in the country and this, in turn, can help explain the most recent political events. On the one hand, the strong, highly centralised political decision-making in Azerbaijan allowed the state to single-mindedly (and largely successfully) pursue economic development in the country. On the other hand, increasing authoritarianism has inadvertently made the political regime more sensitive to economic events. Economic shocks seem to be increasingly likely to be followed by political repression so as to suppress real and imaginary risks of unrest. For example, the latest devaluation of *manat*, the Azeri currency, and the start of economic recession in 2016 (Luntumbue, 2017) were followed by repressions against Government critics (Human Rights Watch, 2017; Kavkaz-Uzel, nd.; Genin, et al., 2017). The severity of these led to the Extractive Industries Transparency Initiative (EITI) suspending Azerbaijan's membership in 2017 and CIVICUS (2018) downgrading Azerbaijan to a "closed" regime in 2018.

Industrial development and environmental impact

Azerbaijan has numerous environmental problems. As the cradle of oil extraction and a key oil supplier to the USSR (UNDP, nd.), Azerbaijan has accumulated some of the world's oldest and dirtiest oil facilities and infrastructure as well as severe associated environmental damage (Bektashi and Cherp, 2002; ADB, 2005). Apart from the extraction of hydrocarbons, the USSR also developed various light and heavy industries in Azerbaijan, including machine building, oil refining, petrochemistry and metallurgy, and these contributed extensive pollution of their own. Aside from the Soviet legacy, there are other on-going environmental problems. For instance, severely polluted rivers flowing into Azerbaijan are its only source of freshwater (Suleymanov, *et al.*, 2010), yet water purification facilities are still insufficient. As a result of such challenges, the Baku-Absheron region, which hosts the capital city and most of the

country's industry and population, is one of the most polluted locations in the former Soviet space (CRTC, 2003 cited in UNEP/GRID-Arendal, 2007).

Most of the industry mentioned above was, however, created and geared to the needs of USSR republics other than Azerbaijan. Although this was not uncommon in the Soviet Union, the Azeri economy was affected more than most other regions. This meant that once the USSR was no more, and the demand for goods produced in Azerbaijan disappeared almost overnight in 1991, the economy came to a standstill. Independence, therefore, necessitated a large degree of economic re-invention, but the country had no means to pursue this alone and was therefore in need of foreign direct investment (FDI) (ADB, 2005). Once welcomed, FDI flooded into Azerbaijan in the 1990s. However, foreign donors were primarily interested in Azerbaijan's oil and most of the investment was directed into this industrial sector. This sector therefore developed far quicker than others.

The key oil milestones included: the Contract of the Century (see next section) in 1994; the start of production at Azeri–Chirag–Gunashli (ACG), Azerbaijan's richest oil fields, in 1997; and the commission of the Baku-Tbilisi-Ceyhan (BTC) pipeline in 2006, taking Azeri oil to the Mediterranean sea and European markets. Thanks to these developments, the Azeri economy recovered quickly and GDP remained consistently high between the late 1990s and early 2010s (UNDP, nd.). This fuelled extensive developments in physical and social infrastructure and gave rise to construction and services as relatively strong economic sectors in the country.

Current hydrocarbon industry

Oil and gas are the main industries of Azerbaijan. The smallest of five littoral states sharing the Caspian Sea, Azerbaijan controls over 30% of all offshore Caspian oil deposits (Gasimov, 2018). Most of Azerbaijan's oil wealth lies within the ACG offshore fields, operated by BP on behalf of the Azerbaijan International Operating Company (AIOC) consortium. AIOC has the oldest Production Sharing Agreement (PSA) in Azerbaijan – signed in 1994 and termed the Deal or Contract of the Century. Under its terms, BP (AIOC's operator) extracts 75% of all Azeri oil (EIA, 2016) and the State Oil Company of Azerbaijan Republic (SOCAR) – 20% (the remaining 5% is extracted by other foreign firms). In 2017, AIOC signed a 25-year contract extension.

Oil exports from Azerbaijan increased sevenfold during the 2000s (ibid.) thanks to the AIOC's construction of the BTC pipeline. BTC takes 80% of Azeri crude oil output to

Europe, making Azerbaijan the EU's 7th largest supplier in 2006 (Eurostat, nd.). These developments increased Azerbaijan's geopolitical importance as a gateway between Europe and Central Asia, and as a competitor to Russia. Neighbouring countries also use Azerbaijan's BTC terminal to transit their hydrocarbons to Europe. A potential BTC extension (Putz, 2018) to Turkmenistan would also increase Europe's supply of natural gas, thus further increasing Azerbaijan's importance in Europe's pursuit for energy security.

Environment

Despite Azerbaijan's economic development, the country's progress in solving its environmental problems has been modest. Azeri health statistics are telling as to the consequences of such limited improvement: populations in oil producing regions continue to suffer from abnormally high rates of cancer (IHME, nd.) and other serious illnesses (Zilberman, 2018), commonly associated with oil contamination (EPC, nd.). In terms of flora and fauna, Azerbaijan is one of the global environmental hotspots[21], which places international (if non-binding) obligations upon the country to protect its environment.

There is a striking paucity of primary and secondary data as to the existence of environmental issues, especially as a result of oil extraction, and their change over time. As a result, it can be difficult to ascertain whether EP exists and whether it has been improving or deteriorating. The impact of oil works on human health as outlined above are, however, a useful proxy and a clear indication that severe issues continue to exist. A few other pieces of data are also available from reports published by international financial and developmental institutions (IFIs and IDIs) on the results of any environmental projects they have funded in the country. However, these tend to be very specific and cannot be pulled together into a coherent representation of the state of Azerbaijan's environment at any one time or over a period of time. Although these data are utilised in the following, given their inconsistency, the analysis in this chapter is to a great extent guided by the perceptions and interpretations of the state of affairs as offered by interviewees. In some instances where data on actual impact are particularly scares, analysis focusses instead on the likelihood of such impact.

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[21] The world's biologically richest yet most endangered terrestrial ecosystems.

History of environmental regulation

Legislation

Much of Azerbaijan's environmental legislation has been replaced or updated since independence, often by directly incorporating commitments from international agreements or recommendations from international advisers, including IFIs and IDIs. However, domestic legislation has not always been either harmonised or synchronised with borrowed legislation. As a result, the sphere of environmental law remains incomplete, internally inconsistent and poorly formulated in many spheres (ADB, 2005). For example, two methodologically incompatible frameworks for assessing environmental impact are simultaneously in use in Azerbaijan: the Soviet State Environmental Expertise (SEE) and the internationally recognised Environmental Impact Assessment (EIA) (see H4 discussion for details). Meanwhile, some important areas remain unregulated. Azerbaijan's inconsistent approach to its environmental policy failed to provide a clear strategy or exhibit understanding of the institutions, processes or order of tasks required to deliver effective environmental protection. This perpetuated significant barriers to policy implementation. Consequently, in 2005, the Asian Development Bank (ADB, 2005: xv) observed that "Despite the flurry of strategic output" on EP, not much has been actually achieved, and the same appears to be true of the 2010s.

Implementation

In 2001, the Ministry of Environment and Natural Resources[22] (MENR) was pulled together from pre-existing structures mostly left over from Soviet times. Over subsequent years MENR's scope and powers extended as it worked with other Ministries and government agencies in protecting the environment. Yet, coordination between them remains low (Aliyev, *et al.*, 2011; UNECE, 2011), marked by duplication of responsibilities (see Appendix G), conflicts of interest and low capacity for monitoring environmental impact (ADB, 2005: xiv). Enforcement of regulation still rests on self-reporting by polluters, despite inadequate legislative guidance to polluters on how to measure their environmental impact (UNECE, 2011; intrv. 15). As a result, data submitted to the regulators are likely biased and non-comparable. Improvements to MENR's capacity have been slow (Aliyev *et al.*, 2011: 16; UNEP, 2015), partially due to the rampant corruption across all branches of government (Zilberman, 2019), which

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[22] MENR's responsibilities on 'natural resources' relate to the sustainable use of resources in forestry and fisheries, and mitigation of the effects of mining in the extractive sector.

appear to favour suppression of public knowledge about environmental transgressions over their resolution.

Results

Explanatory variable 1 - Foreign influence

Hypothesis 1: The greater the presence of international advocacy groups within a region, the smaller the implementation gap.

The western format of NGOs – with grassroots membership, society-wide donations and engagement in political campaigning – is still fairly foreign to Azerbaijan, according to an INGO interviewee (intrv. 14). Public trust in the non-profit sector is limited to what could be better described as "social associations" or funds, which tend to function as an extension of the State, in a sense that their purpose lies in the provision of social services that the state cannot provide or does not wish to be seen providing (ibid.). These associations have been traditionally funded by the state, but are not perceived as part of the state by the general public or by government structures. Many of the non-profit organisations that exist today still function within this framework. In the environmental sphere, these bodies usually focus on informing the public of the natural beauty in their country and promoting individual responsibility, such as not littering, preventing poaching, and other non-politicised issues. This was the picture in Azerbaijan and other communist Republics of the Soviet Union. Whereas a number of FSU countries have moved on from these conceptualisations of 'civil society' towards Western models since independence, Azerbaijan had at first followed a similar trajectory, but appears to have almost entirely reverted to the pre-independence conceptualisations in recent years.

The brief period of civil society renaissance – approximately between the late 1980s and mid-to-late 2010s – is the focus of this section. More specifically, Azerbaijan saw the birth of a civil environmental movement in the late 1980s, which, unlike non-profit structures in other spheres, openly criticised the government. As such, the Azeri environmental movement, established and led by Azeri citizens, was the first instance of the Azeri civil society to approximate the traditional western NGO concept. This movement eventually solidified into the Green Movement – established in 1988 and fully registered (with the Ministry of Justice of Azerbaijan) as an environmental NGO (ENGO) in 1990. Today it is the oldest ENGO in the country. A few other NGOs were

also established in that time, but most did not survive the 1990s. At that time all organisations formed by the civil society remained state-funded.

The fall of the Iron Curtain in 1991 brought seemingly endless foreign funding for non-profit organisations. Existing ENGOs saw this as a pathway towards political independence. Foreign donors also brought about a surge of new ENGOs and this paralleled a proliferation of new NGOs also in other spheres, such as on civil rights. Many international NGOs (INGOs) also opened branch offices in Azerbaijan to work directly with local target groups. However, the government crackdown on civil liberties and organisation in the second half of the 2010s saw many of the INGOs exiled from the country and INGO funding to local ENGOs was also disrupted, thus largely bringing an end to INGO influence in Azerbaijan. The following discussion examines what impact INGOs had on EP implementation gaps in this short window of time that they had access to the Azeri society.

INGO funding and existing ENGOs

Before INGOs' arrival in Azerbaijan, local ENGOs like the Green Movement by necessity had cooperative relationships with the state (since the latter was their only source of funding). Interviewees indicated that this arrangement produced incremental but tangible improvements in EP in the country, even though ENGOs would have preferred faster progress. They hoped that switching from state to INGO funding would allow them to become more independent from the state. On the one hand, INGO funding made this possible – it gave Azeri ENGOs opportunities to pursue some of their own projects, which the state would not (or could not) fund. On the other hand, the state appears to have interpreted ENGO-INGO cooperation as treason (intrv. 4): information sharing that naturally took place between ENGOs and INGOs is said to have been perceived by the state as a leak of state secrets pertaining to the seriousness of environmental problems in the country. As a result of these perceptions, ENGOs found themselves in active opposition to the state, which, according to an interviewee from one such old-school ENGO (intrv. 4), reduced what little influence ENGOs enjoyed over EP under the previous more cooperative arrangement.

The interviewee implied that these perceptions, harboured by the state, were also (at least partly) responsible for motivating the eventual state crackdown on the civil society in Azerbaijan. This began with the introduction of new regulations that forced applications for INGO funding to be first reviewed by a special panel, which the

Government used to veto such applications. This move was said to be aimed at forcing ENGOs to return to state funding and, therefore, influence or to snuff them out. The state then became increasingly less tolerant of criticism. The re-established relationship between the state and the remaining ENGOs was therefore even less productive than that prior to the INGOs' involvement. INGO interaction with Azeri ENGOs therefore seems to have inadvertently reduced the latter's already limited capacity to affect EP implementation.

At the same time, the ENGO-INGO relationships were not always productive even before the state hardened its approach to INGOs and their perceived agendas. For example, one old-school ENGO member recalled submitting an application to WWF, which was turned down but later presented as WWF's own idea and taken forward without the interviewee's involvement (intrv. 12). The interviewee stated that this experience demotivated them from putting forward further projects. Such examples can have serious detrimental impact on potential EP improvements because locally sourced ideas, that are often based on extensive local knowledge, are often most suited for resolving local and nation-wide policy issues.

INGO funding and new ENGOs

A multitude of new, small ENGOs were established with foreign funding as soon as it became available. In fact, foreign funding was often only available for new NGOs, thus encouraging their formation. However, in line with Hamilton's (2000) and Henderson's (2002) findings in the broader post-Soviet space, most of these were ephemeral. They often consisted of a single individual and were entirely dependent on foreign funding and foreign ideas for projects. Eventually but inevitably this type of ENGOs withered away (intrv. 1). Interviewees with current and former strong ties to the Azeri environmental movements (intrvs. 4, 7) explained that this was because the founders of such ENGOs often used foreign grants to "realise own ambitions, for additional work, as a way to travel abroad, [and] some as a source of additional income". These ENGOs' true contribution to the pursuit of environmental goals is therefore questionable and they did little to improve public trust towards the sector.

The end of INGO-ENGO cooperation

Returning to the present day, similarly to the situation in other post-Soviet countries (Herd, 2005; Horvath, 2011), the Azeri Government's increasing distrust of INGO-ENGO ties eventually led to the Government labelling "virtually all [domestic] NGOs supported by foreign donors as enemies of the state" (Genin *et al*., 2017). Many INGOs' offices were closed down, even those not ordinarily involved in political issues, such as Oxfam (intrv. 11), and an extensive "campaign of repression" (Genin *et al*., 2017) began against Azeri civil society as a whole, including against anyone in the media with an active interest in oil-related corruption (Aslanli, 2018). Laws were introduced to channel all foreign grants and their allocation through a Government-controlled fund (see Appendix G for all restrictions).

This severely damaged the civil society's capacity for positive influence on the implementation of environmental goals as they again became dependent on Government's mercy. Criticising the state in Azerbaijan became equivalent to "a nail in the coffin", commented a former MENR employee (intrv. 2). When asked about currently active, effective ENGOs, interviewees across sectors were hard pressed to name any, at most only naming a handful of individuals, rather than organisations (intrvs. 1, 2, 7, 8, 9, 13, 15). A former MENR adviser, who continues to keep a close eye on the situation, commented that the remaining activists and their organisations are now "entirely under the Minister's [of Environment] influence":

> "They are housebroken. They reveal only those superficial, factual violations that the Minister himself allows.... They have now for a long time not played the role they are supposed to fulfil" (intrv. 2).

Interviewees in other research were of a similar opinion (intrvs. 2, 11, 13; interviewees cited in Öge, 2014).

INGOs and the Azeri state

The impact on the civil society is clear: the civil society has become fearful of talking of oil-related environmental issues and can no longer be expected to take a lead in this sphere. During research, all but one approached interviewees from international organisations with offices in the country avoided research questions or outright refused to answer them. None have any projects on oil-related pollution or would say anything about oil. All interviewees from other sectors who voiced any criticism of the Government, and even some who didn't, asked for complete anonymity. An

interviewee from Crude Accountability (CA) (intrv. 21) experienced similar behaviour during their research in Azerbaijan in 2015, commenting: "to me, that speaks of fear". Recognising the impact of INGO-ENGO relationships on members of Azeri ENGOs, CA and other INGOs appear to have chosen to refrain from visiting the country and/or now staff their Azeri offices only with locals.

With regard to the latter approach, one INGO interviewee (intrv. 14) explained that it can make the state less suspicious of foreign political influence and improves cooperation between parties. However, this choice limits INGOs to strictly cooperative relationships with the host government. Doing otherwise could risk the safety of their Azeri staff, who, being local, have much to lose. For the same reason, INGOs with locally staffed branch offices in Azerbaijan might choose to play along with the Azeri government's wishes, in contradiction to their top management's objectives. An ENGO interviewee (intrv. 4) even accused the latest head of local WWF of being a yes-man. Similar sentiments were voiced by other interviewees (intrvs. 2, 5) about current and previous heads of multinational organisations' offices in the country. As such, it seems that INGOs have lost leverage to work on Azerbaijan's environmental issues within and outside the country.

Conclusion

What is perhaps most striking about the above discussion is a lack of positive examples of what INGOs were able to achieve before the change in the state's attitudes. This is because interviewees did not offer such examples, which may indicate that such examples were few and far in-between. Considering other sources' assessment (see Background section) that little progress has been made on EP in Azerbaijan, this conclusion is arguably plausible. In turn, the inability to make conclusive observations on INGOs' impact signals another issue, which has been touched upon in the introduction and continues to crop up in the following sections of this chapter. This issue is the lack of data on the oil industry's environmental impact. As already indicated earlier in this section, the Azeri government does not like such information being publicly available and seems to have done well in hiding it.

Returning to H1, interviewees' contributions were dominated by accounts of the government's negative treatment of domestic ENGOs as a result of foreign involvement. This implies that INGOs have very limited opportunities to have a positive impact in authoritarian countries like Azerbaijan. In comparison, the risk and

consequences of negative impact appear to be very high. This relates to both the domestic civil society in its pursuit to hold its Government accountable and to the goals of the INGOs themselves in doing the same.

It is not, however, possible to conclusively ascertain what would have happened to EP implementation gaps should INGOs and their funding never enter Azerbaijan. The state's increasing fearfulness of outsiders and the general public finding out the true extent of environmental problems within the country signals that the regime is becoming fragile and this reflects observations being made elsewhere in the literature (for example, Meissner, 2018). The ruling elite appears to have become increasingly worried about losing power and therefore increasingly intolerant of anyone trying to bring its skeletons out of the closet. This context arguably precludes meaningful positive impact by entities whose purpose is to expose problems – whether in a cooperative or confrontational manner. In light of this, there is insufficient evidence to support Hypothesis 1.

Hypothesis 2: The greater the presence of foreign oil firms within a region, the smaller the implementation gap.

It is commonly argued that domestic oil firms in developing and transitional countries are inferior in their technologies, practices and organisational cultures to the world leading foreign oil firms (FOFs). On the basis of having access to better resources, FOFs are said to be more capable of complying with international and local environmental (and other) regulations. In practice, foreign firms have shown that they certainly have more money to pursue big projects that are unattainable for local oil firms. This was the case with the large ACG oil field complex in the Azeri offshore, developed by BP on behalf of the AIOC.

Overall, interviewees' assessment of BP's activities in Azerbaijan is that it could be better at complying with local and international standards, but that BP is better than SOCAR for the environment (intrvs. 2, 4, 7, 8, 11, 12, 13, 17). An ENGO interviewee assessed that "of all foreign firms that have worked in Azerbaijan, BP has been the cleanest" (intrv. 4) and an interviewee from within the industry commented: "foreign oil firms do far more than what is expected of them" (intrv. 8), including the use of Environmental Impact Assessments (EIA) despite Azeri law not requiring it (intrv. 13). BP has also been credited with encouraging the government of Azerbaijan to apply for the EITI membership (Aaronson, 2011).

However, wider evidence shows that although FOFs like BP contribute towards the closure of EP implementation gaps, they do not necessarily comply with EP regulations in all instances. This section uses the case of BP and ACG to explore incidents of intentional non-compliance with Azeri and international environmental standards. It is shown that although BP has superior capabilities that might better minimise environmental risks, their corporate decisions can intentionally circumvent the host state's efforts to implement EP regulation.

Practices

BP has brought several new practices to Azerbaijan, which made it an obvious leader in EP compliance there. Furthermore, although BP does not directly share its policies with SOCAR, the latter has been successfully copying BP's behaviour. According to interviewees, watching BP encouraged SOCAR to adopt risk management and ISO[23] certification (intrvs. 7, 8), to create an environmental department tasked with environmental impact reduction (intrv. 4), and to start paying more attention to industrial safety (intrv. 17). Interviewees from the oil industry described this as "blind" copying, commenting that SOCAR adopted these practices because they seemed prestigious, but without understanding their purpose (intrvs. 7, 8). However, with time SOCAR is said to have started to understand what the assimilated practices are and why they are useful (ibid.). It might be too ambitious to say that SOCAR is already as advanced as BP, as interviewees close to the government have done (intrvs. 12, 20), but interviewees from SOCAR's partner firms admit that SOCAR is improving with time (intrvs. 7, 8). An ENGO interviewee (intrv. 4) went so far as to indicate that SOCAR's worse environmental record today might be better explained by the old facilities and infrastructure it inherited from the Soviets, rather than by differences in practices between SOCAR and BP.

Some of BP's practices, however, cannot be adopted by SOCAR due to their cost and therefore continue to benefit only BP with indirect negative effects for EP implementation in terms of SOCAR's capacity for EP compliance. This includes, for example, BP paying their staff higher wages (intrvs. 17, 18, 19), in order to attract and retain the best talent in the country. Consequently, many MENR and SOCAR employees, especially younger staff that speak other languages, have moved across to BP (intrv. 4). This has an indirect but an important consequence on the firms'

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[23] A family of international standards related to environmental management.

respective ability to comply with EP laws. The brain drain is transferring the best skills and knowledge of the local conditions into BP, raising its already high capacity for compliance. In terms of infrastructure, BP manages only 8 platforms, the oldest of which is approx. 20 years old (Offshore Technology, nd., b). By comparison, SOCAR manages smaller 193 platforms, the majority of which are at least 20 years older than those of BP (Bagirova, 2016). Facilities at many of these are said to be literally falling apart under age (critics cited in Marex, 2016), harsh weather conditions and the aggressive qualities of the Caspian hydrocarbons. These are the conditions mentioned by the ENGO interviewee (intrv.4) in the previous paragraph. SOCAR therefore faces much tougher barriers to compliance and is in much greater need of good staff to help bring about and deliver the environmentally-friendly innovations it is adopting from BP. Although SOCAR's capacity for compliance has been growing, it can be said that BP is slowing down that process.

Image

Arguably, the most important practice that BP has passed to SOCAR, if indirectly, is the realisation of the importance to look after one's international image / reputation. As explained by a local researcher (intrv.13), the government of Azerbaijan desires for everything about the country to be seen as "an expensive international brand", comparable to the USA. SOCAR is said to have started realising that to be internationally competitive in that way and to cultivate a positive international image of Azerbaijan, SOCAR must look the part (intrv. 11). This desire – to appear equally modern to its international oil firm competitors – is what seems to be driving SOCAR's indiscriminate copying of BP's practices described above.

Such behaviour usually relates to positive practices, and SOCAR's copying of these therefore tends to have a positive impact on EP compliance in the Azerbaijan's oil industry as a whole. However, BP has also displayed some less admirable behaviour, with potentially very high negative impact on EP in the country, as well as some potential to reinforce SOCAR's poor practices. The example in question is of whistle-blowers coming forward to reveal that BP did not develop legally required accident prevention measures, that it suppressed its staff from reporting problems to regulators and that the BP's top management broke its legal and contractual obligation to report on-going problems to regulators, shareholders and partners alike (The Guardian, cited in Reuters, 2010; Palast, 2012a, b).

In 2008, the situation culminated in a blowout, halving Azerbaijan's oil exports and damaging revenues for several months (Azerbaijan Green Party leader, cited in Khalilova, 2010). After the incident BP, in collusion with Azeri and American governments and oil partners, was said to continue to illegally conceal the true causes of the incident. BP's misconduct came to light two years later, when whistle-blowers started to come forward to explain what "really" led to the Deepwater Horizon catastrophe and drew parallels in BP's behaviour at the Caspian and the Gulf of Mexico platforms (Palast, 2012a, b). An ENGO interviewee explained that the only reason Azerbaijan avoided a similar spill is because, at the design stage (back when the original ENGOs and the Azeri state were still on good terms and worked together) ENGOs insisted that BP should include manual as well as automatic controls, which was not done in the Gulf (intrv. 4).

The above implies that FOFs are not averse to intentionally avoiding compliance and concealing the deed. Perhaps more worrying is the collusion between BP and Azeri and US governments in the concealment, given the high negative impact of such behaviour on EP implementation. At the same time, such behaviour by reputed international actors could be easily perceived by SOCAR as validation of its own non-compliance as acceptable in the international oil community, with potentially severe consequences for EP compliance within the industry.

Changes over time

Whereas domestic oil firms in Azerbaijan are subject to the latest environmental legislation in the country, FOF are often subject to the more relaxed rules that were agreed when their PSAs were first signed. The terms of the PSAs can therefore serve as a barrier to successful implementation of improving requirements. For example, as cited by a local NGO, BP's PSA with Azerbaijan limits official monitoring of BP's operations and obstructs public access to environmental data (Khalilova, 2010). This in turn also contradicts Azeri government's commitments under the Aarhus Convention, and reveals another reason for Azerbaijan's poor record in meeting its international commitments.

Interviewees from the industry confirmed that for decades FOFs hid behind their PSAs, "thinking they can do anything they wanted and did not bothering to learn national legislation" (intrvs. 7, 8). An interviewee that was among the first to work with FOFs in the mid-1990s voiced a similar sentiment, commenting that FOFs:

"behaved disgustingly with local staff and with Azeri government and law. They believed they could do anything they wanted... They tried to dictate their own conditions to the Government... BP was marginally less bad than the American firms [who] behaved monstrously" (intrv.14).

Interviewed researchers explained that the FOFs were able to secure the PSA terms that allowed such behaviour on their part as a result of a race to the bottom among resource-rich post-Soviet states in the aftermath of the USSR's disintegration. Suffering from collapsed economies, the newly formed states competed with each other for desperately-needed foreign investment by lowering environmental and other requirements (intrvs. 11, 13). The FOFs could therefore be said to have taken advantage of the host countries in this context, insulating themselves against necessary compliance with developing EP.

However, it should be noted that there is a difference between environmental performance of a firm and its compliance with environmental regulations. For instance, environmental performance might be high even though compliance with official regulations is low. This is because 'performance' is a more encompassing term, which could reflect far more practices and behaviours that, perhaps inadvertently, have positive indirect effects for the environment. For instance, some better health and safety practices and better maintenance requirements can help prevent accidental oil spills, but might not necessarily be reflected as requirements in EP legislation. At the same time, not all practices that are directly relevant to EP are adequately reflected in the Azeri law. The Environmental Impact Assessment, which is a common legal requirement in most developed countries, is one such example.

Whereas a significant number of interviewees had strong opinions regarding BP's unsatisfactory compliance with EP legislation, the majority had positive overall views on BP's environmental performance. However, several interviewees indicated fears that the aforementioned brain-drain of Azeri staff into BP might decrease BP's EP performance (Intrv. 7,8,11,14,21). They explained that foreign staff were able to think 'outside the box' to a greater extent than local equivalents. Accordingly, when BP was mostly staffed with foreigners, the firm was said to at least have the capacity, if not necessarily the motivation, to comply with EP regulations. However, the assimilation of local values that accompanies a large intake of local staff is said to be "SOCAR-ising" (intrvs. 7, 8) and "Azerbaijanising" BP (intrv. 11).

Conclusion

While FOFs like BP might have had superior technologies and practices at the point of entering Azerbaijan, SOCAR is fast catching up to international standards. In comparison, BP is seen as having shown strong environmental performance, if not necessarily legal compliance, but is now feared to be losing its leadership on EP performance. As such, the difference between FOF's and SOCAR's capacity for regulatory compliance appears to be closing. The greater official rhetoric on the part of BP about the importance of EP could suggests that BP has a stronger will to comply with regulations than SOCAR, although the above discussion does not necessarily indicate that this is necessarily the case in practice. As such, the example of BP in Azerbaijan suggests that there is insufficient evidence to support the view that FOFs are necessarily and unequivocally more legally compliant than domestic oil firms in transitional contexts or that they therefore have a necessarily positive effect on the implementation of EP regulations. On this basis, there is weak evidence to support H2.

Hypothesis 3: The greater the exposure of local agents to transnational elements, the smaller the implementation gap.

Testing for changes in public pressure on the government is arguably unproductive in resource-rich countries, where governments can remain independent of their people by surviving on resource profits instead of taxation. This hypothesis therefore instead tests for the potential changes within Azeri elites and individuals – that work within EPI structures or in oil firms – as a result of greater exposure to new ideas. The following discussion explores whether such exposure fosters a greater understanding of the need for EP, leads to the internalisation of green behaviours (Kendall-Taylor, 2011), and fuels a willingness to step up implementation. To do so, this section analyses the effects of Azerbaijan's commitment to uphold binding and voluntary international environmental norms, its engagement with foreign donors and the potential impact of western Higher Education (HE). The following discussion indicates that the Azeri society has little appetite for change and that its institutions limit the opportunities for – and impact of – norm diffusion. The hypothesis, therefore, is unsupported.

International obligations

As observed by Xiaoyu (2012), emerging states wish 'to be accepted as a normal country in the international society' and often perceive the absorption of international norms as a pathway towards this. In line with this view, transitional countries often commit themselves to a multitude of legally binding international agreements. This also happened in Azerbaijan, and the country reflected many of its new commitments as domestic legislation. However, according to an Azeri environmental law specialist (intrv. 15) and literature (Markedonov, 2009), this was mostly a 'copy and paste' exercise, pursued not because the government of Azerbaijan understood or valued proposed standards, but due to a perception that it was prestigious to formally adopt them. The exercise was therefore done without forethought or, likely, intention for implementation. For example, Azerbaijan acceded to both 1969 and 1992 International Conventions on Civil Liability for Oil Pollution Damage (CLC), but by 2018 had not yet updated all domestic standards in line with even the 1969 CLC, nor signed up to the 1992 Fund Convention, which plugs gaps in 1992 CLC (Gasimov, 2018). A series of other legally binding conventions met a similar end (European Commission, 2008; Gasimov, 2018), including the Aarhus Convention[24] with the Aarhus Centre being placed within MENR. According to an ENGO interviewee, this placed the Centre under MENR's control, contradicting the Convention's purpose (intrv. 4)*.*

Voluntary obligations did not fare better. For instance, Azerbaijan avoided realising any meaningful reform under its EITI[25] commitments (Benner, et al., 2010; Cornell, 2011; Sovacool and Andrews, 2015) despite achieving full formal compliance. For example, a multi-stakeholder group (MSG) between the government, firms and the civil society was established, as required under EITI in order to make decision-making in the hydrocarbon sector more transparent and accountable. Yet, the MSG was dominated by the two former groups and met too rarely to serve its function (Wescott, *et al.*, 2014). The increasing deterioration of Azerbaijan's civil society in recent years further diminished the role of the civil society within the MSG, making the exercise meaningless. In 2017, Azerbaijan chose to withdraw from the EITI altogether instead of improving compliance (EITI, 2017).

Exposure to values, therefore, does not appear to have led to their adoption at the level of elites. This may be due to the Azeri government and elites coming to doubt that the

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[24] The purpose of the Aarhus Convention is to promote "access to information, public participation in decision-making and access to justice in environmental issues".

[25] An international tool designed to improve environmental and other types of accountability in the extractive industries by encouraging transparency and public participation in decision-making.

international community itself takes these values seriously, especially given the lack of progress in the Azerbaijan-Armenia conflict despite extensive foreign involvement. This particular issue is of great importance to the Azeri political leadership and may even be responsible for the lack of progress in other areas that are subject to norm diffusion, including EP. The example relates to a UN resolution calling on Armenia to withdraw from occupied Azeri territory. Although this resolution has existed for 26 years, Armenia's compliance has not been secured and no meaningful sanctions have been levied by the international community against it (Barber, 2015). In stark contrast, a range of substantive sanctions was quickly imposed on Russia for annexing a part of Ukraine in the 2010s. This situation can be described as hypocritical, and observers have indicated that Azeri leadership has felt betrayed by the international community as a result (ibid.). These developments appear to have stimulated a general public mistrust towards any agendas pursued by international institutions, including on EP, and this manifested sharply in interviews with ENGOs.

Furthermore, by failing to adequately penalise Azeri political leadership's non-compliance with its international obligations over the years, the international community has arguably shown Azerbaijan that compliance is not necessary. For example, the UN Human Rights Council protects the right to a clean environment. The most the Council can do in the event of non-compliance by a signatory state is request "the President of the Council to take all appropriate steps and measures, in accordance with his mandate, to urge the State... to resume its cooperation" (UN Human Rights Council, 2013: 2). As such, the organisations charged with enforcing international obligations lack the means for enforcement. Similar language can be found in other international agreements, leading to similar problems with securing compliance by signatories. Although these approaches have worked in stimulating compliance elsewhere, Azerbaijan appears to see the world differently and the events mentioned in the previous paragraph are likely to be the cause.

Furthermore, Azerbaijan does not appear to believe that any meaningful punishment ever could result from its noncompliance. According to an INGO interviewee, this is primarily because Azerbaijan believes that Europe needs Azeri oil for its energy security (intrv. 14). Europe is therefore perceived to fear that should it push Azerbaijan too hard, Azerbaijan could (re)turn to Russia (intrv. 14). The government of Azerbaijan arguably has firm grounds for believing this: despite continued non-compliance by Azerbaijan (UNECE, 2004: 50; UNECE, 2011: 19-20), representatives of transgovernmental and international developmental and financial institutions continue or even increase their investment into Azerbaijan and negotiate new deals (Human

Rights Watch, 2017; Huseynov, et al., 2016). This inadvertently supports Azeri government's behaviour.

Foreign financial and developmental assistance

Various international financial and developmental institutions (IFIs and IDIs) showed great interest in Azerbaijan as soon as they could access the country at the start of the 1990s. These included such organisations as the World Bank, the ADB and UN missions, as well as direct aid from individual countries, with several interviewees specifically mentioning aid and projects from the Scandinavian region. For its part, the Azeri government welcomed this financial assistance and was happy at the very least to give pretences of going ahead with conditions that were often attached to such aid and investment. However, once oil money became available and the Azeri government became largely self-sufficient, its attitudes towards the above donors began to change. In line with other academics' observations (Goldsmith, 2008; Nanda, 2006; Oge, 2014), a local researcher assessed (intrv. 13) that the government no longer had the motivation to fulfil others' conditions nor believed that it needed their assistance.

Realising this, donors increasingly chose to work with Azeri stakeholders other than the central government, such as SOCAR, local government, civil movements and research institutes. Together they often pursued one-off, non-politicised projects that shied away from either intentionally or accidentally portraying the Azeri state in a negative light, unlike the INGO-ENGO activity covered in the H1 section. For example, in 2012 the Global Gas Flaring Reduction (GGFR) initiative by the World Bank provided technologies, training, monitoring and other assistance to SOCAR to cut its APG flaring by 45% (World Bank, 2012). Such projects irrefutably brought substantial benefits to Azerbaijan's EPI.

However, international institutions' efforts appear to have had limited impact on the overall state of EP implementation in the country. For example, despite much effort to solve Azerbaijan's waste management with the help from numerous IFIs and IDIs, overall official statistics of successfully managed waste remained low. Toxic, solid waste continued to be buried (Aliyev et al., 2011: 21), dumped into lakes (Sim, 2017) or into the sea instead of being deposited at a specially created facility by MENR (intrv. 2). IFIs' and IDIs' other environmental projects show similar, often unsatisfactory results (UNECE, 2011; UNEP, 2015; World Bank, 2018). The reason for this – before and after the aforementioned change in the Azeri government's willingness to work

with IFIs and IDIs – has been attributed to the IFIs' and IDIs' fastidiousness in selecting which projects to fund and poor coordination between them. These factors are said to have led to piecemeal, incomplete or even counterproductive pollution alleviation, which could not bring meaningful and long-term results (Dreher, et al., 2011; ADB, 2005).

Another reason could be that IFIs and IDIs, much like the international agreements discussed above, lack the power to change the Azeri government's perception of the importance of EP. International institutions can help create or improve the means for improving EP implementation, but they seem powerless to influence the political will in the country to make use of these. For instance, UNECE's Shared Environmental Information System initiative (UNECE, 2015) required production and sharing of national pollution statistics, but the main polluters in Azerbaijan remain unmonitored and the severe problems they are causing in their proximity remain unaddressed (Zilberman, 2018).

Individuals as norm diffusers

In light of the indicated failures by external actors, the source of reform in resource-rich countries should perhaps be sought internally (Goldsmith, 2008), as many interviewees themselves suggested. Some (intrvs. 3, 13, 17, 18) expect this would come with time, as a natural consequence of economic development and a subsequent rise in the general population's expectations. An oil specialist (intrv. 19) nominated capitalism as the main driver of such change for its ability to incentivise environmental consciousness as a means to avoid the costs of potential incidents. A few interviewees denied that interaction with international actors can have any positive influence and others attributed visible change in cities to government policies (intrvs. 3, 5, 6, 10 and 12) aimed at raising environmental awareness, especially among children, and promoting individual responsibility about, for example, littering. However, by framing environmental issues as deriving from common, everyday actions of individuals, the government is likely intentionally drawing attention away from the much more significant environmental impact made by industries and corporations, such as oil pollution. At the same time, there is little education available for individuals about what role they could play in improving the environmental behaviour of these larger entities. A significant number of interviewees agreed that for that kind of knowledge greater

exposure to the world outside Azerbaijan plays a positive role (intrvs. 1, 4, 5, 9, 11, 13, 14, 15, 18).

Interviewees identified the emergence of a young, liberal-minded generation, which has undergone fundamental changes in attitudes as a result of greater internet access (intrv. 14) and HE opportunities in the First World. An Azeri researcher explained that these individuals "start to think about more details, including environment, than about their immediate, basic or self-centred needs… These people [can] become agents of change" (intrv. 11). Interviewees from INGO and legal profession agreed (intrvs. 1, 15). However, the question remains: "does knowing translate into acting?" (intrv. 13) and interviewees' answers imply that this is not necessarily the case. In the words of an INGO interviewee, when the reformed youth encounters the political realities of working back in Azerbaijan, they cannot put up with the "absence of initiative and suppression of creativity" (intrv. 14) and seek to escape. They either remain in the West, are snatched up by other developing nations for their Western education (intrv. 18) or, if returning to Azerbaijan, seek employment in private foreign firms (intrvs. 7, 8). In all of these examples, the reformed individuals take themselves out of the contexts that need changing.

Those that go into the public sector collide with the status quo, which rejects the change they bring (intrv. 11) and limits their opportunities to exercise learned norms. Lack of practice precludes complete norm internalisation and therefore an individual's ability to transfer them to others. At best, commented an ENGO interviewee (intrv. 4), these individuals reconcile own standards with contextual reality by remaining law abiding but refusing to rock the boat, leading to what an Azeri researcher described as "very incremental and perhaps inconsequential" societal change (intrv. 13). At worst, suggested interviewees from the oil industry (intrvs. 7, 8), reformed individuals come to accept the predominant culture of the public sector and revert to original Azeri values.

Conclusion

The logic of norm internalisation by the target rests on the diffuser's ability, at least in principle, to offer strong incentives for the target to complete their adjustment (March and Olsen, 1984). Norm internalisation also depends on the target's acceptance that the proposed adjustment is morally right and should be pursued (Börzel and Risse, 2003; Finnemore and Sikkink, 1998). The above discussion suggests that elites are coming to increasingly question the value of norms they are being encouraged to adopt

by the First World, whereas foreign and international institutions appear to have lost their ability, or at least their real or perceived (Gahramanova, 2009) will to provide strong incentives to stimulate change. Some successes have been identified, such as the reduction of APG flaring. However, although these are important accomplishment, they appear isolated, and not necessarily motivated by direct environmental concerns. GGFR initiative was arguably successful not because it was premised on the need to protect the environment, but because it stressed the uses of APG as free fuel if captured instead of flared. Such examples cannot support the argument that Azeri institutions are internalising a fundamental interest in the environment and its protection. At lower societal levels, reformed individuals have no power to influence the system around them to transform and either leave or (re)assimilate. On these bases, H3 is not supported.

Explanatory variable 2 - State capacity

Hypothesis 4: The better the quality of the environmental regulation for the oil industry, the smaller the implementation gap.

Interviewees from various sectors (intrvs. 7, 11, 18) explained that after independence, Azeri legislators attempted to improve Azeri environmental laws by replicating best practices from other countries. At the same time, this exercise was accompanied by a desire "to do everything at once and to do it well" (intrv. 15). In practice, this meant mixing everything together and legislating at great speed. This was done without the proper deliberation about imported laws (intrv. 7) or engagement with stakeholders (before or during implementation), who could have flagged to legislators potential and emerging issues with implementation (intrvs. 13, 14, 15, 17).

In the words of an INGO interviewee, the Azeri decision-making closely resembles a military system, in which the "generals work out the plan and it would be unthinkable to consult the captains" (intrv. 14). This approach has led to uninformed and incomplete (Dolowitz and Marsh, 2000) legislative transfer, producing a "short version" of other countries' laws, which are peppered with Western terms and concepts, such as "condominium", that often do not apply to Azerbaijan or whose meaning has not been explained either to implementers or the groups most affected by these laws (such as businesses) (intrv. 13).

Overall, the exercise has successfully plugged many holes in Azeri EP legislation and many interviewees (intrvs. 9, 11, 12, 13, 14, 17 and 18) agree that a passable, if not good, legislative base emerged on paper. Despite this, the capacity of EP law to change old practices has remained low due to its unimplementability (Aliyev, et al., 2011). The following discussion explores this relationship between quality and capacity to affect change before concluding that legislative quality is a necessary but insufficient condition for successful implementation.

Legislative integrity

It should not be surprising that the Azeri EP law uses legal terminology specific to the field of EP. What is surprising is that the law and its supporting documents often fail to explain what the terminology means, and therefore what the law entails. This applies even to sub-laws, whose function includes the clarification of terms, concepts and targets that are mentioned in primary legislation. Not only do the sub-laws often fail to fulfil this function, they are often absent altogether (UNECE, 2011). This strongly suggests that those involved in drafting the EP legislation do not themselves fully understand the meaning of the terms they are using. This could be a result of copying and pasting the EP legislation of other countries, whose contexts are different from that of Azerbaijan. If accurate, the above deduction could explain why primary laws' main purpose often comprises the allocation of responsibilities between subordinate structures, effectively pushing the task of clarifying the aims of the law down the governmental levels (intrv. 15).

The head of one ENGO explained that as a result, the public sector is overloaded, with implementers at all levels delaying implementation because they do not understand the reasoning (and therefore the goals) of the new laws (intrv. 16). In line with Sabonis-Helf's (2004) findings, the governing structures in Azerbaijan, as in the rest of the post-Soviet space, have a certain habit of waiting for clear instructions from the top before acting, instead of taking the initiative (intrv. 14). With the top itself seemingly unable to offer such instructions, the bottom levels continue to stall their implementation functions and are said to feel justified in doing so (ibid.). As an example of the consequences caused by the above approach, the 2001 Law on Protection of Atmospheric Air still had undefined standards and thresholds in 2014 (EaP GREEN, 2018). In a different example, although polluters are legally obliged to self-monitor and report their pollution to MENR, MENR does not set a methodology for polluters to follow for doing so (intrv. 15). Consequently, it is very difficult to validate individual

submissions or to aggregate them into national statistics, as they could be entirely incomparable. Similarly, the law providing for compensation from oil spills during the transportation of hydrocarbons fails to define application or set time limits during which compensation can be sought (Gasimov, 2018). As a result of such gaps, most behaviour could be shown as legitimate, making the concept of regulation meaningless.

A specialist in environmental legislation (intrv. 15) noted that "some glimpses of definitions" started appearing, thanks to Cabinet of Ministers' orders (CMOs) starting to introduce further international and social standards to address gaps. However, according to interviewees from the industry, no efforts were made to "reconcile different requirements" (intrvs. 7, 8), or to harmonise them with existing, national legislation. National legislation, international standards and social standards therefore coexist parallel to each other (intrv. 15). Subsidiary legislation, when it exists, often references standards from all three but without indicating which are the most suitable. In turn, this necessitates further, often fruitless, search for relevant legislative provisions (ibid.). The interviewee reflected: "[w]hat we have is some kind of legislative bureaucracy even within a sub-law… you go back and forth in a vicious circle", before summarising that "the very language of regulation is... very much in the way [of implementation]". An INGO interviewee similarly described subsidiary legislation as nonsensical (intrv. 14). As a result, the overall legislative quality is said to suffer greatly and has been labelled as "unfinished" (intrv. 7), "vague" (ibid.), "on-the-spot job" (intrv. 8), "ad-hoc" (ibid.) and even "dead" (intrv. 14).

Interviewees explained that this situation is a result of the legislators' lack of vision of what environmental goals they would like their regulatory framework to achieve. A local researcher explained that such a vision could be achieved only by people "that can think outside the box and have overseas experience" instead of by those usually tasked with the job in Azerbaijan: people who have "only Soviet vision, experience and education" (intrv. 11). As such, Azeri legislators appear to be copying Western laws without forethought of their purpose or where they would fit in the wider framework of the Azeri EP policy. This is probably why Azeri laws do not set targets (intrv. 15). As a result, new laws (and their objectives) do not integrate with the existing framework and are instead overshadowed by it (intrv. 15). Those that work with environmental legislation in the oil industry agreed that due to this approach, the effectiveness of the EP law "has largely stayed the same" (intrvs. 7, 8) instead of improving over the decades.

Slow progress

What unites most interviewees' complaints about Azeri environmental law is that its progress is continuously delayed by the Cabinet of Ministers and Milli Majlis[26]. As a result, this legislative sphere is seen as perpetually stuck in a "transitional form" (intrv. 15). The delays with finalising EP legislation could be due to the absence of bottom-up feedback channels (intrv. 14), and therefore delayed realisation that laws transferred from elsewhere do not necessarily apply to Azerbaijan (intrv. 11), or that they do, but fail to cover all eventualities (intrv. 5). In yet other instances, there are still no laws to regulate particular practices because competing interests among the elites prevent legislative documents from getting finalised. An interviewee from the Ministry of Emergency Situations explained that, as a result, new standards have yet to emerge, whereas the current Soviet standards have already become obsolete, creating a vacuum in useful EP regulation (intrv. 20). An ENGO interviewee (intrv. 4) offered the following example to illustrate this. The BP-operated Shah Deniz hydrocarbon field was discovered at the end of 1990s and, in accordance with its PSA obligations, BP created a Monitoring and Research Group comprising representatives from BP, SOCAR, MENR and Azeri Academy of Sciences. The group quickly fulfilled its purpose in developing a set of sound standards to cover all stages of Shah Deniz development but as of 2015, these had yet to be legislated.

The law on Environmental Impact Assessment (EIA) has been similarly delayed. If passed, it would replace the technocratic, Soviet-style State Environmental Expertise (SEE) and pave the way for the internationally recognised Strategic Environmental Assessment. If this happens, key stakeholders' influence on the hydrocarbon industries would become diluted, explained an ENGO interviewee (intrv. 4), suggesting that this may be why the transition was never completed. Drafted at the start of the 2010s, the EIA law is still under consideration (UNECE, nd.). Meanwhile, voluntary EIA has existed within the SEE framework despite their incompatibility, undermining the EIA's effectiveness (intrv. 15). Whereas the purpose of the EIA is to predict and prevent potential environmental damage in a transparent way, the SEE instead aims to test whether a project, as planned and projected, complies with environmental standards at a specific point in time, and bars public engagement. In other words, EIA is dynamic and open, whereas SEE is static and closed in nature; subordinating EIA to SEE undermines the goals of the former. Reflecting on this situation, a legal specialist commented that "when there is confusion like this, it is easier for everyone to escape

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[26] Azerbaijan's national legislature

responsibility and do things their own way" (ibid.). Such confusion might therefore be intentional.

Conclusion

The discussion in this section indicates that despite much work on Azeri environmental legislation, its quality remains insufficient and in instances unenforceable. There appears to be a direct link between poor legislative quality and poor implementation. However, it would not be prudent to deduce the existence of a strong opposite relationship. Were environmental regulations of higher quality, there is no guarantee they would lead to better implementation results if unsupported by a strong *political will* to see this happen. However, were better quality laws introduced, this in itself might have signalled improvements in the *political will* to pursue EPI. On the basis of available evidence and deductions, legislative quality could be said to be necessary for closing implementation gaps. However, it is recognised that the tested factor is not a sufficient, and that *political will* needs to improve in order for this legislative quality to produce a meaningful impact. At present, evidence in support of H4 is weak.

Hypothesis 5: The greater the quality of the environmental regulatory agency in the sphere of the oil industry, the smaller the implementation gap.

Despite the tone of the previous section, the most critical interviewees nonetheless insisted that Azeri environmental regulation could function "if only it were enforced" (intrvs. 9, 11, 12, 13). At the same time, MENR has made some notable achievements that could bring one to expect successful enforcement. For instance, since its creation, MENR's internal structure experienced surprising stability for a country in transition. Furthermore, while the biggest neighbouring countries abolished their environmental Ministries, the Azeri equivalent grew, created new agencies and got stronger:

> MENR "has started demanding implementation... BP is fighting against it and the very fact that BP has started paying fines is an indicator that the Ministry has gotten stronger. They are starting to realise their strength as a regulator" (intrv. 8).

There are a number of interpretations as to why this might be happening. For instance, industry interviewees (intrvs. 7, 8) ascribed this shift to general learning by the government. They noted that it can be intimidating for a new government, not entirely certain of its role, to start off its existence by working with big and politically powerful

international firms. With time and experience, such a government starts to realise that this relationship is not equal, and that it is "the client and that the big oil firm is just a subcontractor… The government starts to self-realise (intrv.8)".

Other interviewees were more sceptical and questioned whether MENR had any real power or influence outside what other stakeholders allow it to achieve (intrv. 7, 8, 13) and whether MENR's growth and supposed self-realisation has fully translated into improved capacity (intrv. 5). The following discussion explores factors involved in these processes in order to identify barriers that continue to hold back sufficient improvements in state capacity. To do that, this section considers contextual, institutional and individual barriers. The following discussion indicates that current institutional and organisational priorities continue to negatively affect implementation capacity and that it is hard to predict how or when this is likely to improve and whether, in a context of strong vested interests, such improvements would necessarily lead to better outcomes.

Contextual barriers

Interviewees noted several background factors that prevent environmental issues from receiving public and government attention they deserve, which in turn likely limit MENR's access to resources. Research and INGO interviewees (intrvs. 1, 13), for instance, indicated that the constant threat of open war with Armenia over the occupied territory directs resources towards more relevant bodies, such as the Ministry of Emergency Situations (intrvs. 1, 20). Meanwhile, researchers implied that environmental concerns are for a developed, post-material society, whereas Azerbaijan still needs to sort out the basic needs of its population (intrvs. 11, 13). Looking at figures, Azeri government has achieved much in reducing absolute poverty from 46.7% in 2002 (UNDP, nd.) to 5.9% in 2016 (ADB, 2018), but interviewees believe that much work still remains before the government's focus can shift to environmental issues, which are perceived as less immediate or significant in comparison.

Other interviewees, however, pointed to rampant corruption (intrvs. 11, 12, 14), dependent judiciary (intrv. 12) and the general dysfunctional system of checks and balances as reasons for slow developments in state capacity. "The entire state apparatus" is said to be answerable directly to the Aliyev clan (Luntumbue, 2017) with the best jobs being staffed with relatives of the top management rather than with objective specialists interested in solving the realities of poor legislative implementation

and enforcement (intrv. 12). This precludes autonomy that executive agencies need to function properly, as has been argued by numerous academics across country contexts (Evans, et al., 1985; Leftwich, 2000; Skocpol, 1979). The resultant self-interested, self-perpetuating networks seem to have found ways to benefit from non-implementation. This might explain why voices offering solutions are shut out: Ministries still haven't learnt effective stakeholder engagement and are said to turn down advice offered by HEIs (intrvs. 15, 16, 17).

Furthermore, because Ministers and their teams retain active interests in the private sector at the same time as being politicians / civil servants, competition between Ministries is said to be attributable to personal vested interests (intrv. 4). The courts are also part of this system, completing the "vicious circle" in the words of an ENGO interviewee (intrv. 12). The interviewee added that lower government levels are likewise affected: regional inspectors tend to "read between the lines of the law and interpret the law in ways that are beneficial to them" or fight against other local government structures, including the local police, who do the same. As a result, commented an INGO interviewee, a Presidential or Ministerial order can mutate on the way down to the bottom level implementers to such an extent that:

> "[w]hat gets implemented, if at all, is something very different...The [local communities] that are supposed to benefit from the order might not see any difference at all".

Institutional barriers: Coordination between Ministries

In practice MENR shares duties pertaining to the oil industry with other structures, yet formal coordination between them is weak (Aliyev, et al., 2011; UNECE, 2011; intrv. 8). Each body collects its own data, based on own methodologies, and shares some but not all data with others. Combined, these issues result in duplication of responsibilities (see Appendix H) and unnecessary institutional complexity, leading to fragmentation in both monitoring and reporting (ADB, 2005: xiv). Responsibility for improving coordination has fallen to MENR, which has been charged with creating a national, cross-departmental database and distributing its data. However, MENR does not have legal power to organise or coordinate how or what data other bodies collect. As a result, it is not uncommon for different government sources to continue offering different figures for the same variables (Aliyev et al., 2011), obstructing comprehensive environmental assessment of any one area and the design of an integrated approach for addressing issues within it. As an example, three Ministries are responsible for oil-

related pollution from cargo ships and two of them monitor pollution and impose administrative penalties on the same group of potential polluters (Gasimov, 2018). With each body producing differing assessments of the same incidents and levying own fines, a polluter might face disproportionately large fines that it is unable to pay. Instead, a polluter might challenge differences between assessments. This slows down and potentially even prevents the enforcement of EP standards.

MENR's low status and power relative to other powerful stakeholders, including other Ministries, SOCAR, BP and the top political leadership, is also an issue. Firstly, despite MENR's recent expansion, an INGO interviewee indicated that MENR's budget remained disproportionately low relative to the scope of MENR's responsibilities (intrv. 1). In turn, the small budget was said to limit MENR's influence in instances where Ministries' interests come into conflict (intrv. 13). Secondly, the power dynamic between MENR, SOCAR and BP is unclear. Sometimes MENR pressures BP through SOCAR, sometime the opposite (intrv. 7). In this triad, it is unclear who, in practice, holds SOCAR accountable for its pollution. Central government can also use SOCAR in contradiction to both MENR's and BP's norms. For example, an oil industry interviewee spoke of instances when the Azeri government worked through SOCAR to compel BP to work below international standards in order to increase output (and therefore revenue) (intrv. 8). The continuous struggle for power that these observations indicate cannot be expected to deliver consistent EP implementation.

Institutional barriers: MENR organisational issues

The question of why MENR's internal growth has not proportionately translated into improved capacity for implementation could be answered by taking a closer look at MENR's spending. Figure 10 shows that despite significant increases in MENR's budget, the vast majority (purple line) was spent on *capital investment*, although the MENR website does not specify what this investment includes. This type of spending suffers from very low transparency in Azerbaijan and often "results in a large amount of money becoming unaccounted for" (Breban and Mukhtarov, 2017: 11). Such expenditure is prone to "higher likelihood of corruption and ineffective spending" (Breban, et al., 2018: 10), which could explain MENR's very slow results with, for example, ensuring that environmental monitoring is improved. A budget for this was allocated in 2010 (Aliyev et al., 2011) but by 2015, implementation plans were still only

being set up (UNEP, 2015). Meanwhile, Haqqin's[27] (2018) findings suggest that the former Minister was investing MENR's budget not into EP, but into personal projects abroad for the 17 years that he was in the post.

Figure 10 - Expenditure on Environmental protection and its components
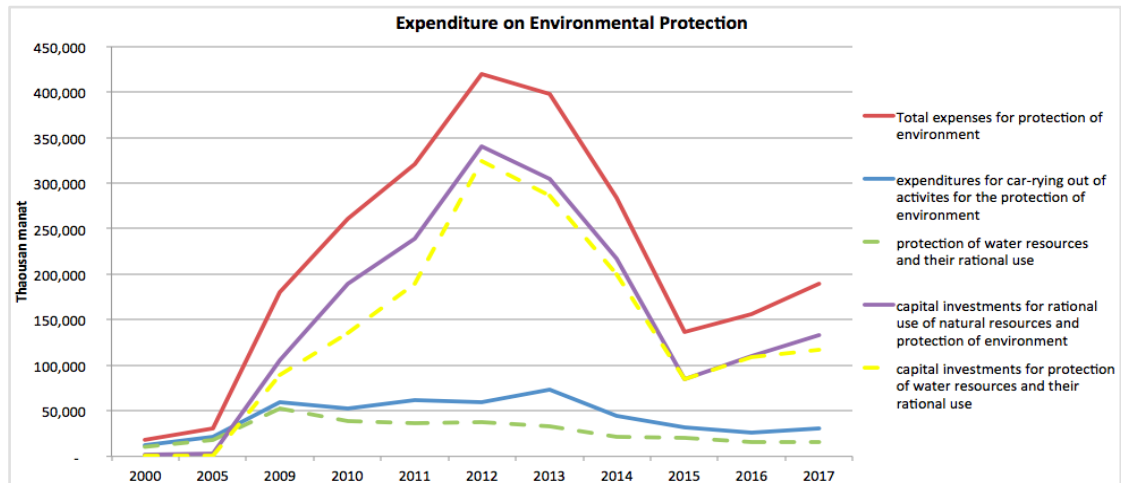
Source: based on data from Azerbaijan's State Statistical Committee (2018)

There appear to be significant inefficiencies and potential corruption in *current spending* as well, further reducing capacity for the pursuit of environmental objectives. For example, an INGO interviewee that works with EP structures in central government (at the level of Ministries) noted that there are too many staff and no shortage of equipment or technologies (intrv. 5). In contrast, bottom-level implementing structures for EP are said to experience significant shortages of funding and human resource (intrv. 1). An excess of higher paid staff at the centre and a shortage of bottom-level implementers on the periphery suggest issues with internal budgetary allocation. However, this issue is not unique to Azerbaijan or developing contexts, nor does it necessarily signal wrongdoing.

The organisation of MENR's departments and their responsibilities might, however, seem questionable for its high potential of subverting MENR's purpose of EP implementation. Firstly, the structure of MENR departments arguably obstructs effective policy design and scrutiny, which may explain the poor quality of subsidiary legislation discussed previously. The reason, explains a former Ministry employee (intrv. 2), is that MENR writes and also approves its own secondary legislation without

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[27] An Azeri human rights NGO

significant external scrutiny. The situation disincentivises Ministry staff from producing quality products, because they can be certain that they will be approved (ibid.) either way.

Secondly, decision-making is over-centralised, meaning that even the lowest implementation levels are often controlled directly from the top (intrv. 1). The need to directly oversee such volume of work acts to slow down MENR's reaction to problems and reduces its effectiveness (intrv. 15). It also removes responsibility from bottom level implementers, who learn to follow orders without questioning their intention or appropriateness, commented an INGO interviewee (intrv. 14). Lacking a wider understanding as to what is being implemented, implementers might be unable to offer constructive feedback to policy-makers even if asked.

As a result of the above, citizens seem to find it more effective to complain about every manner of environmental transgression in letters and petitions addressed directly to the Minister, observed an environmental law specialist, who had personally successfully achieved a resolution to some (non-oil related) issues in this way (intrv. 9). Such practices, however, further overload the top levels of MENR, which in turn further slows down the Ministry's overall pace of work.

Individual barriers: Personnel quality

As has already been mentioned, top Ministerial levels do not seem to suffer from equipment shortages; whereas INGOs offer some IT support (intrvs. 1, 5, 14) to lower level implementers. The main barriers to implementation from the resource perspective are therefore less technological and have more to do with *human* resources. Ministerial jobs are prestigious and serve as a stepping-stone to a future career, which makes them attractive with university graduates despite low salaries. Demand for these jobs therefore far outstrips supply, according to INGO and HEI interviewees (intrvs. 9, 14, 17, 18). However, despite good career prospects (intrvs. 7, 8, 9, 11, 13, 14), staff retention is low as young employees leave for the private sector. Data suggest this is most likely due to ideological and cultural clashes between a) ambitious, young and often overseas-educated staff (intrvs. 13, 14) and b) the older bureaucrats (Trochev, 2012) in higher management, who, in line with Wamukonya's (2003) findings, do not always understand or value new concepts and practices proposed by their subordinates.

The resulting supply saturation and high turnover are said to contribute to the government's perception that staff are replaceable and that investing into their training is unnecessary (intrv. 14). Apart from further reducing staff retention and repelling skilled experts at the upper levels, this trend appears to have significant repercussions for lower levels of implementer. It drives wages down across the piece and reduces training opportunities for those who need them the most (intrvs. 1, 5). This makes already non-prestigious, bottom-level implementation jobs wholly unattractive to capable cadres. Consequently, noted industry and former MENR interviewees (intrvs. 2, 7, 8), those that do end in the role of environmental inspectors in the oil industry do not have sufficient knowledge about oil facilities to know how or where to look for environmental violations, especially at upgraded facilities that employ new / foreign technologies. The resulting accumulated frustration tends to lead to a culture of power abuse and bribe-taking, instead of willingness to pursue enforcement, among inspectors (intrv. 2).

Conclusion

In light of the above analysis, it seems there can be little discussion of implementation of environmental policies if those who are responsible for delivering this do not necessarily understand what they are implementing or are abusing their powers for self-gain. The existence of multiple opportunities for unpunished self-benefitting behaviours across government structures makes it unlikely that improved resources or structural enhancements would necessarily lead to better or more effective outcomes. These shortcomings are in turn likely to be symptoms of much larger issues, such as those concerning the political system and the nature of the regime. These factors place doubt over whether state capacity as a whole is a sufficient factor in closing implementation gaps. Nonetheless, it would be difficult to argue that state capacity is not necessary in effective EPI. As such, the quality of EP implementing structures is undoubtedly important, but it would seem that wider and deeper issues need to be addressed first before these structures can function properly in Azerbaijan. In the meantime, H5 is unsupported.

Explanatory variable 3 - Economic diversification

Hypothesis 6: The more advanced the economic conditions in a regional economy, the smaller the implementation gap.

In academic literature, abundance of natural resources is often treated as a precursor to the resource curse and although that field of research is not directly connected to environmental protection, some of its symptoms have materialised in Azerbaijan and affected the dependent variable (implementation gaps). Azerbaijan is not a standard resource curse case (Venables, 2016) for it has experienced: relative political stability; high economic growth; national savings following the creation the State Oil Fund of the Republic of Azerbaijan (SOFAZ); rapid reductions in both poverty (UNDP, nd) and inequality; and the pursuit and attainment of relatively high human development (UNDP, 2018; World Bank, 2019). At first glance, these factors provide the Azeri state with a good rather than poor base for developing an interest in environmental protection and, therefore, state capacity for pursuing it. Closer inspection, however, reveals some resource curse symptoms, including widespread corruption and economic vulnerability, which negatively affect the *political will* to pursue regulatory enforcement.

Hydrocarbons comprise over 90% of all exports (UNDP, nd) and over one half of the government's overall budget revenues (Breban and Mukhtarov, 2017). The majority of public expenditure is therefore also financed by hydrocarbons. A significant proportion of this is allocated to non-transparent, corruption-prone, fixed capital investments (Breban and Mukhtarov, 2017; Breban et al., 2018). According to Kendall-Taylor (2011), this type of spending in Azerbaijan is a facade for distributing oil rents from the ruling clan to the rest of the elites and acts to buy their political support, and as such maintains their unity of purpose. At the same time, this practice increases spending within the economy, which in turn artificially bolsters economic growth and raises living standards. This process inadvertently acts to legitimise the political regime with the rest of the population, thus ensuring its stability (Herb, 2005; Karl, 1997). There are no other developed economic sectors capable - on their own or in unison - of supporting this political arrangement for the country.

To restate the above, both economic stability and political stability appear to rest entirely on oil profits, which makes both highly sensitive to external shocks. For example, shocks in global oil prices caused the *manat* to devalue by 32% in 2015, starting a national recession (The Guardian, 2015). Having dug into SOFAZ, its rainy-day oil fund (Antidze, 2018), the government soon realised that if oil prices remained

low, a sharp fall in living standards was only a few years away (Levy, 2015). With both economic and political stability thus resting on the productivity of the oil industry, the elites are unlikely to have the appetite for enforcing practices that could decrease oil profits, even in the short term. This includes efficient enforcement of environmental regulation, since compliance by the oil industry could require significant (initial) investment, thus slashing immediate profits (Jaffe, *et al*., 1995; Nicoletti and Scarpetta, 2003). Although such investment could generate economic activity in its own right, it is highly unlikely that this could offset the fall in oil profits.

The extent of Azeri government's dependence on oil, as a result of poor economic diversification, appears to also produce a significant social impact, which can be traced to poor EP implementation. As per the above, events in the country appear to follow a predictable route: external shocks produce negative effects on the economy, which destabilises the political status quo. This in turn causes the state to become more repressive, so as to hold on to power, and this dampens people's ability to say anything that could be seen as critical of the government. Reflecting on the impact of this on the civil society, a member of Crude Accountability had the following to say:

> "…there has been a very severe crackdown in Azerbaijan on civil society... there are record numbers of journalists and independent civil society activists who have been put in jail, who have been beaten, who have been killed and so I think it's a natural fear in the civil society and particularly those that are impacted by industry that is… the driving engine of Azerbaijani economy... And also the international oil companies that have come into the country, …they have very powerful allies, strong economic interests and agreements. And that's a frightening thing to take on." (Intrv. 21)

The most obvious observation that can be made from this is that the extent of Azeri government's dependence on oil has led the state to suppress any independent watchdog that could signal when policy implementation is going wrong and offer help to improve it. However, there are also less obvious effects. The above comments were made in relation to the civil society and also the academic community, but the implications likely also extend to the public sector. The Azeri political system favours loyalty and, given the extent of recent persecutions, civil servants and politicians will likely become increasingly averse to proposing or supporting calls for change and innovation, since this could be taken as criticism of the status quo. Public sector reforms, which are necessary to improve EPI in Azerbaijan, are therefore increasingly unlikely. Were the political system less dependent on oil, and therefore less vulnerable, the role that fear plays in the halls of power might have been smaller, and reform and subsequent improvements in implementation more likely.

Conclusion

The absence of sufficiently developed economic sectors that could function independently from oil has perpetuated high dependence of the political leadership on its hydrocarbon sector. This dependence appears to apply to economic stability within the country, but also to political stability. Furthermore, oil and economic and political stability appear to be closely intertwined with the latter two being highly sensitive to changes in the others. This close inter-relationship is in turn highly sensitive to external shocks that affect oil profits. Although SOFAZ has been successfully created to act as a temporary shock absorber, the Azeri government has already tested its effectiveness and concluded that it cannot hold for long. Meanwhile, the consolidation of power has resulted in an increasingly authoritarian regime, in which changes necessary for improving EPI are becoming increasingly unlikely. Were the economy better developed, and both economic and political regimes therefore less dependent on oil, the government might have been more willing to implement longer-term objectives, such as EP. On the basis of this, there is strong evidence to support H6.

Conclusion

This chapter set out to test possible factors that affect the implementation of environmental protection in Azerbaijan. Analysis did not support the hypothesised ability of external factors (H1, H2 and H3) to influence internal processes in Azerbaijan with respect to EPI. This suggests that implementation efforts can be improved only from within.

Accordingly, hypotheses that touched on internal processes (H4, H5 and H6) were found to hold. However, analysis strongly indicated that factors pertaining to state capacity (quality of EP legislation and of EPI structures) were necessary, but insufficient for improving EPI. This seems to be due to high levels of corruption that prevent formal government institutions from fulfilling their intended purposes.

Corruption appears to have a very strong influence on the *political will* to pursue policy implementation, and without the *political will* the other elements that were identified as components of *implementation gaps* (dependent variable) become increasingly difficult to achieve. This includes the ability to enforce policy goals and the related ability to secure compliance from the policy's target groups.

It should, however, be emphasised that the analysis of H4 and H5 focused on formal institutions and processes, whereas Azerbaijan is known for the prevalence of clan politics and the preference of the powerful elites for informal processes. What may look like corruption through a lens that assumes that formal institutions should behave in certain ways, may instead be explained in different ways in future research if examined through lenses that are more sensitive of informal styles of government.

Lastly, analysis indicated that the high dependence of the Azeri economy and of the political regime on oil profits, in the absence of other suitably developed and profitable economic sectors, has been making both increasingly vulnerable. Given this strong link, it is unlikely that the government would pursue any measures (including EPI) that could damage the productivity of the oil industry and thus its own power over the country. Were the link broken through better economic development independent of the oil sector, the government might become more willing to pursue EPI and other longer-term commitments that may require temporary falls in government revenue.

Chapter 8. Comparative Analysis: Russian Federation and the Republics of Kazakhstan and Azerbaijan

Introduction

The previous chapters have reviewed four case studies aimed to test the explanatory power of *foreign influence*, *state capacity,* and *economic conditions* in relation to *implementation gaps* (dependent variable) in government policies. The purpose of this chapter is to compare observations on these variables' applicability across contexts in order to determine their suitability for generalisation. Key to the analysis is the exploration of two questions: do the selected independent variables successfully explain *implementation gaps* in all or only in specific contexts, and have these variables proven to be the most relevant to the selected contexts? The aim of this chapter is to propose, evaluate and discuss ways to improve the selected variables' explanatory power and generalisability.

To do so, the following analysis first summarises the applicability of the selected variables across case studies (Table 5). It then explores the suitability of each variable in turn, highlighting notable findings and offering possible reasons for the extent of their explanatory power. Where appropriate, the discussion of each variable aims to offer improvements to theorised relationships. Ultimately, this chapter concludes that Variable 1 (*foreign influence*) has explanatory power only in very narrow contexts but is unsuitable for generalisations, given that this variable was supported only in one of the four case studies. Variables 2 (*state capacity*) and 3 (*economic diversification*) that were derived from the mainstream literature on implementation were found to be applicable in all case studies, but the comparative nature of analysis, combined with the particularities of case selection, revealed them to be insufficiently nuanced and/or laden with Western-centric assumptions about the studied mechanisms, reducing the relevance of the hypotheses they formed to contexts outside the First World.

While exposing such weaknesses in these variables' explanatory power, analysis was also able to contributes to future research by proposing adaptations capable of increasing these variables' and their hypotheses' applicability. It is suggested that Variable 2 should be used in tandem with other, more generalisable factors – such as political and economic stability – in order to increase its predictive power. It is also proposed that Variable 3 should perhaps focus more on the developments in fiscal regimes or exposure to upstream/downstream oil.

Analysis

Summary of examined variables and case studies

The central question that this research project aims to address is the cause for difference between intended and actual policy implementation, also known as the *implementation gap*. For the purposes of the subsequent analysis, *implementation gaps* are defined by three elements:

- the level of *compliance* by the polluters, which is in turn shaped by polluters' expectations of government action;
- the ability and will of the regulatory agencies to *enforce* regulations that make up the government policy; and
- the *political will* across government levels to pursue a policy goal and thus develop methods and strategies, create legal provisions and set government priorities that would facilitate implementation.

The choice of explanatory variables was driven by the choice of case studies. Russia, Kazakhstan and Azerbaijan were selected due to their position as the most prominent oil producers in the transitional post-Soviet space. All of these countries are as similar as possible in ways supported by literature of the key disciplines in the intersection of which this research project rests. However, no two towns, let alone countries, are ever entirely identical. The few literature-supported differences between them were taken as explanatory variables.

It was apparent that there was also significant variation in factors between, and even within, case countries that lie outside the selected social academic sphere, including their geography, climate, distant history, and geopolitical relevance. It was recognised that there may exist underlying causal links between such factors and literature supported variables that were selected for the project. Incorporating such background variation into an analysis of cases, that are otherwise very similar in terms of the key investigated social behaviours, is consistent with Most Similar Systems Most Different Outcomes research design. Indeed, the ability to include background factors in academic enquiry without damaging its overall robustness is one of the main advantages of this comparative method.

Pursuant to the above, this research project undertook to reflect the background variation, as well as the relative autonomy, of different territories within Russia by basing analysis at the regional level. Two regions were selected with marked physical

and humanitarian differences unsupported by social scientific literature. In comparison to Russia, regional autonomy is much lower in Kazakhstan and Azerbaijan and therefore, although the analyses in these chapters also focus on the oil-producing regions, the analytical framework is essentially national. This brings the total number of case studies to four.

In terms of explanatory variables, the first is concerned with foreign influence and hypothesises that its increase could lead to better implementation. For example, engaging international NGOs (H1) could improve the accountability of the regulatory agencies. Involvement of foreign oil firms (H2) could mean that oil resources are developed using more advanced technologies and methods which are more likely to achieve compliance with environmental protection (EP) regulations. Finally, exposure to international norms (H3) that place value on EP could lead governments, regulators and oil firms in individual countries to adopt and internalise them. This could in turn improve all three elements of the dependent variable.

The second explanatory variable is primarily concerned with internal factors that influence the effectiveness of EP enforcement and its ability to secure compliance. For example, the quality of EP legislation (H4) endows regulatory agencies with sufficient guidance and power to pursue their intended goals. At the same time, the amount and quality of personnel and equipment, as well as of relationships with other government agencies (H5) can either help or hinder regulatory implementation.

The third and final variable is concerned with the extent to which an economy relies on a single economic sector (H6). This situation is particularly significant in contexts with dominant oil industries because over-reliance on oil has, in many transitional and developing countries, led to negative and destabilising effects on all elements of the dependent variable.

Table 5 below illustrates the subsequent architecture of analysis. Chosen explanatory variables are set out in rows against case studies that are presented in columns. Fields titled 'variable manifestation' give a brief contextual description of each variable with respect to each of the case studies. Rows against 'Predicted impact' ascertains the strength of predicted relationship between the relevant variable and the presence of *implementation gaps*. 'Yes' denotes strong to moderate evidence having been found during research and analysis in support of a hypothesis, whereas 'No' indicates that supporting evidence was either weak or absent. In a few instances, data proved inconclusive.

Table 5 – Performance of explanatory variables

Explanatory Variables / Hypotheses		Country Case Studies			
		Russian Federation		Republic of Kazakhstan	Republic of Azerbaijan
		Nenets	Tatarstan	Atyrau	Baku
Variable 1: H1: International NGOs	Variable manifestation	The only consistently functioning NGOs are foreign.	No foreign NGOs; no domestic NGOs focused on oil.	Many local NGOs focused on oil; occasions, successful collaboration with foreign NGOs.	A few local NGOs focused on oil; no foreign NGOs focused on oil; growing, pronounced mistrust towards foreign NGOs.
	Predicted Impact?	Yes	No clear relationship	No	No
Variable 1: H2: Foreign oil firms	Variable manifestation	Many, different types of Russian firms in different types of cooperation with foreign oil firms.	No foreign firms; one state-controlled Russian oil firm and its daughter firms.	Foreign firms control two major oil deposits in Atyrau; one state-owned Kazakh firm holds shares at one of these foreign firms.	Foreign firms control approx. 80% of discovered resources; one nationalised oil firm controls the rest.
	Predicted Impact?	No clear relationship	No	No	No
Variable 1: H3: Norm diffusion	Variable manifestation	High exposure to a number of inter- and trans-national actors.	No discernible interaction, apart from academic conferences.	Presence of all proposed sources of norm diffusion.	Presence of all proposed sources of norm diffusion.
	Predicted Impact?	Yes	No	No	No
Variable 2: H4: Legislative quality	Variable manifestation	Relatively high legislative quality; specific EP laws on oil works in the Artic; although responsibility for EP in oil was lost in early 2000s.	Relatively high legislative quality (but it seems this is not the main regulatory tool in the oil industry).	Relatively high legislative quality; EP legislation seems to be mostly used as a fiscal tool.	Relatively low legislative quality because more subsidiary legislation is missing than in other case studies; unclear whether and how EP legislation is used.
	Predicted Impact?	Yes	No	Yes	Yes
Variable 2: H5: Regulatory quality	Variable manifestation	High institutional complexity; insufficient resources; almost no visibility of industrial works; almost complete dependence on industry's self-reporting	Long history of self governing; relative strong regulatory structures; relatively good resources; high visibility of industrial works & high public participation	Relatively strong regulatory structures but insufficient resourced and equipped; almost complete dependence on industry's self-reporting.	Overly centralised regulation structures with underfunded and under-trained bottom level implementers; relatively high propensity for corruption.
	Predicted Impact?	Yes	Yes	No	Yes
Variable 3: H6: Economic conditions	Variable manifestation	There is no other substantive economic activity in the region; economy depends entirely on oil.	Many successful sectors that exist independently of oil extraction; high diversification within the hydrocarbon sector. Oil contributes more than other industries to the economy; although the ratio of oil products to crude oil is growing, making the economy more resilient.	First step taken to diversify the oil sector but little movements from there. Were oil extraction to falter, the rest of the economy would likely collapse.	Development of non-oil related industries has been either suppressed or unsupported. Construction and transport are the biggest economic sectors after oil but are directly linked to it.
	Predicted Impact?	Yes	Yes	Yes	Yes

While the table may at first suggest that this research project generated poor results, this would be misleading as here lay the premium contributions of this work. As per the following analysis, this project has been able to identify when and why variables, drawn from mainstream literature, do not apply either at all or in expected ways outside the contexts in which they were developed. This has been possible by drawing on the observed variation in both background and literature supported factors, and on the detected underlying mechanisms between them, afforded by the comparative analysis. Meanwhile, these observations have also made it possible to hypothesise on how best to improve weak variables in order to increase their usefulness for future research and the following analysis does so wherever possible. This includes adding greater nuance to variables to strengthen hypotheses based on them, or increasing their vagueness in order to remove inherent context-based assumptions and thus improve their generalisability, or proposing when a variable should be used in a dependent or explanatory capacity.

Explanatory variable 1 – Foreign influence

Out of the three variables, foreign influence was shown to have the least explanatory power. While all factors that compose this variable showed potential to have a positive impact on EP implementation, the analysis of the four case studies suggested these promises of tangible improvements in implementation are rarely fulfilled. In some cases, foreign influence could have a negative impact.

The factors that constitute this variable – NGOs, commercial international firms, and norm diffusion – are sufficiently different to merit separate discussions. The motivations to investigate each of these factors were driven by different academic disciplines and the application of contrasting paradigms. Accordingly, it would not be appropriate to speak of findings from dissimilar hypotheses in aggregate terms. Each of the hypotheses belonging to Variable 1 are therefore considered separately below.

Hypothesis 1: The greater the presence of international advocacy groups within a region, the smaller the implementation gap.

International non-governmental organisations (INGOs) showed potential to improve EP implementation by supplementing the work of official regulators, acting as watchdogs

over the oil firms' compliance. However, the official regulators did not always employ such assistance for the purposes of environmental protection, as in Atyrau, where domestic and international NGOs appear to be used by the state as a tool in its struggle over oil profits with foreign oil firms.

It also seems that by offering funding, INGOs can create dependence among local civil movements. This seems to have reduced local NGOs' drive to secure grassroots' support, thus slowing down the development of civil organisations. As such, when foreign funding disappeared, the local civil movements and NGOs deteriorated without it. This appears to be true of both Atyrau and Baku; In contrast, in Tatarstan, no INGOs actively engage with local actors, either from within or outside the region. Neither does Tatarstan seem to have any civil society of its own with an interest in oil-related EP (although other environmental issues have attracted civil attention). Yet, out of the four case studies, Tatarstan has performed the best in terms of the *implementation gaps*. In light of this, empirical analysis did not support the presence of a causal link between international advocacy groups and the dependent variable.

Possible explanation: the only case study that showed positive impact of INGOs was Nenets, which did not have its own, consistently active environmental NGOs or broader civil movements. This suggests that INGOs can have consistently positive impact only when they fill an absolute vacuum in the civil space, and are allowed by the state to do so. Even so, while the Nenets analysis showed that INGO activity has great potential to improve implementation, research did not find concrete evidence that it necessarily does so in practice.

Hypothesis 2: The greater the presence of foreign oil firms within a region, the smaller the implementation gap.

As in the case of H1, findings provided no concrete evidence to support the hypothesis that foreign oil firms are more compliant with EP laws and regulations in the host countries than the local oil firms. It was instead found that international firms often have more capacity than local firms to comply with local and international regulations due to their often significantly superior technologies, practices, R&D capabilities and other resources. However, this does not necessarily appear to translate into actual legal compliance.

On the one hand, this may be a sign of the local EP legislation being unrealistically stringent, an example being the outlawing by Kazakhstan of all APG flaring, including

in emergencies, despite this being necessary to prevent serious incidents. In such instances, consistent legal compliance risks an environmental catastrophe and can become impossible.

On the other hand, the analysis of the case studies showed that foreign oil firms at times fall short of matching even local firms' compliance records. For example, Russian oil firms appear to have worked out how to utilise APG in the Arctic, whereas interviewed representatives of non-Russian firms still appear to think that this is 'impossible' (intrv. 6,16,17, Nenets case study).

In Kazakhstan, foreign oil firms have been known to misreport and deny their environmental impact despite scientific evidence to the contrary. In Azerbaijan, BP appears to have caused a major environmental incident due to its disregard of mechanisms put in place to prevent such situations, notably its legal and contractual responsibilities to alert other stakeholders including the host government of their infringements (prior to the incident) as well as partner firms, shareholders and international regulators (after the incident).

The following offers some possible explanations as to why international firms do not behave as well as might be expected. It is notable that environmental performance over the last three decades seems to be at its worst at oil fields that still held substantial reserves at the start of the three countries' transition in 1991. This includes the Kharyaga oil field in Nenets, both Tengiz and Kashagan in Atyrau and the offshore oil fields in Azerbaijan. In contrast to this first group, environmental performance appears to have been better at the oil fields that were already nearing depletion at the start of transition, in other words all fields of conventional oil in Tatarstan. Contrasting background factors in the case studies, and their latent impact on selected variables, provided a number of explanations for variations in performance between these groups. They are reviewed below.

Oil deposit limitations. The governments controlling both groups of oil fields had similar motivations but very different capabilities. Oil revenues were required to revitalise collapsed economies and fund public goods in the immediate aftermath of the USSR's collapse. For the governments of the first group, this meant getting untapped oil out of the ground as soon as possible; how this was done did not matter as much. The government of Tatarstan, however, faced a different challenge: oil was already being pumped and was already in decline. Its supply and commercial value therefore needed to be maintained for as long as possible. This required a) reducing wastage of hydrocarbons during and after extraction; and b) better methods and technologies for

extracting and processing the more difficult hydrocarbons. Both objectives required new methods and technologies, which coincidentally produced more environmentally friendly performance. As such, Tatarstan's oil industry appears to have been driven by commercial interests, which then allowed for relatively easy compliance with Russia's developing and improving EP legislation. In contrast, the oil industries operating the first group of fields did not have similar incentives. As such, variation of the dependent variable might have less to do with oil firms' origin and more with the challenges and motivations that drive them.

Foreign Investment and PSAs. The government of Tatarstan had the capacity to pursue its oil industry strategy autonomously, whereas governments in the first group did not. By 1991, Tatarstan already possessed a developed oil industry that had already started innovating and therefore was already prepared to generate and increase oil revenues. More importantly, Tatarstan had access to exporting infrastructure to make those revenues reality.

In comparison, pipelines from Kazakh and Azeri oil fields or refineries were also built during the Soviet era, but led only to Russia. Once the USSR collapsed, oil transportation to international markets became an issue for Kazakhstan and Azerbaijan. Opening up new, more lucrative fields without building new infrastructure could not solve this issue. At the same time, the necessary capital to sustain Kazakhstan's and Azerbaijan's vastly inefficient oil industries ceased to flow in from Russia, which focussed more on its own industry. Kazakhstan and Azerbaijan therefore had no means to collect revenues from their oil industry, nor to make it profitable.

In the Russian Arctic, the situation was similar: the Kharyaga oil field was discovered in the 1980s, but its location beyond the Arctic Circle and far away from any transportation options necessitated substantial investment in infrastructure and extraction facilities. No local actors had access to such substantial financial means at the time.

For these reasons, oil operations in Nenets, Atyrau and Baku needed substantial foreign investment at the start of their transitional periods in order to become profitable and support their governments' economic objectives. However, the transitional period that all studied countries were entering in 1991 was expected to be difficult, taking them from a command to a market economy and from communism to democracy. Furthermore, unlike Russia, Kazakhstan and Azerbaijan were facing certain state-building challenges such as rediscovering their national identities and uniting competing, politically powerful clans.

In view of these challenges, instability within the newly formed countries was expected, and foreign oil firms that secured contracts at their oil fields sought to protect their investments. To do so, many entered 30- to 40-year Production Sharing Agreements (PSAs) with the host governments (usually represented by nationalised oil firms), which froze the environmental norms and other constraints which applied to their work for the duration of the agreement. This is what happened to the oil fields in the first group, and over the following decades, PSAs became part of the problem in regulating environmental performance.

Because of the PSAs' rule-freezing effect, EP laws that were passed later either did not affect the PSA projects or led to a conflict of perspectives. For example, PSA clauses about oil firms minimising their environmental impact can be open for interpretation if their language is sufficiently vague. Government regulators could argue that new EP laws fall under such clauses, while oil firms could argue the opposite. Non-compliance therefore depends on one's vantage point, making EP implementation with regards to PSAs difficult and at times equivocal.

Lack of political interest in EP. PSAs allow oil firms to recover all their investments, including on environmentally friendly measures, from future revenues and before paying royalties to host governments. Theoretically, this makes it easier for firms within PSAs to make investments that could ensure their legal compliance with EP regulations. This begs the question as to why they don't take advantage of this situation.

There are numerous reasons for this, but previous chapters suggest that a lack of political interest in EP is the most significant. For example, the Kazakh government perceived its share of revenues from PSAs as unreasonably low, and was frustrated by continuous delays in production. This appears to have disinclined the government to encourage any spending, such as on EP measures, that could cause more delays or further reduce revenues. Instead, the Kazakh government sought to increase its returns, choosing environmental fines as one of its key tools (Tairova, 2014; Orazgaliyev, 2018). As such, EP non-compliance appears to be in this government's interest.

In Azerbaijan, the government does not seem to hold any interest in EP in the oil industry. The situation was somewhat different in Nenets, although the result was similar. For example, *Total* was set to improve its APG utilisation in the Kharyaga PSA, but the equipment purchased for this was embargoed by Western sanctions following the Russia-Ukraine crisis and could not be imported. Today, the Kharyaga PSA

continues to flare up to 75% of its APG (intrv. 22, Nenets case study), whereas the legal allowance is 5%.

Conclusion

In light of the above, it could be argued that imminent depletion of oil fields could motivate technological and methodological improvements, which in turn could lead to inadvertent EP compliance. However, this causal relationship was observed in only one case study, making it ungeneralisable without further research to test it.

It could also be argued that it is the PSAs entered into with international firms, rather than the fact that the firms are international, that produce a negative impact on the dependent variable. For example, foreign, Western firms have performed better in Nenets when working in joint ventures than in a PSA, although still not as well as Russian firms on some indicators – if official figures, which are largely based on firms' self-reporting, are to be believed. It should also be noted that there seems to be a significant difference in EP compliance between Western and non-Western international firms: North American and North European oil firms tend to perform better than South European and East Asian ones.

Hypothesis 3: The more the relevant stakeholders of the host region are exposed to transnational elements, the smaller the implementation gap.

The third hypothesis concerns norm diffusion in relation to elites and individuals, including the ability of binding and voluntary international obligations to improve host countries' implementation efforts. However, analysis did not suggest a significant correlation. Similarly to Variable 1 itself, this hypothesis also comprises a number of factors, each drawing on different academic fields. Each is therefore discussed separately.

International agreements

With regard to formal measures, such as international agreements, results were especially poor in Kazakhstan and Azerbaijan. These countries have unitary style governing structures with little autonomy between the different levels of government.

This meant that analyses of these case studies were to a great degree national, despite the focus on particular regions within the two countries. For similar reasons it makes sense to refer to the Central Asian case studies by the name of the whole country, whereas the Russian case studies are distinctive enough to identify them as separate from the Russian nationwide context. What became apparent during the analyses of Atyrau and Baku was that their national governments are simply not interested in fulfilling their international environmental commitments. For example, both have been assessed as failing to deliver their international commitments under the Aarhus Convention, which requires free public access to environmental information; the governments of Kazakhstan and Azerbaijan, however, do not seem to perceive this as problematic and do not appear to have plans for improving compliance.

Possible explanation: analysis in previous chapters suggested that the weakness in the enforcement of such international measures may be responsible for individual governments not taking such commitments seriously. At the same time, the occasional variation in the international community's response to similar instances of non-compliance appear to further reduce signatory countries' perception that implementation (of either international or domestic standards) is compulsory or even necessary.

In the Russian case studies, unlike for the two unitary countries, it was harder to analyse the impact of international agreements because the system of government is much more fragmented and devolved due to its federal structure. The decision to enter international treaties is taken at the national level; consequently, the responsibility for delivering international commitments lies with the central government in Russia, whereas EP implementation tends to be very local. This split in responsibility restricts the relevance of international commitments when looking at regional contexts in Russia. This became increasingly apparent during data collection for this research project: data for the Russian case studies did not reveal a meaningful link between international agreements and local-level implementation.

Drawing on observations relevant to the present research project across all four case studies, analysis did not indicate a clear link between a) binding and non-binding international commitments and b) attitudes towards EP among the ruling elites or structures. Meanwhile, observations specific to the Russian context question the relevance of international agreements to federal governments, which may invite scholars to further re-evaluate the merit of international agreements in future work.

International institutions

International financial and developmental institutions often pursue large, labour-intensive infrastructure projects, employing workers from the local population, or offer training to raise skills among groups of local stakeholders. At the same time, international institutions can be expected to follow international environmental norms, which are often more advanced than those of the host country. Given these factors, international institutions were hypothesised to represent effective channels for the diffusion of superior EP norms and attitudes to the local population. However, analysis showed positive effects of norm diffusion by international institutions in only one of the four case studies.

Possible explanations: the work of international financial and developmental institutions in individual countries is often delivered locally or through particular actors such as NGOs, subcontractors, and government departments. As such, these institutions were found to be likely to change individual practices, but their impact on wider EP values can at times be (perceived as) negligible or even counterproductive due to the lack of project coordination between these institutions. Furthermore, projects pursued by such institutions vary in terms of their own attitudes toward EP and compliance with local EP regulations. For these reasons, it was found that international institutions are unlikely to deliver a consistent message about EP, which local actors perceive as valuable enough to accept and internalise.

Baku is a good example of this: there, the World Bank's Global Gas Flaring Reduction (GGFR) unit offered training and equipment to the national oil firm SOCAR in order to reduce APG flaring, a major environmental problem subject to international norms. As a result, venting and flaring were significantly reduced, helping Azerbaijan to meet its international commitment. However, instead of framing APG flaring as an environmental protection issue, GGFR instead pitched it to the Azeri government as an energy issue using the fact that APG can be used as fuel. While this was a successful tactic, it did not seem to substantially improve EP attitudes either within SOCAR (for instance, in relation to non-air-based pollution) or the Azeri state more generally.

The only case study in which international institutions appear to have had a consistently positive impact is that of Nenets. The region's mono-economic characteristics and a low level of overall industrialisation may explain this. These factors provide for a relatively narrow set of environmental problems for international institutions to focus on, which improves their potential to deliver a consistent message. Meantime, Nenets' remoteness and the sparsity of its population render such

messages particularly noticeable, increasing their diffusion across local actors. Furthermore, international institutions' projects tend to appear in a positive light against the background of the local formal regulation effort, which is especially limited due to the region's difficult geography and lack of infrastructure. This further improves the potential for norm diffusion.

The greater support for H3 found in Nenets than in other case studies may also be due to Nenets' increased receptivity to foreign assistance. This is linked to its long-term positive trade relationships and EP cooperation with neighbouring Nordic countries. Furthermore, issues around oil development in the Arctic are highly specific and enjoy a strong international profile. As such, they are more likely to attract intense, united and coherent intervention from the international community. In contrast, the impact of poor environmental protection at Caspian oil fields in Kazakhstan and Azerbaijan is limited to the immediate areas: there are no First World countries sharing the Caspian Sea with these states. Incidents at these oil deposits therefore pose a much smaller risk to the international community, which could explain why they have received less international attention compared to those in the Russian Arctic.

It is likely that all of these reasons contribute to international institutions' positive impact in Nenets, but this case study is too specific to allow findings relating to it to be easily generalised. This suggests that analysis of international institutions can show consistently positive impact in such unconventional contexts. However, actual impact on implementation remains difficult to measure. Findings supported the existence of strong potential for causal relationships, but the lack of reliable data complicates their verification.

Travel abroad

International travel, including for educational purposes, did not appear to produce significant impact in any of the case studies. A possible explanation for this finding, and one which emerged by consensus from interview data, is that even if individuals prove receptive to the new norms they encounter abroad it is unlikely that they would have opportunities to put these values and behaviours into practice at home. Instead, such individuals are more likely to either revert to their original behaviour or to remove themselves from contexts that need changing by seeking out contexts that already display the norms they wish to practice. As such, the theory of norm diffusion at the

level of an individual, and the subsequent influence of reformed individuals on institutional cultures (Bochner, 1981; Brown, 2009), could not be supported.

Variable 1 conclusion

The Tatarstan case study showed the least involvement with or exposure to international NGOs, firms or developmental/financial institutions. Considering that the best environmental performance was observed there, it could be argued that concepts of environment and environmental protection need to develop internally in order to find successful implementation.

However, although Tatarstan's involvement may be limited, it would not be correct to describe the region as isolated. On the contrary, it has oriented itself externally since the start of transition in 1991, if not before. Its oil company, research institutions, and relevant government departments have actively sought to gain knowledge of alternative methods and practices outside Russia, and aimed to compete in domestic and international markets. It is therefore, perhaps, not norms that should develop internally; internal development of strategies and of capacity for their implementation is likely of greater importance. This would imply that the host government understood the value of the norms it had actively chosen to implement, implying that implementation might have been less successful in Tatarstan were it to receive external financial and strategic assistance. In other words, if the host government is not necessarily spending its own money, it may consider intended outcomes and strategies less carefully.

In this context, the origins of international assistance would include all international actors discussed in relation to Variable 1. For example, assistance with developing implementation strategies could come from international NGOs, as part of international treaties, or through consultation offered by international developmental and financial institutions. These actors and institutions, as well as foreign oil firms, could also provide financial assistance for implementation, albeit in different ways. For example, foreign oil firms often bring advanced technology with them, which tends to be more environmentally friendly. This reduces the burden on the host government to stimulate or support domestic firms to develop or acquire such technology.

At the same time, it would be unwise to overlook Tatarstan's significant political and economic stability relative to Atyrau and Baku or its significant independence relative to Nenets. Without these, Tatarstan's government might not have had the luxury of being able to prioritise environmental protection. These factors could also explain the low

priority that governments in the other case studies give to EP: while they might understand the EP norms they have taken on, in the context of political and economic instability they might not be able to prioritise the resolution of such issues. In the case of Nenets, the local government did not have the financial freedom before oil extraction commenced, nor the political scope once oil made Nenets one of the key contributors to the federal budget, to set its policy agenda.

This implies that without foreign and international assistance, EP implementation could have found even less success in countries such as Kazakhstan and Azerbaijan, or in remote regions such as the Arctic. However, analyses also highlighted the risk of foreign involvement potentially contributing to negative attitudes towards EP's value in the host countries. As such, there is at best insufficient evidence to confirm the explanatory value of Variable 1.

Explanatory variable 2 – State capacity

Hypothesis 4: The better the quality of the environmental regulation for the oil industry, the smaller the implementation gap; and

Hypothesis 5: The greater the quality of environmental regulatory agency in the sphere of the oil industry, the smaller the implementation gap.

These hypotheses tested the impact of state capacity, narrowly defined as regulatory quality in terms of legislation and of enforcement structures. Given that this definition is tighter than the spread of hypotheses under Variable 1, the two hypotheses under Variable 2 are analysed together. It became apparent early on during the analysis of these factors that although state capacity is important in the delivery of EP, it does not necessarily have significant impact on actual implementation. This is because EP regulation could be used to achieve ends unrelated to EP. Improvements in regulatory legislation or quality could therefore be superficial, in the sense that without the *political will* to use them for their intended purpose, they might not necessarily lead to better EP outcomes. This kind of implementation would therefore also be superficial.

For example, in the case of Kazakhstan, EP legislation has improved in quality while also becoming one of the national government's main fiscal tools. In this situation, oil companies appear to believe that they will be fined whether or not they meet legal requirements, which likely reduced their willingness to achieve compliance. This could, for example, explain why *TengizChevroil* took so many years to resolve an

environmental issue with open-air sulphur storage outside the Tengiz oil deposit, and why *Eni* made so many mistakes at the Kashagan oil deposit: both had insufficient incentives to perform better.

Although a similar situation has existed in Tatarstan, the outcome has been very different. Interviewees also talked of *Tatneft* facing the type of regulation that could disincentivise compliance (intrv. 3,5,7, Tatarstan case study), yet this has not taken place. On the contrary, the situation was said to increase *Tatneft*'s drive both to become compliant and to challenge unjust penalties (intrv. 3,5, Tatarstan case study). It is noteworthy that none of the Tatarstan's interviewees assessed Tatneft as non-compliant with EP legislation or otherwise spoke poorly of its environmental performance. One could argue that there might be an element of partisanship at play here, given that *Tatneft* is a local firm (although it is technically no longer owned by Tatarstan's government), whereas EP regulations are administered by federal structures. This could drive polarisation between the local and the federal identities. However, international environmental NGOs (IENGOs), which do not have offices or any other identifiable personal investment in Tatarstan, also assess *Tatneft* in a positive light. In comparison, while *Chevron* and *Eni* also challenge EP penalties in Kazakhstan, a significant number of Atyrau interviewees including IENGOs did not seem to think such penalties were unjust.

Possible explanations

This difference of outcomes in EP implementation, despite arguably equivalent quality of state capacity in Kazakhstan and Tatarstan, suggests that other factors, such as the degree of both political and economic stability enjoyed by a state, might influence whether improvements in state capacity lead to better, intended implementation. Analysis in previous chapters suggests that these factors influence the *political will* of governments and regulators to implement arguably non-essential policy areas, such as EP. Results strongly suggest that political and economic stability might lead to better implementation even when the quality of legislation or of the implementing agencies might be considered insufficient. Since none of the case studies could be described as politically or economically stable in conventional terms, their stability can instead be defined relatively to each other. The following analysis explores the case studies in order of their stability and the positively correlating success of their EP implementation.

Azerbaijan could be described as the most economically unstable at the start of the transitional period. It was also the most politically unstable due to conflict with Armenia, the government's handling of which caused widespread public discontent. Political instability remained an issue in the 2000s: Heydar Aliyev, Azerbaijan's first president, died in 2003 and left the presidency to his son, Ilham Aliyev. Before his death, Heydar had built a highly centralised, autocratic state in which "he placed only his most loyal followers in important positions" (Kendall-Taylor, 2011). These followers were not necessarily loyal to his son, Ilham, who upon his ascent to power had to ensure other politically powerful families' support anew.

The process of securing such support was rocky, initially working through oil-funded hand-outs and then by distributing oil profits via often unnecessary and inefficient government tenders (Kendall-Taylor, 2011). The autocratic nature of the regime continued to intensify throughout the 2010s and the cost of maintaining it has likely increased, further tying political stability to economic performance. This has arguably rendered Azerbaijan's political situation increasingly fragile despite improved economic performance.

These issues have made a lasting impact on the central government by drawing attention (if not necessarily resources) away from non-essential state functions such as delivering EP. The *political will* to pursue EP therefore remained low. Accordingly, out of the countries studied, the quality of EP legislation was found to be the lowest in Azerbaijan. A number of different sources of legislation exist in parallel, for example domestic law and international agreements. The objectives of these laws do not necessarily align, nor feed into a broader framework of EP policy goals. The quality of EP regulatory agencies was also found to be the lowest of the four case studies. Research revealed insufficient funding or understanding of primary implementation objectives at different governmental levels, combined with particularly low levels of initiative and a strong propensity for corruption. Unsurprisingly, research data collected during this project suggested that implementation success was the lowest in Azerbaijan.

Kazakhstan, in comparison to Azerbaijan, enjoyed relatively high political stability from the outset of the transitional period. Politically important clans tended to unite rather than compete (Junisbai and Junisbai, 2005). However, the long-term contracts that the Kazakh government signed with *Chevron* and *Eni* appear to have led to disproportionately low or significantly delayed oil revenues for the Kazakh state. Economic stability has therefore been lower there than in other case studies.

As a result, the Kazakh government appears to be more interested in recovering what it perceives to be its fair share of oil profits, including through the use of EP regulation, than in implementing its formal EP objectives. This has meant the development of a relatively comprehensive and sophisticated framework of environmental legislation, but which has been misused to achieve goals that come across as more fiscal than environmental.

This is reflected in shortfalls in the quality of the regulatory regime. Aside from the significant fragmentation of regulatory responsibilities and a series of other issues that could be expected in a transitional state, the main EP body – the Ministry of Environment – was abolished in 2014 and its functions passed to the Ministry of Energy and Natural Resources. This key incident signalled the re-prioritisation of government goals with economic objectives trumping environmental ones. Although enforcement of EP legislation has remained consistently active, broader EP implementation from then onwards seems to have lost the last pretence of seeking to achieve improvements in EP. On the contrary, in 2017 the OECD assessed Kazakhstan's EP regulatory regime as impeding environmental improvements.

As such, it could be that EP implementation has been marginally better in Kazakhstan than in Azerbaijan, since there is a lot more evidence of enforcement of environmental law. However, *political will* appears to be inappropriately targeted, as the enforcement of EP legislation does not seem to lead to improved EP as often as could be expected. Implementation therefore cannot be described as successful. Once the economic stability in the country improves, as delayed Kashagan oil moves into profit, the Kazakh government could be expected to re-prioritise its political agenda towards post-material objectives, such as EP.

The political and economic stability of **Nenets** is not directly comparable to the other case studies. The situation in this region is most similar to that of Kazakhstan and Tatarstan, but still quite different. It has never enjoyed political autonomy on par with that of Tatarstan, including in terms of regulating oil, its sole industrial sector. This makes political stability somewhat less relevant as a factor in Nenets. Nonetheless, it could not be described as politically unstable at any point during the last 30 years. Its small population has also enjoyed relatively high economic stability, thanks to disproportionately high royalties from the *Kharyaga PSA*.

In terms of state capacity, EP legislation across Russia has been improving and was consistently described by interviewees in Nenets as capable of achieving meaningful EP results. For example, the former ineffective regulatory regime is being replaced by

new principles, such as requiring firms to use best available technologies instead of setting arguably arbitrary limits on allowed pollution – the effectiveness of which was for decades measured by the number of fines rather than by improvements to EP indicators. Furthermore, the Russian government has been paying particular attention to the Arctic and has developed a range of policies and laws specific to environmental protection in this difficult climate. Meanwhile, the oil industry itself has been developing soft, voluntary tools for self-regulation on EP performance, including in the Arctic, which have significant potential to supplement official EP laws.

Regulatory agencies' effectiveness is similarly improving. New measures are set to be introduced to allow distance monitoring of firms' compliance with legal EP standards. Once introduced, this will help alleviate existing problems with enforcement efforts (including insufficient personnel, equipment and data) which currently complicate not only the work of individual regulatory agencies but also their inter-relations with each other. The *political will* to pursue EP implementation therefore appears to be high.

These improvements, however, have taken place at the central level, whereas implementation happens locally. Therefore, they tell us little about the extent of the *political will* to see these improvements through where arguably it matters most. It is notable in the case of Nenets that the regional government has been able to exert almost no control over its oil industry. In Nenets, the bulk of regulation, including on EP, has resided outside the region for much of the recent history – either in the neighbouring Arkhangelsk or with federal structures.

Nenets could therefore be described as remote both physically and in terms of its place in the government's chain of executive structures. This appears to also affect the *political will* to pursue EP at the country's periphery; since the main structures responsible for implementing EP have been so far removed from the physical context, they appear to have cared less about the environmental impact of the oil industry as long as there are oil revenues coming into the federal budget (intrv. 20, Nenets case study). Here, however, *political will* applies more to central government structures. It would be meaningless to talk of *political will* in the local context, where local actors, including the government structures and the regulators with ultimate responsibility for delivering EP implementation, have little political power. In the context of Nenets, it might therefore be more useful to treat the *political will* of the central government as an explanatory variable rather than a component of the dependent variable.

Until the recent federal-level improvements are successfully implemented and deliver the data on oil firms' real environmental impact and on government practices around

implementation, the success of implementation efforts in Nenets will remain difficult to judge. Having said that, EP performance in Nenets nonetheless appears better than in Kazakhstan or Azerbaijan, even if only by virtue of Nenets' oil industry's relative youth and much smaller volumes of extraction.

Tatarstan, in contrast to both Azerbaijan and Kazakhstan, and to some degree to Nenets, enjoyed both relatively high economic and politically stability before and after it entered transition. Its governing structures have a long history and show a relatively high degree of statesmanship, and its economy has also developed in recent centuries and has become increasingly diversified and successful since 1991. This differentiates it from the other case studies, appearing to have allowed the state to meet its immediate functions and then to concentrate on nonessential issues, such as EP.

As such, there was a relatively low level of conflict between Tatarstan's economic and environmental policies, meaning that the government could pursue both without economic concerns supressing the *political will* to pursue environmental goals. Furthermore, the route to economic goals seemed to lie through environmental improvements. As shown in the case of Tatarstan, where governmental and industrial goals are so closely aligned, the need for EP legislation can fall away when there are other factors that drive compliance.

Strong *political will* for EP also manifested as greater attention to the regulatory agencies in Tatarstan, which increased in number and obtained better equipment, personnel and working relationships than in other case studies. Although numerous regulatory agencies can create their own problems, this was nonetheless shown to have a positive outcome on EP implementation in the oil sector, which in Tatarstan has been the most successful of the four case studies.

Variable 2 conclusion

This analysis indicates a strong correlation between a) political and economic stability and b) the *political will* to pursue EP implementation, which can in turn lead to better implementation even if the more conventional aspects of state capacity (such as high quality legislation and unambiguously effective regulatory agencies) may be missing. This also suggests that the concept of *state capacity*, as defined in First World academic literature, might be too laden with assumptions of Western-style instituions. As such, this concept might be too narrow to be useful in non First World contexts where the mechanisms of governance may cover a much wider range of behaviours

and institutions, many of them informal or even contradictory to First World conceptualisations, and thus not captured by the term. Consideration of *stability* could help analysis capture a level above such subjective definitions by implicitly encompassing the non-conventional components of effective statecraft that could be expected to follow in a favourable context.

In turn the relationship, between political / economic stability and political will, and by extension – intended implementation, appears to hold only if EP regulatory functions are present at the relevant level of government and in the relevant physical location. For example, the local government and the key EP regulatory structures for the oil industry were both based in Tatarstan rather than Moscow between the early 1990s and 2007. This correlates with relatively high EP implementation. In contrast, the government and EP structures that oversaw the oil industry in Nenets were based either in Arkhangelsk or in Moscow for much of the transitional period. Accordingly, judging from the limited available data, implementation outcomes have been not as good here.

Given the apparent importance of these factors, the explanatory power of *state capacity* could be increased by testing it in tandem with *political and economic stability*, and with distance between policymakers and implementers. Furthermore, analysis suggests that *political will* could be more useful as a dependent variable in contexts where the immediate governmental and regulatory structures have some kind of tangible, direct control over the policy target group (as in Tatarstan, Atyrau and Baku). In opposing contexts such as Nenets, where these structures have little real control over policy delivery, the *political will* of the more powerful levels of government is more useful as an independent variable.

Explanatory variable 3 – Economic conditions

Hypothesis 6: The more advanced the economic conditions in a regional economy, the smaller the implementation gap.

This hypothesis tested for the impact of regional economic conditions, defined as a) the presence of economic sectors unrelated to oil and b) the contribution of the oil sector to government budgets relative to that of other sectors. These factors were selected at the outset of this research project because they appeared to vary significantly across case studies. From most oil-dependent to most diversified:

- the mono-economy of Nenets seemed entirely dependent on oil;
- Atyrau's economy appeared to have some other economic activity, but was clearly dominated by oil;
- the economy of Tatarstan was unmistakably well diversified;
- Baku is the capital of Azerbaijan and therefore the centre of all economic activity in the country.

However, a closer analysis revealed that oil dependence could mean many different things, even within the same case studies. This observation indicated that despite the appearance of variation, oil dependence is in many ways consistently high across the cases studied. This is because, in oil-extracting regions, economic sectors that may appear to be unrelated to oil were shown to be in fact often associated with it in one way or another. For example, the petrochemical industries in Tatarstan and Atyrau use locally extracted oil as raw material. Without the oil-extracting sector, the petrochemical sector would collapse, at least in the short to medium term, until oil can be redirected to these facilities from other extraction sites.

Similarly, the construction sector, which is often very strong in such regions, was revealed to correlate directly with oil extraction, which it enables. For example, facilities need to be built to extract oil, accommodation is required to house seasonal oil workers, and infrastructure is necessary to transport workers to extraction sites and then extracted oil to markets. Furthermore, workers (especially those coming from abroad) often bring their families, which may also necessitate the construction of schools and leisure facilities. Without an oil project starting up in the local area, none of these construction projects would likely materialise.

There are also other types of construction, especially so in Azerbaijan, that are funded by revenues from already-extracted oil instead of facilitating extraction. Their purpose is said to be the distribution of oil revenues from the political leadership to other groups within the ruling elite so as to secure political stability in the country and maintain power (Kendall-Taylor, 2011). Azerbaijan is known for extravagantly expensive projects that would fit this category, such as the world's biggest flagpole and most expensive road (14km between Baku and the international airport cost US$18 million per kilometre, compared to the average of US$6M in USA and US$7M in the EU (CESD, 2012)). Although less conventional, this type of construction is made possible only by oil.

Even the agricultural, catering and services sectors were shown to be related to oil, as in Kazakhstan, where these industries appear to be growing mostly to accommodate the needs of the oil industry. When an oil project pauses or closes, seasonal workers depart and local workers in these sectors find themselves unemployed (intrv. 14, Kazakhstan case study). Even sectors without a discernable connection to oil, such as IT and frontier technologies in Tatarstan or Finance in Azerbaijan, are unlikely to contribute as much to government budgets as the oil sectors. Even in Tatarstan, whose economy is in some ways the most diversified of all those studied, tax and non-tax payments from the hydrocarbon industry still constitute more than a half of the government's budget.

As such, non-oil-related activity in oil-rich regions is unlikely to sufficiently supplement government spending should the oil sector suddenly become unprofitable. Subsequently, over-dependence on oil was indicated in all case studies. What particular economic conditions then explain the variation in the dependent variable?

Possible explanation

What proved significant, in terms of the impact on implementation, was *which* economic sectors are present rather than their presence *per se* or their relative contribution to the budget. For example, Tatarstan's petrochemical sector is far more advanced than those of the other case studies, and revenues that the government collects in taxes from the wider hydrocarbon industry therefore include a high proportion of added value due to the production and exportation of oil goods rather than simple sales of crude oil. At the same time, the proportion of sales in oil products has been growing, while sales of crude – shrinking.

This decreasing exposure to upstream oil has made Tatarstan's economy relatively resilient compared to those of the other case studies. By doing so, it provides the political leadership with greater financial stability: external shocks, such as fluctuations in global oil prices, do not necessarily affect short-term government revenues and spending. In turn, this reduces the government's reliance on its key industry and thus also reduces risks of regulatory capture, thus improving the potential for successful implementation of government regulations.

Furthermore, economic sectors in Tatarstan can, and have even been intentionally developed to, utilise waste and by-products from the oil industry. This appears to significantly help *Tatneft* in achieving legal EP requirements. It should also be noted

that Russia has a more developed fiscal regime, or ability to collect taxes, than other case studies. This acts to further stabilise governmental budgets and subsequent expenditure, reducing the risk of state capture and associated issues with implementation.

In light of this, it might be more productive to test not for economic diversification, which looks at the general level of development within an economy, but instead to test for the level of development within the hydrocarbon industry, proportions of upstream and downstream oil sales, and the functionality of a government's fiscal regime.

Other considerations

A range of factors were considered at the outset of this research project, including democratisation, the potential presence of a resource curse, and corruption. This section summarises what was inadvertently discovered in relation to these factors and their ability to explain the dependent variable in the course of data collection and analysis in this research project.

Regarding democratisation, a significant difference was observed between the case studies. Although none could probably be described as democratic in accordance with international definitions, far greater freedoms were detected in the Russian regions, where civil society was relatively strong, or at least relatively free to pursue its objectives. In comparison, the situations in Kazakhstan and Azerbaijan were much more restrictive, and interviewees spoke of fear when referring to the public and private sectors and cited frequent occasions of harassment, coercion and detention as a result of pursuing their goals. However, this factor is more relevant to the actors discussed in the first hypothesis, and variation on that causal relationship did not show significant influence on *implementation gaps*. While it could be argued that democratisation could improve the impact of such actors on the dependent variable, this would be hypothetical and does not explain the currently observed variation on the dependent variable between case studies.

Similarly weak support was found for to the presence and consequences of a resource curse, at least in the Russian and Kazakh case studies. In Azerbaijan, the symptoms of this condition were more pronounced, but arguably still not as significant as those predicted by key theories in this discipline. For example, despite its significant dependence on oil revenues, the government of Azerbaijan has significantly increased

standards of living across all levels of society and is actively investing in the development of human capital within the country. Other elements, such as poor income distribution and issues with civil liberties, are reminiscent of the resource curse; but such issues are also often present in transitional and developing countries without hydrocarbons. As such, findings were inconclusive on this factor. Furthermore, although Variable 3 tested some aspects of the resource curse, it was not dependence on oil that was shown to have a defining effect on the dependent variable.

Another variable that was considered at the outset of this research project was corruption. This issue was not pursued because, given the pervasiveness of corruption across the identified case studies, there appeared to be little variation in this factor between cases. However, in the course of research, it became apparent that the nature and extent of corruption do vary between the case studies. At the same time, this variation was not entirely independent from that of the selected variables. As such, in Azerbaijan, where *state capacity* and *economic conditions* were both found to be the weakest, corruption was more prominent and of a different kind to that found in the other locations. In Kazakhstan and Russia, corruption came across as, in a sense, more predictable and organised: orchestrated from the top down and cultivated to achieve specific state goals. In comparison, corruption in Azerbaijan appeared more rampant, opportunistic and chaotic, at times bordering on lawlessness.

At the same time, whereas corruption in relation to EP in the Russian and Kazakh oil industries appeared to be largely driven by oil, corruption in EP structures in Azerbaijan seems to be greatly exacerbated by oil. However, it would arguably persist to a great extent in Azerbaijan were oil resources to disappear. In essence, corruption is deeply entrenched in Azeri legislative, political, judicial and administrative institutions and is arguably the main barrier to breaking oil dependence (Oge, 2014), in turn contributing to poor EP implementation results.

Accordingly, corruption appears to be one of the causes of poor EP implementation in Azerbaijan, whereas in other case studies it could be better described as a symptom of other effects. In Kazakhstan, for instance, corruption could be interpreted as one of the mechanisms of the power struggle between the state and the foreign oil firms. In Nenets and Tatarstan, corruption is allegedly present, as suggested by interviewees. However, it was not given as much weight as other factors. In contrast, the majority of interviewees across all sectors in Azerbaijan cited some form of corruption as a key challenge to the implementation of EP policy on oil. Consequently, corruption appears

to pose a far greater barrier to EP implementation in Azerbaijan than in the other case studies.

However, the extent of differences in behaviours that can be classed as 'corruption' between the case studies gives rise to doubt as to whether they are comparable. It should also be noted that these behaviours were observed as 'corruption' in the context of selected variables that derive from theories of Western-style institutions prevalent in democracies. Pursued through a different analytic lens – one more suited to non-Western styles of governance – observed behaviours in some case studies, most likely Azerbaijan, might not turn out to be 'corruption' in the classic sense. Instead, they may be revealed as components of clan politics commonly encountered in autocracies. As such, it might not be appropriate to compare this phenomenon in Azerbaijan with the type of corruption in Russia and Kazakhstan: it would not be comparing like for like.

Conclusion

In relative terms, Variables 2 and 3 proved more resilient and more applicable across contexts, whereas the explanatory power of Variable 1 proved to be the weakest, or functional only in very narrowly-defined contexts. . Drawing on the observed variation in background factors and the underlying relationships between these and the variables in focus, this chapter has also outlined the possible reasons for the variables' relative success. These observations have also made it possible to identified significant aspects of the variables' overall relevance and propose ways to improve their explanatory power. Specifically, the analysis suggests that *state capacity* should not be so narrowly defined, which risks making it overly Western-centric, and could benefit from incorporating the extent of political and economic stability in the country in order to better predict implementation. In relation to *economic conditions*, testing for the existence of non-oil sectors or their relative contribution to government revenues proved of limited utility. Testing for the types of economic sectors and their internal development, in parallel with the associated degree of exposure of upstream as opposed to downstream oil, as well as for the strength of the fiscal regime, appear more useful.

Chapter 9. Conclusion and further research

Main findings

This thesis concerns the puzzle of inadequate implementation of governmental environmental policies despite the growing national and international discourse on their importance and the continuous institutional improvements aimed to delivering them. The research presented here focusses on environmental regulation in the oil industry, an area which brings into conflict two distinct government policies (economic and environmental) and as a result better reveals the issues in play. At the same time, such conflict between government policies is particularly visible in transitional countries, or those that are moving from one political, economic or social regime to another. Accordingly, the project selected the biggest oil producers in the post-Soviet space – Russia, Kazakhstan and Azerbaijan – as the loci for its empirical analysis.

Having reviewed available literature on implementation in general, as well as implementation of environmental policies and in developing / transitional contexts, the selected theoretical framework distilled these implementation approaches into the dependent variable: *implementation gaps*, or the distance between government policy aims and actions. The existence of extensive *implementation gaps* was then taken as a given at the outset of analysis and the project aimed to explore whether cases of relatively successful implementation existed and what contributed to their manifestation.

To assess whether cases of successful implementation exist, a range of case studies were analysed within the Most Similar Systems Most Different Outcome research design. To inquire why implementation has been successful, in terms of differences in the dependent variable, selected case studies were analysed in regard to three explanatory variables. While these were grounded in academic theory across several disciplines, including political science, international relations and economics, their selection was based on observable variation between cases; the selection of explanatory variables was therefore research-driven.

During the analysis, significant variation was found in the success of transitional countries' implementation of pollution control regulations; this was discussed in Chapter 8. Analysis indicated that regulation was the most successful in the Republic of Tatarstan in Russian and least successful in the Baku region of Azerbaijan. The selected variables were involved in 6 hypotheses applied across 4 regions. Out of these 24 tests, the selected variables proved useful in explaining implementation

variance half the time. In order to better understand this outcome, the comparative chapter reviewed the applicability and explanatory power of each variable across the case studies. As part of this exercise, some factors contained in the pre-selected variables were confirmed as suitable for generalisation, although subject to some proposed changes to improve their explanatory power. Other factors, however, showed limited predictive utility or were suitable only for analysis in highly specific contexts.

The presence of *foreign oil firms* – a component of the *foreign influence* variable – proved to have the least explanatory power. Its hypothesised relationship with the dependent variable could not be either proven or disproven in Nenets, the first case study; neither was it supported in the other three. By way of explanation for this outcome, analysis indicated that while *foreign oil firms* had the means to be more compliant with local and international EP regulations, this did not necessarily translate into actual compliance. The reasons for this were varied and often context-dependent, including:

- intentionally stringent and more aggressive application of EP regulations by the host government to *foreign oil firms* than to domestic firms, often for political and economic reasons;
- the existence of loopholes in the EP legislation in the host countries, available for exploitation to all firms, including international ones; and
- the fact that *foreign oil firms* often work in Production Sharing Agreements, which complicate the judgement of which EP regulations are applicable to *foreign oil firms* and which are not.

The extent of variation in these reasons precludes the deduction of a generalizable causal relationship between the presence of *foreign oil firms* and implementation gaps. Overall, the majority of interviewees indicated that *foreign oil firms* probably have better overall environmental performance, but in terms of legal compliance most interviewees believed that all firms, irrespective of their origin, likely behave the same. Having said that, compliance by *foreign oil firms* was worse than that of Russian oil firms on some indicators in the Nenets case study. Overall, this variable did not prove useful in explaining variation in *implementation gaps*.

Other components of the *foreign influence* variable showed marginally better utility. Both the presence of *international NGOs* and *norm diffusion* proved applicable only to the narrow context of Nenets but held negligible explanatory power for other case studies. For instance, *international NGOs* proved significant in Nenets due to its

otherwise complete civil activity vacuum in oil-related EP. In contrast, two other case studies highlighted the presence of domestic environmental NGOs, but both their efforts and the efforts of *international NGOs* in the same area did not appear to produce significant impact. Similarly to *international NGOs*, the factor of *norm diffusion*, either through binding/voluntary international instruments, interaction with international institutions or other exposure to internationally accepted values, proved tangibly meaningful only in the very narrow context of Nenets.

Curiously, Tatarstan, the case study with both the least exposure to *international NGOs* and *norm diffusion* and the fewest NGOs with an environmental interest in oil works in general, performed the best in terms of the dependent variable. This suggests that the presence of a civil vacuum is not the main condition that lends *international NGOs* significance as a factor in policy implementation. A likelier explanation of why these factors proved significant in Nenets but nowhere else could be that oil development in the Arctic has global and especially First World consequences due to shared borders and maritime links, whereas the other case studies do not[28].

At the same time, environmental issues are more specific in the Arctic case study, which portrays a mono-economic context in comparison to the more varied challenges faced by the other reviewed locations. Consequently, the Artic appears to attract much more active and focussed global attention, which could translate into stronger and more consistent international pressure. This may explain why the variable of *foreign influence* proved applicable here but held no explanatory power in the contexts of Tatarstan, Atyrau or Baku. However, even in Nenets, *international NGOs* and *norm diffusion* were shown to have a significant potential to improve implementation of EP regulations, but due to a lack of meaningful data on the dependent variable it could not be conclusively shown that they have an actual tangible impact on implementation.

The variables of *state capacity* and *economic diversification* proved more robust in explaining variations in *implementation gaps*, although not necessarily to the expected degree. For example, *state capacity* (defined as the quality of the *EP legislation* and the quality of the *regulatory agencies*) was shown to be necessary, but not sufficient, for successful implementation of intended EP objectives. This was shown to be the case because improvements in these factors do not appear to have meaningful impact on *political will*, which proved necessary for *state capacity* to be utilised in ways that could lead to improved EP implementation. Furthermore, analysis suggested that *political will* might be both necessary and sufficient for relatively high EP

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[28] Kazakhstan and Azerbaijan do not share any borders, by sea or land, with First World countries.

implementation even in the absence of sufficiently developed formal *state capacity*, as in the case of Tatarstan.

Tatarstan proved somewhat of an anomaly in a number of respects. Its EP implementation appeared to be influenced by very different factors than those affecting the other case studies, including the presence of the mostly depleted oil reserves at the start of transition; the relatively high level of development of political, societal and economic institutions; and the unusually close relationship and alignment of interests between the government and the oil sector that reduced the need for formal regulation. Given these characteristics, as well as Tatarstan's successes not just with EP implementation but also its overall economic performance, this case study showed behaviour indicative of a developmental state (Leftwich, 1995). This could not be said of the other case studies.

Even the final selected variable, *economic conditions* – the only variable shown to hold explanatory power across all case studies and thus the most generalizable – proved applicable to Tatarstan in a very nuanced way. Despite proving important, the existence of other developed economic sectors in Tatarstan was not shown to reduce the dependence of government budgets on the oil industry as hypothesised. This dependence, however, did not seem to affect the *political will* to pursue EP implementation as it appeared to do in the other case studies. In contrast to Tatarstan, locally based actors with responsibility over EP implementation in Nenets appeared powerless in the face of Russian national political and economic interests. Similar conditions and outcomes were also observed in the cases of Kazakhstan and Azerbaijan. What has perhaps made Tatarstan more successful at implementing EP than the other regions studied is Tatarstan's greater economic stability. Overall, *economic conditions* proved, across all case studies, to have the most significant influence of all the selected variables.

As previously indicated, empirical analysis supported 12 out of the 24 predicted causal relationships between pre-selected factors and the dependent variable, although few of these hypothesised relationships were found to work in predicted ways. Meanwhile, analysis indicated why some variables had higher explanatory power than others, highlighting the value of qualitative research and comparative design.

Contribution

The main contribution of this research project lies in its attempt to close gaps in academic literature on environmental policy implementation in transitional contexts. For example, recent literature on either EP policy or implementation is particularly scarce concerning Azerbaijan. Furthermore, its oil industry appears to be somewhat of a mystery and there is very limited academic analysis of the sector's environmental impact or the effectiveness of its regulation. At present, much of the relevant literature on Azerbaijan instead focusses on corruption and geopolitical themes. When analysis does focus on the Azeri environmental policy, implementation and policy outcomes are seldom mentioned. Policy development tends to be discussed instead.

Similarly, there is a lack of research applying political analysis to environmental policy in relation to the Arctic Russian regions. The literature often concerns either natural sciences or international processes for tackling environmental challenges in the Arctic (and recently on the interaction between indigenous Arctic peoples and the oil industry), and thus sheds little light on political processes. Implementation of national and regional government policies, and especially the pursuit of environmental objectives, therefore appears to have been largely overlooked. This research project helps to expand and focus academic analysis in these areas.

Furthermore, the comparative element of this thesis has made a significant contribution to the implementation scholarship. Having extensively reviewed research in both English and Russian languages, no other texts were encountered that either attempted to compare the three selected countries on the implementation of their environmental policies, or that attempted to make comparisons at the regional level in more than one country. Moreover, this is probably the first project to compare Arctic and Asian regions while also comparing mono-economic, remote regions and capital city regions with their bustling economies.

When working with such contrasts, research in the field of implementation studies often compares two case studies at most, and usually in a Most Different Systems Most Similar Outcomes design. Engaging with four such locations using the Most Similar Systems Most Different Outcomes approach has helped this project to test some of the most prominent academic theories with greater rigour than what is usually attempted. At the very least, a great deal about how contextual factors interact with key social scientific theories has been revealed. Bringing these factors into the analysis rather than treating them as background context sheds light on their relative significance for

implementation and the underlying mechanisms of change that are often overlooked by mainstream literature of the disciplines that guide this thesis.

For these reasons, analysis was able to reveal a number of changes that could improve the applicability and utility of pre-selected variables in future research and to also increase their potential for generalisation. For example, *state capacity* was found to be necessary for effective implementation, but insufficient in resource-rich contexts marked by political instability or economies that are vulnerable to external shocks. In contrast, in the more stable regions (both politically and economically), the formal institutions that make up what is traditionally defined as *state capacity* may even be unnecessary. Additionally, analysis suggested that *political will* could be most successfully used as part of a dependent variable when operationalising implementation success in centralised political systems and as an independent variable in decentralised ones.

Furthermore, by locating itself at the intersection of a number of academic disciplines, this thesis has been able to offer an analysis of their relative usefulness in explaining implementation, as well as suggesting how they could be combined to improve future interdisciplinary research. For example, factors such as international norm diffusion, based in the discipline of international relations, have been shown to be the most context-dependent, whereas factors derived from the discipline of economics appeared to be the most generalizable.

Limitations

This section discusses the limitations of this research project and suggests ways to improve them in future scholarship. Potential solutions for further research, as well as further research topics that derive from these are then offered in the following section. Availability of data and access to interviewees are discussed.

Paucity of available data on the dependent variable

Potentially the most significant limitation was an expected one: the lack of available data. This was especially significant in relation to the dependent variable, the *implementation gap*, conceptualised as the distance between:

- regulatory activity, such as the number and size of environmental fines against oil firms for non-compliance and the frequency of court compliance orders for polluters; and

- improvements in pollution indicators (such as reductions in emissions or water pollution, or reduction in court cases), or a noticeable reduction over a period of time in the number of fines levied against oil firms for EP non-compliance.

Given the transitional context of the case studies, often marked by poor monitoring and reporting capabilities, this approach to operationalisation of the dependent variable was expected to pose some issues. It was also expected that available data might be politicised or lack objectivity, but the extent of this was not foreseen. In all cases studied, governments rely on a self-reporting approach to collecting data on instances of pollution. In Tatarstan, where oil facilities are located relatively close to both the regulatory agencies' offices and to inhabited areas, it is easier for regulators to validate data submitted to them by polluters; thus, this case study did not present particular problems for data collection.

However, in the remote region of Nenets, ascertaining the true environmental performance of oil firms has been close to impossible, and will remain so until methods for accurate remote monitoring are implemented. Even in the more easily accessible Atyrau in Kazakhstan, data validation by regulators has been difficult due to the physical barriers inherent in its climate and geography. As such, most of the available data on oil pollution at this location are also highly subjective. The associated data on non-compliance with EP regulations by oil firms and subsequent fines levied against them are therefore also a poor proxy. In Azerbaijan, however, even data of such low quality are exceptionally sparse, since media censorship greatly restricts publically available information.

All in all, it has proven difficult to judge whether there have been changes in the dependent variable and therefore whether pre-selected explanatory variables can influence implementation. In some cases, as in Atyrau, interview data was able to complete the picture and provide an indication of the status and changes in implementation gaps. Interview data also provided an insight into the situation in Baku, but interviewee accounts were insufficiently consistent to allow robust observations. In Nenets, the data were the least clear, and analysis in this case (and to an extent in that of Baku) was therefore based on the variables' *potential* rather than their proven ability to impact implementation gaps. Results in these analyses are therefore likely to be

more subjective. The difference in approaches also risks reducing the comparability of results across case studies.

However, a significant trade-off between flexibility of approach and consistency in study design is commonplace in applied research in the social sciences. Operationalisation in qualitative research can be counterproductive, for it has the potential to stifle analysis by imposing unrealistic constraints. To avoid this, it is necessary to keep variable conceptualisation necessarily broad in qualitative research. Selecting a narrow definition that may have been better supported by data would have limited the scope of this project, its ability to draw on different disciplines, and to select such varied case studies for its theoretical framework. Accordingly, this and similar limitations can help highlight the original contribution of this research in creating data and in analysing and comparing contexts for which little prior comprehensive analysis is available.

Access to interviewees

Given the politicised nature of the research question and the decision to collect data through interviews with political (and other) elites, it was expected at the outset that access to interviewees might have posed an issue. In the course of data collection, these concerns proved to be mostly unjustified. Nonetheless, it was not always possible to secure the participation of representatives from desired target groups. For example, interviews were conducted with representatives of the main EP regulatory agencies for the oil industry in Nenets and Atyrau. However, their equivalents in Tatarstan and Baku turned down invitations to participate. Nonetheless, it was possible to interview a significant number of other individuals in various sectors in these locations who have experience of working with regulators, and could therefore indicate how regulators might have answered interview questions. However, such inferential data can be of lower quality and it is recognised that it might therefore have lower explanatory value.

Further Research

Collected data and subsequent analysis led to further, interesting questions that were outside the scope or beyond the available resources of this research project, but arguably deserve further attention. This section mentions a most pertinent of these.

Firstly, data collection was necessarily limited to very few government levels, usually those lowest in the implementation chain. Further work with greater resources could secure data from central government levels, revealing useful perspectives or alternative explanations for observed effects. This could, in turn, offer further evidence on the applicability and explanatory power of each variable and its hypotheses.

Secondly, it became clear in the course of data collection and interpretation that policy implementation is subject not only to social barriers, but also to physical conditions and restraints deriving from geographic, climatic and geological contexts, which can defy the implementation of policy even by advanced institutional structures. Research in the social sciences seldom focusses on such factors. Given the extent to which these factors appear to impact implementation efforts, this exclusion likely limits the effectiveness of such research. Conveniently, there are plans in the current Russian regulatory reforms to allow for automatized and even remote EP regulation, including through the use of telemetry[29], Internet of Things (IoT)[30] and remote sensing[31]. These methods could to a large extent resolve the key barriers to EP implementation presented by the physical conditions in Russian regions such as Nenets, as well as finding global applicability in unusual contexts – although there will likely be strong commercial and political interests that could stand in the way of the effective use of such technology.

This clear intersection between the very different realms of the natural sciences and the social sciences strongly motivates future efforts to bring them together. This research project has already attempted to synthesise physical conditions and policy analysis in explaining the persistent nature of implementation gaps concerning environmental regulation in the oil industry. However, there is still plenty of scope to pursue further research work drawing on both of these strands.

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[29] Remote monitoring via wireless, automated transmission of measurements.

[30] A system of interrelated objects embedded with computing devices, which allows remote communication, monitoring and control.

[31] Satellite- or aircraft-based sensor technologies.

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Appendices

Appendix A - Research interviewees

The information and views of interviewees set out in this thesis are those of the individual interviewees only and can in no way be taken to reflect the official opinions of the organisations with which they are affiliated. Neither this researcher not the University of Sussex guarantee the accuracy of the interview data included in this thesis and they may not be held responsible for the use, which may be made of the information contained herein.

Table 6 - Research Interviewees

Reference	Organisation / other details	Sector	Place of interview	Date of intrv.
Nenets Autonomous Okrug, Russia				
Intrv. 1	Director of the Public Fund for the Support of Environmental Programs of the Pechora Sea Basin.	Non-profit, NGO 1	Naryan-Mar, Russia	2014
Intrv. 2	Director of State Nature Reserve "Nenets"	Public, federal government level	Naryan-Mar, Russia	2014
Intrv.3	Employee	Local press	Naryan-Mar, Russia	2014
Intrv. 4	Employee	Public, regional government level	Naryan-Mar, Russia	2014
Intrv. 5	Employee	Russian oil firm, ROF1	Naryan-Mar, Russia	2014
Intrv. 6	Employee	Foreign oil firm, FOF1	Naryan-Mar, Russia	2014
Intrv. 7	Representative of WWF; coordinator for UNDP / GEF programmes in the region	Non-profit, INGO 1	Naryan-Mar, Russia	2014
Intrv. 8	Employee	Non-profit, INGO 2	Naryan-Mar, Russia	2014
Intrv. 9	Director of a research-technical organisation (recultivation works)	Subcontractor 1	Naryan-Mar, Russia	2014
Intrv. 10	Employee	Prosecutor Office	Naryan-Mar, Russia	2014
Intrv. 11	Employee in the Nenets FS Department of Natural Resources and Environment (NFSDNRE)	Public, regional government level	Naryan-Mar, Russia	2014
Intrv. 12	Employee of Rosprirodnadzor	Public, federal government level	Naryan-Mar, Russia	2014
Intrv. 13	Employee of Rostechnadzor	Public, federal government level	Naryan-Mar, Russia	2014
Intrv. 14	Employee	Public, regional government level	Naryan-Mar, Russia	2014

Intrv. 15	General Direct of Econord (engineering R&D); involved with GEF projects	Subcontractor 2	Naryan-Mar, Russia	2014
Intrv. 16	Employee	Foreign oil firm, FOF2	Naryan-Mar, Russia	2014
Intrv. 17	Employee	Foreign oil firm, FOF2	Naryan-Mar, Russia	2014
Intrv. 18	Representative of Yasavey (organisation to represent the interests of the native Nenets people)	Public / non-profit	Naryan-Mar, Russia	2014
Intrv. 19	Victor Danilov-Danilyan, former Minister (of Environment) 1991-2000[32]	Public, federal government level	Moscow	2014
Intrv. 20	Vladimir Chuprov, Head of Energy Unit, Greenpeace Russia	Non-profit, INGO 3	Moscow	2014
Intrv. 21	Ekaterina Khmeleva, Director of Environmental Governance Program, WWF Russia	Non-profit, INGO 1	Moscow	2014
Intrv. 22	Alexey Knizhnikov, Oil & Gas Programme Leader, WWF Russia	Non-profit, INGO 1	Moscow; online interview	2014; 2019
Intrv. 23	Member of Russian diplomatic services	Public	London	2015
Republic of Tatarstan, Russia				
Intrv. 1	Head of Department for Environmental Education & Cooperation with NGOs	Public, FS Government	Kazan, Tatarstan, Russia	2014
Intrv. 2	Head of Department for Industrial and Environmental Safety.	Kazan National Research University. Kazan	Kazan, Tatarstan, Russia	2014
Intrv. 3	Deputy of General Director; Government advisor	TatneftChemInvest Holding[33]	Kazan, Tatarstan, Russia	2014
Intrv. 4	Deputy of General Director	TatneftChemInvest Holding	Kazan, Tatarstan, Russia	2014
Intrv. 5	Professor at the Institute for Ecology and Natural Resource Management	Kazan Federal University; EIA subcontractor	Kazan, Tatarstan, Russia	2014
Intrv. 6	Former academic in environmental sciences; (25 year experience), deputy director of science at	StroiNeftProekt; expert for Rosprirodnadzor	Kazan, Tatarstan, Russia	2014

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[32] This federal entity changed its name and status several times in that period: the Ministry of the Environment and Natural Resources 1991-1992; the Ministry of Environmental Protection and Natural Resources 1992-1996; the State Committee for Environmental Protection 1996-2000. In 2000 the structure was abolished.

[33] Coordination and expert centre, determining the development strategy of the petrochemical complex of the Republic of Tatarstan.

	StroiNeftProekt; project leader in expert committee for Rosprirodnadzor			
Intrv. 7	Senior advisor; Tatarstan's Environmental Interdistrict Prosecutor's Office	Judiciary	Kazan, Tatarstan, Russia	2014
Intrv. 8	Member of an NGO Council, lecturer, environmental activist	Russia-wide Society of Environmental Protection (VOOP); Kazan National Technological-Research University	Kazan, Tatarstan, Russia	2014
Intrv. 9	Head of Department for ecology, environmental protection and technical safety at Povolzhskaya Ecological Company	Private (subcontractor)	Kazan, Tatarstan, Russia	2014
Intrv. 10	Expert for environmental expertise assessment	Judiciary	Kazan, Tatarstan, Russia	2014
Intrv. 11	Legal Adviser at the Ministry for Environment and Natural Resources	Public, FS Government	Kazan, Tatarstan, Russia	2014
Aturay Oblast, Republic of Kazakhstan				
Intrv. 1	Activist	Non-profit, NGO 1	Atyrau	2015
Intrv. 2	Specialist on Kazakhstan, WWF	Non-profit, INGO 1	(online interview)	2018
Intrv. 3	Crude Accountability	Non-profit, INGO 2	(online interview)	2018
Intrv. 4	Activist	Non-profit, NGO 2	Atyrau	2015
Intrv. 5	Corporate responsibility project organiser for a foreign oil firm	Private	(online interview)	2018
Intrv. 6	EPA subcontractor	Private	Atyrau	2015
Intrv. 7	Lawyer	Private, oil firm 1	Atyrau	2015
Intrv. 8	Regulator, akimat	Public	Atyrau	2015
Intrv. 9	Academic	Higher Education Institution, HEI 1	Atyrau	2015
Intrv. 10	Lawyer	Judiciary	Atyrau	2015
Intrv. 11	Environmental specialist	Private, oil firm 2	Atyrau	2015
Intrv. 12	Regulator, akimat	Public	Atyrau	2015
Intrv. 13	Head Regulator, republican level	Public	Atyrau	2015
Intrv. 14	Journalist	Local press 1	Atyrau	2015
Intrv. 15	Journalist	Local press 2	Atyrau	2015
Intrv. 16	Former employee	Private, oil firm 2	Atyrau	2015
Intrv. 17	Employee at Aarhus Centre	International organisation, IO 1	Atyrau	2015

Intrv. 18	Activist	Non-profit, NGO 3	Atyrau	2015
Intrv. 19	Academic	Higher Education Institution, HEI 2	Atyrau	2015
Intrv. 20	Activist	Non-profit, NGO 4	Atyrau	2015
Intrv. 21	Crude Accountability	Non-profit, INGO 2	(online interview)	2018
Intrv. 22	Activist	Non-profit, NGO 5	Atyrau	2015
Baku-Absheron, Republic of Azerbaijan				
Intrv. 1	Environmental INGO	Non-profit, INGO 1	Baku, Azerbaijan	2015
Intrv. 2	Former MENR employee	Public, Ministry	Baku, Azerbaijan	2015
Intrv. 3	Employee, International developmental organisation	International Organisation	Baku, Azerbaijan	2015
Intrv.4	Environmental NGO	Non-profit, NGO 1	Baku, Azerbaijan	2015
Intrv. 5	Environmental INGO	Non-profit, INGO2	Baku, Azerbaijan	2015
Intrv. 6	Environmental Journalist	Local press	Baku, Azerbaijan	2015
Intrv. 7	Employee	Private, BP	Baku, Azerbaijan	2015
Intrv. 8	Employee	Private, Total	Baku, Azerbaijan	2015
Intrv. 9	Environmental Law specialist	Higher Education Institution, HEI 1	Baku, Azerbaijan	2015
Intrv.10	MENR employee	Public, Ministry	Baku, Azerbaijan	2015
Intrv. 11	Employee	Research & training institution, RTI 1	Baku, Azerbaijan	2015
Intrv. 12	Environmental NGO	Non-profit, NGO 2	Baku, Azerbaijan	2015
Intrv. 13	Environmental policy specialist	Higher Education Institution, HEI 2	Baku, Azerbaijan	2015
Intrv. 14	INGO	Non-profit, INGO3	Baku, Azerbaijan	2015
Intrv. 15	Environmental Law specialist	Higher Education Institution, HEI 2	Baku, Azerbaijan	2015
Intrv. 16	Environmental NGO	Non-profit, NGO 3	Baku, Azerbaijan	2015
Intrv. 17	Oil works specialist	Higher Education Institution, HEI 3	Baku, Azerbaijan	2015
Intrv. 18	Oil works specialist	Higher Education Institution, HEI 3	Baku, Azerbaijan	2015
Intrv. 19	Oil works specialist	Higher Education Institution, HEI 3	Baku, Azerbaijan	2015
Intrv. 20	MoES employee	Public, Research & training institution, RTI 2	Baku, Azerbaijan	2015
Intrv. 21	Crude Accountability	Non-profit, INGO4	Online interview	2018

Appendix B – Interview topic guide

Introduction

Aim: To introduce research and set context for the discussion.

Introduce self and the University of Sussex
Introduce the study: who it is for, ESRC, what it is about
Talk through the key points:
- purpose and length of the interview
- voluntary nature of participation
- reasons for recording the interview
  • Confidentiality and how findings will be reported (degrees of anonymity)
  • Data use – PhD thesis, future publications, Data UK Archive
  • Check for signed Consent form and agree level of disclosure
  • Any questions

Start recording. Take verbal consent if written consent refused.

1. Background and circumstances

Aim: To introduce respondent and highlight any background issues that might influence their understanding of and attitude towards pollution control regulations and their implementation.

  • Interviewee's role
- organisation / affiliation
- professional responsibilities
- interaction with other organisations

  • Main activities
- day-to-day tasks

  • Other interests (professional or personal)
- political party membership
- involvement with social groups
- golf

2. Defining and identifying 'pollution control regulation'

Aim: To establish how the respondent decides what constitutes a pollution control regulation, to identify their knowledge of existing regulations, and to explore their views, attitudes and experiences of pollution-control regulations.

  • What does the term 'pollution control' mean to them
    ➢ Western propaganda
    ➢ OECD (or other international organisation) project
    ➢ Western dream (unattainable; time waste)
    ➢ political stance/belief
    ➢ government policy

- ➢ legal law
- ➢ company policy
- ➢ type of behaviour
- ➢ environmental necessity
- ➢ bureaucratic hurdle
- ➢ any other

- How would they describe different types of pollution-control
  - ➢ end of pipe / preventative
  - ➢ clean technologies
  - ➢ new equipment
  - ➢ tax incentives
  - ➢ funding incentives
  - ➢ fines / sanctions
  - ➢ international standards
  - ➢ international tariffs
  - ➢ any other

3. Implementation of Pollution-control Regulations

Aim: To establish specific regulations the participant has experience of, to explore the nature of the regulation (purpose, plausibility, internal effectiveness, procedures and impact), and to explore participant's motivations and ability for complying with/enforcing it.

- What pollution-control regulations they have experience with
  - ➢ type of regulation (name, jurisdiction, purpose)
  - ➢ at work / outside work
  - ➢ enforcing / complying / monitoring
  - ➢ official law / organisational internal policy
  - ➢ any other

- Awareness and experience of those regulations
  - ➢ internal design – comprehensive / confused
  - ➢ procedures for complying
  - ➢ how is it enforced
  - ➢ who monitors compliance/enforcement
  - ➢ general performance

- Motivations for complying
  - ➢ reasons for compliance
  - ➢ ease of complying
  - ➢ reasons of non-compliance
  - ➢ what happens after non-compliance

4. Explanatory variables

Aim: To test theses hypotheses that explanatory variables have an impact on the participant's ability and/or willingness to comply / enforce pollution-control regulations. (State Capacity already covered in Section 3).

- Economic diversification
  - other industries in the area
  - employment share of different industries
  - stringency of pollution-controls (compare industries)
  - compliance (compare industries)
  - interaction with other industries
  - impact of interaction on compliance

- Contact with foreign business entities
  - type of foreign entity
    - supplier
    - customer
    - investor
    - share holder
    - joint-venture
    - international trade body
  - type of relationship
    - positive / negative
    - close / probational
    - trusting / suspicious
  - extent of impact on participant's actions
  - entity's disposition towards pollution-control
  - contribution/hindrance towards compliance/enforcement

- Contact with foreign NGOs
  - type of NGO
    - Environmental (e.g. Greenpeace)
    - Human Rights
    - Developmental
    - other
  - type of contacts
    - protestor
    - lobbyist
    - advisor
  - disposition towards pollution control
  - extent of impact on participant's actions
  - contribution/hindrance towards compliance/enforcement

- Which of these affects them the most

5. Implementation Experience

Aim: To map the respondent's implementation experience and any problems they've encountered.

- Extent to which they are involved in the implementation process of pollution-controls in their organisation
  - examples of different ways of involvement
  - examples of different environmental regulations

> ➢ extent of personal impact

- Views about implementation process
    - ➢ success/failure
    - ➢ any problems
    - ➢ source of problems
    - ➢ involved stakeholders
    - ➢ was problem reported
    - ➢ attempt to solve?
    - ➢ proposed solutions
    - ➢ selected solution and reasons
    - ➢ impact

6. Suggestions

Aim: to get respondent's thoughts on how to improve the implementation process and leave interview on a neutral note. To end the interview.

- What would encourage compliance / aid enforcement

Ask the respondent to reflect on the barriers they have discussed, prompt if necessary:
- ➢ type of regulation
- ➢ better (fairer) regulation
- ➢ stricter / smaller penalties
- ➢ better institutions
- ➢ greater institutional power
- ➢ independent courts of law
- ➢ more transparency (corruption)
- ➢ more personnel
- ➢ assurance of personal safety
- ➢ access to better technology
- ➢ access to (international) financial resources
    - ➢ improved equipment (for firms)
    - ➢ increased personnel (for enforcer)
- ➢ international technical expertise
- ➢ any other

- Explore how problems flagged in section 5 could be overcome
    Link to answers from the previous point.

- Anything else they would like to add.

Thank the participant. Check whether they have any remaining questions about research.
Reassure them about confidentiality and anonymity.
Check if there are any sections they want left out of the research analysis.
Ask if they would like to be informed of the outcome of research (take details of their preferred way of being informed).

Appendix C – Evolution of environmental legislation and implementation in Russia

Legislation

USSR, with Russia as its leader, officially recognised environmental protection (EP) as one of state functions around the same time as Western countries – in the 1960s. Relevant laws were developed but remained basic and largely nominal[34]. However, the increasingly obvious environmental impact of Soviet overproduction over the next few decades as well as the Chernobyl disaster spurred significant developments. Relatively comprehensive nationwide environmental standards were introduced, EP demands upon polluters increased, and fines for non-compliance rose. The last few years of the USSR's existence also saw the introduction of state environmental expertise (SEE) assessment and polluter-pays economic instruments, and their integration into the wider political and economic systems. A few days before the USSR's disintegration in 1991, the formal *Law on Environmental Protection* was finally passed. It set out previously missing principles and served as the backbone to all environmental legislation for the next nine years, itself being amended only twice in that period. The principles upheld by this Law included concomitance of environmental and economic objectives, rational use of resources, and cooperation with non-governmental and international organisations.

Notwithstanding these achievements, implementation suffered in the absence of an official environmental policy that could give EP institutions clearly defined, measurable objectives, set common goals, and provide evaluation criteria for outcomes[35]. Furthermore, division of responsibilities between different levels of government were not formally set out, nor were appropriate responsibilities given to appropriate levels. As such, there was little to guide or coordinate efforts of different implementation structures and each set its own standards and objectives. EP was therefore piecemeal with duplication of responsibilities by different governmental levels. Its success was consequently difficult to measure. Regulation of that time was also criticised for being excessively stringent, idealistic, aiming to control too much at once, and for consequently deterring voluntary compliance and raising the costs of enforcement[36].

Despite these criticisms, the 1991 Law provided some much needed continuity and clarity in the environmental sphere throughout the turbulent 1990s and served as a skeleton for further regulatory developments. In 1993, environmental protection became an integral part of the new constitution of the Russian Federation. In 1994, the first official EP policy was produced. 1997 revisions to the Criminal Code partially addressed the overly lenient punishment for environmental crimes. In total, over 30 federal environmental laws were passed by 2001[37], accompanied by cultural developments in awareness of the important of environmental responsibility and transparency. Later major developments include the 2002 Environmental Protection Act, the 2002 Environmental Doctrine, the 2006 Water Code and the 2007 Forest Code. By the 2010s, Russian environmental legislation became a voluminous, complex body of legal literature, which addressed most of the environmental problems faced by

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[34] Josephson, P., Dronin, N., Mnatsakanian, R., Cherp, A., Efremenko, D., and Larin, V., (2013), 'After the Breakup of the Soviet Union', *An Environmental History of Russia*. Cambridge: Cambridge University Press, pp. 287-320.

[35] Ibid.

[36] Bell, R. G., (2000), "Building Trust: Laying a Foundation for Environmental Regulation in the Former Soviet Bloc", *in Environment: Science and Policy for Sustainable Development*, 42(2): 20-32.

[37] Oldfield, J. D., (2002), "Russian Environmentalism" *in European Environment*, 12: 117-129.

a modern economy[38] and in some cases even exceeded internationally recognised and endorsed requirements[39]. In that time Russia also signed and ratified most of the key international EP agreements and continued to update its legislation in line with international developments. For example, in 2012 flaring above 5% of the Associated Petroleum Gas (APG) was banned, in line with international standards, and penalties for non-compliance were increased in 2014 following a two-year transition period.

Implementation – federal level

Developments outlined above were not reflected in the state capacity to the same degree, and implementation of EP regulations was arguably never complete, nor effective. The institutional base for EP enforcement under the USSR in the 1960s-1980s was built on the principle that EP was relevant only in the framework of economic activity. EP agencies therefore lacked independence and existed only as part of Ministries which oversaw such activities. Effectively, the regulators and the regulated were one and the same, and production was prioritised over efficiency[40]. As a result, EP was largely neglected[41].

This ideology changed acutely after the 1986 Chernobyl disaster and the revelations of *glasnost*, which lent high political significance to EP. Radical reorganisation of the governmental EP structures followed with the creation of *Goskomprirody* (State Committee) in 1988. This was the first autonomous USSR-wide entity tasked solely with enforcing EP in all spheres and with the consolidated powers to do so[42]. This Committee was able to carry out the first comprehensive, simultaneous analysis of causes across environmental problems, and to develop a coherent, systemic approach to solving them[43].

As USSR collapsed in 1991, *Goskomprirody* was absorbed by its immediate sub-structure in Russia – the EP Ministry, which also swallowed a series of other EP structures overseeing various natural resources. Following these events, the Ministry became the first EP entity of state significance[44]. This streamlined implementation efforts and marked the strongest period of EP in the Russian history. The period of 1988-1991, which achieved so much in institutional and legislative developments, can therefore be called the Russian environmental renaissance.

Despite the extent of Russia's environmental problems, it was estimated that the Ministry could deliver all it promised within 15 years, if under a stable regime[45]. However, the prolonged period of turbulent change and anxiety over economic and political stability following the USSR's collapse crowded out environmental concerns. The Ministry started getting dismantled almost as soon as it came together.

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[38] OECD, (2006), *Environmental Policy and Regulation in Russian. In Implementation Challenge*. Available online from: <http://www.oecd.org/env/outreach/38118149.pdf>.

[39] King and Spalding, (2012), *Overview. Russian Environmental Regulation*, London: King & Spalding International.

[40] World Bank, (2012), *Implementation Completion and Results Report (CONF-03810 IBR-38060)*, Washington DC: World Bank.

[41] Josephson et al., (2013), p. 199

[42] Robinson, N. A., (1988), "Perestroika and Priroda: Environmental Protection in the USSR", *in Pace Environmental Law Review*, 5(2): 351-423.

[43] Peterson, 1993

[44] Josephson et al., 2013, p.295.

[45] Robinson, 1988, p.422

For the rest of the decade, its regulatory structures were continually downsized[46] and downgraded[47], its powers reduced[48], funding cut[49], and qualified environmental personnel were lost to better paid jobs elsewhere[50]. The explosion in responsibilities combined with diminishing resources might explain why it took so long to develop an official EP policy[51] at the national Russian level, and to produce quality legislation. The Ministry simply had no time for them.

Meanwhile, the Ministry's functions were given to new, independent agencies. This once again fragmented EP delivery and created competition between EP structures. The Ministry finally lost its status following the 1996 general elections, which was won by Yeltsin thanks to strong industry support. The Ministry was downgraded back to a committee – *Goskomekologiya* – and subordinated to *Minresursov* (Ministry of Natural Resources), thus losing its influence, independence and resources.

Nevertheless, *Goskomekologiya* demonstrated unexpected persistence and dedication to EP. Despite the obvious conflict of interests, it rejected nearly 40% of its parent Ministry's projects as environmentally unsafe[52], and continuously tried to expose to the general public the Ministry's violations of environmental regulations and the general poor state of the Russian environment[53].

Goskomekologiya also found ways to overcome resource constraints. EP was mainly funded by the state budget, which could cover only 10% of total EP expenditure in the 1990s after being reduced[54], and through environmental payments (pollution permit charges, fines and license payments), which, given the fragile state of the transitional economy, were kept intentionally low by *Minresursov* so as not to suffocate the struggling private sector. Notwithstanding the resulting lack of finance to implement EP and having lost two thirds of its staff, *Goskomekologiya* nonetheless managed to continue raising the qualifications of its EP inspectors and the number of inspected polluters[55].

Unfortunately, offering salaries at 25% below the national average fostered survival-induced corruption at the lower levels of implementation, and the EP regulatory system took on increasingly fiscal objectives[56]. At the same time, falling capacity in monitoring compliance with governmental regulation of all types stimulated staggering lawlessness and corruption in the country[57]. As paying fines became cheaper than legal compliance and the risk of getting caught was low, noncompliance became the norm rather than the exception. Even when caught, regulatory bodies and courts had

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[46] King, L. and Hamm, P., (2005), 'Privatization and State Capacity in Postcommunist Society, *William Davidson Institute Working Paper Number 806*, December 2005. USA: University of Michigan.

[47] Tokunaga, 2010.

[48] Larin, *et al.*, 2003.

[49] Wernstedt, 2002.

[50] Vladimir Korneev, European Union Mission, 1997, interview cited in Oldfield, 2002

[51] Ibid.

[52] Kohler, F., (2000), "Putin Surrenders Environment to Industrial Lobby," *Deutsche Presse-Agentur*, 7th August .

[53] Peterson and Bielke, 2001.

[54] Kotov, V. and Nikitina, E., (2002), 'Reorganisation of Environmental Policy in Russia', *Fond. Eni Enrico Mattei Note di Lavoro Ser*. Available from: <http://www.feem.it/userfiles/attach/Publication/NDL2002/NDL2002-057.pdf>.

[55] Larin, V. B. et al., (2003), *Okhrana Prirody Rossii: Ot Gorbacheva do Putina*, Moscow: KMK.

[56] Minister of Natural Resources Boris Yatskevich, cited in Peterson and Bielke, 2001, p. 68-9.

[57] Oldfield, 2002; Kotov and Nikitina, 2002

trouble with collecting issued fines[58]. Some have therefore concluded that significant environmental improvements of the 1990s were mostly due to "compliance without implementation"[59]: a result of economic decline and forced deindustrialisation rather than public policy. Nonetheless, *Goskomekologiya* must be credited for striving to achieve its mandate in defiance of political opposition in other government structures.

Meanwhile, as Russia's economic recovery in the late 1990s became increasingly dependent on the extraction and sale of natural resources[60][61], the newly forming governing elites began to increasingly see EP as holding back economic growth[62] and their own influence[63] in the new political order. EP thus came into direct competition with these objectives and frequent reorganisation of EP structures can be explained by a struggle for power between ruling elites within government. In 2000, *Goskomekologiya* was finally disbanded. All EP functions passed to *Minresursov*, returning to the pre-1988 ideology. A super-agency with too much on its plate, *Minresursov* became simultaneously responsible for exploitation and protection of all natural resources, including mineral resources, water, forestry and fishery. Consequences for the environment were aptly summarised by a former EP Minister, Danilov-Danilyan:

> Authorizing the Natural Resources Ministry to deal with environmental problems is like asking an alcoholic what the price of vodka should be[64].

The 1991-2000 period therefore became known as *environmental deinstitutionalization*[65], *ecological subversion*[66], *de-ecologization* of the Russian state policy[67][68], or, simply, *de-greening* of the Russian government[69]. The Service for Environmental Protection – *Rosprirodnadzor*, whose role is to ensure environmentally safe use of subsoil – under the renamed *Minresursov* is the last survivor of post-1988 institutional EP development and was staffed with as few as 15 personnel in some of its regional departments[70]. In 2002, Environmental Funds were scrapped. These were independent institutions set up at federal and regional levels (regions are otherwise known as Federal Subjects, or FS) in 1991-2 to accumulate and redistribute

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[58] As confirmed by senior managers of the Regional Ecological Committees responsible for enforcing environmental law and collecting environmental taxes – see Crotty and Crane, 2004, p.422.

[59] Kotov, V. and Nikitina, E., (1996), "To Reduce or to Produce? Problems of Implementation of the Climate Change Convention in Russia, in Poole, J and Guthrie, R., eds., (1996), *Verification*, Oxford: Westview Press.

[60] Bradshaw, M., (2006), 'Observations on the geographical dimensions of Russia's resource abundance', *in Eurasian Geogr. Econ.*, 47(6): 724–46.

[61] Cukrowski, J., (2004), 'Russian oil: the role of the sector in Russia's economy', *in Post-Communist Economies*, 16(3): 285-296.

[62] ZumBrunnen C., and Trumbull N., (2003), 'Environmental policy challenges', in S. K. Wegren, ed., *Russia's Policy Challenges: Security, Stability, and Development*, pp. 250–75. Armonk, NY: Sharpe.

[63] Mol, 2009,

[64] cited in Peterson and Bielke, 2001.

[65] Mol, 2009

[66] Andersen, M., (2002), 'Ecological modernization or subversion? The effect of Europeanization on Eastern Europe', *in American Behavioral Scientist*, 45: 1394-1416.

[67] Larin *et al.*, 2003.

[68] Trumbull, N., and ZumBrunnen C., (2001), "Abolition of the Russian EPA: the De-Ekologizatsiya of Russia". Paper given at the *Association of American Geographers Annual Conference*, New York.

[69] Kotov and Nikitina, 2002

[70] Mol, 2009, p.230.

environmental payments to fund regional EP efforts. At the regional level, they were described as "the most important economic mechanism of environmental protection"[71]. In real terms, EP funding increased significantly under Putin's administration[72], but with institutional transformations necessary for effective implementation purposefully undermined, some concluded that:

> "There simply is no environmental policy in Russia—the existing policy could be construed as intending to destroy environmental policy"[73].

The continuing power struggle between ruling elites saw further restructuring in 2004, when responsibilities for environmental permitting, compliance and enforcement were transferred from *Minresursov* to a newly created *Rostechnadzor* (Federal Service for Ecological, Technological and Nuclear Supervision) under direct control of the central government. *Rostechnadzor* enjoyed considerable power and authority and advanced government's control over the hydrocarbon sectors. In theory, its autonomy and status should be welcome, but observers worried it would become just another tool for controlling political descent, much like the tax authorities were used to bring down Yukos in 2003[74]. Such worries could explain the 75% reductions in *Rostechnadzor*'s environmental staff[75]. In 2008, *Minresursov* was renamed *Minprirody* (Ministry of Natural Resources and the Environment) without internal change.

Environmental protection at the regional level

Despite the serious shortcomings of environmental protection at the federal level, significant changes to subnational policy administration inspired considerable hope for institutional growth and effectiveness in the Federal Subjects (FS). From the early 1990s onwards, federal and FS governments began sharing competence on many EP policy elements. At the same time, a range of powers was delegated from central government structures to their branches at the FS and municipal levels[76]. This meant that EP was implemented by both EP departments of FS administrations and by local branches of the federal *Goskomprirody*. On the one hand, this gave the FSs a degree of legislative and regulatory autonomy[77], allowed them to retain most of their collected environmental payments and gave greater freedom over their spending. In theory, this could have been conducive to a more targeted approach to solving environmental problems peculiar to individual Russian territories. On the other hand, this created too many points of jurisdiction [78] [79] with shared and overlapping powers and

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[71] State Committee for Environmental Protection, 2001 cited in Hønneland, G. and Jørgensen, A.K., (2003), *Implementing international environmental agreements in Russia*, Manchester: Manchester University Press, p.154.

[72] Larin, et al., 2003

[73] Knorre, A., (2001), 'The rise and fall of environmental protection as a national security issue', H Isham, ed., *Russia's Fate Through Russian Eyes: Voices of a New Generation*, pp. 284–95. Boulder, CO: Westview.

[74] Neil B., (2015), "Russia's Yukos threats signal a lurch away from international law", *Financial Times, Inside Business*, 5 August.

[75] Oldfield, J. D., (2005), *Russian Nature: Exploring the Environmental Consequences of Societal Change*, Hants / Burlington: Ashgate.

[76] World Bank, (2004), *Environmental Management in Russia: Status, Directions and Policy Needs*, Washington, DC: World Bank, Environmentally and Socially Sustainable Development Unit.

[77] Shleifer, A. and Treisman. D. S., (2000), *Without a Map: Political Tactics and Economic Reform in Russia.* Cambridge MA: The MIT Press.

[78] Crotty, J., (2002), 'Economic transition and pollution in the Russian Federation: Beyond Pollution Intensification?', *in Europe-Asia Studies*, 54(2): 299-316.

responsibilities[80] all essentially competing to control local resource rents. This fostered competition rather than cooperation on EP implementation, which contributed to the inefficient use of human and capital resources, further slowed down regulators' reaction to issues, fostered responsibility evasion and decreased accountability[81].

Power struggle for the control of natural resources brewing in Moscow in the late 1990s resonated at the FS level, between federal and FS structures. Unlike the renewed, elected and publicly-visible central structures, the FSs' administrations were more prone to corruption and prioritisation of economic objectives over environmental ones[82]. The reorganisation of EP responsibilities tipped the sub-national balance of power in favour of FS governments, and by the end of the decade they solidified control over EP, including over FS branches of federal authorities[8384] and EP implementation (EPI) became mostly used for non-EP objectives. Gross EP violations became routinely overlooked, either to protect the fragile economy or due to regulatory capture[85]. Severe budget and staff cuts at all levels of federal EP structures following *Goskomekologiya*'s subordination to *Minresursov* in 2000 [86] further strengthened FS administrations' position and led to "a sharp deterioration" in actual EP[87].

Recentralisation began in 2003. EP was split by natural resource type and allocated between different government levels. Different natural resources (and even different stages of the same business project) could now fall under the auspices of federal and FS jurisdictions, federal and municipal, municipal and FS, or only federal / FS / municipal regulators. This fragmented enforcement and complicated compliance as firms had difficulties keeping track of whom to report to and what to submit. The majority of EP responsibilities passed to new, mutually independent federal agencies[88] – including *Rosprirodnadzor*, *Rostechnadzor*, *Rosnedra*, *Rosgydromet* – which in practice meant that control over hydrocarbon (and other monied) industries passed back to the centre; but there were also beneficial EP outcomes.

Moscow became more attentive to FSs' EP performance while leaving FS administrations fully accountable for overall EP outcomes, including for the performance of federal regulators on their territories. This increased political will for genuine EP implementation by the FSs, whose administrations became increasingly innovative in filling EP capacity gaps. Some replaced abolished federal agencies with FS-funded alternatives[89], or created additional EP structures, some – particularly the northern FSs [90] – supplemented falling federal environmental spending from FS budgets, while others managed to secure environmental funds from international

[79] Bell, R.G., (2000), 'Building Trust: Laying a Foundation for Environmental Regulation in the Former Soviet Bloc', *in Environment: Science and Policy for Sustainable Development*, 42(2): 20-32.

[80] Henry, L.A., and Douhovnikoff, V., (2008), 'Environmental Issues in Russia', *in Annual Review of Environmental Resources*, 33: 437–60.

[81] Kotov and Nikitina, 2002

[82] ibid.

[83] ibid.

[84] Hønneland and Jørgensen, 2003

[85] Slinko, I., Yakovlev, E. and Zhuravskaya, E., (2005), 'Laws for Sale: Evidence from Russia', *in American Law and Economics Review*, 7(1): 284-318.

[86] Mol, 2009.

[87] Tokunaga, M., (2010), 'Environmental governance in Russia: the 'closed' path to ecological modernization', *in Environment and Planning A*, 42: 1686–1704.

[88] Crotty and Rodgers, 2012, p. 17

[89] Crotty, 2003

[90] Hønneland, G. and Jørgenson, J. H., (2005), 'Federal environmental governance and the Russian North', *Polar Geography*, 29(1).

donors[91]. However, such positive trends were more characteristic of richer FSs or those, whose *gubernators* (governors) had personal interest in EP[92].

Institutional recentralisation had some negative impacts on legislative processes, but these have been (partially) offset by other developments. Firstly, transfer of decision-making to the centre weakened mechanisms for ensuring accountability of federal regulators locally. Secondly, passing decision-making to those with little contextual knowledge of environmental problems that the regulations were meant to solve led to the bureaucratisation and politicisation of the decision-making[93]. Thirdly, it exacerbated federal legislators' tendency to prioritise own opinions over research- or experience-based evidence[94]. Resulting EP regulation can be, unsurprisingly, inconsistent with private or public sectors' capacities. Therefore, it can be difficult to implement.

Nevertheless, FS administrations reserve the power to pass supplementary legislation, which, despite previously mentioned obstructions, allows regulatory development at the appropriate spatial scale and administrative level of the environmental problem[95][96]. This includes ability to fill in gaps in federal laws, tailor them to specific circumstances, clarify guidance for implementation and place additional requirements on targets – in so far as these do not contradict federal provisions. This means that FS legislatures to an extent have the power to regulate areas failed by the federal legislature[97]. Furthermore, public hearings on private sector's projects with potentially negative environmental impact became a legal requirement. This created a formal arena for a range of immediately affected stakeholders to scrutinise economic activity and receive answers directly from the polluter. Although not strictly binding, the process has rebuilt some trust[98] and fostered cross-sectorial cooperation on EP, thus improving potential for implementation.

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[91] Mol, 2009

[92] Crotty, 2003

[93] Kolegov, 2007.

[94] Ibid.

[95] Newig, J. and Fritsch, O., (2009), 'Environmental Governance: Participatory, Multi-Level – and Effective?', *in Environmental Policy and Governance,* 19: 197-214.

[96] Young, O.R., (2002), *The Institutional Dimensions of Environmental Change: Fit, Interplay, and Scale, Global Environmental Accord.* MIT Press: Cambridge, MA.

[97] Hønneland and Jørgensen, 2003

[98] Bell, 2000.

Appendix D – History of oil firms in Nenets

The 13 oil firms that work in Nenets comprise a wide range of entities such as Russian state-owned firms (RSOFs), including both giants *Gazprom* and *Rosneft*, and a firm owned by the Nenets FS administration: *Nenets Oil Company (NOC)*. There are also Russian private firms (RPF) and firms that used to be private, such as *Bashneft*, which was bought out by RSOF *Rosneft* under suspicious circumstances in 2014-2016. By contract, *Polar Lights*, owned by a RPF *Rus-Oil* since 2015, used to be a JV between American *Conoco* (and then *ConocoPhillips*) and RSOF *Rosneft*.

Conoco was the first foreign oil firm to enter Russia, forming *Polar Lights JV* in Nenets in 1992 and leaving after two decades of successful partnership with RSOF *Rosneft* after the latter fell victim to Western sanctions in 2014. *ConocoPhillips* also had a JV with the largest RPF, *Lukoil*. Together they formed *Naryanmarneftegaz (NMNG) JV* in Nenets, but once *ConocoPhillips* realised that only RSOFs had rights to develop Arctic offshore, it sold its shares to *Lukoil* in 2011. This marked *Conoco*'s departure from Russia altogether. In 2015, *Vietgazprom*, a JV between *Gazprom* and a Vietnamese state-owned *Petrovietnam*, got licenses to develop Nenets' Arctic shelf. If not for Western sanctions, *ConocoPhillips* could have taken *Petrovietnam's* place in this JV. *Petrovietnam* has also been working with RSOF *Zarubezhneft* in the *Rusvietpetro JV* in Nenets since 2008.

Apart from JVs, foreign oil firms (FOFs) also work in Nenets as part of a PSA with Russian firms. Nenets hosts the Kharyaga PSA – one of the only three PSAs left in Russia. Kharyaga is one of the largest Nenets' oil fields and has been pumping oil since 1984 (all other notable fields were developed in the 2010s). The PSA was signed between Norwegian *Equinor*, French *Total* and local *NOC* in 1994 and was recently extended until 2031[99]. RSOF *Zarubezhneft* joined in 2009 and took over operatorship from *Total* in 2015, after *Total* failed to hit targets for utilising Associated Petroleum Gas (APG), as reported in the local media. There could have been a second PSA in Nenets – at Trebs and Titov, the other major oil field group. A consortium of American (*Exxon, Texaco, Amoco*) and Norwegian (*Statoil*) firms worked here between 1994 in 1997, when Russian government asked *Lukoil* to finalise a PSA. Negotiations fell through and the consortium dissolved in 2000. Delays with licensing lasted until 2011, when *Bashneft-Polyus*, a JV between then-RPF *Bashneft* and RPF *Lukoil*, won production licenses. Oil was first pumped in 2013.

The turbulent reorganisation of oil players described above reflects, to a degree, the shifting power dynamics between the Russian state, FOFs and other foreign stakeholders. It reflects even more the competition between RSOFs and RPFs, which is further exacerbated by the Arctic's geological barriers for transportation: in the absence of pipelines, extracted hydrocarbons must be shipped and Nenets currently uses only three ports (some oil is transported by pipeline to ports in neighbouring FSs). *Lukoil* owns Varandey, the main onshore port and, after absorbing *Bashneft*, *Rosneft* became increasingly unhappy about *Lukoil*'s shipping tariffs – so much so that in 2018 *Rosneft* cut production at its nearby oil fields by 50% as a sign of protest, took *Lukoil* to court and is planning to stretch pipelines half across Nenets to a different port, thus substantially increasing on-land environmental risks in the FS[100]. The Russian National

[99] Newberry, C. and Matyl, B., (2018), 'Russia extends Khyryaga oil field PSA with Total to 2031', *S&P Global*. Available from: <https://www.spglobal.com>.

[100] Nacional'naya organizaciya neftegazovogo servisa, (2019), *Lukoil gotov sporit s Rosneft'yu po tarifam na Varandejskom terminale do pobednogo*, 15 January.

Association of Oil and Gas Services voiced fears that *Rosneft* might be sighting *Lukoil* as its next takeover target[101].

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[101] Ibid.

Appendix E – Limited impact of international agreements on Russia's environmental performance.

Russia has been party to international and bilateral environmental agreements since before the collapse of the USSR. At the time, the USSR was interested in maintaining diplomatic relations with countries along its borders, which primarily meant that considerable effort was diverted into meeting commitments under those agreements in the regions along Russia's western border with Europe and Scandinavia. This includes Nenets, but at that time, there was little going on here and therefore implementation efforts were focused elsewhere.

Since then Russia has become party to almost as many of the international EP treaties as other developed Arctic nations[102] and has even ratified more of these than the USA (see Appendix I). Many of these are directly relevant to the Arctic. However, despite formal ratification, Russia's factual environmental performance continues to lag behind the others, including the USA, suggesting incomplete or ineffective implementation. Russian federal government's loss of interest in EP in the 2000s left most observers sceptical about tangible improvements to this situation.

Economic developments of the early 2010s were hoped to re-ignite EP efforts in the Arctic. For example, Russia's ascension to the World Trade Organisation in 2012 and the fact that a significant proportion of industrial output from Russia's western Arctic regions is exported were hoped to increase consumer pressure on Russian enterprises to become greener and on Russian government to improve its enforcement of international and domestic EP standards. However, other international developments that also took place during that decade, including Western sanctions, had potentially significant negative impact on EP implementation capacity. The combination of these events arguably served to confuse the international message about the importance of EP, placing into question what exact norms were being diffused and which of them were received and internalised by resource rich countries such as Russia.

For instance, the melting Arctic icecap attracted equally heated debates about the need to address climate change and about new economic opportunities for extracting the Arctic's substantial reserves of hydrocarbons, which are now becoming physically accessible and commercially viable [103]. At the same time, the international conceptualisation of EP has increasingly shifted from nature preservation to sustainable development in recent decades, yet new international approaches to regulating environmental impact arguably lack due attention in terms of regional differences, such as the unique vulnerability of the Arctic[104].

Furthermore, several major environmental cases against international oil firms have come to a head in the 2010s and have confirmed the power of oil over international EP efforts. Seeing prestigious, international firms 'get away' with environmental misconduct likely sends the 'wrong' message to oil companies worldwide, thus reducing their motivation to comply with international EP norms.

The major exemplary cases in include BP at the Gulf of Mexico and ChevronTexaco in Ecuador. With reference to the former, a commercial choice to cut costs in spite of international standards led to the Deepwater Horizon disaster in the Gulf of Mexico in

[102] Artic nationals include Canada, the Kingdom of Denmark, Finland, Iceland, Norway, Sweden, Russia, and the USA.

[103] Forbis, R, Jr. and Hayhoe, K., (2017), 'Does Arctic governance hold the key to achieving climate policy targets?', *in Environ. Res. Lett,. 13, 020201*.

[104] Gutman, S. and Teslya, A., (2018), 'Environmental safety as an element of single-industry towns' sustainable development in the Arctic region', *IOP Conf. Ser.: Earth Environ. Sci.* 180 012010

2010. The incident has often been termed the worst in the history of the oil industry and many expected harsh punishment for BP. Yet, the litigation settlement against BP stretched out to 6 years and the company was in the end allowed to pay damages over the course 16 years, deducting these payments from its profits as ordinary business expenses.

The decision provoked sharp criticism from the US Congress and environmental NGOs[105], but remained unchanged. Furthermore, criminal and felony charges against BP middle and senior management were dropped by US courts[106]. As such, the firm arguably received little if any punishment from formal institutions. One positive outcome was the intensified regulation that the USA put in place after the Deepwater Horizon disaster in order to prevent its repeat occurrence. However, the new USA government was already in 2019 seeking to relax these to pave the way for offshore drilling, including in the Arctic[107].

With reference to ChevronTexaco, after 25 years of Ecuador fighting against the oil firm in international courts, the international tribunal in The Hague in 2018 absolved the firm of responsibility for immense volumes of toxic oil waste it knowingly dumped in the Amazon rainforests between the 1960s and the 1990s[108]. Lessons based on these examples, on top of mixed messaging discussed above, are unlikely to inspire countries like Russia to prioritise EP.

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[105] Laursen, W., (2016), 'Winners and Losers in Deepwater Horizon Payout', *The Maritime Executive* [online] 5 April. Available from: <https://www.maritime-executive.com/article/winners-and-losers-in-deepwater-horizon-payout>.

[106] Milman, O., (2015), 'Manslaughter charges dropped against two BP employees in Deepwater spill', *New York*, 3 December.

[107] Kirchgaessner, S., (2019), 'Trump plans to relax Obama rules for oil companies put in place after BP disaster', *Washington*, 15 January.

[108] BBC, (2018), *Chevron wins Ecuador rainforest 'oil dumping' case* [online] 8 September. Available from: <https://www.bbc.co.uk/news/world-latin-america-45455984>.

Appendix F – Public control initiatives in Tatarstan

Tatarstan is a proactive FS and frequently puts forward new ideas to the federal government or pilots ideas introduced by Moscow, including in the sphere of environmental protection. The Ministry of Environment and Natural Resources of the Republic of Tatarstan has introduced several new EP initiatives in recent years. These include a FS-wide, two-month *environmental cleaning* project every spring, which brings together relevant departments, environmental services, organizations, municipal committees and volunteers in order to find and remediate accumulated pollution since the previous year, usually due to illegal waste dumping. In 2018, 30% of Tatarstan's population voluntarily engaged in this event, identifing 6,100 violations, as a result of which nearly RUB 19.5million of fines were issued. 94% of reported incidents of environmental damage were addressed [109]. Since 2016, the number of identified unsanctioned dumping sites started to slowly reduce[110], indicating that the intiative is effective in helping reduce EP implementation gaps.

Other EP initiatives also exist to ensure year-round interaction between citizens, federal EP agencies and FS government. These include "People's Control" online portal, decreed by the President of Tatarstan in 2012. Its purpose is it to improve accountability of governmental structures and thus improve their effectiveness[111]. The system included such tools as the online Public Control map, mentioned in the Nenets chapter, which is a real life digital map where citizens can add photos and comments about illegal pollution. Once such 'request' is made, Tatarstan's Ministry of Environment is obliged to act. Once pollution is liquidated, a new picture of the physical site is added and the original submitter can feedback on the appropriateness and quality of the clean up. The Public Control digital map has been on the federal government agenda for some time without a standardized approach to implementing it. On 8 December 2014 Tatarstan's design was recognized as the most effective and has since been implemented by other FSs. In 2015, illegal dumps identified during spring *environmental cleaning* events started being added to the map for future monitoring[112], which might explain the positive results of this initiative mentioned above.

In 2016, Tatarstan's Ministry of Environment created an environmental "citizen reception", which consolidates all information on different options for reporting environmental crimes. The number of options has also been increasing and today they include the People's Control portal, an environmental protection hotline, email, School Environmental Portal (a special smartphone application), WhatsApp and Telegram. The "citizen reception" website offers financial rewards for supplying photographic and/or video evidence along with useful information[113]. Several of these channels

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[109] MENRRT, (2018), *Itogi sanitarno-ekologicheskogo dvuhmesyachnika ozvuchil...* Available from: < http://eco.tatarstan.ru/index.htm/news/1222318.htm >.
[Accessed on 1 April 2019].

[110] MENRRT, (2017), *Farid Abdulganiev: "My sami dolzhny pokazat primer"*. Available from: < http://eco.tatarstan.ru/index.htm/news/947174.htm>.
[Accessed on 1 April 2019].

[111] Ministry for Information and Communication of the Republic of Tatarstan, (2012), 'About the governmental information system of the Republic of Tatarstan "People's Control"', *Decree of the President of the Republic of Tatarstan.* Available online: <https://uslugi.tatar.ru/open-gov/about/>.

[112] All inspectors (governmental or volunteer) have access to the online resource "Ecological map of the republic" and can upload photgraphic etc. information onto the intercative map.

[113] http://eco.tatarstan.ru/rus/respublikanskaya-obshchestvennaya-ekologicheskaya.htm

existed prior to the consolidation but appeals increased by 61% (between 2015 and 2016) following consolidation measures[114].

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[114] MENRRT, (nd), *Analiz raboty s obrashheniyami grazhdan*. Available from: <http://eco.tatarstan.ru/rus/analiz-raboti-s-obrashcheniyami-grazhdan.htm>.
[Accessed on 1 April 2019].

Appendix G – NGO and donor funding rules

Figure 11 – New Government rules on NGOs and Foreign Donors[115]

NEW GOVERNMENT RULES **BREAK THE LINK** BETWEEN NGOs AND FOREIGN DONORS IN AZERBAIJAN

NGO

Ministry of Justice

Foreign Donor

NGO must apply for registration as a legal entity.

DENIED — **DENIED**

APPROVED — APPROVED

Donor must register an office in Azerbaijan.

NGO must re-register for any organizational change (e.g. change in address, phone number, board member) within 40 days.

DENIED — **DENIED**

APPROVED — APPROVED

Donor must apply for permission to act as a grant maker for a specific period of time.

NGO must register each grant in a complex process. Ministry has 10 different reasons for denial.

DENIED — **DENIED**

APPROVED — APPROVED

Donor must apply for authorization from the Ministry of Finance on "financial expediency" of each grant in a complex process. Ministry has 9 different reasons to deny grant.

NGO permitted to operate, but risks harrassment and interference for criticizing government.

Without access to funds, NGO suspends activities, lays off staff, and may be forced to close.

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[115] Human Rights Watch, 2016

Appendix H - Azeri authorities with environmental responsibilities, 2011[116]

Table 7 - Government bodies responsible for environmental protection

	Air	Forestry, Fisheries	Biodiversity	Climate change	Hazardous waste	Land and soils	Mineral resources	Oil pollution	Waste	Water
Azerbaijan Amelioration and Water Farm Joint Stock Company										■
Azersu Joint Stock Company										■
Executive powers and municipalities									■	
Joint Stock Company										■
Ministry of Agriculture							■			■
Ministry of Ecology and Natural Resources	■	■	■	■	■	■	■	■		■
Ministry of Economic Development				■				■		
Ministry of Emergency Situations	■				■				■	■
Ministry of Health					■					■
Ministry of Industry and Energy				■						
Ministry of Transport	■									
State Committee of Land and Cartography						■				
State Oil Company of Azerbaijan Republic									■	

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116 Aliyev, *et al.*, 2011, p.7

Appendix I – Ratification of international agreements

Table 8 – Country comparison of signed and ratified international environmental agreements[117]

International Agreement	Canada Signed	Canada Ratified	USA Signed	USA Ratified	Norway Signed	Norway Ratified	Russia Signed	Russia Ratified	Kazakhstan Signed	Kazakhstan Ratified	Azerbaijan Signed	Azerbaijan Ratified
Air Pollution		X		X		X		X		X		X
Air Pollution-Nitrogen Oxides		X		X		X		X				
Air Pollution-Persistent Organic		X	X			X						
Air Pollution-Sulphur 85		X				X		X				
Air Pollution-Sulphur 94		X				X	X					
Air Pollution-Volatile Organic Compounds	X		X			X						
Antarctic-Environmental Protocol		X		X		X		X				
Antarctic-Marine Living Resources		X		X		X		X				
Antarctic Seals		X		X		X		X				
Antarctic Treaty		X		X		X		X				
Biodiversity		X	X			X		X		X		X
Climate Change		X		X		X		X		X		X
Climate Change-Kyoto Protocol			X			X		X				X
Desertification		X		X		X		X		X		X
Endangered Species		X		X		X		X		X		X
Environmental Modification		X		X		X		X		X		
Hazardous Wastes		X	X			X		X		X		X
Law of the Sea		X				X		X				
Marine Dumping		X		X		X		X				X
Marine Life Conservation				X								
Ozone Layer Protection		X		X		X		X		X		X
Ship Pollution		X		X		X		X		X		X
Tropical Timber 83		X		X		X		X				
Tropical Timber 94		X		X		X						
Wetlands		X		X		X		X		X		X
Whaling				X		X		X				
Total Score (signed & ratified) (of 26)		**22**		**18**		**25**		**21**		**10**		**11**

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[117] Based on data from CIA World Factbook, (nd), *Environment - international agreements*. Available online from: <https://www.cia.gov/library/publications/resources/the-world-factbook/fields/294.html>.