

PROSPECTS FOR ECOLOGICAL MODERNIZATION IN RUSSIA: ANALYSIS OF THE POLICY ENVIRONMENT

NINA TYNKKYNEN
UNIVERSITY OF TAMPERE

Abstract: This article assesses the prospects for ecological modernization in Russia by scrutinizing the policy environment which conditions the structuration of environmental policy. Recently introduced state environmental policy principles for the period up to 2030, which the Russian government states to be the main goal for the country's ecological modernization, form the starting point of this analysis. The main aim of the article is to shed light on the factors that enable or constrain the implementation of these principles and ecological modernization in general. The article concludes that while institutional improvement is taking place, other dimensions of the policy environment are less favorable for ecological modernization. Thus, the outcome we see so far resembles a weak version of ecological modernization, which emphasizes technological solutions and the development of governance structures as a core change. The strong version, necessitating change in cultural-discursive patterns and social institutions, is not likely to take place in the near future.

In April 2012, Russian President Dmitry Medvedev adopted a new set of principles for state policy in the area of environmental development

Nina Tynkkynen is Senior Research Fellow at the School of Management & School of Language, Translation and Literary Studies, 33014 University of Tampere, nina.tynkkynen@uta.fi. This article is a part of "Choices of Russian Modernization," a research project funded by the Academy of Finland.

through 2030.¹ Although environmental non-governmental organizations (NGOs) have criticized the document for not introducing practical policy instruments,² it nevertheless outlines a range of important social and economic principles in the sphere of Russia's environmental policy. Laying out such principles is a promising step: together with the legacy of Soviet economic planning and its authoritarian system of governance, Russia's economic and societal transition has obstructed the development of environmental policy and management. In fact, the system of environmental governance has suffered from constant change since the late 1980s.³ Although the ecological situation in the country improved during the 1990s because of the economic "hyperdepression," this success was not the result of improved environmental policies, but happened mainly because of a decline in industrial activities. Rather than ecological modernization, this development can be called ecological subversion⁴ or environmental deinstitutionalization.⁵ Given Russia's legal and political system, the introduction of the principles does not, however, automatically lead to improved environmental policy – the current document's antecedents, such as the Russian Ecological Doctrine introduced by the government in 2002, have achieved little improvement, and even the effectiveness of more concrete targeted federal programs, such as "Ecology and Natural Resources of Russia (2002–2010)," performed poorly due to inadequate financing and weak coordination.⁶

The aim of this article is to assess the prospects for ecological modernization in Russia vis-à-vis the existing policy environment. The main research question I address is the following: how does the existing policy environment here and now enable or constrain the implementation of state environmental policy principles introduced in 2012? It needs to be noted that the analysis concentrates on the present policy environment;

¹ President Rossii. 2012. *Osnovy gosudartsvennoi politiki v oblasti ekologicheskogo razvitiia Rossiiskoi Federatsii na period do 2030 goda*. At <http://kremlin.ru/acts/15177>, accessed 11 April, 2014.

² See e.g. Roland Oliphant. 2012. "Medvedev signs off on ecology policy." *The Moscow Times*, 3 May. At <http://www.themoscowtimes.com/business/article/medvedev-signs-off-on-ecology-policy/457910.html>, accessed 11 April, 2014.

³ E.g. Jonathan D. Oldfield. 2005. *Russian nature. Exploring the environmental consequences of societal change*. Aldershot: Ashgate; Laura Henry and Vladimir Douhovnikoff. 2008. "Environmental issues in Russia." *The Annual Review of Environment and Resources* 33: 437–460.

⁴ Mikael Skou Andersen. 2002. "Ecological modernization or subversion? The effect of Europeanization on Eastern Europe." *American Behavioral Scientist* 45: 9 (May): 1394–1416.

⁵ Arthur P.J. Mol. 2009. "Environmental deinstitutionalization in Russia." *Journal of Environmental Policy and Planning* 11: 3 (August): 223–241; see also Masahiro Tokunaga. 2012. "Environmental governance in Russia: the 'closed pathway' to ecological modernization." *Environment and Planning A* 42: 1686–1704.

⁶ Jonathan D. Oldfield. *Russian nature...*, p. 76.

predicting the changes in the environment up to the endpoint of the period of state policy principles (2030) would be difficult, if not impossible.

The concept of policy environment draws from a social structurationist model of policy formation, developed by Aalto et al. to explain energy policy formation.⁷ This model conceptualizes the policy environment in terms of structural dimensions and then identifies enabling and constraining factors within each dimension. The dimensions straddle the physical, financial, institutional and ideological aspects of structure.⁸ The article also identifies the actors relevant for understanding the social dynamics of Russia's environmental policy sector. To describe the structural dimensions of the policy environment, I use empirical data such as documents, speeches, news, reports and statistics. Occasionally I also employ interviews that I have conducted during different research projects on environmental problems and policy in Russia during 2002–2013⁹ as sources of information, albeit not in any systematic way. As there are relatively few studies in the Russian language examining environmental policy, I also refer to analyses conducted by Western institutions and other previous research outside Russia to account for dimensions of the policy environment.

The study is rooted in the concept of ecological modernization, which has been praised as a particularly appropriate framework for considering the development of environmental approaches in post-communist countries. The concept is illuminating because these societies employ its basic premises in their societal development: a strong commitment to economic growth, science, and technological solutions.¹⁰ Of course, many of the post-communist countries have, as members of the European Union, committed themselves to environmental policy development as set by the Union, which requires these countries to revise their traditional hierarchy of policy objectives.¹¹ With regard to Russia, a non-EU member, I argue that the concept is well in line with its long-term environmental

⁷ Pami Aalto, David Dusseault, Markku Kivinen and Michael D. Kennedy. 2012. "How are Russian energy policies formulated? Linking the actors and structures of energy policy." In Pami Aalto, ed., *Russia's energy policies. National, interregional and global levels*. Cheltenham and Northampton: Edward Elgar; Pami Aalto, David Dusseault, Michael D. Kennedy and Markku Kivinen. 2014. "Russia's energy relations in Europe and the Far East: towards a social structurationist approach to energy policy formation." *Journal of International Relations and Development* 17: 1 (January): 1–29.

⁸ The dimensions slightly differ from the original (see below).

⁹ This includes about 40 interviews with Russian environmental policy actors: NGO members, environmental authorities and policymakers mainly in St. Petersburg and Kaliningrad.

¹⁰ Joan DeBardleben and Kimberly Heuckroth. 2001. "Public attitudes and ecological modernization in Russia." In Ilmo Massa and Veli-Pekka Tynkkynen, eds., *The struggle for Russian environmental policy*. Helsinki: Kikumora Publications, pp. 49–76.

¹¹ See William Lafferty and Eivind Hovden. 2003. "Environmental policy integration: towards an analytical framework." *Environmental Politics* 12: 3: 1–22.

policy goals, i.e. the state environmental policy up to 2030. The document states, for example, that “(t)he development of these Principles is to ensure environmental security while modernizing the economy and during the process of innovative development”, and that “(t)he strategic objective of State policy in the field of environmental development is achieving the socio-economic goals for environmentally oriented economic growth.”¹² While not taking a stand on whether ecological modernization is enough to “save the planet,” for practical purposes I use the concept of ecological modernization here to refer to what is the main goal of these environmental policy objectives and to reflect on the changes taking place in Russia’s environmental policy. In the concluding part of the paper, I assess what kind of ecological modernization – economic, institutional-political, cultural-discursive, or external influence,¹³ and whether in a weaker or stronger version – is likely to take place in Russia.

The article proceeds as follows: first, the concept of ecological modernization, and the way in which I analyze the policy environment, are explained. Second, the state environmental policy principles are introduced. Third, in carrying out the actual analysis, I identify the actors who shape the social dynamics of the environmental policy sector. Then, I describe the policy environment using the four structural dimensions – physical, financial, institutional and ideological – that either enable or constrain environmental policy formation. Finally, I assess the prospects for realizing the environmental policy principles and, more to the point, for the ecological modernization of Russia, in terms of the dimensions of the policy environment.

Conceptual Underpinnings

The concept of ecological modernization

Ecological modernization theory focuses on social, institutional and political transformations taking place as a response to worsening environmental problems in industrialized countries.¹⁴ In brief, ecological modernization refers to a process that incorporates real and planned transformations in social practice, institutional design and discourses concerning ecology

¹² Unofficial English translation by W. Th. Douma with the help of D.N. Ratsiborinskaya at <http://www.asser.nl/upload/documents/20120507T042539-2012>, accessed 18 September, 2014.

¹³ Juha Kotilainen, Maria Tysiachniouk, Antonina Kuliasova, Ilia Kuliasov and Svetlana Pchelkina. 2008. “The potential for ecological modernization in the Russian context: scenarios from the forest industry.” *Environmental Politics* 17: 1 (January): 58–77.

¹⁴ Arthur P.J. Mol and Gert Spaargaren. 2000. “Ecological modernization theory in debate: a review.” *Environmental Politics* 9: 1 (January): 17–49; Joseph Murphy. 2000. “Ecological modernization”. *Geoforum* 31: 3 (August): 1–8.

and the environment. One of the underlying notions of the theory is the interdependency between economic growth and environmental protection; most of the proponents of the theory see the market economy as capable of generating effective responses to environmental problems. Along these lines, science and technology are recognized as powerful tools to address environmental problems, and modern governance structures are seen as potentially effective regulatory frameworks.¹⁵ Critics, however, have dismissed ecological modernization as a rather shallow and narrow way of reacting to environmental problems because it continues to accept such concepts as the need for constant economic growth.¹⁶

There are a number of variations of the theory: while a weak version of ecological modernization emphasizes technological solutions as the core of change, the strong version necessitates change also in social institutions; other variations are something in between.¹⁷ Hajer, for instance, distinguishes between a “techno-corporatist” interpretation which emphasizes the “economization of nature” and elitist decision-making structures (a weaker form of ecological modernization), and an interpretation that underlines changes to production and consumption through greater democratization, redistribution and social justice (a stronger form).¹⁸ The latter interpretation is indicative of reflexive modernization, implying that political and economic development are based on critical self-awareness – public scrutiny and democratic control.¹⁹

Kotilainen et al.²⁰ offer an example of the application of the concept as an analytical tool in the Russian context. Based on the ecological modernization literature, they distinguish between four principal scenarios of ecological modernization in Russia. The economic scenario emphasizes technological development and other economic factors as main drivers for Russia’s ecological modernization. The institutional-political scenario suggests that ecological modernization would be initiated first and foremost by integrating environmental issues into state institutions, legislation

¹⁵ John Barry. 2005. “Ecological modernization.” In John Dryzek and David Schlosberg, eds., *Debating the Earth: the environmental politics reader* (2nd ed.). Oxford: Oxford University Press, pp. 303–321.

¹⁶ Pieter Leroy and Jan Van Tatenhove. 2000. “Political modernization theory and environmental politics.” In Gert Spaargaren, Arthur Mol and Fred Buttel, eds., *SAGE studies in international sociology: environment and global modernity*. London: SAGE Publications Ltd., pp. 187–209; see also John Barry. “Ecological modernization...”

¹⁷ David Gibbs. 2000. “Ecological modernization, regional economic development and regional development agencies.” *Geoforum* 31: 1 (January): 9–19.

¹⁸ Maarten A. Hajer. 1993. “Discourse coalitions and the institutionalisation of practice: the case of acid rain in Great Britain.” In Frank Fischer and John Forester, eds., *The argumentative turn in policy analysis and planning*. Durham: Duke University Press, pp. 43–76.

¹⁹ Maarten A. Hajer. 1995. *The politics of environmental discourse: ecological modernisation and the policy process*. Oxford: Oxford University Press.

²⁰ Juha Kotilainen et al. “The potential...”

and politics. The cultural-discursive scenario, in turn, underscores change rooted in cultural and discursive practices: the rising level of environmental awareness strengthens environmental values and influences the cultural sphere, including industries and business actors. Finally, according to the external influence scenario, ecological modernization in Russia would be encouraged by transnational networks mediating between Russian, Western and transnational spaces. This scenario assumes an increasing role for non-state actors in global environmental governance: environmentally sensitive markets and the pressure of non-governmental organizations (NGOs).²¹ It also impacts the sphere of cultural-discursive practices by bringing new discourses to Russia, as well as the sphere of the economy by creating new pressure on economic actors. These scenarios are to be understood as ideal types; in reality, they are interconnected and, in some cases, overlapping.

Analyzing the policy environment

In this paper, I use the concept of policy environment and analyze it with the help of categorizations developed for the so-called social structurationist model of policy formation. The aim of the model is to make sense of the policy environment with which actors need to cope.²² It was originally developed to analyze energy policy formation, but in this article I test its applicability to explain Russia's environmental policy formation: like energy policy, environmental policy is in many ways a similarly complex field; thus, using analytic tools beyond the conventional and appropriate to explain the formation of energy policy takes effort. The model is particularly fruitful, because it grasps material as well as ideational dimensions of environmental policy: like energy policy, environmental policy is heavily based on various types of materiality.²³ While the original model contains several stages, for the purposes of this article I apply the model only partly, taking advantage of the concept of policy environment and structural dimensions.

Accordingly, the policy environment is here conceptualized and described in terms of structural dimensions enabling and constraining policy formation. The process incorporates real and planned transformations in social practice, institutional design and discourses concerning ecology and the environment. Accordingly, factors that enable or constrain – e.g. the introduction of environmentally sound technologies, environmental management systems, improved state institutions, legislation and policies, and raising the environmental awareness and participation of

²¹ Juha Kotilainen et. al. "The potential...", p. 63, p. 73.

²² Pami Aalto et al. "Russia's energy...".

²³ Cf. Michael Watts. 2004. "Antinomies of community: some thoughts on geography, resources and Empire." *Transactions of the Institute of British Geographers* 29: 2: 195–216.

the public – are assessed. In the case of Russia's environmental policy, enabling factors are often negative, such as the costs of not taking action, for instance. Also the current state of affairs can be regarded as an enabling factor when it is so poor that it can be improved rather easily and with low cost. Looking at the situation in this light suggests that positive enabling factors, such as political constituencies or resources available, may in the Russian case be heightened by these negative enabling, factors.

For the purpose of analyzing environmental policy, I slightly modify the dimensions developed to analyze energy policy in the original work of Aalto et al.²⁴ Instead of the original term “resource geographic” referring to the first dimension, I prefer to use the term physical, because for environmental policy, resource is not as central a concept as it is for energy policy; yet physical and material structures are essential. Moreover, I prefer to call the fourth dimension, ecological in the original, ideological here, because it seems to make more sense than the “ecological” dimension when environmental policy is concerned. The contents of the dimension, however, are more or less similar to the original version, referring to varying patterns of “green” thought and (public) pressure (see below). Accordingly, the four dimensions of structure as used in this article are: physical, financial, institutional and ideological. The four structural dimensions are analytical categories describing the policy environment faced by the actors. In the following paragraphs, the structural dimensions are explained in brief, drawing on Aalto et al.²⁵ but adapted to the context of environmental policy instead of that of energy policy.

The physical dimension of the policy environment refers to the nature of the physical environment as well as the material conditions of using the environment (such as infrastructure). Included here are the physical changes in the quality of the environment and the exploitation of natural resources, drawing on such measures as the abundance of these resources and their potential to pollute vast geographic areas. The dimension also embodies the technological facilities and their characteristics that either enable or constrain environmentally sound performance. The dimension is not confined to the national level, as physical and material scales of environmental issues straddle both interregional and global levels.

The financial dimension of structure, in turn, involves financial preconditions that either enable or constrain policy formation, i.e. financial transactions and incentives, but also costs of environmental deterioration, which are not insignificant in Russia, especially in terms of public health. So far, the financial dimension of structure has perhaps been more of constraint, as replacing environmentally harmful infrastructure and behavior is costly. Traditionally, environmental management has been financed

²⁴ Pami Aalto et al. “Russia's energy...”.

²⁵ Pami Aalto et al. “Russia's energy...”; Pami Aalto et al. “How are Russian...”.

from state budgets, but there is a growing trend to rely on various market-based mechanisms and private–public partnerships. This tendency is seen also in Russia, although many economic environmental policy instruments are yet to be introduced. Also, this dimension stretches from the national to global scale: in global environmental politics, especially in the climate sector, the financial dimension has been crucial for Russia’s motivation to commit to more environmentally friendly performance. Moreover, international consumer pressure, especially in the energy sector, matters.

The institutional dimension of structure features both formal and informal institutions relevant for the formation of environmental policy. In the case of Russia, formal institutions are often rigid and full of bureaucracy. The weakness of formal institutions for environmental management in Russia is underscored by the fact that these institutions have been in a state of constant flux since the late 1980s, and there is also a serious lack of societal trust in the functioning of these institutions. Informal institutions, that is to say customs and norms, social institutions and habits of doing things, tacit “rules of the game” which often question the formal rules of institutional politics, seem to be much more permanent. With regard to the supranational scale of institutions, international agreements and regimes are one factor shaping the institutional dimension of Russia’s environmental policy environment.

Finally, there is the ideological dimension of structure that refers to systems of abstract thought applied to public matters which shape the goals, expectations and actions of different actors. Ideology is a central element for policy formation, yet interlinked with other dimensions of structure.²⁶ In the context of the structuration of the environmental policy, the relevant ideology is first and foremost labeled as “green,” the ideological dimension of structure is about ideas and demands related to growing environmental concern, and criticism of established physical, financial and institutional rationales confronting the formation of environmental policy.

About Russia’s State Principles for Environmental Development to 2030

Russia’s state principles for environmental development through 2030 were approved by outgoing president Dmitry Medvedev on April 30, 2012. In less than ten pages, the document outlines the general provisions, strategic objectives and principles, and the main mechanisms for realizing state policy in the area of environmental development. The document notes that

²⁶ Ideology can, of course, also be categorized as an informal institution, thus belonging to the institutional dimension of structure, but for analytical purposes green ideas and demand (“public pressure”) are separated here from other institutional factors. Ideas, in turn, are central for each structural dimension, i.e., in the sense that ideological does not refer to ideas in general but to the patterns of green thinking.

global environmental problems associated with climate change, biodiversity loss, desertification and other negative environmental processes have an impact on Russia and its citizens (point 1.1.); that a large percentage of Russia's urban population suffers from high or very high levels of air pollution; and that some 100 million hectares of land are threatened by desertification (point 1.3).

In the document, the strategic objective of state environmental policy is articulated as follows: to carry out socio-economic tasks which ensure environmentally oriented economic growth; to protect the environment, biodiversity and natural resources in a way that meets the needs of the present and future generations; to guarantee the right to a healthy environment; to strengthen the rule of law in the environmental sector; and to provide for environmental security (point 7). The main tasks required to achieve this objective are listed in point 9. These tasks include the establishment of an effective system of environmental management, improvements in Russian legislation, the advancement of environmentally sound technologies, the recovery of degraded ecosystems, the development of waste management facilities, the improvement of economic regulation and market-based instruments for environmental management, and expansion of environmental monitoring. Interestingly, the document underscores ensuring the participation of citizens, civic associations, non-profit organizations and the business community in discussions and decision-making in the field of environmental protection.

Next, the document introduces some general-level mechanisms for the realization of these goals and tasks. Examples of these mechanisms include: improving the division of power among environmental authorities (point 10a); establishing an integrated and coherent system of environmental laws (point 11b); reducing industrial pollution to a level similar to that of "economically developed countries" (point 13c); and increasing liability for violations of environmental legislation (point 11d). The mechanisms of realization listed in the document are not practical instruments of implementation but, actually, further goals and tasks under the more general ones. The document does not offer details in any of the areas that it discusses and particularly does not provide a road map for the creation of environmental institutions. The lack of detailed implementation plans is the reason why Russian environmentalists have criticized the policy.²⁷

The document ends by claiming that an effective public administration will implement the state environmental policy by working in collaboration with the business community, academia, the public and various organizations. It also announces that the principles will be carried out in accordance with an implementation action plan approved by the

²⁷ Roland Oliphant. "Medvedev signs...".

government. In addition, the document declared that financing to implement the policy will draw on federal regional and local budgets, as well as extra-budgetary sources including public–private partnerships.

Actors Participating in Russian Environmental Policy

The diversity of actors involved in environmental policy and governance in Russia is extensive. First of all, state actors, such as the government and different administrations, play a key role. In addition to agencies specifically devoted to the environment, other administrative branches significantly influence environmental policymaking, especially those related to the economy, energy, housing, transport and industry. The key authorities responsible for formulating and implementing environmental policy and law at the federal level are the Ministry of Natural Resources and Environment, and the Federal Environmental, Industrial and Nuclear Supervision Service. The former coordinates and supervises the activities of the Federal Service for Hydrometeorology and Environmental Monitoring, the Federal Service for Supervision of Natural Resource Management, the Federal Agency for Water Resources, the Federal Forest Agency, and the Federal Agency for Subsoil Management. The latter carries out functions regarding the adoption of environmental regulations, monitoring and supervision, reporting directly to the government. Moreover, environmental functions have been assigned to many line ministries, among them the Ministry of Health and Social Development, the Ministry of Economic Development, and the Ministry of Industry and Trade.

In Russia, the role of the president in environmental policymaking is greater than in many European democracies; during Dmitry Medvedev's presidency, many important reforms were pushed forward by the activity of the president. Medvedev regularly took up environmental issues and called for the consolidation of environmental policy in his speeches,²⁸ which was considered a mandate to act at lower levels of the administration. President Vladimir Putin, in turn, seems to be less willing and able to seriously improve his environmental record. Nevertheless, he occasionally emphasizes environmental concerns in his public statements, at least at the level of rhetoric.²⁹

Private enterprises and business associations are an important actor for environmental policymaking and ecological modernization in Russia. Most significant are the industrial and energy sector. These industries

²⁸ See President of Russia. 2010. "Consolidated state policy is needed to address environmental problems." Speech by President Dmitry Medvedev at the State Council presidium on 27 May 2010. At <http://eng.kremlin.ru/news/273>, accessed 11 April, 2014.

²⁹ See, e.g., pp. 1301–1302 in Laura Henry and Lisa McIntosh Sundstrom. 2012. "Russia's climate policy: international bargaining and domestic modernization." *Europe-Asia Studies* 64: 7 (September): 1297–1322.

form an influential lobby and have managed to affect state environmental policies in a way that best suits their businesses.³⁰ Their position has been supported, in particular, by government policy emphasizing economic growth based on the extraction of natural resources. Kotilainen et al. note that in some industrial sectors, the forest industry in particular, “a partial shift in emphasis during the post-Soviet period from the regulation of environmental issues by the state towards governance by enterprises, on the one hand, and non-governmental organizations, on the other, can be identified.”³¹

In the Soviet Union, the scientific community was needed to counsel and support projects undertaken by the government to create energy, extract raw materials or utilize natural resources³². In contemporary Russia, the scientific community has been replaced by the participation of different interest groups, including business elites, especially those involved in extractive industries. The role of the scientific community in environmental policymaking has weakened also because of the decreased state funding for scientific work. Accordingly, Russia currently suffers from a lack of environmental experts: there are not enough ecologists or other specialists who work on issues related to ecology and development at large.³³

Despite the fact that public opinion polls consistently illustrate high levels of environmental concern among citizens,³⁴ the current level of environmental activism is relatively low in Russia. The existing environmental movement is versatile: environmental NGOs range from local to national and transnational groups working on diverse topics, such as environmental education and recreation, air and water pollution, or nuclear waste.³⁵ As demonstrated in the analysis below, changing domestic political and

³⁰ E.g. Jo Crotty and Peter Rodgers. 2012. “The continuing reorganization of Russia’s environmental bureaucracy. Regional interpretation and the response of key actors.” *Problems of Post-Communism* 59: 4: 15–26; Olga Aksenova. 2006. “Sotsial’no-ekologicheskie posledstviya politicheskogo reformirovaniya: Ot tsentralizatsii k lokalizatsii ekologicheskoi politiki Rossii.” In N.M. Drobizhev, ed., *Rossiia Reformiruyushchayaya: Ezhegodnik – 2005*, Moscow: Institut Sotsiologii RAN.

³¹ Juha Kotilainen et al. “The potential for...”

³² E.g. David Ostergren and Peter Jacques. 2002. “A political economy of Russian nature conservation policy: why scientists have taken a back seat.” *Global Environmental Politics* 2: 4: 102–124.

³³ Lina Zakharova and Svetlana Mareeva-Koroleva. 2014. “Problemy ekologicheskoi napravlenosti gosudarsvennoi politiki Rossiiskoi Federatsii.” *Society: Politics, Economics, Law* 1: 1–4.; Oleg Yanitsky. 2007. *Ekologicheskaya Kul’tura: Ocherki vzaimodeistviia nauki i praktiki*. Moscow: Nauka.

³⁴ See Laura Henry and Vladimir Douhovnikoff. “Environmental issues...”, p. 448; also N. Tikhomirova. 2005. “Ekologicheskaya obstanovka glazami Rossiyan.” *Monitoring Obshchestvennogo Mneniya* 4: 102–107.

³⁵ E.g., Laura Henry. 2010. *Red to green: environmental activism in post-Soviet Russia*. Ithaca and London: Cornell University Press; Nina Tynkkynen. 2006. “Action frames of environmental organisations of post-Soviet St. Petersburg.” *Environmental Politics* 15: 4: 639–649.

economic conditions have not had much effect on the limited political weight of the organizations.

Finally, international actors are influential for Russia's policy-making. In the 1990s, Russia committed itself to more than 30 bilateral environmental agreements and more than 25 regional environmental regimes.³⁶ Although authors such as Robert Darst³⁷ argue that Russia participates in international environmental agreements mainly in order to achieve other goals, such as political and economic benefits, engagement in international environmental processes has certainly influenced the evolution of Russia's environmental policies and brought new discourses to Russia.³⁸ More to the point, a significant amount of foreign assistance money flowed to the Russian state to facilitate environmental protection during the 1990s: paying for environmental improvements in Russia often appears to be a relatively cost-effective measure for neighboring countries to combat transboundary environmental problems.³⁹ Also foreign NGOs, business actors and investors are among the important actors in Russia's environmental sector.

Russia's Policy Environment

This section describes the main issues involved for each structural dimension conditioning the process of environmental policy formation either as enabling or constraining factors.

Physical dimension of structure

Enabling factors

The deteriorating quality of the environment, especially due to environmental pollution, is one of the key incentives for environmental policy development in Russia. According to the Financial Control Monitor Chamber of the Russian Federation, approximately one sixth of the country is environmentally disadvantaged.⁴⁰ The Sverdlovsk region offers the most worrying example since it ranks last (83rd) in an environmental monitoring study conducted by the All-Russian Society of Nature Protection in July 2011. There is no positive trend for any indicators of the eco-rating in

³⁶ Odelia Funke. 2005. "Russian environmental security issues: competing frameworks for the future." *International Journal of Environmental Technology Management* 5: 2/3: 246–275.

³⁷ Robert Darst. 2000. *Smokestack diplomacy. Co-operation and conflict in East-West environmental politics*. Cambridge: The MIT Press.

³⁸ See Jonathan D. Oldfield, Anna Kouzmina and Denis J. D. Shaw. 2003. "Russia's involvement in the international environmental process: a research report." *Eurasian Geography and Economics* 44: 2: 157–168.

³⁹ See Robert Darst. *Smokestack diplomacy*....

⁴⁰ *Russian Sustainability Newsletter* 2011: 1 (January): 2. At http://www.geogr.msu.ru/science/projects/our/ross_swed/NewsLETTER/1_11.pdf, accessed 14 April, 2014.

the Sverdlovsk region: air, surface and ground water quality, forest fires, biodiversity, amount of species, landfills, stationary sources of pollution, radiation and chemical pollution.⁴¹ Energy production and use, in addition to the transport sector, are the largest sources of all pollution in Russia. Therefore, the energy sector is an important factor when thinking about Russia's ecological modernization.

Key areas of environmental pollution in Russia include air, water, and radioactive waste. According to the Ministry of Natural Resources and the Environment,⁴² air pollution is high or extremely high in 128 cities, including Azov, Barnaul, Volgograd, Moscow, Rostov-on-Don and Tver. The number of people living in such cities is about 54 million. The quality of surface water downstream of large cities and industrial centers ranges from polluted to extremely dirty. In big cities, citizens complain about insufficient waste water treatment.⁴³ Alongside pollution, depletion of natural resources and biodiversity loss potentially motivate the formation of more stringent environmental policies.⁴⁴ According to expert estimations, without a sustainable forest management policy, Russian forests might turn from net absorbers of carbon dioxide to net emitters by 2040 because of forest fires, forests' advancing age, the spread of tree pests and diseases, and harmful logging practices.⁴⁵ More to the point, the exploitation of Russia's hydrocarbon reserves, the backbone of Russia's economy, is becoming more difficult and expensive as easily accessed reserves are depleted. The result is long-term interest in alternative sources and more efficient use of energy, thus promoting environmental policy goals.⁴⁶

Deteriorating infrastructure built during the Soviet era, in addition to its inadequate maintenance, are the main reasons for industrial pollution and the high energy intensity of the Russian economy. Thus, there is

⁴¹ *Russian Sustainability Newsletter* 2011: 7/8 (July): 11. At http://www.geogr.msu.ru/science/projects/our/ross_swed/NewsLETTER/7_8_11.pdf, accessed 14 April, 2014.

⁴² Ministry of Natural Resources and the Environment of the Russian Federation. 2012. *Gosudarstvennyi doklad o sostoyanii i ohrane okruzhayuschei sredi Rossiiskoi Federatsii v 2012 godu*. At <http://www.mnr.gov.ru/upload/iblock/cef/gosdoklad%20za%202012%20god.pdf>, accessed 14 April, 2014.

⁴³ E.g., Interviewee. 2009. Representative of regional environmental authorities, Kaliningrad, September, 2009; see also Nina Tynkkynen. Forthcoming. "Russia and the spatial scaling of the Baltic Sea environment".

⁴⁴ For a comprehensive overview see, e.g., Laura Henry and Vladimir Douhovnikoff. 2008. "Environmental issues in Russia." *The Annual Review of Environment and Resources* 33: 437–460.

⁴⁵ See Angelina Davydova. 2013. "Russia's silence on climate change helps no-one". *The Conversation*, November 25. At <http://theconversation.com/russias-silence-on-climate-change-helps-no-one-20661>, accessed 31 March, 2014.

⁴⁶ For more on the greening of Russia's energy policy, see Nina Tynkkynen and Pami Aalto. 2012. "Environmental sustainability of Russia's energy policies." In Pami Aalto, ed., *Russia's energy policies. National, interregional and global levels*. Cheltenham and Northampton: Edward Elgar.

a huge potential to reduce negative environmental effects with relatively easy technical solutions and by modernizing production processes. To use energy efficiency as an example: Russia's energy strategy up to 2030 finds considerable untapped potential in energy saving, amounting to 40 percent of total domestic energy consumption.⁴⁷ Part of this potential is offered by heating: Russia is spending 5–6 times more on heating per square meter of housing than Norway, where the climatic conditions are similar.⁴⁸ There is also potential for increased efficiency in the use of other resources, such as water: water losses in external networks for transport from sources to consumers amounted to seven million cubic meters in 2010.⁴⁹

Physical conditions, regional structure and the vast geographic size of Russia offer incentives for the realization of state environmental policy principles. On the one hand, the majority of Russia's population is concentrated in big cities, which enables effective use of land and centralized and cost-effective systems of waste management. On the other hand, the vast size of Russia, with dispersed settlement, offers potential, among other things, for the development of alternative energy sources: over 60 percent of Russian territory (populated by about 10 million people in 2003) is not connected to centralized energy supply systems.⁵⁰ In many places, then, renewable energy sources can offer the most economic, and in the future perhaps even the only, way to provide electricity and heat. In general, the regional structure with long distances already encourages small-scale activities and “down-to-earth” lifestyles, which often are more environmentally friendly than large-scale solutions.

Finally, an enabling factor under the physical dimension of structure is the significance of both Russia's ecosystems (e.g., forests), and, on a more negative note, Russia's environmental burden for the global ecosystem. First and foremost, Russia is the fourth largest greenhouse gas emitter in the world, and a major supplier of fossil fuels, which are the main single source of greenhouse gases at a global scale. This motivates other countries and international actors, the European Union in particular, to engage Russia in global environmental politics and to encourage it to make commitments that enable domestic environmental policy development.

Constraining factors

The major constraining factor within the physical dimension is no doubt the structure of Russia's economy, which currently relies almost entirely

⁴⁷ Government of the Russian Federation. 2009. *Energeticheskaya strategiya Rossii na period do 2030 goda*. At <http://minenergo.gov.ru/aboutminen/energostrategy/>, accessed 10 April, 2014.

⁴⁸ Ria Novosti, 15 May 2012.

⁴⁹ Ministry of Natural Resources and the Environment of the Russian Federation. *Gosudarstvennyi doklad...*

⁵⁰ Nina Tynkkynen and Pami Aalto. “Environmental sustainability...”, p. 102.

on the energy sector: oil and gas account for 50 percent of federal government revenues and up to 20 percent of gross domestic product (GDP).⁵¹ Hydrocarbons are a major source of pollution, and there is no way to reduce significantly their environmental burden. Of course, their more effective use can be forced and attention can be paid to various stages of energy production, transportation and use. In that sense, there is potential for environmental improvement. Yet, as long as the economy depends on hydrocarbons as heavily as it does in today's Russia, ecological modernization will inevitably remain incomplete. At the moment, carbon-intensive oil, coal and gas account for approximately 85 percent of Russia's primary energy consumption, the rest being covered by nuclear energy (about 7 percent) and large-scale hydro; the share of renewable energy sources is less than 1 percent.⁵² Despite the objective set by the Russian government in 2030 to increase the share of renewable energy in the country's fuel mix up to 14 percent, no practical policies to promote renewable energy sources are in sight at the moment.⁵³ The share of coal will probably not increase dramatically, but Russia is planning extensive investments in nuclear energy so that by the end of the century, nuclear will cover 70–80 percent of electricity production in the country.⁵⁴ This development would, of course, decrease greenhouse gas emissions and air pollution originating from energy, but increase problems related to nuclear safety and radiation.

Many of the factors of the physical dimension of structure that potentially work as enabling, are, at the same time, constraining. For example, Russia's vast size is a constraining factor *par excellence*: because of the abundance of land, there is always a chance to move on to new territory if current sites become polluted.⁵⁵ The same logic applies to natural resources: there is no need to limit their use as long as the reserves are perceived to be abundant or even infinite. And they seem to be perceived as such: Russia is continuously increasing its forecasted reserves of hydrocarbon raw materials and conducting geological investigations to expand the resource potential in the long term, especially in poorly studied northern

⁵¹ See Enerdata. 2012. *Energy research report: Russia*. At [http://www05.abb.com/global/scot/scot316.nsf/veritydisplay/5fe3ef5f71dab20cc1257864005185df/\\$file/russia.pdf](http://www05.abb.com/global/scot/scot316.nsf/veritydisplay/5fe3ef5f71dab20cc1257864005185df/$file/russia.pdf), accessed 24 March, 2014.

⁵² See Enerdata. *Energy research...*

⁵³ Government of the Russian Federation. 2009. *Guidelines for state policy of energy efficiency increase through use of renewables for the period up to 2020*. No. 1-r, Moscow, 8 January: 15–16.

⁵⁴ Government of the Russian Federation. *Energeticheskaya...*

⁵⁵ See Nina Tynkkyne. 2005. "Russia, a great ecological power? On Russian attitudes to environmental politics at home and abroad." In Arja Rosenholm and Sari Autio-Sarasma, eds., *Understanding Russian nature: representations, values and concepts*. Helsinki: Kikumora Publications, 277–296.

and eastern regions of the country.⁵⁶

Furthermore, Russia hosts a lot of primary production and extractive industries, such as in the metallurgy and chemical sectors, which pollute the environment and which, despite the potential for modernization mentioned in the preceding section, are highly path-dependent in their development. As a legacy of Soviet economic planning, industries are concentrated. In particular, mono-towns throughout rural Russia suffer from extensive pollution.⁵⁷ In addition, the infrastructure for alternative industries which might be more environmentally friendly, such as tourism, is extremely limited. Overall, centralized systems of energy production and transportation are in place and leave no room for the development of alternative livelihoods or more ecological lifestyles.

In comparison with most of the countries in Europe, the state of infrastructure and level of technological development in industrial facilities are still poor in Russia.⁵⁸ Indeed, the state of the environmental monitoring infrastructure is one of the major factors constraining the physical dimension. Its current condition hampers the consolidation of state environmental policy as Medvedev noted in his speech to the State Council presidium in May 2010.⁵⁹ If compliance monitoring is not adequate, industrial actors have no real incentive to obey environmental norms in their activities. The lack of adequate monitoring and statistics about the state of the environment is also problematic for setting new regulations. One of the reasons for the poor state of the monitoring infrastructure is that it dates back to the Soviet era and is largely obsolete. Minor constraining factors similar to poor monitoring include those related to existing technologies, such as the lack of individual water or electricity meters in households and industrial facilities and certain technological fixtures that are permanent or very difficult to replace.

A further constraining factor is the fact that Russia is undergoing rapid change demographically. Its educated young people are leaving the country. According to some estimations, Russia has lost about a million and a half people from the middle class over the last decade.⁶⁰ These

⁵⁶ In 2012, 12.5 billion rubles from the federal budget were spent on exploration for oil and gas. See *Russian Sustainability Newsletter* 2012: 2. At http://www.eng.geogr.msu.ru/science/newsletter/2_12.pdf, accessed 14 April, 2014.

⁵⁷ Ministry of Natural Resources and the Environment of the Russian Federation. *Gosudarstvennyi doklad*...

⁵⁸ E.g., Lina Zakharova and Svetlana Mareeva-Koroleva. 2014. "Problemy ekologicheskoi napravlennosti gosudarstvennoi politiki Rossiiskoi Federatsii." *Society: Politics, Economics, Law* 1: 1–4.

⁵⁹ President of Russia. 2010. *Consolidated state policy is needed to address environmental problems*. At <http://eng.kremlin.ru/news/273>, accessed 20 March, 2014.

⁶⁰ See Lev Gudkov, Director of the Levada Center, according to *Nezavisimaya Gazeta*, 26 October, 2012.

people would form the core group of environmentally aware citizens,⁶¹ and their departure thus limits the ecological modernization of the country, especially regarding the policy goals of enhanced public participation in environmental policymaking and citizen activity at large, set by the state environmental principles.

While Russia's significance for global ecosystems is mentioned above as an enabling factor, it is also a constraining factor. Russia's ecological footprint is actually smaller than that of Europe's.⁶² Moreover, Russia's environment is capable of compensating for a footprint of more than 6 hectares per person, compared to 2.2 hectares in Europe, "which makes Russia a donor to the global environment."⁶³ Due to a decline in industrial production, Russia's industrial emissions and greenhouse gas emissions decreased significantly during the 1990s. Based on this outcome, Russia projects itself more as a do-gooder than a bad guy in global environmental politics. Accordingly, Russia is keen to collect image points in international arenas, but little domestic action has followed so far.⁶⁴ Rather than pointing to environmental degradation or appealing to Russia's global duty, the European Union, in particular, has echoed Russia's claims of rich natural resources and the benefits to be gained from exploiting these resources.

Financial dimension

Enabling factors

The most significant enabling factor within the financial dimension of the policy environment is the financial burden that will follow the degradation of the environment if adequate protective actions are not taken. High costs will follow from weakened public health, industrial degeneration, biodiversity loss and inefficient energy use. In most of Russia's industrial regions, one third of the inhabitants suffer from various immunological diseases which result from environmental problems.⁶⁵ The threat has now also been noticed by the government: the costs caused by the deteriorating environmental quality are estimated at about 4–5 percent of GDP

⁶¹ See interview with a member of an environmental NGO, St. Petersburg, February 2003.

⁶² Russia's environmental footprint is 4.4. hectares per person, compared with Europe's 4.7. RIA Novosti, 15 May, 2012.

⁶³ RIA Novosti, 15 May, 2012.

⁶⁴ Geir Hønneland, Anna Korppoo and Nina Tynkkynen. Forthcoming. *Environmental encounters? Russian*

discourse and practice in international environmental politics. Cheltenham and Northampton: Edward Elgar; see also Nina Tynkkynen. 2010. "Russia, a great ecological power in global climate policy? Framing climate change as a policy problem in Russian public discussion." *Environmental Politics* 19: 2: 179–195.

⁶⁵ G.G. Vukovich. 2011. "Rynok truda v investitsionno privlekatelnom regione." *Chelovek i trud* 7: 32.

annually.⁶⁶ On top of that come costs of possible catastrophes and abrupt events. It has been calculated that the economic losses caused by climate change in the form of droughts and shrinking crop yields in Russia could rise to between US\$200–700 billion per year in only a few years.⁶⁷

As noted, increasing energy efficiency offers economic potential. Currently, Russia consumes four to five times more energy per unit of GDP than other countries of similar climate.⁶⁸ In the past, energy efficiency policies remained unimplemented for various reasons, such as low energy prices and the lack of financial incentives, but now that domestic prices for energy have gone up for good, there are financial stimulants for the improvement of energy efficiency. According to a McKinsey study, Russia has the potential to significantly reduce energy-related emissions through economically attractive measures. If Russia invested US\$196 billion into green technologies in key sectors, including buildings and construction, fuel and energy, industry and transport, over the next 20 years, it would cut energy consumption by 23 percent and emissions by 19 percent.⁶⁹ An article from the now defunct RIA Novosti news agency notes that “a complete revamp of the country’s housing in order to make it energy efficient would cost US\$320 billion, but producing the same amount of energy from scratch using non-renewable energy sources will cost one trillion dollars.”⁷⁰ Overall, the potential of so-called “green investments” has been calculated to possibly net Russia US\$2–2.5 billion a year.⁷¹ There has been a slight increase in environmental investments since 2002; a majority of these expenditures and investments have been carried out by the private sector⁷².

In general, Russia is undergoing rapid private sector growth and increasing subjection to a globalized economy. Olga Aksenova⁷³ argues that the reinstitutionalization of federal environmental policy has been shaped by the initiatives of resource-extracting industries which mainly stemmed from global market pressure for products that might high

⁶⁶ President Rossii. 2012. *Osnovy gosudartvennoi politiki*....

⁶⁷ Angelina Davydova. “Russia’s silence...”.

⁶⁸ E.g., Ministry of Economic Development of the Russian Federation. 2011. *Projection of long-term social and economic development of the Russian Federation until 2030*. At http://www.economy.gov.ru/minec/activity/sections/macro/prognoz/doc20130325_06, accessed 14 April, 2014.

⁶⁹ David Mack. 2011. “Go green or bust: Russia’s environmental challenges.” *Center for Strategic and International Studies Rep’s Blog*, January 14. At <http://csis.org/print/28670>, accessed 21 March, 2014.

⁷⁰ RIA Novosti, 15 May, 2012.

⁷¹ David Mack. “Go green or...”.

⁷² Arthur P.J. Mol. 2009. “Environmental deinstitutionalization in Russia.” *Journal of Environmental Policy and Planning* 11: 3: 223–241.

⁷³ Olga Aksenova. “Sotsial’no-ekologicheskie...”.

environmental quality, and the introduction of environmental standards, such as ISO-14000 and ISO-14001.⁷⁴ Forest certification, for instance, has become common in European Russia because of the proximity of the European market, which has greater demand for certified products than the domestic market.⁷⁵

Also, global environmental governance offers financial incentives for the implementation of more stringent environmental policies in Russia. In particular, climate policy offered economic incentives for Russia's environmental activities during the first commitment period (2008–2012) of the Kyoto Protocol. An emissions trading system under the protocol created a beneficial situation for Russia: it had surplus emission quotas which it could sell to produce a significant amount of income. Climate policy experts originally estimated that Russia could earn about US\$10 million annually from the protocol through emissions trading, joint implementation projects and increased foreign investment.⁷⁶ Although the prospects for large-scale emissions trading somewhat dried up after the major emitters, the U.S. in particular, withdrew from the protocol, Russia still gained significant economic profit from the pact through joint implementation projects.⁷⁷ Russia is not on board in the second commitment period of the protocol (2013–2020), but participates in the negotiations for future climate pacts, which most probably also will contain financial incentives for enhanced environmental policies and regulations. In general, the country is inclined to use the argument that Russia should be compensated for its ecological services, for example for its forests acting as a “carbon sink.”⁷⁸

Constraining factors

According to Masahiro Tokunaga, the hyperdepression in Russia hindered the search for a pathway to medium- and long-term ecological modernization in the 1990s. Because the economic depression cut industrial pollution

⁷⁴ Issued by the International Organization for Standardization (ISO), these standards guide organizations in setting up, maintaining and monitoring their environmental management, but do not directly address environmental impacts.

⁷⁵ Maria Tysiachniouk. 2006. “Forest certification in Russia.” In Benjamin Cashore, Fred Gale, Errol Meidinger and Deanna Newsom, eds., *Confronting sustainability: forest certification in developing and transitioning countries*. New Haven: Yale School Environmental Studies, pp. 261–295.

⁷⁶ E.g., Vladimir Kotov. 2002. “Policy in transition: new framework for Russia's climate policy.” *Nota di Lavoro* 58. Milan and Genoa: Fondazione Eni Enrico Mattei.

⁷⁷ E.g., Alexey Kokorin and Anna Korppoo. 2013. “Russia's post-Kyoto climate policy: real action or merely window-dressing?” *FNI Climate Policy Perspectives* 10. Lysaker: Fridtjof Nansens Institute. At <http://www.fni.no/doc&pdf/FNI-Climate-Policy-Perspectives-10.pdf>, accessed 6 March, 2014.

⁷⁸ See K. Konratev, K. Losev, M. Ananicheva and I. Chesnokova. 2003. “Tsena ekologicheskikh uslug Rossii.” *Vestnik Rossiiskoi Adademii Nauk* 1: 3–11.

and thereby improved Russia's ecological situation without the adoption of any particular environmental policy, Russian policy makers had few incentives to work actively to improve policies.⁷⁹ Now that the economic situation has improved, we could assume that this constraint no longer plays such a decisive role in Russia's ecological modernization.

In the short term, costs of implementing the policy and the investments needed to modernize outdated and wasteful equipment and buildings are, of course, a major constraint for ecological modernization. As long as environmental policy is based on regulatory and moral suasion rather than flexible market-based approaches, there are no adequate economic incentives for environmental action.⁸⁰ The situation, however, is changing: as set by the state environmental policy principles up to 2030, one goal of environmental policy is to develop market-based instruments of environmental management; yet that is not an easy task, given the overall economic situation in which environmental investments cannot be prioritized. Investment needs, for example for energy efficiency and renewable energy, are huge: according to the Russian Ministry of Energy, until 2020 US\$80 billion needs to be invested in energy efficiency, and US\$300 billion in renewable energy; in 2010 Russia invested only two billion dollars in the latter.⁸¹ At the moment, major investments in new research and development activities in the field of environmental technology are not in sight.⁸²

A related financial constraint for ecological modernization is the current low financing of environmental policy and activities. Some time ago, the Financial Control Monitor Chamber of the Russian Federation expressed concern at the very low financing for environmental activities, which in 2000–2010 was 0.14 percent to 0.2 percent of total budget expenditure.⁸³ This poor performance is related to the competition over resources between administrative sectors and ministries; environmental protection is not a top priority among the various government agencies.⁸⁴

Most importantly, Russia's high dependency on hydrocarbons is a constraint also within the financial dimension, as the state budget is so

⁷⁹ Masahiro Tokunaga. "Environmental governance..." p. 1701.

⁸⁰ Lada Kochtcheeva. 2009. *Comparative environmental regulation in the United States and Russia. Institutions, flexible instruments and governance*. Albany: State University of New York Press, p. 3.

⁸¹ Jeroen Ketting. 2011. "Sustainable energy in Russia: a pipe dream or an opportunity?" *How to invest in Russia*. Moscow: Association of European Businesses in the Russian Federation. At <http://www.thelighthousegroup.ru/client/lighthouse/uploads/articles/articlelighthouse.pdf>, accessed 20 March, 2014.

⁸² Nina Tynkkyinen and Pami Aalto. "Sustainability challenges..."

⁸³ *Russian Sustainability Newsletter* 2011: 1 (January): 2. At http://www.geogr.msu.ru/science/projects/our/ross_swed/NewsLETTER/1_11.pdf, accessed 14 April, 2014.

⁸⁴ E.g., Lina Zakharova and Svetlana Mareeva-Koroleva. 2014. "Problemy ekologicheskoi napravlennosti gosudarsvennoi politiki Rossiiskoi Federatsii." *Society: Politics, Economics, Law* 1: 1–4.

dependent on revenues from energy sales; in addition, the taxation of the oil/gas sector provides about 45 to 60 percent of federal government fiscal revenues⁸⁵. Russian oil companies are effectively taxed at a 70 percent rate; the government needs these revenues so that the activity of these highly polluting companies cannot be heavily restricted.

Institutional dimension

Enabling factors

The evolution of Russian environmental governance inevitably reflects the more general societal changes, economic conditions and political reforms unfolding in Russia since the collapse of the Soviet Union.⁸⁶ A significant reorganization of the Russian environmental administration has taken place during the past two decades. After turbulence of many years standing, the institutional framework of environmental management in Russia is gradually approaching a more stable situation. At the federal level, the administrative reform in 2004 clarified the mandates for environmental administration, separating the policymaking, regulatory, compliance-monitoring and service-provision functions of government authorities.

During the last couple of years, a number of important documents shaping federal level environmental policy have been introduced. Most importantly, a state environmental protection program for the period 2012–2020 with funding of 336 billion rubles was introduced on the website of the Ministry of Natural Resources and the Environment in early 2013.⁸⁷ The 443 page document lays out the basic goals and a legislative timetable for the implementation of its objectives. It also defines the Russian agencies responsible for the development of each goal.

Other important documents include energy efficiency legislation approved in 2009 aiming at improving energy intensity by 40 percent during 2007–2020,⁸⁸ the government announcement of an increase in the share of renewable sources in electricity generation to 4.5 percent by 2020⁸⁹

⁸⁵ See Sergei Drobyshevsky. 2014. "A view on Russian economy. Mid term perspectives." *The World Financial Review*. At <http://www.worldfinancialreview.com/?p=3847>, accessed 2 April, 2014.

⁸⁶ See Olga Aksenova. "Sotsial'no-ekologicheskie..."; Jonathan D. Oldfield. *Russian nature...*, pp. 65–92.

⁸⁷ Ministry of Natural Resources of the Russian Federation. 2012. *Gosudarsvennaya programma Rossiiskoi Federatsii "Ohrana ogruzhayuschchei sredi" na 2012-2020 gody*. At http://www.mnr.gov.ru/upload/iblock/81d/gosprogramma%202012_2020.pdf, accessed 15 April, 2014.

⁸⁸ Government of the Russian Federation. 2009. *Federalnyi zakon Rossiiskoi Federatsii ot 23 noiabria 2009 g. N 261-FZ "Ob energoberezhnii i o povyshenii energeticheskoi effektivnosti i o vnesenii izmenenii v otdelnye zakonodatelnye akty Rossiiskoi Federatsii."*

⁸⁹ Government of the Russian Federation. 2009. *Guidelines for state policy of energy efficiency increase through use of renewables for the period up to 2020*. No. 1-r, Moscow, 8 January: 15–16.

and the Climate Doctrine approved in 2009.⁹⁰ The principles discussed above are also important. Despite their deficiencies, such broad policy documents can be useful as they provide environmental policy actors at various administrative levels with a mandate for action.⁹¹ A mandate or signal from the executive level is crucial for policy implementation in Russia.

Currently, a major reformation of environmental legislation is ongoing: eight draft laws have in recent years been prepared by the Ministry of Natural Resources and the Environment and are at different stages of approval. These laws are related to the protected nature of territories, protection of the marine environment from oil pollution, waste management, environmental impact assessments, environmental auditing and certain economic incentives for environmental protection.⁹² Although often contradictory, Russia's environmental regulations are nevertheless among the strictest in the world, and the main problems remain in implementation and monitoring (see below). According to former Minister of Natural Resources and the Environment Yuri Trutnev, the reforms are supposed to improve the efficiency of state environmental control and to intensify sanctions against violators of environmental laws.⁹³

Of course, global environmental institutions, such as environmental agreements, can be regarded as enabling factors in the policy environment. Russia participates in almost all international environmental policy processes and is thus, in principle, committed to the implementation of international environmental agreements in domestic policy. The most influential treaties include those related to climate change governance, ozone depletion, and biodiversity.⁹⁴ There are also processes not directly related to environmental policy, such as Russia's applications for WTO and OECD membership,⁹⁵ that shape the policy environment.

⁹⁰ Government of the Russian Federation. 2009. *Klimaticheskaja doktrina Rossijskoj Federatsii, utverzhdeno rasporyazheniem Prezidenta RF ot 17 dekabria 2009 g. N 861-rp*. At http://www.mnr.gov.ru/files/part/9500_project_climate_doktrine.doc, accessed 15 April, 2014.

⁹¹ Interviewee. 2009. Anonymous representative of regional environmental authorities, Kaliningrad, December 2009; see also President of Russia. 2012. *Zasedanie prezidiuma Gossoveta po voprosam ekologicheskoi bezopasnosti*. At <http://www.kremlin.ru/news/11519>, accessed 20 March, 2014.

⁹² See *Russian Sustainability Newsletter* 2013: 3 (March): 2. At http://www.geogr.msu.ru/science/projects/our/ross_swed/NewsLETTER/3_13.pdf, accessed 15 April, 2014.

⁹³ *Russian Sustainability Newsletter* 2011: 5 (May). At http://www.geogr.msu.ru/science/projects/our/ross_swed/NewsLETTER/5_11.pdf, accessed 15 April, 2014.

⁹⁴ See Jonathan D. Oldfield, Anna Kouzmina and Denis J. D. Shaw. "Russia's involvement...".

⁹⁵ An important part of work on entry into the OECD was to harmonize Russian legislation, and about 30 percent of the OECD regulation is related to environmental policy. This process is now halted because of Russia's performance in Ukraine.

Constraining factors

Despite the recent stabilization, the institutional framework of environmental management has undergone numerous and contradictory changes since the early 1990s which still has an effect on the policy environment. The environmental administration as a whole was transferred to the Ministry of Natural Resources in 2000, in tandem with Putin's determination to strengthen the power vertical. Although the reorganization was justified in terms of enabling better allocation of responsibilities between federal, regional and local administrative bodies, it led to the weakening of federal environmental administration.⁹⁶ Constant reorganization has led to low levels of commitment to improve environmental policy and regulation among managers at all levels. Moreover, the transfer of environmental jurisdiction to the Ministry of Natural Resources led to a situation in which there is skepticism that a body devoted to resource development can ensure effective environmental monitoring and supervisory functions.⁹⁷ Accordingly, authors such as Arthur Mol argue that environmental deinstitutionalization took place in Russia in 1991–2005.⁹⁸ The institutional void left by the federal state was not effectively taken over by the private sector: although some signs of growing investments of enterprises in environmental protection can be seen, a majority of enterprises refuse to take private environmental management seriously.⁹⁹

Also, environmental legislation has been seen as one of the major constraints for Russia's ecological modernization since observers evaluate Russia's environmental laws as isolated and contradictory.¹⁰⁰ As noted above, significant changes in regulatory patterns are taking place at the moment, which in the best case may enable ecological modernization. The worst-case scenario, however, is that the new environmental legislation will leave room for interpretation, as legal instruments in Russia often do. There are critical voices among Russian environmental NGOs noting that the legislation under preparation may not be enough, in particular, as long as fines for violation of environmental laws and permit conditions are too low, and enforcement is frequently flawed.¹⁰¹

A further constraining institutional factor is no doubt administrative corruption, which has remained endemic in Russia. Struggles over the promising territories of such "corruption markets" between ministries and

⁹⁶ E.g., Laura Henry and Vladimir Douhovnikoff. "Environmental issues...".

⁹⁷ Jonathan D. Oldfield. *Russian nature...*

⁹⁸ Arthur P.J. Mol. "Environmental deinstitutionalization...".

⁹⁹ Arthur P.J. Mol. "Environmental deinstitutionalization...".

¹⁰⁰ E.g. President of Russia. *Consolidated state policy...*

¹⁰¹ E.g., Bellona. 2009. *Yablokov calls Russia environmentally hostile and fascist*. At <http://bellona.org/news/uncategorized/2009-04-yablokov-calls-russia-environmentally-hostile-and-fascist>, accessed 15 April, 2014.

agencies typically lead to deadlocks in policy planning and in lower-level regulatory processes, especially if no strong political preferences have been signaled from the top level, which often is the case with regard to environmental regulation. More to the point, the presidential system of governance, which Alena Ledeneva¹⁰² refers to as *sistema* – namely the networks that include the presidential inner circle, useful friends, core contacts and more diffuse ties and connections – enables leaders to mobilize and control, and locks politicians, bureaucrats and businessmen into informal deals, mediated interests and personalized loyalty. This is what Ledeneva calls the “modernization trap of informality”: the potential of informal networks cannot be used without triggering their negative long-term consequences for institutional development. Together with corruption at lower levels of government, this may be the single major impediment to solving most environmental problems in Russia,¹⁰³ in particular when combined with existing constraints on freedoms of the press and association, the absence of real elections, and possibilities of public participation in policymaking.

Beyond the *sistema* and corrupt practices, capacity issues also complicate policy implementation, especially control and monitoring. The lack of data makes it difficult to establish objective baselines for policy goals or monitor performance during implementation, regardless of strict environmental regulations. Furthermore, the combination of “high norms, low sanctions” does not encourage environmental investments as it is much easier and economically beneficial to pay the fee instead of implementing new environmental standards.¹⁰⁴ There are also many other informal institutions and rules that hamper the establishment of more environmentally friendly policies: electricity or water supply, for example, is considered as a social benefit, which implies that people are not used to payments based on real consumption; in other words, to the inclusion of indirect costs of environmental effects.

Russia’s withdrawal from the current phase of global climate governance, the second commitment period of the Kyoto Protocol (2013–2020), creates another institutional constraint stemming from the level of international institutions. Russia has not committed itself to participation in any global arrangement after 2012 and has openly stated that if China and India continue to refuse to take responsibility for their own emissions, Russia will do the same. In general, Russia is perhaps more prone to seek political and economic benefits than environmental improvement through its

¹⁰² Alena Ledeneva. 2013. *Can Russia modernise? Sistema, power networks and informal governance*. Cambridge: Cambridge University Press.

¹⁰³ David Lewis Feldman and Ivan Blokov. 2012. *The politics of environmental policy in Russia*. Cheltenham and Northampton: Edward Elgar, p. 132.

¹⁰⁴ Lada Kochtcheeva. *Comparative environmental...*, p. 12.

engagement in international environmental politics.¹⁰⁵ Moreover, the state continues to oppose activities and support by foreign institutions and organizations, especially in the private and non-governmental sectors. This is reflected, for example, in that in 2012, the Duma approved a controversial bill forcing NGOs funded from abroad and engaged in political activity to declare themselves “foreign agents.”¹⁰⁶

Ideological dimension

Enabling factors

The most important enabling factor is the public environmental concern that seems to prevail in Russia: many polls prove that people in Russia are in general concerned over the state of the environment.¹⁰⁷ According to Russia’s Public Opinion Foundation, between 2001 and 2007, 60 to 65 percent of respondents to a survey believed that environmental quality was declining in Russia. Many Russians have a *dacha*, a summer cottage in the countryside, and, alongside it, a close connection to nature. Despite the distrust of the government towards civic activism, there are examples that demonstrate a rise of such activism and also some success in reversing decisions due to public pressure.¹⁰⁸ It is expected that the increased economic well-being of the citizens will facilitate such activism in Russia, as it has done in many Western countries. Consequently, there is hope that in the future such activism will grow and bring about change towards ecological modernization.

The persistence of Russian environmental NGOs is also an enabling factor, despite the state-imposed constraints on their activities discussed earlier. In some cases, NGOs have taken over nature protection activities from impecunious state institutions, and hope exists that major public involvement in the Russian environmental movement might fill the environmental governance gap.¹⁰⁹ The interaction between Russian and foreign environmental NGOs, that has been relatively active since the late 1980s, has no doubt had an major impact on the guiding ideas about how environmental issues should be managed in society.

To a certain extent, increased environmental awareness can be witnessed also at the political level. President Medvedev noted in his blog entry on June 5, 2010, that Russia has “woken up to the vital importance

¹⁰⁵ See Geir Hønneland, Anna Korppoo and Nina Tynkkynen. *Environmental encounters....*

¹⁰⁶ Government of Russia. 2012. *Federalnyi zakon Rossiiskoi Federatsii ot 20 iyuliya 2012 g. N 121-F3. O vnesenii izmenenii v otdelnye zakonodatelnye akty Rossiiskoi Federatsii v chastii regulirovaniya deyatelnosti nekommercheskih organizatsii, vpolnyayuschih funktsii inostrannogo agenta.*

¹⁰⁷ Laura Henry and Vladimir Douhovnikoff. “Environmental issues...”, p. 448.

¹⁰⁸ E.g., David Feldman and Ivan Blokov. *The Politics of...*

¹⁰⁹ E.g., Joan Crotty. 2003. “The reorganization of Russia’s environmental bureaucracy: regional response to federal changes”. *Eurasian Geography and Economics* 44: 6: 462–475.

of protecting nature and to the realization that economic and environmental development go hand-in-hand.¹¹⁰ Although the quality of the environment certainly is not among the highest political priorities, recently introduced policies, plans, programs and laws demonstrate that the issue is attracting more political attention than before. Even if this shift is not necessarily ideological but tied to more general principles of economic modernization, such as using natural resources more effectively, it may in the long run also facilitate ideational change.

Constraining factors

Many constraining factors of the ideological dimension of structure stem from the dominant discourses inherited from the Soviet era, shaping the use of nature and resources. One such discourse is the one in which nature is considered a territory to be colonized and a resource to be produced.¹¹¹ The political and economic elite share the underlying ideas of a discourse in which the environment and abundant natural resources are primarily a source of economic exploitation.¹¹² This ideology played a major role in the way the Russian environmental bureaucracy was reorganized in the late 1990s: the transfer of environmental jurisdictions under the Ministry of Natural Resources reflected the central ideology of emphasizing economic growth based on the extraction of natural resources.

Another dominant discourse includes the mental spatial delusion, which has its roots in the geographical size of the country, and the abundance of natural resources. This delusion is combined with historical optimism: belief in constant progress and technological development instead of the need to change existing patterns of thought.¹¹³ Recent modernization programs, especially the modernization initiative launched by then president Medvedev in 2009, are well in line with these discourses, underlining innovation and technological development. Perhaps because of these discourses, most citizens in Russia see environmental issues as being solved by experts, and not a priority for their own action or participation.¹¹⁴

More to the point, the downside of the situation, in which most Russians live in big cities but have their *dachas* “out in nature,” is that it creates a way of thinking and acting in which urban environments are mastered for resources and nature is loved as a space of leisure and

¹¹⁰ President of Russia. 2010. *The environment and economy do not contradict to each other*. At <http://eng.kremlin.ru/news/350>, accessed 15 April, 2014.

¹¹¹ See, e.g., Alla Bolotova. 2012. “Loving and conquering nature: shifting perceptions of the environment in the industrialised Russian north.” *Europe-Asia Studies* 64: 4 (June): 645–671.

¹¹² Arthur P.J. Mol. “Environmental deinstitutionalization...”

¹¹³ See Nina Tynkynen. “Russia, a great ecological power...”

¹¹⁴ N. Tikhomirova. “Ekologicheskaya obstanovka...”

relaxation outside the urban environments.¹¹⁵ This situation does not seem to facilitate environmental thinking and lifestyles in everyday urban life, as the pure environment and nature become perceived as a luxury thing related to leisure time. As noted by Zakharova and Mareeva-Koroleva,¹¹⁶ one of the main constraints of environmental policy in Russia is that the majority of the citizens lack “environmental literacy” (*ekologicheskaya gramotnost*: they do not capture the effects of their own behavior on the environment). Combined with the cynicism that the general public feels about politics in general and environmental policymaking in particular, there is no public pressure to adopt more effective environmental policies. When it comes to the environmental interests of key elites and the political leadership, in turn, it is, as noted by Crotty and Rodgers, difficult to evaluate how willing the Russian government is to solve environmental problems,¹¹⁷ regardless of the recent increased political attention mentioned as an enabling factor above.

A further constraining factor is that Russians, including scientists and experts, do not enthusiastically favor – and often oppose – empowering the average citizen to have a consultative role with government agencies on environmental matters.¹¹⁸ In practice this implies, for example, that there is no real access for the population to environmental information, environmental education and enlightenment, although the capacity of citizens to gather independent information would be an important precondition for public participation.¹¹⁹

Conclusion

This analysis of the policy environment in which the principles of the state policy in the area of environmental development are to be implemented in Russia reveals a number of enabling and constraining factors as explicated in the preceding sections of this paper. Many of these factors relate to the fact that the policy principles rely heavily on economic growth and the introduction of financial mechanisms and technological innovation, thus coupling improved environmental management tightly with economic modernization. Alongside the improved economic situation, new environmental policy instruments, such as the state program on environmental protection for 2012–2020, including the definition of different jurisdictions responsible for its implementation, as well as new legislation, have recently been introduced. This implies, first and foremost, that Russia’s

¹¹⁵ Cf. Alla Bolotova. “Loving and conquering...”, p. 668.

¹¹⁶ Lina Zakharova and Svetlana Mareeva-Koroleva. “Problemy ekologicheskoi...”.

¹¹⁷ Jo Crotty and Peter Rodgers. “The continuing...”, p. 25.

¹¹⁸ David Feldman and Ivan Blokov. *The politics of...*, pp. 131–132.

¹¹⁹ Russia has not ratified the international environmental conventions that relate to access to information (UNECE Espoo convention; Aarhus convention).

environmental policy is gradually being institutionalized, as opposed to the deinstitutionalization from which it suffered in the 1990s. Many enabling factors, however, stem from the weakness of the current situation and the lack of basic conditions for environmental management; hence, there are easy solutions through which the situation can be significantly improved.

Simultaneously, there are numerous constraining factors in the policy environment that may prove to form an insurmountable hindrance for the realization of the principles at least within the next couple of years. As noted, these factors include, among others, physical constraints such as the resource curse¹²⁰ and certain other geographical characteristics, financial challenges and distortions, and the solidity and ambiguity of governance structures and other institutions. Also, the ideological dimension of the policy environment contains elements that seem to be the most serious constraints for the realization of the principles, and, more to the point, for Russia's ecological modernization at large, as these elements undermine public pressure and the participation of citizens in discussion and decision-making in the field of environmental protection, which also, according to the principles, are critical for Russia's ecological modernization. The constraints of the ideological dimension may have serious effects on other dimensions, as the dimensions of the policy environment are in a dynamic relationship. Such a relationship means, for example, that the factors of the ideological dimension are reflected in the development of the institutional dimension, and those of the physical in the financial. These dynamics further complicate policy formation – although if things are going well, positive changes in some dimensions may facilitate changes in others, too. Accordingly, these dynamics have an effect on the priority level of environmental issues in Russia's political hierarchy, which, as noted, has traditionally been low.

What, then, are the overall prospects for achieving ecological modernization in Russia? At the moment, Russia is too dependent on energy exports and there still is a clear distinction between the goals of ecological and economic modernization. The agenda is centered primarily on the latter form of modernization: environmental policy is likely to remain “subordinate” to economic growth and energy policy at least for some time.¹²¹ Yet, the prevalence and deepening of market-economy institutions seems to bring about environmental improvement, as already noted. Therefore, contesting the conclusion of Masahiro Tokunaga, according to which Russia's pathway to ecological modernization is closed because its

¹²⁰ E.g., Rudiger Ahrend. 2005. “Can Russia break the resource curse?” *Eurasian Geography and Economics* 46: 8: 584–609; cf. Veli-Pekka Tynkkynen. 2007. “Resource curse contested – environmental constructions in the Russian periphery and sustainable development.” *European Planning Studies* 15: 6: 853–870.

¹²¹ See Vladimir Kotov. “Policy in transition...”, p. 37.

economic structure is inherited from the Soviet Union,¹²² the pathway might be gradually opening, depending on the direction that Russia's overall modernization will take.

Assessing the current situation in terms of the scenarios of Russia's ecological modernization outlined by Kotilainen et al.,¹²³ it seems that the economic and institutional-political scenarios, in which ecological modernization is initiated by economic factors and by integrating environmental issues into state institutions, legislation and politics, are the most probable scenarios for Russia's short-term ecological modernization. Modernization takes place top-down rather than bottom-up. Instead, the cultural-discursive scenario, in which change is rooted in cultural and discursive practices, is less evident because green thinking is not widely spread and possibilities for citizen activity remain low. This is also true of the external influence scenario, because, as noted by Mol, Russia is not strongly integrated into globalization processes, or "at least the leaders have the power to resist environmental claims coming via global processes and networks"¹²⁴ – an interpretation which has only strengthened during the crisis in Ukraine. Thus, it can be concluded that the weaker version of ecological modernization, emphasizing technological solutions and the development of governance structures as core change,¹²⁵ is possible at some point in the future, but the strong version which necessitates change in social institutions is not likely to take place any time soon.

¹²² Masahiro Tokunaga. "Environmental governance...".

¹²³ Juha Kotilainen et al. "The potential...".

¹²⁴ Arthur P.J. Mol. "Environmental deinstitutionalization...", p. 237.

¹²⁵ This conclusion does not, however, take any normative stance on whether such modernization is actually enough to achieve an environmentally balanced society – to evaluate that is beyond the scope of this paper.

