Making Transboundary Risks Governable: Reducing Complexity, Constructing Spatial Identity, and Ascribing Capabilities

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Abstract Environmental problems that cross national borders are attracting increasing public and political attention; regulating them involves coordinating the goals and activities of various governments, which often presupposes simplifying and standardizing complex knowledge, and finding ways to manage uncertainty. This article explores how transboundary environmental problems are dealt with to render complex issues governable. By discussing oil pollution in the Baltic Sea and the gas pipeline between Russia and Germany, we elucidate how boundaries are negotiated to make issues governable. Three processes are found to be particularly relevant to how involved actors render complex issues governable: complexity reduction, construction of a spatial identity for an issue, and ascription of capabilities to new or old actor constellations. We conclude that such regulation is always provisional, implying that existing regulation is always open for negotiation and criticism.

Keywords Baltic Sea · Environmental regulation · Expertise · Framing · Governance · Transboundary risk

INTRODUCTION

Environmental problems are increasingly understood as transboundary matters. Since the 1950s, several international conventions on environmental risks have been adopted, one of the first being the International Convention for the Prevention of Pollution of the Sea by Oil. This convention has been followed by several international agreements concerning the atmosphere, marine living resources, hazardous substances, nature conservation, and nuclear safety. Regulating and managing environmental problems that cross national borders involve coordinating

the goals and activities of various governments, but these processes also often presuppose simplifying and standardizing a complex mass of knowledge and finding ways to manage uncertainty. Even in cases in which the vast majority of actors agree on the need for regulation, the issue may be contested and involve conflicting views of the character and scope of regulation and of who are the legitimate actors to construct, exercise, and amend rules.

This article concerns how transboundary issues are rendered governable. The point of departure is that regulatory objects are not stable or complete entities, ready to be governed. Instead, in the regulatory process, diverse issues are constructed as regulatory objects by means of complexity reduction and uncertainty management. Actors can ascribe an issue certain characteristics, such as being of local or global concern, calculable or indeterminate, curable or incurable, robust or vulnerable. They also make assumptions about appropriate remedies, relevant knowledge, and how to distribute responsibilities (see, e.g., Jasanoff 2005; Lidskog et al. 2009).

The article explores these issues, citing empirical examples concerning oil pollution in the Baltic Sea, in particular the debate on the Particularly Sensitive Sea Area (PSSA) designation of the Baltic Sea, and the approved gas pipeline between Russia and Germany to illustrate the general discussion of how transboundary environmental risks are governed.

Political, cultural, and organizational boundaries criss-cross the Baltic Sea area, making it a political patchwork and having major impacts on its environmental and governance status (Piechura et al. 2006; Karm 2008; Kern et al. 2008). Although eight of the nine states bordering the Baltic Sea are members of the European Union, the applicable national regulations directly or indirectly affecting the Baltic ecosystem vary substantially in scope

and intention between them. In addition, economic prerequisites for costly investments in the area differ significantly between the 14 states in the catchment area (Governmental Commission Report 2008). The gas pipeline and protection from oil pollution in the Baltic Sea exemplify complex transboundary environmental risks.

The article comprises six sections in addition to this introduction. The next section discusses the performative character of regulation, and identifies three dimensions that are relevant when studying regulation. The third section describes the two cases: oil transport and a gas pipeline in the Baltic Sea. The next three sections elaborate on the three identified dimensions, namely, how the complexity of these issues are reduced, how spatial demarcations are made to anchor issues territorially, and how certain actors are constituted as relevant and capable of being involved in regulation. The concluding section discusses the provisional character of the new boundaries created in regulatory processes: regulatory objects and established regulation are always open for criticism and negotiation.

TRANSBOUNDARY RISK GOVERNANCE

Politics concerns the power to influence society by restricting certain activities and enabling others, largely by means of regulation. The aim of regulation is not to eradicate risk, but to manage it, establishing boundaries for what is acceptable and developing systems for risk control (Hutter 2001; Lidskog et al. 2005).

Regulation, however, not only concerns how to manage predefined activities and objects, but also helps construct various entities. Regulation explicitly or implicitly creates demarcations and boundaries that make objects appear hazardous or harmless, safe or risky, natural or unnatural, important or unimportant. In this sense, regulation should be understood as discursively constituted (see, e.g., Rose 1999; Fischer 2003; Hajer and Wagenaar 2003), implying that analyses of regulatory processes should attend to how various actors conceptualize and understand reality. From this perspective, politics can be understood as a struggle for discursive hegemony in which actors attempt to promote their definitions of reality.

In recent decades, regulation has increasingly broadened its scope, focusing not only on how organizations deal with technically defined risk, but also on the legitimacy of the regulatory organization itself. One reason for this is increased awareness of how organizations deal with issues of trustworthiness—actualized by stakeholder involvement, public opinion, and media attention—as a source of risk, in the sense that other actors' understandings could threaten the legitimacy and stability of existing ways of governing risk (Power 2007). Rule-making concerns not

only rules about what is acceptable in terms of how we should mitigate or accept certain environmental hazards or health risks, for example, but also rules regarding the process itself and how actors evaluate the legitimacy of a given action.

Notably, these actors and their interactions are situated within institutional contexts that both enable and restrict their scope of action. Struggles between various actors' framings do not occur in a social vacuum, but are embedded in specific social contexts. The concept of "risk regulatory regime" denotes the complex of institutions, norms, practices, and knowledge that heavily influence the regulation of a particular risk (cf. Hood et al. 2001).

The fact that environmental problems are increasingly understood as transboundary matters implies not only that problems are perceived as transcending national borders; other established boundaries are challenged as well, such as demarcations between experts and citizens, and between the public and private sectors. Due to increased awareness of the provisional character of scientific knowledge, a number of proposals have been made to meet the requirements of public or stakeholder involvement in science, for example, "contextualized science production" (Nowotny et al. 2001), "extended peer review" (Ravetz 1999), and "scientific citizenship" (Irwin 2001). These proposals mainly concern how science can be democratized and the relationship between citizens and experts negotiated. Moreover, traditional top-down ways of managing environmental problems are becoming increasingly obsolete, as creating new forms of governance and actor coalitions is often seen as a more feasible and efficient way to handle transboundary risks (Voß et al. 2007). This development has generated an extensive social science literature on the various consequences of a shift from "government to governance," that is, a shift from centralized government power to more network-based forms of governance. As scholars have indicated, it is too far-reaching to conclude that the power of the nation state is dissolving and that other actors are replacing it as the center of political action (Held and McGrew 2007; Sundström and Jacobsson 2007). Instead, this shift implies that the nation state must use complementary strategies to exert influence and manage activities, for example, through coalition-building and partnership.

To sum up, in the endeavor to make transboundary issues governable, uncertainties and/or conflicting knowledge claims have to be managed. The framing of a problem will exert considerable influence on what knowledge is seen as relevant. Accordingly, one important aspect of analyzing regulation is to consider how complexity can be reduced and uncertainty managed. Furthermore, in a world organized in terms of territorial boundaries, to become subject to political action, environmental problems must be

tied to particular administrative–geographical jurisdictions. Thus, another relevant aspect of the analysis is exploring how regulatory issues are connected to particular spatial identities. Finally, as boundaries between experts and citizens, between public and private actors, are increasingly being negotiated, analyses of transboundary risk governance should pay attention to how actors are assigned capabilities and responsibility to act, i.e., how actors' mandates and scopes of action are negotiated and responsibilities attributed in the regulatory process. The following sections will discuss these matters in relation to two empirical examples.

OIL TRANSPORT AND THE SUBMARINE GAS PIPELINE IN THE BALTIC SEA

Throughout history, the boundary between the freedom of and sovereignty over the seas has been contested and challenged (Brown 1994). Previously established in customary law, today these principles are regulated in international conventions, the main one being the United Nations Convention on the Law of the Sea (UNCLOS), which restricts coastal states' sovereignty to the outer limits of their territorial seas.

In the twentieth century, sea transport has increasingly resulted in pollution, such as oil spills, operational discharges, and waste dumping (Fig. 1). Oil discharge from vessels has been noted as one of the most obvious sources of pollution. Repeated tanker accidents have drawn increasing

media attention and stirred up public debate, which in turn has created a climate conducive to regulating the sea transport of oil. Although disaster led, the regulation of the *sea transport of oil* concerns both safety issues/accident prevention and preventing discharges during regular operation. The former concerns the occasional but high-profile consequences of the sea transport of oil, whereas the latter concerns ongoing practices that actually result in greater total discharge, since terminal operations (i.e., oil loading and unloading) are the most common source of oil pollution in the sea (IMO 1998). To strengthen protection of the Baltic Sea, in 2005—after a joint application from Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, and Sweden—the Baltic Sea was, except for its Russian waters, designated a Particularly Sensitive Sea Area (PSSA) by the International Maritime Organization (IMO). The IMO is an international regulatory organization whose main objectives are ensuring shipping safety and preventing marine pollution from ships. The organization is empowered to deal with administrative and legal matters related to these objectives. International Law of the Sea may be understood as an ongoing endeavor to balance the two fundamental but opposing principles of territorial sovereignty and the freedom of the high seas. In this endeavor, concepts referring to pollution, such as the PSSA concept, challenge the cherished principle of freedom of the high seas, providing environmental justifications for restricting this freedom. The following discussion of oil transport focuses on the debate preceding the designation of the Baltic Sea as a PSSA.

Fig. 1 Oil booms for the containment of oil near Bornholm, Baltic Sea. *Source:* Steven Zeff/Azote

The *gas pipeline* in the Baltic Sea will create an immensely extended infrastructure for natural gas, satisfying West European energy demand but prolonging European use of and dependence on fossil fuels. It will also strengthen Russia's status as an interdependent trading partner and empowered actor on the European political scene. The pipeline is currently being constructed by Nord Stream AG, a joint venture comprising five main parties, the Russian gas company Gazprom being main shareholder.

The pipeline route runs from Vyborg in the Gulf of Finland, through the exclusive economic zones of Finland, Sweden, and Denmark, to Greifswald in northeastern Germany (Nord Stream 2008). It consists of two parallel pipelines; construction of the first line started in April 2010, and this line is scheduled to be operational in 2011, while the second line is planned to be operational in 2012 (Nord Stream 2009a; Fig. 2). Since the pipeline is expected to create environmental impacts in several countries, it is subject to international conventions. The Convention on Environmental Impact Assessment in a Transboundary Context ("Espoo Convention," UN 1991) requires that countries inform one another if a proposed activity might have an impact across national boundaries. The Espoo Convention distinguishes between "party of origin," meaning the countries within whose jurisdictions the proposed activity takes place, and "affected party," meaning the countries "likely to be affected by the transboundary impact of a proposed activity" (UN 1991, article 1). In the case of the pipeline, Germany, Russia, Denmark, Sweden,

and Finland are parties of origin, while the affected parties are, according to Nord Stream's definition, the parties of origin plus Estonia, Latvia, Lithuania, and Poland.

The gas pipeline is a stationary physical construct while oil pollution is a dynamic entity, implying that accidents and discharges can happen anywhere. Both entities geographically cross national, regional, and local boundaries. Oil pollution from operational discharges and tanker accidents transcends territorial boundaries and affects individual states. At the same time, to protect its coastline from oil pollution, the individual state must negotiate and collaborate with other states. In the discussion of the PSSA designation, regional agreements, such as the HELCOM agreements, were considered weak, since they apply only to the contracting parties, while the IMO was defined as a powerful organization, since it creates binding rules for the international community (Uggla 2007).

The gas pipeline may affect all countries in the Baltic Sea Region because of its potential impact on the marine environment and fisheries. However, national permission is needed only from those countries whose territorial waters and/or economic zones are crossed by the pipeline, namely, Russia, Finland, Sweden, Denmark, and Germany. The other four parties, i.e., Poland, Lithuania, Latvia, and Estonia, can only review the assessments of the project's potential impact and have no legal standing to hinder the project. Other affected political boundaries are those between Russia and other East European countries; in particular, Ukraine and Poland have expressed worries about the increased influence

Fig. 2 The first of the two pipelines surfaced from the sea onto the Russian shore on July 28, 2010. *Source:* Nord Stream AG

Russia is gaining by building of the pipeline (Bouzarovski and Konieczny 2010). Many publics are concerned in various ways. The demarcation between “parties of origin” and “affected parties” is not unproblematic; for example, Ukraine is not included in either of these categories and is thus excluded from the international consultation process. Furthermore, the nine “affected” countries were all notified of potential environmental impacts, but only the five “parties of origin” had to conduct environmental impact assessments (EIAs) and public consultations in their countries (Nord Stream 2009b).¹

The remainder of the article draws on these empirical examples to explore how complexity is reduced, spatial identity created, and actors constructed in processes aiming to regulate transboundary risk.

REDUCING COMPLEXITY AND MANAGING UNCERTAINTY

To make complex phenomena governable, complexity must be reduced and uncertainties managed. This can be done by delimiting the scope of the regulatory object; this is exemplified in various cases of environmental risk regulation, in which delimiting results in a regulatory process that emphasizes certain aspects of an issue and disregards others (Lidskog et al. 2009). One example of this is the Swedish government decision of 5 November 2009, which permitted the Baltic Sea pipeline to pass through the Swedish economic zone. The decision considered only the environmental impacts arising from the proposed geographical location of the pipeline, mainly because the freedom of the sea principle means that any state can lay submarine cables and pipelines on the continental shelf. Apart from objections concerning pollution and other considerations regarding direct environmental consequences, coastal states are not entitled to hinder the laying of such submarine pipelines (UNCLOS 1982, art. 79, 87). Therefore, other aspects of the pipeline—such as broader environmental issues (e.g., GHG emissions) and energy policy and national security issues—were excluded. A political commentator, who criticized the Swedish government for ignoring the implications of increased Russian presence in the Baltic Sea, stated that the government had “filtered out environmental mosquitoes, and instead swallowed a Russian camel” (*Svenska Dagbladet* 2009).

When the Swedish government finally made its approval decision, it explicitly asserted that all relevant

environmental considerations had been taken into account during the process with its several rounds of referral (Carlgrén 2009). Notably, four central public agencies emphasized that the application had to be supplemented with further investigations from the applicant. The Swedish Maritime Administration and the Swedish Transport Agency stated that, in its application, Nord Stream had not considered that the Baltic Sea was classified as a PSSA, and that, in assessing what should be considered acceptable risk, it had ignored the fact that the Baltic Sea was a PSSA worthy of protection. Therefore, the application needed to be complemented by a more detailed evaluation of the risks and consequences of the proposed pipeline. In addition, these agencies, together with the Swedish Environmental Protection Agency, stated that the applicant had insufficiently investigated alternative pipeline routes that would separate the pipeline from existing shipping routes (Swedish Transport Agency 2009; SEPA 2009a; Swedish Maritime Administration 2009).

From a broader environmental perspective, the reduction of the complexity of the issue is obvious. Natural gas, though cleaner than coal or oil, is a nonrenewable fossil fuel that contributes substantially to global warming. The Swedish Environmental Protection Agency mentioned this, stating that the government’s decision does not allow for discussion of broader environmental issues, such as whether there are better energy sources than fossil gas (SEPA 2009b). Any considerations regarding broader environmental impacts, such as GHG emissions, were excluded from the government decisions of the coastal states.

Another example of complexity reduction concerns protecting the Baltic Sea from oil pollution. In recent years, increased Russian oil exports have been cited as an environmental threat, necessitating stricter regulation of oil transport in the area. To this end, the formal PSSA concept has been proposed as a way to strengthen environmental protection in the area. The Baltic Sea states’ pursuit of a PSSA designation for the Baltic Sea was driven mainly by Sweden. The main actors in the internal Swedish debate—the government, members of parliament, and environmental organizations—all seemed to agree on the vulnerability of the Baltic Sea and the threat posed by increased shipping. One problem repeatedly mentioned in the debate was the large number of illegal oil discharges and the difficulty of taking legal action against them. Another recurrent issue is the impending risk of a tanker accident. Actors engaged in the debate agreed that having the Baltic Sea designated a PSSA by the IMO could be a feasible means to protect the area. With the loss of the oil tanker *Prestige* off the coast of Spain in 2002, the debate intensified, gradually emphasizing the risk of major tanker accidents as the main threat. This focus and the PSSA designation as the proper regulatory means contributed to concerted action on the matter

¹ See Ugglå (2007) and Lidskog et al. (2009) for a more detailed description of the designation of the Baltic Sea as a PSSA, and Sayuli Fransson et al. (in press) for a more detailed description of the gas pipeline in the Baltic Sea.

(Uggla 2007; cf. Roberts et al. 2005). Although narrowing an issue may be useful in gathering support and engagement for stricter regulation, this way of handling environmental risk implies reducing a particular issue to certain instrumental consequences of a phenomenon or activity (cf. Wynne 2005). For example, although oil pollution concerns both the issue of liability and the prevention of accidents and discharges during regular operation, the central role of the Prestige disaster in the debate colored the understanding of the problem and of its appropriate remedies, i.e., ship standards and security issues were emphasized at the expense of liability.

Reducing the complexity of an issue and packaging it in symbolism (as in the loss of the Prestige), together with framing environmental impact (e.g., of the pipeline) as a question separated from energy politics, construct narratives of a certain kind (cf. Jasanoff 2005). These narratives create order and guide attention; in this, they contribute to strong but narrow debate, in that they absorb attention and incite actors to action in specific, delimited areas.

CONSTRUCTING SPATIAL IDENTITIES

In a world of territorially organized politics, issues must be territorially anchored to be manageable. Although increasingly understood as transboundary risks and global concerns, environmental regulatory issues have to be assigned to particular organizations or administrative units. In international agreements, based on negotiations between nation states, responsibilities to take action and the matter of liability are often delegated to individual states. Responsibilities, however, do not always follow predefined administrative boundaries. By ascribing a problem specific spatial characteristics, actors implicitly advocate a certain handling of the problem as well as who should be responsible for and participate in the regulatory process. Ascription of spatial identity is a performative act, as localizing or globalizing an issue imbues it with meaning and creates opportunities for political action (Czarniawska and Joerges 1996).

Spatial identity has figured prominently in preventing Baltic Sea oil pollution, which has often been defined as a regional concern, resulting in regional agreements. Since shipping certainly is a transboundary activity, in which commercial vessels regularly cross national borders, making use of the freedom of the high seas, regional agreements have often appeared insufficient to regulate it. The main weakness of such regional agreements is that they apply only to the contracting parties. In the case of protecting the Baltic Sea from oil pollution, approaching the issue through the IMO, by pursuing the designation of the area as a PSSA,

including demands for special regional rules for ship standards and crew certification, struck some actors as an effort to extend national and regional authority and to challenge the principle of the freedom of the high seas, defining Baltic Sea protection as a global concern (Lidskog et al. 2009). However, such special regulation, including rules covering ship standards and crew certification for ships entering the area, was rejected by the IMO. One reason for this rejection was that the IMO generally opposes such regional rules, since its mandate is to pursue global issues. In contrast, regional regulation under the terms of the PSSA approved by the IMO comprises geographically anchored measures, such as separation schemes, deepwater routes, and areas to be avoided. In this case, the actors involved succeeded in making protection of the Baltic Sea environment a global concern. At the same time, the scope of action was limited to the set of measures approved by the IMO.

In the case of the Baltic Sea pipeline, there were calls to investigate land-based alternative routes on the eastern side of the Baltic Sea. These calls were dismissed, and with the proposed route lying on the seabed of the Baltic Sea, only those countries that were “parties of origin” had to conduct EIAs. The route is thus crucial in determining who has a say in the consultation process and exemplifies how the co-production of the problem’s spatial identity and of concerned publics is affected by the distinctions between actor categories made by the Espoo Convention and the developer.

Accordingly, through shaping the spatial identity of a problem, a particular environmental issue can be handled as a matter of international priority, the sole responsibility of domestic politics, or a local problem for municipalities. Actors vie to bind issues to specific spatial identities, thereby creating incentives for certain types of political action or inaction, placing expectations regarding accountability on certain actors.

One assumption underlying this construction of spatial identity is the transboundary nature of environmental risks. The consequences of transboundary problems can be spatially distributed in uneven and unexpected ways. Oil discharges have a local impact, but oil transport at sea is primarily regulated by international cooperation and agreements. At the same time as the transboundary nature of environmental pollution is increasingly recognized, new spatial demarcations are continuously being made. Transboundary problems are always connected to the construction of meaning and the understanding of local, national, regional, or global perspectives. Regulations, such as the Espoo Convention, may also impose deeply entrenched understandings of particular entities and the boundaries between them. However, interpretation is also involved when implementing the rules formulated in the Convention. The Espoo Convention defines “transboundary

impact” as “any impact ... within an area under the jurisdiction of a Party caused by a proposed activity the physical origin of which is situated wholly or in part within the area under the jurisdiction of another Party” (UN 1991, article 1). The convention is based on clear boundaries of nation states, a question that is problematic when it comes to raising questions of concern, and especially those of NGOs, as we will see in the next section.

If actor identities are shaped in conjunction with the shaping of the spatial identity of environmental risk, this poses certain challenges to the governance of transboundary risk.

ASCRIBING CAPABILITIES, ALLOCATING RESPONSIBILITY

In recent decades, traditional top-down ways of managing environmental problems have been questioned, and governance—policy-making that involves a wide range of public and private actors at various policy levels—has been proposed as a more feasible and efficient way to handle transboundary risks (Benner et al. 2004; Winter 2006).

Environmental problems are increasingly understood as cross-sectoral problems in which actor responsibility is blurred (Stoker 2000). Governmental authorities must often participate in networks to find ways to establish legitimate risk assessment and regulation seen as trustworthy, relevant, and efficient. To make an issue manageable, it is not enough to reduce its complexity and construct a spatial identity; in addition, the legitimate actors competent to act in and be responsible for the regulatory process must also be identified. As seen above, reducing the complexity and constructing the spatial identity of an issue involves drawing boundaries and making demarcations. These boundaries influence what tasks, mandates, responsibilities, and identities are ascribed to various actors, resulting in certain actors being seen as central to the regulatory work, while others are seen as irrelevant.

In Sweden, there was basic agreement on the problem definition among a variety of actors—politicians, environmental organizations, and public agencies—when discussing protecting the Baltic Sea from oil pollution. The Baltic Sea was unanimously defined as a unique, fragile, and threatened inland sea that merited special protection, not least due to increased Russian oil exports. These actors also agreed to pursue a PSSA designation to protect the Baltic Sea, thereby framing the matter of environmental protection related to oil transport at sea as a judicial matter. This framing delimited the debate, which came to center on the proper interpretation and application of the Law of the Sea and the characters of the various actors involved in terms of, for example, responsibility, qualification,

commitment, and ability to act (Lidskog et al. 2009). For example, in international negotiations of the PSSA designation, held under the auspices of the IMO, the Swedish government relied heavily on the Swedish Maritime Administration and its expertise, whereas complementary or alternative proposals within the PSSA framework from other actors in the internal debate (e.g., parliamentary parties and the environmental movement) were considered inapplicable and irrelevant.

The above seems to exemplify a straightforward kind of discrimination: some actors’ statements were taken as less relevant than others due to their formal expertise. The status of various actors in the process may, however, be subject to more subtle influences. How stakeholders are constructed, concerned actors categorized, and certain capabilities ascribed to involved actors may result from historical and cultural processes that result in taken-for-granted categories and distinctions.

In the case of the pipeline and ahead of the final decision, the Swedish government granted what it considered the 11 most relevant public agencies the opportunity to submit comments, to which Nord Stream would respond. By singling out “relevant” public agencies, other actors, such as environmental NGOs, were excluded from contributing to the final stage of the permission process. While the Espoo convention states it is the developer’s task to designate “competent authorities,” the singling out of relevant “publics” is also done in more opaque ways.

As stated above, the Espoo Convention clarifies several distinctions and categories, such as “parties of origin” and “affected parties.” It also briefly defines “the Public” as “one or more natural or legal persons” (UN 1991, article 1). What is interesting in this respect is that discussions of “concerned publics,” for example, in the Aarhus Convention (UN 1998) or the EU Directive on Environmental Impact Assessment (EC 1985), single out environmental NGOs as “concerned [our italics] publics” only with reference to “the public,” which refers in principle to any individual who wants to provide input regarding a proposed activity (Governmental Bill 2004/05).

There are, however, cases of Nord Stream portraying NGOs, such as Greenpeace, in ways that make them seem in favor of the gas pipeline. For example, Nord Stream refers to a Greenpeace report (2008) stating that natural gas could be used as a translational fuel while other fossil fuels are phased out and a system for renewable energy is being established (Nord Stream 2010). This, however, takes into consideration neither the entire energy scenario presented in the Greenpeace report, nor Greenpeace’s critique of the Nord Stream pipeline, some of which raises broader energy policy concerns. For example, Greenpeace Russia has expressed worries that increased gas exports might result in

more nuclear power plants being built in Russia (Ria Novisti 2009). Moreover, the Nord Stream gas pipeline is not part of an overall policy shift toward renewable energy sources, which would follow the key principles formulated in Greenpeace's energy scenario.²

These examples indicate that various actors have endeavored to influence both the regulatory processes and their outcomes. In trying to achieve such impact, these actors explicitly or implicitly positioned themselves in relation to others. When actors involved in a regulatory process convey their view of the need for regulation and of how they perceive the regulatory process, they are also conveying something about their view of themselves and "the other"; that is, agency and responsibility are constructed via both identification and discrimination. Regulation provides a space in which actors' identities are negotiated and shaped, resulting in the allocation of mandate and responsibility for regulating a given issue.

CONCLUSIONS

In this article, we have discussed how transboundary issues are subject to renegotiation across boundaries. We have argued that three processes are particularly relevant in such renegotiation and in making complex issues governable: complexity reduction, construction of spatial identity, and the construction of responsible and capable actors.

Complexity reduction touches on various aspects of the regulatory issue. In the case of the designation of the Baltic Sea as a Particularly Sensitive Sea Area, the symbolic meaning attached to the loss of the tanker *Prestige* accentuated the urgency of the matter and spurred concerted action among a variety of actors. At the same time, the focus on tanker disasters narrowed the debate concerning proper regulatory measures. The complexity reduction concerned the scope of the issue, implying a focus on technical details and appropriate measures according to the current regulatory framework. In the case of the gas pipeline, the issue was delimited by the definition of environmental concerns inserted in the regulation. The procedure involving environmental impact assessment (EIA) calls attention to environmental consequences and

elaborates alternatives. EIA, however, is connected to the aims of limiting debate, since it singles out only a few alternatives and excludes wider discussion of the issue. This closes the process to wider policy discussion concerning science and technology choice, since certain technological commitments "appear as preferable under the particular framing conditions" (Stirling 2008, p. 279). In this sense, regulation is designed in a way that makes it possible to pursue certain projects, such as the gas pipeline.

Opening up the discussion concerning the gas pipeline could have meant interpreting the project in light of broader energy politics issues, and potentially another spatial identity, including a broader area than that demarcated by the parties identified as relevant in the EIA process.

Complexity reduction and the construction of a spatial identity for a regulatory issue simultaneously imply reducing the number of actors deemed relevant or legitimate participants. Likewise, they delimit how various actors can be involved in the regulatory process. These boundaries, however, may be contested and negotiated, which creates potential to open up the process. Should this happen, complementary subjects can be raised, making the issue more complex again. In regulatory processes, the establishment of rules and procedures constitutes only temporary closure, since input in various forms recurrently calls attention to the provisional feature of regulation.

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² According to Greenpeace (2008), the five key principles underlying a shift towards renewable energy are as follows: (1) implement renewable solutions, especially through decentralized energy systems; (2) respect the natural limits of the environment; (3) phase out dirty, unsustainable energy sources; (4) create greater equity in the use of resources; and (5) decouple economic growth from the consumption of fossil fuels.

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