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Economic Anthropology View on Misuse of Natural Environment Protection Institutions in Russia

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Abstract. Modern economic anthropology literature emphasizes the key role of properly designed socio-economic institutions in the provision of economic growth and explaining human economic behavior. Unfortunately, institutions are prone to be misused, i.e. the real motives behind their formation and patterns of their work quite often have little in common with true meaning of their declared objectives. Recent turbulent history of fundamental socio-economic transformations in Russia provides a multitude of examples of how institutional misuse affects human economic behavior in its widest historic, geographic and cultural scope. This paper takes a narrowed-down view on this general problem focusing on ecological policy. Environment protection institutions have been casually used by authorities as a tool to achieve goals that have little to do with natural environment protection. Notable examples are the story of legal charges that Russian authorities raised against the Sakhalin Energy accusing it with ecological misconduct, and a more recent case of institutional misuse by successful lobbying of the prohibition of secondary usage of pipes in the Russian oil and gas industry.

Keywords: institutions; institutional capture; environmental protection; energy regulation; oil and gaz.

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Экономико-антропологический анализ нецелевого использования института охраны окружающей среды в России

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Аннотация. В статье обсуждаются случаи ненадлежащего использования в России одного из ключевых социально-экономических институтов – института охраны окружающей природной среды. На основе данных, полученных из открытых источников, проводится экономико-антропологический анализ стратегии нецелевого применения природоохранного законодательства в ходе недавних фундаментальных социально-экономических преобразований в стране. Практика использования институтов охраны окружающей природной среды органами государственного управления и бизнесом в качестве инструмента для достижения целей, имеющих мало общего с официально декларируемыми задачами, проиллюстрирована несколькими примерами, среди которых история судебного преследования компании *Сахалин Энерджи* за предполагаемые экологические нарушения, а также случай успешного лоббирования запрета на вторичное использование труб в российской нефтегазовой промышленности. Полученные результаты свидетельствуют об угрозах, которые нецелевое использование институтов несет успешному развитию экономики, и о важности предотвращения подобных практик.

Ключевые слова: институты, захват институтов, охрана окружающей среды, регулирование энергетических и сырьевых отраслей, нефтегазовая отрасль.

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Introduction

Modern economic anthropology literature emphasizes the key role that properly designed socio-economic institutions play in economic development (*Ben Ali, Krammer, 2016*). However, institutions are prone to be misused, i.e. the real motives and/or patterns of their functioning often have little in common with true meaning of their declared objectives. A socially beneficial institution provides public good by reducing transaction costs and thus promoting production and exchange. The role of institutional quality in infrastructure-led growth has been demonstrat-

ed on cross-country basis (*Sahni et al, 2021*). However, in some circumstances, an established public institution may unexpectedly distort incentives and behavior of economic agents who may look for ways to misuse it for their private benefits. If this phenomenon becomes widespread then the ability of the institution to fulfil its primary objectives dissipates, and its expected contribution to economic development vanishes (*Polishchuk, 2008; Polishchuk, 2012*).

With unpleasant regularity, activities of Russia's environmental regulation agencies have been raising questions regarding the

proper use of their authority. There have been visible signs that socially important nature-protecting institutions may be used as a universal tool of imposing administrative pressure on businesses for causes that might be justifiable by themselves but have little in common with environmental agenda.

An improper tool of imposing administrative pressure on businesses

In Russia, environmental protection is regulated by more than 550 legislative acts including the Constitution, 45 laws, 5 codes, about 140 federal government rulings, 15 presidential decrees, and a multitude of department-level instructions. Commonly, objectives and activities of a particular institution are poorly defined, with a grey zone left open for interpretation. Newly introduced rules often have foggy application boundaries and imprecise commissioning periods. Therefore, noticeable discretion in the interpretation of the letter of the law is possible in application to a particular economic agent, depending on the degree of the agent's loyalty to government authorities. In the best case scenario, a business that is subject to regulation may expect favourable treatment by signalling the compliance with most recent whims of government policy. In the worst case scenario, a person or a group of interest in authority may engage in outright rent-seeking behaviour. Incompleteness and inconsistency that characterize Russia's environmental legislation allow for discretionary interpretation as a means to exert pressure on businesses.

Alleged ecological misconduct by Sakhalin Energy

Quite expository is the story of legal charges that Russian authorities raised against the *Sakhalin Energy* company accusing it with ecological misconduct. The final result of the claims was the transfer of control over the *Sakhalin-2* petroleum project from foreign investors to *Gazprom*.

In January, 1992, a bid by the MMMS consortium created by the U.S. companies *McDermott International* and *Marathon Oil*, the Japa-

nese *Mitsui & Co*, and the British-Dutch *Royal Dutch Shell*, won the international tender conducted by the Russian government to develop Piltun-Astokhskoye and Lunskeye petroleum fields. The project was named *Sakhalin-2*. Later, another Japanese company joined the consortium. It was *Mitsubishi*, which already had an experience of extracting oil on the Sakhalin Island. The companies held the following shares in the expanded consortium: 30 per cent belonged to *Marathon*, *McDermott*, *Mitsui* and *Shell* had 20 per cent each, and *Mitsubishi* had only 10 per cent. In order to represent the consortium's interests in Russia, the project operator company was established, with the title *Sakhalin Energy Investment Co*. In 2000, *Marathon* left the consortium, with its stake being transferred to *Shell*. As a result, *Shell's* share in the consortium had risen to 62,5 per cent; later *Shell* transferred a 7,5 per cent stake to *Mitsubishi*.

As early as in 2003, the government-controlled giant *Gazprom* started to express its interest in *Sakhalin-2*. Before that, *Gazprom* was repeatedly invited to join the project on its earlier phases of development, but considered the offer to be unattractive. The first step towards becoming the fourth participant of the production sharing agreement *Gazprom* made in July, 2005, when its head Alexei Miller and *Shell's* CEO Jeroen van der Veer signed a declaration of intent to exchange a 25 per cent share in *Sakhalin-2* for a 50 per cent share in *Gazprom's Zapolyarnoye-Neokomskie Zalezhi* project located on the Yamal peninsula in Northern Arctic. However, two months later the negotiations were suspended because the Anglo-Dutch company had reported that the *Sakhalin-2* Second Stage expenses almost doubled, and *Gazprom* demanded compensation for the resulting drop in the asset value.

In July, 2006, Oleg Mitvol', a deputy head of *RosPrirodNadzor*, Russia's federal environmental monitoring service, filed a complaint in the General Prosecutor's Office about flagrant violations of environmental legislation by the MMMS consortium. The General Prosecutor's Office admitted that the 2003 state ecological expertise of the *Sakhalin-2* project was conducted on an insufficient documental basis. As

a result, the Minister of Natural Resources Yuri Trutnev signed an order nullifying the positive conclusion of the expertise about the proper development of license areas belonging to the project.

By the end of 2006, the negotiations were resumed, this time on other terms. According to the new scheme, *Gazprom* was to purchase from *Shell* a 30-per cent share in *Sakhalin-2*, and other 20 per cent, from *Mitsui & Co* and *Mitsubishi*. On December 21st, the heads of *Sakhalin-2* shareholder companies signed the agreement of selling a controlling 50 per cent-plus share in the project to the Russian natural gas monopolist for \$ 7.45 billion. *Sakhalin Energy* retained its position of the project's operator, *Shell*, the technical consultant's role. Almost immediately after the signing of the agreement, Russia's President Vladimir Putin declared that "in principle, the [project's environmental] issues could be considered solved". The project operator *Sakhalin Energy* had to pay only about \$ 20.8 million in environmental damages, the sum greatly reduced from the \$ 50 billion indictment announced in 2006 (*Rebrov, 2009*).

Gazprom's forced entry into the *Sakhalin-2* project was considered as a signal that the government's attitude towards Production Sharing Agreements (PSAs) had changed. Since then, all Russia's PSA projects have presumed participation of a state-owned company with a peculiar watchdog role. Further realization of the government strategy to reform PSAs was carried on using softer methods. In November, 2009, Franko-Belgian *Total* sold a 10 per cent share in *Khariaga* project to *Zarubezhneft* keeping other 40 per cent, as well as the status of the operator¹. Another 10 per cent share in *Khariaga* project *Zarubezh-*

¹ The *Khariaga* Production Sharing Agreement was signed in 1999, and is one of the three PSAs still active in Russia. Its operator is Franco-Belgian *Total* that holds 50 per cent of the project, Norwegian *Hydro* has a 40 per cent share, and the residual 10 per cent belong to a Russian *Nenetskaia Neftianaya Kompania*. Since 2002, *Lukoil* has owned an option to buy a 20 per cent share in the project, but hasn't exercised it yet. It is assumed that the *Khariaga* oilfield will have produced 45 million tons of oil during the 33 years of the PSA contract term. Its recoverable reserves within the limits of the contract area are estimated at 9 million tons. Details can be found in: (*Tutushkin, Surzhenko, Derbilova, 2006*).

neft had acquired from Norwegian *Hydro*, who was left with only 30 per cent (*Kashevarova, 2010*). The investors had learned from the *Gazprom – Sakhalin-2* case about non-orthodox enforcement tools that the government has at its disposal, such as threats to revoke licenses on the basis of bogus environmental violations, so they decided to stay away from such troubles and uncertainties.

It's worth noting that the basic purpose of the PSA subsoil-use regime is to defend a long-term investor from grabbing reflexes of the government (*King & Spalding LLP, 2017*). That's why from the very moment the Law on PSA was passed through the Duma in 1995, it has provoked strong repugnancy within some powerful circles. Much effort was put forth to form an opinion that the regime provides exceptional privileges to foreign companies, deprives the federal budget of sizeable tax revenues, and, in general, doesn't benefit Russia. However, a drop in world crude oil prices in the late 1990s, as well as the massive outflow of foreign investments from Russia forced the government to reluctantly accept the necessity of the special terms of the *Sakhalin* project. When the world crude prices started to rise in the early 2000s, the things were reversed and the PSA regime became an attractive target again.

Since the basic terms of a PSA agreement are nearly impossible to change², and these terms include the procedure of changing the designated operator, it is the environmental protection institutes that come handy as a leverage in the negotiations with foreign investors about the increase of the share of Russian companies. For instance, in 2006, the operator of the *Khariaga* oilfield was accused of breaking the natural protection legislation and the Law On Subsoil. The audit conducted by the Ministry of Natural Resources and by the Federal Service for Supervision of Natural Resources

² According to Article 21 of the Russian Law On Subsoil, the subsoil use licenses to oilfields that are being developed under a PSA regime cannot be revoked in the general order, the regulator should follow the conditions written in the PSA itself. The title document in this case is not the license but the PSA agreement, while the license is given automatically after the PSA is signed. The break-up of a PSA can be initialized only by its participants.

[*Rosprirodnadzor*] revealed several cases of violations of the PSA terms that prescribed the volumes of production and drilling. Also, *Total* was accused of possible environmental damage caused by the seven years of the associated gas flaring that could pollute tundra with sulphuric acid (*Skorniakova, Skorlygina, 2006*).

Total and *Shell* both have an experience of being delicately pushed out of a joint venture. In the case of *Total* that was the *Khariaga* project, in the case of *Shell*, the *Sakhalin-2* project. Their path may soon be followed by the *Exxon Neftegaz* in the *Sakhalin-1* project³. According to the *RBK daily*, the government is considering *Rosneft* as a new candidate for the project operator position to replace *Exxon*. Right now, *Rosneft* subsidiaries control 20 per cent of *Sakhalin-1*. By buying out the 30 per cent of the Japanese *SODECO* or the 20 per cent of the Indian *ONGC*, it could get a hold of a half of the project.

The government policy towards the disposal of associated petroleum gas (or APG) on oilfields may be considered as another example of improper use of environment protection institutions. According to the Ministry of Natural Resources data, up to 20 billion cubic meters of APG is flared in Russia annually, or about one-fourth of the total amount extracted from the subsoil. Out of the residual three-fourth, only about one third is processed while the rest is either burned in oilfield electric power generators or just written down as technological loss. The APG flaring dynamics roughly follows the oil production dynamics, demonstrating growth in 2001–2006 and slow decline in 2007–2010. Due to the absence of reliable records, one may guess that the actual volumes of APG flaring may exceed the declared ones by a factor of one and a half or two (*Global Gas Flaring Reduction Partner-*

³ The *Sakhalin-1* project includes the development of three petroleum fields, *Chaivo*, *Odoptu*, and *Arkutun-Dagi*, with the total potential reserves of 2,307 billion barrels of oil and 485 billion cubic meters of natural gas. The designated operator of the project is *Exxon Neftegaz*, with its 30 per cent share in the project. The other partners are two *Rosneft* subsidiaries, *RN-Astra* (8.5 per cent) and *Sakhalinmorneftegas-Shelf* (11.5 per cent), the *SODECO* Japanese consortium (30 per cent), and India's *ONGC* (20 per cent). For more information, see, for instance: (*Kashevarova, 2010*).

ship, 2008). To general public, these enormous amounts may seem like an obvious evidence of a high-scale waste of an exhaustible natural resource. Hence, a multitude of “annual damage” estimates is provided by the mass media, by a simple multiplication of billions of cubic meters of APG by the market price of methane⁴. However, should one take into account the scale of additional investments needed to build the infrastructure to collect, prepare, transport and process ANG, as well as the very limited commercial demand for the product, the utilization of APG might look less attractive even from the national point of view than simple on-the-spot flaring. Nevertheless, there is no shortage of economic agents who would like the government to create even half-artificial, subsidized market for ANG. They declare that environmental benefits of having the APG flaring stopped are large enough to justify any investments in the utilization infrastructure. Unfortunately, this opinion contradicts the results of applied economic research, which put the upper limit to such benefits at \$ 10 to \$ 30 per each thousand cubic meters APG saved from flaring. Also, the results point at the horizontal shape of the “environmental costs curve”⁵. Anyway, the Russian government ignored these results and in January, 2009, declared the task of achieving the 95-per cent level of APG utilization by 2012 in all production sites by all companies.

⁴ Here are two typical quotations from business periodicals: “If the 20 billion cubic metres of the flared gas were used as a fuel, then 21 million tons of crude oil could be saved, which, being exported for \$ 70 per barrel, could bring home \$ 10,5 billion of extra revenue. ... The picture is crystal-clear”. (*Ryazanov, Ryabov, 2007*).

“According to the Accounts Chamber of Russian Federation, in 2009 seven producers had flared 19.96 billion cubic meters of APG, or 64.3 per cent of the total APG production. Using the 2009 price of the natural gas on the internal market of RR 1920 per thousand cubic meter, the losses were estimated by the auditors to exceed RR 38.3 billion (USD 1.3 billion). If, however, one used the average price of the *Gasprom* exports to Europe (USD 285 per thousand cubic meters), then the estimate would quadruple to USD 5.7 billion (RR 167 billion). A similar loss estimate of RR 120–140 billion (USD 4.1–4.8 billion) per year was obtained by the Accounts Chamber of Russian Federation on the basis of the market value of APG components such as propane, butane, etc”. (*Malkova, Kostenko, 2010*).

⁵ See, for example: (*Tol, 2009*).

The government also promised to fine the violators of the 95-percent rule after January, 2012. The prohibitively high money value of the proposed fines *de facto* meant that the environmental damage caused by APG flaring was valued by the government higher than all the revenues from the export of oil from the same oilfield⁶. Hence, the task had no scientific base, was impossible to execute, but looked quite concise and clear-cut. Ecological arguments were shamelessly used not with the aim of emission optimization but primarily with the purpose to enforce the rights of certain participants of the APG production and processing to a preferential share in the revenues from this market.

The chain of events that followed was what one would expect in a situation that involves misuse of government economic regulation institutions. While Russian oil producers publicly never questioned the universal 95-percent target set by the government, their actual behaviour was based on the assumption that, some day before the deadline, this target ought to be reconsidered. Hence, before that actually happened, they could pretend to attempt tackling the problem and take advantage of a wide spectrum of opportunities for government support including tax cuts, privileged access to export pipelines, and direct subsidies⁷. This pattern of behavior proved right: the May, 2011, version of the APG Flaring Regulations prepared by the Ministry of Natural Resources Use didn't mention the task of decreasing the share of APG flared from 50 per cent to 5 per cent by 2012.

Utilization of dismantled pipes in Russia's oil industry

A more resent demonstration of institutional misuse in Russia is successful lobbying of the prohibition of secondary usage of metal pipes in the Russian oil and gas industry. Un-

til 2017, about 80 per cent of all dismantled pipes that were previously used in the Russian oil industry for drilling, well casing, pumping, and oil transportation, were put for other uses, mainly for such second-priority purposes as drainage, non-supporting structures, etc. (Kozlov, 2019). The practice, being both economically efficient and environmentally friendly, was considered a poster case of "circular economy"⁸.

Active use of business models that support closed-cycle economy, efficient use and recovery of raw materials, is a modern method of preserving competitiveness of produced goods and providing financial stability for companies is thus lowering the need for primal resources and increasing service life of consumer goods and productive assets. Circular business models provide for best realization of strategic and operational management decisions that mitigate negative impact of the oil industry on the natural environment, slow down resource depletion, reduce carbon footprint and the amount of waste (Geissdoerfer et al., 2017; McCarthy, Helf, Börkey, 2019).

However, in 2017, the Federal Service for Supervision of Natural Resource Usage (*Rosprirodnadzor*) issued an order to consider all used pipes in the oil and gas industry as

⁸ The use of circular models of business in the oil and gas industry has a long and well-established history. Elements of "circular economy" are omnipresent in the industry. For instance, the industry has for many years been practicing reuse of technical water, which deserves to be viewed as exercising of the recuperation business model. Enormous amounts of water are being commonly injected into oil wells in order to increase the reservoir pressure for so-called secondary recovery. After the water-oil mixture is driven to the surface, the oil is separated while the water is put to another use. Another notable example is the use of carbon dioxide for tertiary recovery of oil from a reservoir. Injected CO₂ releases trapped oil from porous rocks in the reservoir and causes it to flow more easily to the wellhead. After displacing the oil, the CO₂ is recovered and re-injected in a closed loop process that results in additional oil recovery. Over time, virtually all of the CO₂ introduced into a field becomes trapped underground, occupying the pore space left after the oil and associated gas are produced. Essentially, the industry for selfish and profit-seeking reasons has developed a technology of carbon capture and storage in deep underground formations that has recently become in great demand as a method of carbon sequestration for climate change mitigation purposes. (Cherepovitsyn, Sidorova, Smirnova, 2013: 465–466; Occidental Petroleum Corporation, 2019: 35–37).

⁶ See, for example: (PFC Energy, 2007, p.39).

⁷ Government support measures include profit tax deductions, reduced charges for transporting dried associated gas via the prime trunk pipe system, the priority access of such gas to the prime trunkpipe system, as well as the offer by *Gazprom Neft* to invest in the construction and modernization of the gas collection and transportation system as a part of the program of the AOG flaring reduction (Podobedova, 2008).

a waste of the 4th hazard class, which essentially prohibited their re-use. Suddenly, the well-established business practice was declared environmentally damaging. This novel restriction on the used pipes turnover was a result of powerful lobbying effort by Russia's major producers of large diameter pipes (LDPs) who then faced a major decline in the domestic demand. In 2016–2017, when several large-scale pipeline projects by *Gazprom* (such as *Sila Sibiri*, *Bovanenkovo-Uhta-2*, *Uhta-Torzhok-2*) were finished, the sales of LDPs on the domestic market dropped by a half, and about 50 % of producing capacities stood idle because they couldn't be switched to the production of pipes of a different kind (*Smirnov, 2019*). An important role in the *Rosprirodnadzor* decision to prohibit the second use of dismantled pipes was played by the Foundation for Development of Pipe Industry, the lobbying body formed by such prominent LDP producers as OMK, TMK Group, ChelPipe Group, Filit, and some others. In 2018–2019, in order to enforce the compliance with the new rules, the organization initiated 186 official *Rosprirodnadzor* audits in 146 organizations dealing with the turnover of used pipes (*Podobedova, 2019*).

Now, the oil and gas industry is bound to bear expenses related to non-productive utilization of used pipes while previously most such pipes could be used again after minor repair works. Additional annual expenditures of oil companies caused by the prohibition of pipes' secondary use are estimated at 180–200 billion rubles. The arguments against the economic and environmental desirability of the full prohibition of secondary usage of dismantled pipes presented by the oil and gas business has been so obvious that the Ministry of Energy is forced to look for some compromise and proposes to develop a methodology of assessment of technical condition and residual life of used pipes, as well as their possible areas of secondary usage (*Kozlov, Zainullin, 2019*).

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Impediment to the decarbonization of the Russian economy

Notice that imperfections of Russia's nature-preserving institutions also impede the acceleration of decarbonization processes in the Russian economy. This assertion is corroborated by Russia-related results of a 2021 Deloitte global research on company-scale climate projects (*Deloitte & Touche CIS, 2021*). According to the survey data, valuation of business risks and opportunities related to the transition towards a low-carbon economy is one of the key priorities of Russian respondents, while the most significant concerns are investors' requirements and the introduction of trans-border carbon regulations in the European Union. Seventeen out of the twenty companies that participated in the survey representing such industries as steel, mining, chemicals, forestry, energy, telecommunications, and trade, named the immaturity of the regulatory environment among the major obstacles to the undertaking of climate-agenda projects in Russia. They mentioned a new law on the greenhouse emissions limitation as "a good starting point" for further development of the climate regulations in the country.

Conclusion

The good cause of environment protection is actively exploited by Russian politicians and economic actors as a justification of their right to regulatory privileges and pecuniary benefits. The profiteering on misuses of environmental protection institutions, the manipulation with ecological legislation impedes the real process of tackling environmental problems. Also, they obstruct efficient business development by adding informational asymmetry and raising the degree of uncertainty via discretionary use of ecological rules and regulations. Finally, the possibility that an environmental protection institution may perform some unintended functions compromises the institution itself, and may fully discredit it.

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