

Chapter 6

Compensation for Impact of Industrial Projects in Russia to Indigenous Peoples of the North



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Abstract This chapter that was funded by a grant from Russian Foundation for Basic Research № 17-02-00619 examines procedures for social impact assessment in industrial projects in the Russian Federation (later referred to as Russia), focusing on assessment of impact on ‘small-numbered indigenous peoples of the North’ in the Republic of Sakha (Yakutia) (later referred to as Yakutia), a region in the north-east of Russia. In April 2010, a regional law on Anthropological Expert Review (AER) was adopted in the region of Yakutia, which is implemented during industrial projects that are initiated on the territories of indigenous peoples of the North. This law was developed under pressure from regional non-governmental organisations, following public debates about potential impacts during the construction of Eastern Siberia Pacific Ocean oil pipeline in 2006–2008. This is the first and only regional law on social impact assessment for indigenous peoples in Russia, the potential for which had been discussed in Russia for over 20 years but has never been fully implemented. This regional law on is a triumph of the civil society in Yakutia, which in 2018 has been followed by federal government discussions for opportunities of developing a similar federal level law. The chapter evaluates the effectiveness of existing methodology for compensation to indigenous peoples of the North in Yakutia, by examining the regulation, industry reports and regional development

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strategies. It examines the cases of completed social impact assessments and damage compensations, conducted during major industrial projects in Yakutia. The study discusses the features and shortcomings of AER methodology and compares it with existing practices on compensations in other Russian regions. It recommends revising the use of income-based calculation of compensations which treats groups of indigenous peoples of the North that lead traditional activities of reindeer herding as commercial enterprises. The research suggests extending the existing methodology by incorporating an ecosystem services approach and taking into account long-term sustainability impacts of industrial projects on communities of indigenous peoples. Special attention is given to the assessment of effectiveness of the Anthropological Expert Review as an institution for protecting the rights of indigenous peoples in Russia.

Keywords Yakutia · Indigenous rights · Anthropological expert review · Traditional natural resource use · Corporate social responsibility

6.1 Introduction

Protection of traditional lifestyles and cultures of indigenous peoples and the promotion of sustainable development of indigenous communities is a well-recognised challenge in countries located in the circumpolar North and the Arctic (Popkov 2014; Pelyasov 2015). The Russian Federation (later referred to as Russia), with a sizeable area in the Arctic and a number of indigenous peoples residing in the area (Gavrilyeva and Kolomak 2017), protects especially the rights of certain groups of indigenous peoples, residing on its territory, which are defined by the Russian regulation as ‘indigenous small-numbered peoples of the North, Siberia and Far East of the Russia’ (later referred to indigenous minorities of the North). This group of indigenous peoples reside in ancestral, traditional settlement areas and maintain traditional economic activities such as reindeer herding and hunting while having a population no greater than 50,000 people (Russian Federation 1999, changed in 2018). Essentially, they are indigenous minorities in Russia. However, many indigenous peoples who are numerically larger reside on the vast territory of Russia, but who are not considered to be in need of protection (Yakovleva 2014). According to the Census 2010, the total population of indigenous minorities in the Russian North reaches 257,895 people (40 peoples), less than 0.2% of the total Russian population; the protection of their rights is an area of active public discussion, given the recent surge of industrial developments in their traditional territories (Bogoyavlenskiy 2012).

Indigenous minorities’ relations in Russia are governed by a two-tier nested regulatory system: first, the federal level regulation that includes legislation adopted by the Parliament of the Russian Federation – the State Duma – and regulation approved by the Government of the Russian Federation. This affects all regions of Russia; second, the regional level regulation that includes legislation adopted by regional legislative bodies and regulations approved by regional governments (Yakovleva 2011a). This chapter examines the experiences of developing regional level regulation in the sphere of protection of indigenous minorities of the North and its implementation during industrial projects, which take place on territories of traditional

nature use and traditional economic activities of indigenous peoples in Yakutia, a remote Russian region located in the northeast of the country.

Worldwide practice of large-scale investment projects demonstrates a mixture of socio-economic impacts on the lives of indigenous peoples' communities. Development of transport, energy and social infrastructure can lead to physical and economic displacement of communities and can cause damage to local ecosystems, adversely affecting the traditional economy of indigenous minorities.

Up to this point, research has predominantly focused on the study of industry sectors related to exploitation of land and other natural resources, including forestry, mineral resources extraction as well as development of transport and industrial infrastructures such as oil and gas pipelines. Research questions have circled around the impact on the natural environment, sovereignty of indigenous communities, impact of industrial projects on cultural heritage, health, traditional resource use, traditional knowledge and well-being indigenous communities (e.g. Hipwell et al. 2002; Ali 2004; Anderson et al. 2006; O'Faircheallaigh 2008; Kirsch 2007). This chapter aims to examine the effectiveness of regional regulation in Yakutia in protecting the rights of indigenous minorities through: (a) review of regional legislation on social impact assessment, i.e. Anthropological Expert Review ("etnologicheskaya ekspertiza" in Russian legislation, abbreviated here as AER) adopted in 2010 in Yakutia; (b) analysis of eight completed AER during 2012–2016; and (c) examination of current methodology for compensation of indigenous minorities of the North during industrial projects. The chapter concludes with recommendations for improvement of current methodology and suggestions to shift towards ecosystems services approach.

The data collected for the conclusions on the state AER stem from the official website of the Ministry for Development of the Institute of Civil Society of the Republic of Sakha (Yakutia), <https://minobchestvo.sakha.gov.ru/>. Open feasibility studies and business plans for investment projects were used for the assessment of the impact of industrial projects on indigenous peoples of the North, including information posted on official websites of companies and developers, the Government of the Republic of Sakha (Yakutia), national and regional media:

- *Big Power News*: <http://bigpowernews.ru/news/document40004.phtml>
- *Free Electronic Library - Methodology, Instructions, Manuals*: <http://www.metodichka.x-pdf.ru/15raznoe/193865-1-utverzhdayu-generalniy-direktor-appronkin-proekt-vipolnenie-rabot-obektu-kompleksnie-geologo-geofizicheskie-raboti-o.php>
- Pandia: <http://pandia.ru/text/78/631/14634-3.php>
- Electronic fund of legal and scientific and technical information: <http://docs.cntd.ru/document/460277383>
- HintFox.com: <http://www.hintfox.com/article/oao-hatistir-fakti-i-kommentarii.html>
- *Ministry of Nature Protection of the Republic of Sakha Yakutia (Facebook)*: https://www.facebook.com/permalink.php?id=294504380740274&story_fbid=298896213634424
- Sakha Press: <http://sakhapress.ru/archives/191985>

- EastRussia: <https://www.eastrussia.ru/news/v-2016-g-alrosa-gotova-vlozhit-8-mlrd-rublej-v-stroitelstvo-karera-na-verkhne-munskom-mestorozhdenii/>
- Archive of the Government of the Republic of Sakha (Yakutia): <http://www.yakutia-gov.ru/doc/36074>

6.2 Background

Yakutia is home to five indigenous minorities – Evens, Evenks, Dolgans, Yukagirs and Chukchis – comprising a population of 39,936. Yakutia became part of Russia in the middle of the seventeenth century (Leonov and Shevareva 2017). Industrial development in the region has resulted in the displacement of local communities including those of indigenous peoples of the North from the territories of their traditional economic activities and traditional nature use. Until the discovery of major mineral deposits of gold in the 1920s in Southern Yakutia and diamonds in Western Yakutia in the 1950s, the economy of the region was mostly dependent on agriculture, subsistence farming and local use of renewable natural resources, which from the 1950s has changed to mineral resource extraction (Gavrilyeva et al. 2018). Until the middle of the twentieth century, the influence of industrial projects and enterprises on indigenous minorities in Yakutia was limited due to the isolated location mainly of mining enterprises, the settlements of workers and transportation routes. To some extent, this allowed the indigenous minorities to maintain their culture and traditional ways of life surrounding reindeer herding, fishing and hunting. In addition, the state maintained an interest in supporting their traditional economic activities for the supply of food and other products to industrial and transportation enterprises (Boyakova and Vasilyeva 2015). Although a series of reforms introduced by the Soviet state from 1917, including those of collectivisation of indigenous minorities' communities, led to changes in settlement patterns, working conditions and the structure of traditional economic industries while impacting traditional livelihoods, it was primarily industrial construction that significantly expanded the production areas of mining enterprises. This, in turn, led to the increase of labour and to a significant influx of migrants from other regions of the country (Trubina 2013). During this period, the indigenous population turned into a minority on its territory, and the existing legislation and regulatory framework did not ensure the protection of traditional natural resource use and traditional way of life of indigenous minorities (Degteva 2015).

For many regions of the Russian Arctic, the situation was aggravated by a painful process of transferring the nomadic way of life of many indigenous minorities to a sedentary one, encampment in specially created settlements and collectivisation of reindeer herding and hunting (Gavrilyeva and Kolomak 2017). These socio-economic transformations, initiated by Soviet state authorities, were informed by an ideological drive to eradicate the nomadic way of life as measures to 'civilise' indigenous minorities of the North. Inevitably, the impact on traditional economic activities of reindeer herding, fishing, hunting and gathering and working condi-

tions of indigenous peoples were significant and threatened the way of life of indigenous minorities. This state policy led (1) to a subsequent abandonment of any special settlement system for the indigenous populations; (2) a decrease in population (3) enlargement of settlements; and (4) acceleration of assimilation processes (Filippova 2007). The organisation of collective and state farms and resettlement of indigenous minorities from small, and sometimes temporary, villages into larger townships and cities resulted in unprecedented consequences. The purpose of this campaign was to assimilate indigenous minorities into modern Soviet socialist society, increase the standard of living, and integrate the indigenous communities into the Soviet socialist economic system, based on state property management. However, critics suggest that one of the possible goals of the state policy was the intention to free the areas for large-scale industrial development (Petrov 1998). During the Soviet period, traditional communities were forcefully resettled, some monetary compensation was carried out, and the state provided housing and assistance in resettlement into new townships and cities, partly compensating for the loss of traditional lifestyles. As a result, in 1926–1989 the number of rural settlements in Yakutia decreased from 11,743 to 718 units. (Gavrilyeva and Kolomak 2017).

The current stage of industrial development in the Russian Arctic occurs in different legal and socio-economic conditions. The compliance of Russian legislation with international law has made it possible that indigenous minorities are the only social group whose interests are taken into account during the implementation of industrial projects that involve land seizure and changes in access to natural resources.¹ International organisations such as United Nations or the International Labor Organization recognise the rights of indigenous minorities to land and natural resources due to the significant impact of industrial development on local indigenous groups and their economic activities, affecting traditional nature use and management (Mostakhova 2016). From the middle of the twentieth century, a series of international documents was developed and supported by many countries, including Russia. These include the International Labor Organization Convention on Indigenous and Tribal Peoples in Independent Countries (ILO 1989) and the United Nations Declaration on the Rights of Indigenous Peoples (UN 2007). These documents are also reflected in the business regulations. For example, the one of the seven standards of the International Finance Corporation used for lending projects

¹Federal Law of 30 April 1999 No. 82-FZ “On guarantees of rights of indigenous small-numbered peoples of the Russian Federation”; Federal Law of 7 May 2001 No. 49-FZ “On territories of traditional natural resource use of indigenous small-numbered nations of the North, Siberia and Far East of the Russian Federation”; Decree of the Government of the Russian Federation of 4 February 2009 No.132-r “On concept of sustainable development of indigenous small-numbered peoples of the North, Siberia and Far East of the Russia Federation”; Decree of the Government of the Russian Federation of 17 April 2006 No536-r “On approval of the list of indigenous small-numbered people of the North, Siberia and Far East of the Russian Federation”; Decree of the Government of the Russian Federation of 8 May 2009 No631-r “On approval of the list of places of traditional settlement and traditional economic activity of indigenous small-numbered peoples of the Russian Federation and the list of types of traditional economic activity of indigenous small-numbered peoples of the Russian Federation”

worth over \$ 10 million or for companies that are entering an IPO for the first time is about rights of indigenous peoples exclusively (IFC 2012).

6.3 Protection of the Rights of Indigenous Peoples of the North: Review of Regulation in Yakutia

In Russia, the main block of legislation on protection of the rights of indigenous peoples was adopted in the period from 1999 to 2009. The Constitution of Russia guarantees the rights of indigenous peoples of the North in accordance with generally recognised principles and norms of international law and international treaties signed and ratified by Russia (Popkov 2014). In Yakutia, the regional legal framework for the protection of indigenous peoples is more advanced than in other regions of Russia. So far, six regional laws have been adopted, aimed at preserving and developing indigenous small-numbered peoples. Among them is the Law of the Republic of Sakha (Yakutia) “On the Territories of Traditional Nature Use and Traditional Economic Activities of Indigenous Peoples of the North of the Republic of Sakha (Yakutia)” adopted on 13 July 2006, 370-3 №755-11 and the Law on nomadic patrimonial community of Yakutsk, October 17, 2003, No. 175-111. Currently, a new legislation on the concept of sustainable development of districts and places of compact residence of indigenous small-numbered peoples of the North in the Republic of Sakha (Yakutia) is being developed (Savvinova et al. 2015).

In accordance with federal and regional legislations, indigenous peoples of the North organise themselves into nomadic and tribal communes, which are considered to be non-profit organisations. In Yakutia, tribal communes of indigenous peoples of the North go through a procedure of legal registration at the Office of the Ministry of Justice of the Russian Federation for the Republic of Sakha (Yakutia). As of 1 July 2017, 172 communities were registered in Yakutia, 25 of them are located in Aldan District, 27 in Neryungri District, where the largest industrial projects are currently being implemented (Gavrilyeva et al. 2018). Types of indigenous communes differ by traditional economic activities and specialisation: tribal nomadic communes (TNC) and tribal communes (TC or communes of non-nomadic people). In addition, indigenous peoples engage in small, for-profit business: agricultural cooperatives (AC); production cooperatives (PC); agricultural and production cooperatives (PAC); and peasant farms (PF). Also, in the areas where indigenous people reside, types of organisations such as the Municipal Unitary Enterprise (MUE) or Municipal Unitary Reindeer-Fishing Enterprise (MURFE), and joint-stock company (JSC) are also common (Litvinenko 2014).

Thirteen types of traditional economic activities of indigenous peoples are legally recognised in Russia: animal husbandry, including nomadic (reindeer husbandry, horse breeding, etc.); fishing and the exploitation of aquatic biological resources; hunting, processing and marketing of hunting products; processing of

livestock products; dog breeding; animal breeding, processing and marketing of fur farming products; beekeeping; agriculture (gardening); harvesting of timber and non-timber forest resources for own needs; gathering; extraction and processing of common minerals for own needs; art crafts and folk crafts; the construction of national traditional dwellings and other structures necessary for the implementation of traditional economic activities (Leonov and Shevareva 2017).

One of the mechanisms for protecting the rights of indigenous peoples and expanding the access to land resources is the development of territories for traditional nature use (TTNU). In Yakutia, 59 territories of traditional nature use and traditional economic activities were created by the decisions of representative bodies of local self-government; 9 of them were formed within the boundaries of municipal districts, 49 were within the boundaries of municipalities and 1 was within the nomadic tribal community “Olom” in Mirninsky District. Out of these TTNUs, 55 territories have been registered in the State Real Estate Cadaster – a special database about real estate property rights. However, various problems with registration of land exist. First, the legal regime and status of these territories, as well as the rights of indigenous peoples to use land, are not certain. Second, the strict regulation on environmental protection within the territories of traditional nature management may contradict with traditional natural resource use of indigenous peoples. Third, there is no clear definition of the conditions and grounds for awarding land rights and rights for other natural resources to indigenous small-numbered peoples within these territories (Savvinova et al. 2015).

In Yakutia, indigenous minorities of the North reside on the territory of 21 municipal regions of the Republic while traditional settlements and areas for economic activities spread over 70 rural villages. In 20 municipal regions of Yakutia as much as 179 enterprises are registered, holding 381 areas while being licensed to engage in traditional natural resource use and traditional economic activities on the territories of traditional settlement (Samsonova et al. 2017). The main instrument that regulates the relationship between investors and commercial companies, state bodies and communes of indigenous peoples of the North is the Anthropological Expert Review (“etnologicheskaya ekspertiza” in Russian legislation, AER), which has been acknowledged in the federal level legislation. This is a type of social impact assessment that has been designed to assess impacts on indigenous peoples of the North. It includes “the analysis and forecast of demographic stability of settlement and their ethnic communities; issues of social and economic sustainability; problems of ethno-cultural and socio-psychological integration of local communities; problems of securing population’s health” (Stepanov 1999, p. 121). The Anthropological Expert Review supplements the mandatory Assessment of Impact on the Natural Environment, a Russian equivalent of environmental impact assessment, and meets the broad objectives of socio-economic impact assessment used elsewhere (Sawyer and Gomez 2008).

In the two-tiered governance system of indigenous minorities’ relations in Russia, the implementation of AER, mentioned in federal legislation since 1999 has been placed at the regional level of governance (Sleptsov 2015, p. 17). Attempts to

develop regional laws and regulations on AER were made in Nenets Autonomous Okrug and Yamalo-Nenets Autonomous Okrug that face oil and gas developments on the territories of indigenous minorities of the North. However, these legal projects were not sufficiently supported by corresponding regional bodies and no laws were adopted (Zander et al. 2014). Yakutia has become the first region to successfully adopt a law on AER in Russia in 2010 by the regional legislative body, Il Tumen. The law 820-Z No 537-IV On Anthropological Experts in Places of Traditional Settlement and Traditional Economic Activity of Small-numbered Indigenous Peoples of the North in the Republic of Sakha (Yakutia) was adopted following widespread public discussion of industrial impacts on local communities during the construction of the Eastern Siberia-Pacific Ocean oil pipeline, whose route crossed the territory of Yakutia along 1468 km and which was constructed between 2006 and 2009.

The regional government has actively supported the change of the route of the Eastern Siberia-Pacific Ocean (ESPO) pipeline. Originally it was meant to pass next to Lake Baikal, intended to increase regional oil production and to improve the industrial infrastructure, which would add to the competitiveness of regional industrial enterprises, increasing employability and budget revenues. Developers of the oil pipeline insisted that the pipeline route would not affect large settlements and townships and would not result in displacement of local population. Nonetheless, the regional public was concerned about the pipeline route and its possible effects on agricultural and rural economic activities, particularly those of indigenous people and other population affected by the construction of ESPO. Transit population of Yakutia, or communities that reside along this oil transit infrastructure, were excluded from decision-making concerning the oil pipeline route and its possible impacts on the natural environment and socio-economic development (Yakovleva and Manday 2010, p. 13).

During series of public hearings on the impact on the natural environment, conducted after the route has been approved by the state and the company, several regional civil society organisations questioning the impacts of this pipeline formed the coalition *Our home Yakutia*. Their aim was to express public opinion during the interaction with project developers and state bodies. These organisations launched an alternative, independent ‘ecological expert review’, which refuted the findings of the ‘Assessment of Impact on the Natural Environment’ conducted by the project developers. The coalition demanded the implementation of a wider ‘anthropological expert review’ to assess the project’s impacts on local and indigenous populations (Yakovleva 2014). As a result, *Transneft* compensated several communes of indigenous minorities of the North who were officially registered as users of land for traditional natural resource use and traditional economic activities directly on the route of the oil pipeline (Ibid.). Those who could not present valid official documents for their right to use certain lands, though *de facto* conducting economic activities directly on the territory of the pipeline route, were excluded from compensation payments. Groups of indigenous minorities of the North, having plots in close proximity to the pipeline and whose traditional activities would be affected by

changes in the migration of wild animals, were also excluded from the discussions and compensations (Yakovleva 2011b).

The construction of the ESPO oil pipeline occurred swiftly, project documents were prepared in short timeframes and during the construction several contractors were changed, which affected the quality of construction. In 2010 and then in 2014, small oil spills were detected on the oil pipeline along with air pollution resulting from exploitation of the oil pipeline. These confirmed public concerns about environmental impacts and the wider threat of industrial expansion in the North (Gavrilyeva and Stepanova 2016). Questions regarding further potential social conflicts with industrial projects that extract and transport mineral resources in the complex climatic conditions of the North were again brought to the fore (Pakhomov and Mostakhova 2016).

The adoption of the Law on State Expert Review allowed to formulate clear ‘rules of the game’ for interested parties in the region, including mandatory informing about proposed activities, their possible impacts on the natural environment, the holding of consultations and public hearings, and coordination of projects with the local population. The law was adopted after heated discussions in Il Tumen, the Parliament of Yakutia, between representatives of industrial companies and officials of national districts and municipalities, as well as people from nomadic tribal communes. Unlike other regions of Russia, where the ‘anthropological expert review’ implies a *public* expert review and which is either part of the state environmental impact assessment or state historical and cultural assessment, in Yakutia, the AER is carried out by the *state*. This means that its results have legal force and are binding. The most effective research instruments that become a part of major findings of the assessment are anthropological, sociological, economic and legal studies and an assessment of compensation to traditional economic activities of indigenous minorities of the North (Sleptsov 2015, p. 18).

From the introduction of the law in 2010, a state body authorised to conduct the AER in the region was the Department of Peoples Affairs, which established a procedure for carrying out the AER and which developed a regulation for provision of this public service (Yakutia 2011). At present, the authority to conduct and AER has been transferred to the Ministry for Development of Institutes of Civil Society in Yakutia, created in 2016.

6.4 Cases of AER Conducted in Yakutia During 2012–2016

Between 2012 and 2016, as much as eight Anthropological Expert Reviews were conducted on the territory of Yakutia (see Tables 6.1 and 6.2). Out of those, 5 related to projects planned in the Aldan district of Yakutia, 2 to projects planned on the territory of Neryungri, Olekminsky and Olenek districts, and 1 to a project planned to operate in Bulunsky, Anabar and Zhigansky districts of Yakutia. The amount of compensations for damages to indigenous minorities of the North conducting traditional economic activities significantly varies from project to project (Fig. 6.1).

Table 6.1 Industrial projects that implemented state “ethnological expert review” in Yakutia

No.	Project	Year of anthropological expert review approval	Investor	Project value in million RUB (2006 prices)	Project value million USD	Districts of Yakutia affected by the project
1	Construction of Kankyn hydroelectric station	2012	RusHydro, South Yakutian hydro-electric complex company	110,000.0	4047.9	Neryunginsky and Aldansky districts
2	Complex of geological and geophysical works on adjoining of Ieno-Tunguska oil and gas province and Laptev potentially oil and gas area	2015	JSC YUZHMOREGEOLOGIYA	730.0	11.9	Bulunsky and Anabarsky districts
3	Construction of two electricity transmission lines NPS-15 and NPS-16	2015	Vostok Branch in Khabarovsk of JSC “Centre for Engineering and Construction Management”	13,800.0	225.1	Aldansky and Olekminsky districts
4	Construction of the bridge over river Aldan on Aldan-Olekminsk-Lensk motoway	2015	State institution “Management of motor roads of the Republic of Sakha (Yakutia)”	284.0	4.6	Aldansky district
5	Gas pipeline “Power of Siberia”	2015	“Gazprom transgaz Tomsk” Company	799,900.0	13,050.1	Neryunginsky and Aldansky districts
6	Operation of spaceport «Vostochny»	2016	Center for operation of space ground based infrastructure	Not available	Not available	Vilyusky, Verkhnevilyusky, Zhigansk, Olekminsky and Aldansky districts
7	Development of diamond deposit “Verkhne-Munskoe” 2016	2016	Joint-stock company “ALROSA”	63,000.0	937.6	Oleneksky district
8	Development of alluvial diamond deposits at the rivers Bolshaya Kuonamka and Talakhthakh	2016	Joint-stock company “Nizhne-Lenskoe”	Not available	Not available	Oleneksky district

Table 6.2 Assessment of impact of industrial projects on communities of indigenous peoples of the North

No.	Project	Communities of indigenous peoples of the North	Number of communities members, people	Total area of land (aquatic) extracted from traditional natural resource use, square km	Amount of compensation for damages, million RUB	Ratio of compensation to value of the industrial project, %
1	Construction of Kankyn hydroelectric station	8 units, including 7 TNC ("Bugat", "Nyurbagan", "Anamadjak", "Idjek", "Buta", "Kurung-Kunku", "Timpton") and JSC "Khatystyr"	89	258.80 (water area)	238.41 (one-time compensation) and 409.67 (annual payments during 49 years)	0.37%
2	Complex of geological and geophysical works on adjoining of Leno-Tunguska oil and gas province and Laptev potentially oil and gas area	8 units, including MUE "Taimylyrsky", PF Skrybykin I.G., AC TNC "Uottakh-Khaya", PC TNC "Ulahan Kuell", TNC Evenks "Terpey", TC Dolgans "Uele", MURFE «Arctica», MURFE "named after I. Spiridonov"	157	26,720.0 (aquatic area)	5.93	0.81%
3	Construction of two electricity transmission lines NPS-15 and NPS-16	4 units including TNC "Amga", TNC "Sergelyakh", TNC "Kien-Yuryakh", PAC TNC "Kindigir"	64	3.79	10.24	0.07%
4	Construction of the bridge over river Aldan on Aldan-Olekminsk-Lensk motoway	JSC "Khatystyr"	42	0.383	2.62	0.92%

(continued)

Table 6.2 (continued)

No.	Project	Communities of indigenous peoples of the North	Number of communities members, people	Total area of land (aquatic) extracted from traditional natural resource use, square km	Amount of compensation for damages, million RUB	Ratio of compensation to value of the industrial project, %
5	Gas pipeline "Power of Siberia"	6 units including 2 MUE ("Iengra" and «Zolotinka»), 3 TNC ("Bugat", "Amin", "Kien-Uryakh") and JSC "Khatystyr"	143	5189.18 (data for 3 TNC)	19.71 (annually) and 53.26 (one-time payment)	0.01%
6	Operation of spaceport «Vostochny»	7 units including, 5 TNC and TC ("Ugut", "Bes-Yuryuakh", "Khapparastaakh", "Oluu" and "Eyiim"), PAC "Zhiganski" and JSC "Khatystyr"	83	15,315.30 (fallout area)	0.50 (one-time payment for 1 launch, payment to communes on the territory of which the waste will be found)	–
7	Development of diamond deposit "Verkhne-Munskoe" 2016	13 units including: 9 TC ("Beke", "Sopko", "Kulunchuk", "Biiirikte", "Muna", "Sonord'ut", "Hotugu Sulus", "Eneen", "Olenek"), 2 Ltd. companies ("Teey'e" and "Orlan"), PAC "Chuostaakh" and MUE "Oleneksky"	190	7.91	35.03	0.06%
8	Development of alluvial diamond deposits at the rivers Bolshaya Kuonamka and Talakhtakh	2 units: MUE "Zhilindinsky" and MUE "Oleneksky"	84	7.42	41.86 (annually, during project implementation of 10 years)	–

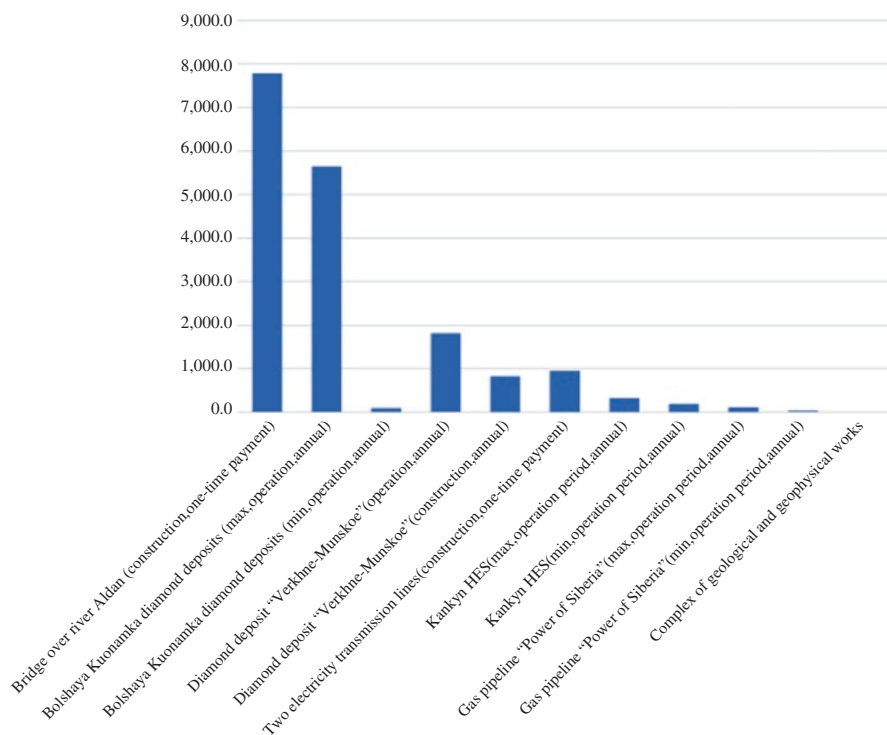


Fig. 6.1 Compensation for damages to units of indigenous small-numbered peoples of the North in Yakutia for land extracted from traditional natural use and under industrial influence, rubles per hectare per year

Compensation per square km of land, extracted for industrial activities and under stress from industrial projects, is higher for relatively small land sites. For aquatic areas, the compensation amounts are much lower than for land sites. For example, damage during the project “Complex of Geological and Geophysical Works on adjoining of Leno-Tunguska oil and gas province and Laptev potentially oil and gas area” (*JSC YUZHMOREGEOLOGIYA*) is valued at 221.93 roubles (3.62 USD) per square km per year. Data comparison demonstrates that the amount of compensations to communes of indigenous peoples of the North does not exceed 1% of the project value (see Table 6.2). The overall amount of compensation per one member of the community of indigenous peoples of the North varies from 7600 to 372,500 roubles (from 113 to 6077 USD) (see Fig. 6.2). The range of values is explained by the area of land used for industrial projects, as well as approach to compensation payments – either one-time or annual.

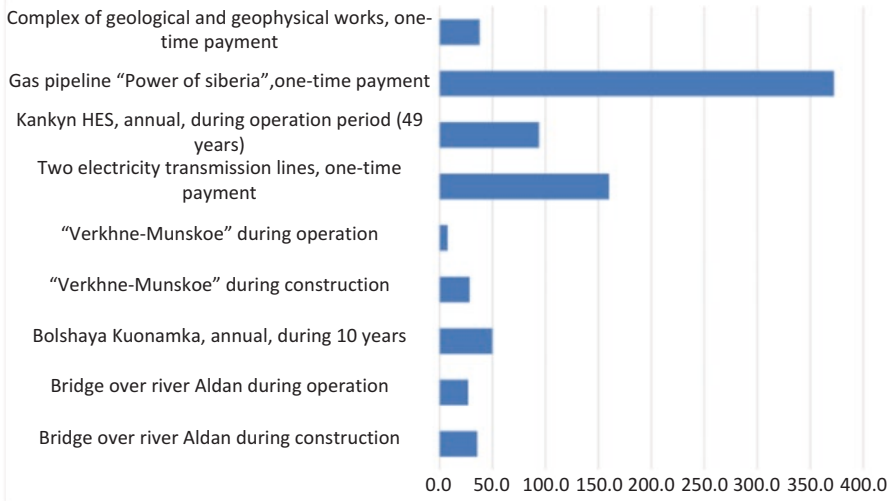


Fig. 6.2 Average amount of one-time and annual compensation payments for damages caused to traditional economic activities of indigenous peoples of the North in Yakutia according to 8 ethnological expert reviews conducted in 2012–2016

6.5 Methodology for Compensation Valuation – Critique and Recommendations

Currently, in Yakutia, especially in areas of industrial development, reindeer herding has suffered significant losses during the years of socio-economic crisis in the 1990s. Most indigenous households rely on subsistence economy, and are forced to survive on gathering (berries, mushrooms, medicinal raw materials, and waterfowl), hunting of wild deer for furs, and producing crafts such as reindeer skin boots, traditional clothes, souvenirs for personal use and moderate commercial sales. Studies show that incomes of members of indigenous peoples’ communes is two times lower per capita compared to averages for regional population due to high proportion of members of under and over working age (Burtseva et al. 2012, p. 16).

Monetary income of indigenous minorities of the North in Yakutia consist of old age pensions and social benefits for families with children, as well as budgetary subsidies and subventions for reindeer herding. In 2016, the amounts of subsidies per reindeer head were 760 rubles (11.31 USD) per year. Currently, as much as 1292 people in the region are engaged in reindeer herding, state subventions for reindeer herding in Yakutia amounted to 467.7 million rubles (6.961 million USD) in 2016 and 694.2 million rubles (11.906 million USD) in 2017 (*Arctic Consult*, 2017, p. 30, 42). If the average annual income of one reindeer herder of working age ranges from 261.0 to 387.4 thousand rubles (4476.2–6644.0 USD) per year, the calculated compensations per member of the commune are equivalent to one annual income of a reindeer herder. Although it is a significant amount per reindeer herder, in many instances, this is a lump sum, a one-time payment.

Indigenous minorities, that reside in Yakutia, occupy the land and lead traditional economic activities, often do not have formal legal rights to use their traditional land areas. Large land sites withdrawn for industrial use from traditional natural resource use regime, in many cases, are outside of municipal land of settlements and belong to state property of regional or federal governments. However, these plots of land are regularly used for traditional economic activities by the indigenous communities for livestock, hunting, fishing and gathering, social and cultural activities (Yakovleva and Grover 2015). Due to the lack of formal land rights for use of land, for example in the case of the Verkhne-Munskoe diamond deposit in Olenek district, *ALROSA* did not pay compensation to indigenous communes. A plot of land, chosen for construction and development of the diamond deposit, was removed from the inter-settlement territory. This land had previously been classified as a zone of ‘absolute tranquility of the nature reserve of regional significance’, a so-called “Erkeei Sire”, according the Decree of the Government of the Russian Federation of 2 April 2011 No 591-r. (Mostakhova 2016).

Lack of compensation payments awarded in other industrial projects, undertaken on the territory of traditional nature use of indigenous peoples of the North in the region, stipulates a need to improve the regulatory framework of Anthropological Expert Review and revises agreements between indigenous minorities’ communes and industrial developers. First of all, it is necessary to introduce compulsory payments, as well as to provide payment schedules, for example, ‘before the start’ or ‘at the end of the first year’ of construction. Also, it is necessary to determine the circle of compensation recipients and the form of compensation for damages. Some experts do not support the idea of monetary compensation for damages paid only to members of indigenous peoples’ communes, because it excludes the wider local community residing near industrial activities. The population could belong to another ethnic background and may not be part of indigenous minorities’ communes while being employed in other industries such as education. Researchers suggest that compensation could be conducted through rehabilitation of polluted areas and investment into socio-economic and cultural development of indigenous peoples of the North through investment into social infrastructure housing and implementation of social programmes (Potravny and Baglaeva 2015, p. 46).

Discussions on AER results are a subject of ongoing academic discussion, which, however, is also taken to federal officials from time to time. The spread of damage valuations is a result of discrepancy in approaches of expert groups to valuation and indicates the imperfection of valuation methodology for calculation of damages caused to indigenous peoples of the North and was developed on the basis of methodological recommendations in 2006 (Mikhalev et al. 2007; Russian Federation 2009).

Following the review of the methodology, we note that:

- The methodology is based on a generally accepted algorithm of cost-benefit analysis, which allows to determine lost profit. It envisages carrying out calculations using normative indicators to determine possible volumes of products lost as a result of anthropogenic factors. Methodological recommendations include

101 indicators, which are proposed for calculation to produce the result, of which 24 are coefficients, a significant part of which is determined by experts and conceals bias and subjectivity (Velichenko 2016, p. 20–21);

- Special studies should be conducted to test this methodology and the responsibility for carrying out these studies should be with the state bodies of Yakutia. In 2011, studies on development of normative indicators at the regional level have begun, but were stalled due to the lack of adequate data and their assessment in archive material with the Ministry of Agriculture and Food Policy of the Republic of Sakha (Yakutia) and other data on quality of land in traditional natural resource areas (Burtseva et al. 2012, p. 18).
- Many natural resources that are used by indigenous peoples of the North do not have a market value as they are not traded but consumed by local population for personal use. In order to assess the value of natural resources in a comprehensive manner during the valuation of resource productivity of territories of traditional economic activities, a development of regional economic normative for valuation of natural capital is required which then can be used for valuation of damage caused (Potravny et al. 2017, p. 12).
- The methodology allows to estimate potential economic damage but cannot evaluate the damage to ethno-social environment – language, culture and traditional knowledge. Negative processes include the emergence of risks of adaptation processes, loss of ethnic identity, transformation of traditional values in indigenous communities and communes, and the decline in the prestige of employment in traditional reindeer husbandry and northern fisheries (Pakhomov and Mostakhova 2016).

Methodological recommendations have not been revised for 10 years whilst normative indicators for the productivity of ecosystems, which should be approved by state bodies at the regional level, have not yet been developed. The delay in a methodological and normative indicator database for valuation of damages of industrial development in Yakutia reduces the effectiveness of AER as an instrument on protection of the rights of indigenous minorities of the North. We propose several measures for improvement of the Anthropological Expert Review: (1) widening of the list of ecosystem services; (2) revise the profit approach of the damage valuation; (3) development of regional normative indicators; (4) consideration of impact of several projects on the same territory. These are discussed below.

First, it is necessary to widen the list of ecosystem services included in valuation of damage to traditional economic activities. At present, the damage is valued for 4 types of traditional economic activity – reindeer husbandry, hunting, fishing and gathering – which are referred to as productive types of ecosystem services. However, other ecosystem services used by indigenous peoples of the North such as use of wood and forest resources and water ecosystems are not considered by the compensation methodology. Moreover, the full range of ecosystem services include environment-forming function, recreation and other services, which could be included in the valuation (Porfiriev and Terentiev 2016).

Second, we suggest the rejection of a cost-benefit method for valuation of damage, which is currently being adopted for AER. It implies an assessment of possible damage based on the income that communes can receive, minus the fixed and variable costs necessary to carry out traditional economic activity. In fact, this method aims to determine the profit of indigenous minorities' communes, whereas they are considered as agricultural enterprises, which produce goods for the market. According to economic theory, long-term profit of any enterprise always equals to zero due to market competition. Unlike competitive markets, isolated communities that conduct traditional economic activities are involved in subsistence and semi-subsistence economy. Small farms have a less important role on the market, but they are important in the rural areas as they provide food and social security for the population while contributing to environmental preservation through the use of traditional production methods (Alexandria et al. 2015). Therefore, a cost-benefit approach will lead to a decrease of damage valuation. We thus suggest using the total income as a basis for damage, taking into account a significant share of products that are produced for internal use, and the remoteness of indigenous peoples' settlements from markets where these products could be sold.

Third, when developing normative indicators for the productivity of ecosystems that contribute to estimating the incomes of the indigenous communes, we suggest taking into account environmental differentiation of natural areas, as well as productivity of local ecosystems that are affected by seasonal climatic conditions. For example, during the winter of 2016–2017, several Arctic districts of Yakutia encountered abnormal, record high levels of snow: during a period of 2 months, a 5-month precipitation rate fell. This led to widespread death of reindeer and horses and negatively affected winter catch of fish (Ministry of Agriculture and Food Policy of the Republic of Sakha (Yakutia) 2017). Changes in productivity of local ecosystems due to climatic and technogenic impacts and their influence on sustainability of local communities remains poorly understood and require further monitoring and the creation of a database of observations. Therefore, the normative indicators for the productivity of ecosystems should be adjusted in accordance with the results of regular ethno-ecological monitoring. In determining potential damage, one should take into account that natural resources are systemically undervalued with regards to other resources consumed during traditional economic activities (fuel, vehicles, communications, etc.). Having full access to nature, isolated indigenous communes face higher transportation costs and a lack of funds to purchase goods from outside.

Fourth, the development of large-scale mining projects does not occur in isolation and is accompanied by projects relating to transport and energy infrastructure. Inevitably, several industrial projects are put in place on the same territory. For instance, the territory of the indigenous minorities' JSC "Khatystyr" in Aldan district could be affected by three major projects, which led to maximum levels of compensation for damages. Only the refusal to proceed with the Kankyn hydroelectric station in the areas prevented relocation of indigenous communes in Aldan district. However, the financial crisis of 2013–2014 limited the opportunities for investment in the regions of the Far East. We suggest that the methodology should

not only assess the damage, but measure the sustainability of affected communities and communes, considering the area of land impact, the overall stress levels in the territory of traditional natural resource use and forecast of local ecosystem conditions. We urge that on the basis of scientifically grounded information, it is necessary to establish threshold values of sustainability, exceeding of which would result in absolute elimination of conditions for continuation of traditional economic activities. The damage in this case should be determined on the basis of alternatives - the costs of resettlement and community adaptation in new territories. If traditional economic activities are abandoned, compensation must be sufficient for the construction or purchase of real estate, as well as resettlements considering the wishes of community members.

6.6 Conclusions

All positive expert opinions of the Anthropological Expert Review contain recommendations on concluding and implementing agreements on social and economic cooperation between corporations, public authorities and local self-government, public organisations of indigenous minorities, including support for sustainable development of traditional nature use, and in some cases, creation of committees on corporate social responsibility. AER can potentially have a positive impact on the development of corporate social responsibility in Russia, if expert reviews are followed by voluntary social responsibility agreements and programs. The development of such mechanism can thus serve as a role model for other regions in the Arctic.

AER was institutionalised by the state administration of Yakutia under pressure from regional NGOs and other public organisations which demonstrates a formation of functioning civil society in the Russian Arctic. However, the current methodology applied in the AER suffers from several shortcomings, especially if several projects are planned on adjacent territories. At the moment, AERs are conducted using project documentation that do not allow to value the damage to the natural environment and indigenous minorities' communities and other groups in their entirety, and contrast these with overall benefit from development of several projects including commercial, budgetary, taxation and other economic and public impacts with the use of comprehensive cost-benefit analysis.

AER allows to determine the damage to one social group, indigenous minorities of the North who conduct traditional economic activities in the territories registered for traditional natural use and are directly affected by proposed industrial projects. It could become part of a wider social impact assessment that could study impacts on wider local communities, who reside locally, use local natural resources, live on adjacent territories and are not necessarily members of indigenous minorities of the North, but those who can potentially experience negative impacts from planned industrial projects.

The maintenance of outdated approaches in the industry, where interests of the industry dominates in discussions with regional governments, local municipal governments and indigenous minorities' communities generates mistrust and can lead to environmental and social protests. Transparency, openness and cooperation should become new principles of interaction between commercial developers implementing projects on the territory of traditional economic activities and traditional natural use. To improve the effectiveness of the Anthropological Expert Review, existing methodological and regulatory flaws need to be eliminated and a systematic study of ethno-ecological and socio-economic monitoring to develop regional standards and assessment of sustainability of indigenous minorities' communities and communes using factors of environmental and technogenic nature should be conducted.

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