

Indigenous Peoples' Interests and the Oil-Gas Industry

R J Grover

Department of Real Estate &
Construction, Oxford Brookes
University
Oxford, UK

G Ledkov

Department for Nations
Affairs, State Duma of the
Russian Federation
Moscow, Russian Federation

M M Soloviev

Department of Management
National Research University
Higher School of Economics
Moscow, Russian Federation

Structured Abstract:

- *Purpose.* The article discusses the issues involved in reconciling the development of natural resources with traditional uses of land, such as nomadic reindeer herding and fishing. Whilst it is in the national interest to exploit the oil-gas reserves the indigenous population cannot be protected by the usual methods of compensation. It raises complex questions of whether the destruction of indigenous livelihoods and cultures can be avoided and whether and in what ways the traditional users of the land can protect their interests through sharing in the benefits from natural resource development.
- *Design/methodology/approach.* The article uses a case study of Yamal-Nenets Autonomic Okrug of the Russian Federation which is compared with the approaches taken in other Arctic areas.
- *Findings.* There has been significant disruption of environment quality and indigenous livelihoods.
- *Practical implications.* The leading oil-gas companies developing the industry and infrastructure, are aware of the environmental and social impact of their operations and have sought to mitigate these through engineering solutions and by sponsoring cultural events in similar ways to those used by oil and mining companies elsewhere.
- *Social implications.* The Nenets' (and similar indigenous peoples') survival as a distinct culture is bound up with their traditional livelihoods and the natural environment.
- *Originality/value.* The case study gives a unique insight into the negotiation process in a situation of asymmetrical power. The results can be used for other indigenous populations, in the Northern Region and elsewhere.

Keywords: indigenous peoples' interests, gas production, Russia, industrial invasion, environment destructions, compulsory acquisition, compensation mechanisms, pipelines, traditional livelihoods.

Article Classification: Case study

1. Introduction

Oil and gas are amongst the most sought after energy and chemical resources demanded by the world economy and provide the potential for stable development in the regions where they are found. The Northern territories contain some of the richest reserves. However, the Arctic has a severe climate and its natural environment is fragile and takes a long time to recover from ecological damage. The intensive industrial invasion by the oil and gas industry into the region demands innovative solutions in technology and ecological management. The extraction fields are remote and have poor infrastructure, which complicates living and working conditions, and results in hugely expensive logistic systems for delivering the resources to consumers in developed regions (Berger, 1997; Emmerson, 2011; Grover, Soloviev & Platonova, 2008; US Geological Survey, 2008).

The local indigenous peoples' human and property rights and the protection of their traditional economy and social interests are amongst the most complicated problems that the oil and gas industry has to solve. They provide a challenge if compulsory acquisition and expropriation are

to be carried out fairly. The indigenous people have lived here for many hundreds of years and have evolved a way of life, cultural traditions and activities in close harmony with the severe natural environment¹. The current intensive industrial invasion places severe pressure on their way of life and is a threat to their whole culture and way of life. The rules for compulsory acquisition imply that the life style of the persons whose rights are being expropriated can continue in another location providing that fair compensation is paid. The large-scale development associated with the oil and gas industry requires large numbers of extraction bore-holes, test-wells, dense nets of main and secondary pipelines, and transport and other infrastructure. Among the significant negative influences are the technological risks, infringement of environmental and ecological norms, the physical occupancy of traditional reindeer pastures, crossings and seasonal nomadic routes, the deterioration of fishing areas, and the compulsory displacement of original settlements and seasonal nomadic encampments (Coates & Morrison, 1986; Emmerson, 2011; Forbes et al, 2009; Forbes & Stammler, 2009; Hicks & White, 2000).

The challenge is that there may be no amount of monetary compensation capable of putting the losers back in the situation they were in before the development as the life style may be lost forever. The question in this situation is what can be regarded as being fair compensation that is reasonable to persuade the losers to give their informed consent to the development. Otherwise development that benefits one group will come about only by impoverishing another. There may be no increase in welfare, merely redistribution from one group to another. The main aim is to find ways of reconciling the interests of commercial corporations and the local indigenous population to limit the pressure on the natural and social environment and to provide harmonious assimilation of the development of the oil and gas companies' interests, the national economy, and the quality of life of the indigenous population.

Nowadays the oil-gas and transport companies undertake a number of steps to satisfy corporate social and ecological responsibility. There are modern technologies of oil-gas extraction and industrial waste utilisation, the laying of the main pipelines underground, special pipeline construction to avoid blocking animal migration routes and their safe crossing of water barriers, and new systems for environment protection and to check the impact on ecology. Also there are measures to provide direct material help for the population with fuel and individual transport, communal services, and building and maintenance of social objects. Of course the aforementioned steps are not exhaustive and have a significant potential both in their technological and social aspects. It is especially important because of the international tendency for businesses to adopt corporate social and ecological responsibilities that comply with standards such as ISO 14000 and ISO 26000 (Campbell, 2007; Soloviev & Bocharov, 2011). The companies seeking to exploit the region's resources are not Soviet-era state industries who can afford to ignore the social and ecological impact of their activities as long as they achieve planned targets, but international corporations with western partners, investors and customers, who have to be mindful of their corporate social responsibilities.

The international community and national and regional authorities have elaborated ethical and legal norms for indigenous peoples and the areas in which they live and support their lifestyles. There are recognised international standards and practices. There are also a number of national

¹ There is an official list of the indigenous populations in the Russian Federation approved by the Russian Federation Government Act, N669, 02.09.2010. The Russian Federation does not use the International Labour Organisation definition of indigenous and tribal people but defines them as groups which have a population of less than 50,000. This means that ethnic groups with larger populations are not regarded as falling into the category of indigenous populations. Their quantitative and social characteristics are under constant monitoring. According to the last all-Russian census (2010) there are more than 40 indigenous nations with numbers ranging from some units (as the Kereki, Setu) up to tens of thousands (e.g. the Nenets, Khanty, Evenki). There are also numbers of groups with numbers in excess of 50,000 who do not enjoy the protections given to the smaller indigenous populations.

and regional social programs for support of the indigenous population in healthcare and education, fuel and energy provision, finances, and cultural and sporting festivals. Representatives of the indigenous population take part in state and municipal councils and have local public associations (ILO, 1989; UNEP, 2001, Declaration, 1991; Declaration, 1993; Declaration, 1996; United Nations, 2007; Kryazhkov, 2010). At the same time the situation with the indigenous territories coming under the intensive industrialisation continues to be unsatisfactory.

The paper analyses the experiences in Russia and North America and possible compensation mechanisms for the protection of interests of the indigenous population. In this respect the Russian Federation and North America have taken very different paths towards compensation. The Russian Federation has developed precise methodologies for assessing the impact of the oil and gas industries on the ways in which its indigenous populations have traditionally earned a livelihood. Thus, for example, there are precise calculations as to the impact, say, pipeline building has on reindeer herding, fishing, hunting, or wild herb collection. The calculations are intended to put the indigenous population in the same position economically after the exploitation of oil and gas reserves as they were before. By contrast in Alaska (USA) and Canada, the issue of compensation for the disruption to livelihoods and life styles is linked to the broader question of loss of land rights by the indigenous population and their claims for the restoration of these. In Russia, the indigenous populations were not singled out for loss of land rights when these were expropriated after 1917 as all land rights became the property of the state. As land right claims have been settled in North America this has tended to put the indigenous population in the position of being a landowner with rights, in some cases, over sub-soil reserves and/or the ability to decline to grant rights of access. This means that they have been able to negotiate compensation based upon the value of the rights being granted rather than the value of the rights lost.

2. Case studies: land destruction and compensation of indigenous peoples' interests

2.1. Russia: Direct compensation for pipeline building²

This case study relates to the Tazovski municipal region of the Russian Federation's Yamal-Nenets Autonomic Okrug (YaNAO). YaNAO has one of the world's highest gas extraction activity and potential. It is concerned with the building of the local part of pipeline across the territory of an indigenous agricultural cooperative. The valuation and compensation principles follow the statutory rules approved by the Russian Federation authorities³. The data used includes social-economical statistics and mapping data with regional administrative, geography, botanic, and soil characteristics, reindeer-breeding, fishing, and hunting.

The compensation is based on the following principles.

- The amount of compensation varies according to the value of the economic losses, including lost current and future income of indigenous economic bodies, such as communes, cooperatives and other commercial and non-commercial organizations.

² The case draws on the valuation report (2011) by the company *SeverProekt* (under the supervision of O. Mikhalev).

³ Methodology for valuation of losses to Northern, Siberian and Far East indigenous population bodies because of economic and other activities of all the property right forms organizations on the territories of the Russian Federation indigenous population life and traditional kinds of activities, approved by the Russian Federation Ministry for Regional Development, N565, 09.12.2009.

Methodic recommendations for valuation of the indigenous peoples of the Russian Federation North, Siberia and Far East immemorial land sites, approved by the Russian Federation "Roszemcadastre", 02.03.2004.

- The losses from land used by indigenous bodies that was destroyed, alienated, or whose quality is degraded or otherwise burdened.
- The loss of specific land sites along with built objects according to geo-botanic characteristics, nature and duration of external influences (such as the building process and the industrial exploitation period), the kind of external organizations, industrial and other activities and the character and intensity of its influence on the built environment.
- The calculation of the external stress on valued land sites and the regional and local peculiarities of the influences.
- The use of the average annual gross revenue per hectare of valued land sites as the basis for estimating losses.
- The use of geo-botanical contour maps as the basis for defining the characteristics of specified land sites.
- The calculation of losses separately for every specified land site and different time periods of building and exploitation activities of industrial and support companies.
- The calculation of losses separately for all the types of activities of the indigenous population activities on the specified land sites according to an officially approved list of 13 indigenous traditional activities⁴, such as animal-husbandry (reindeer-breeding, horse-breeding, etc.), animal-husbandry products processing, fur farming, dog-breeding, fur trading, sea and river fishing, local market gardening, and medicinal herb collecting.
- To receive the final measure of the losses as the sum of all the separate values for every specified land site and every type of traditional activity of the indigenous population on the land sites.

The following types of destruction of land sites were defined:

- under the main pipeline;
- under support complexes (for different pipeline connections, fitting and cleaning constructions);
- compounds for builders and pipe welding;
- winter roads along pipelines; and
- the sand quarry and connecting roads to it.

There were also valuations of the losses during the preliminary exploration and preparatory works. The durations for the planned pipeline and accompanying construction and exploitation phases have to be estimated. The characteristics and quantitative data for all the local geo-botanic contours of specified land sites along the pipeline building complex have to be defined. It is necessary to obtain detailed quantitative data for the main traditional activities of the Nenets people, including reindeer-breeding, fishing, hunting, and wild herb collection. The geo-botanic contours identify the differing potential for sustainable reindeer-breeding. This means the optimal herd size for the biological sustainability of the pasture. As a result the land sites diversity helps to define the possible income and losses for traditional activities after the industrial invasion. The losses can be assessed according to the degree of industrial impact, for example, in relation to pipeline exploitation:

- extreme influence (in tens meters) - more than 80% losses of the pasture biological potential, and
- strong influence (in hundreds meters) - more than 50-60% potential losses.

⁴ See the official list of traditional economy activities of the indigenous small populations in the Russian Federation, approved by Russian Federation Government Act, N631-p, 08.05.2009.

Similar assessment took place for indigenous hunting and wild herb collection. For fishing losses, their potential was estimated according to ichthyology mass measure for different scales of rivers and lakes, which were affected by the building or exploitation of the pipeline.

The total value was arrived at through the summation all the different types of individual values. The result (for the sample in tens millions of roubles) helped to solve some current and immediate economic issues for the local indigenous agricultural cooperatives but not the long-term consequences of altering the environment and the corresponding change in future prospects.

2.2. Large-scale compensation through profit sharing: examples from North America

The issue of compensation to the indigenous peoples of North America for losses suffered through oil and gas exploration and development needs to be understood in the light of the struggle for recognition of their land right claims. If the indigenous populations are seen as being customary occupiers and users of state land, their position is substantially different than if they have ownership rights over the land, including rights over the mineral wealth beneath it. Customary occupiers could be compensated through being allocated to land of equivalent quality together with compensation for relocation and the loss of investment in any land they are obliged to vacate, such as buildings and growing crops. By contrast, the owners of the land are entitled to a share of the profits from mineral exploitation, if they own the mineral rights, or may be able to secure part of the benefit from the exploitation of the resources if their consent is needed for access to their land for exploration or exploitation, even if they just own the surface rights.

The relatively weak protection that customary occupiers enjoy is illustrated by what happened to the Inughuit people of Greenland when the Danish Government gave its consent to the expansion of the Thule Airbase in 1953. They were forcibly relocated from Uummannaq to Qaanaaq. The Inughuit subsequently succeeded in obtaining compensation of 500,000 Danish kroner (approximately £44,500 at the contemporary exchange rate) with interest from the start of their case in 1996 and additional compensation to the plaintiffs, who were adults at the time of the relocation, of 25,000 or 15,000 Danish kroner each because of the unlawful nature of the action (English translation of the judgement in Lynge, 2002). They failed to obtain the specific recovery of their land. Compensation was limited by the court's view that the government had provided adequate (or indeed improved) alternative housing and that the tribe had had time to adjust their hunting methods to their new environment in order to mitigate their losses. The Canadian Government followed a similar approach when projects required the relocation of indigenous communities even though the result of this policy was the destruction of communities and severe social distress (York, 1990).

The existence of oil in the Northern Regions of North America has been known about since the eighteenth century when it was reported by the explorer Alexander Mackenzie in northern Canada in 1789. In 1920 a wildcat strike found oil at Fort Norman on the Mackenzie River and led to some commercial production in the 1930s and 1940s (Emmerson, 2011). The Prudhoe Bay oilfield in Alaska, on land owned by the State of Alaska, did not start production until 1968, followed by the exploitation of the North Slope. The stimulus was the rising price of oil brought about the creation of the OPEC cartel of leading oil producing countries. This made oil production in these expensive and inhospitable areas economically feasible. However, the oil could only be exported through a pipeline to the ice-free port of Valdez and this had to pass over land owned and traditionally used by the indigenous peoples. This made it necessary for the US government to resolve the issue of land claims by the indigenous peoples.

When USA purchased Alaska from Russia in 1867, the issue of land claims by the indigenous peoples was not explicitly taken into consideration. The treaty provided for the transfer of ownership from the Russian Government to that of the USA of all the land that was state owned,

but not that in private ownership or occupied by the Orthodox Church. The inhabitants, with the exception of the “uncivilized native tribes” could become citizens of the USA and “be maintained and protected in the free enjoyment of their liberty, property and religion (Treaty, Article III).” The territory was deemed to be unencumbered by any reservations, privileges, and grants other than private individual property holders (Article VI). The issue of who was meant in the Treaty by the “uncivilised native tribes” lies at the centre of subsequent land claims (Jones, 1981). The Russian America Company charter of 1844, which was in force in 1867, distinguished between three types of indigenous inhabitants; "dependent" or "settled" tribes, "not wholly dependent" tribes, and "independent" tribes. There were settled indigenous peoples in areas of Russian control as well as nomadic ones, who passed in and out of this territory. It is not clear which groups could claim protection under Article III on the basis of the 1844 charter as the US interpretation of who were “uncivilised native tribes” may have been different from the Russian one. The issue of land claims by indigenous peoples had not resolved when Alaska became a state in 1959.

The Alaska Native Claims Settlement Act (1971) brought about at least a temporary settlement of the land claims. However, subsequent coastal erosion has re-opened the issue as villages and individuals are forced to relocate as a result of land allocated under earlier settlements being lost to the sea. The Act extinguished land claims and the US government allocated 44 million acres (17.8 million hectares) of land to native corporations and paid them \$962.5 million. There are two types of the native corporations: 13 regional corporations (including one for those of the indigenous population who had moved out of Alaska since 1971) and 229 village corporations. The village corporations received land around their villages from the regional corporation according to their populations. They own the surface rights to the lands they selected. The regional corporations own the surface and sub-surface rights of their land and the sub-surface rights of the village corporations’ land.

The Alaskan Native Corporations are for-profit organizations. Stockholders cannot sell their shares but only transfer them through inheritance or to close family. The corporations can sell and mortgage their land, unlike the Canadian bodies. They can go bankrupt and several came close to doing so in the 1980s, though since 1989 there cannot be foreclosure on the land. The regional corporations have become big businesses with global investments and subsidiary companies (Simpson 2007). For example, the Arctic Slope Regional Corporation had revenues of \$1,945 million in 2009 and generated \$163.5 million for its shareholders⁵. It employs over 10,000 people, including over 3,000 Alaskans, in companies engaged in construction, energy services, government contracting, financial services, hotels, and petroleum refining. It is owned by 11,000 Iñupiat Eskimo shareholders, living mainly in eight villages on Alaska’s North Slope. Some of the corporations have rich natural and mineral resources whilst others do not.

The Fort Norman oilfield in Canada, apart from playing a strategic role during the Second World War, only ever supplied a limited local market. If the oil and natural gas deposits were to be exploited commercially, a pipeline would be needed along the Mackenzie Valley to Alberta. This raises environmental issues. There were public concerns about impact of such project on the indigenous population in view of the consequences of other relocations in order to permit the commercial or urban development of their land (Royal Commission, 1996, vol 1, ch 11; York, 1990). A series of watershed legal decisions, starting in the 1970s, brought about a change in policy on the reallocation of indigenous peoples’ lands. The Canadian Supreme Court in *Calder v the Attorney General of British Columbia* (1973) ruled that Indian title was a legal right independent of any form of enactment. It had not been extinguished by colonisation, irrespective of whether it was recognised by Europeans or not. It did not depend upon a sovereign grant, but

⁵ Arctic Slope Regional Corporation Annual Report 2009

on occupancy (Hurley, 1998, revised 2000). The 1982 Constitution Act recognised and re-affirmed the existing aboriginal and treaty rights of the indigenous peoples.

The economic and social distress caused to indigenous communities by relocation and the pollution from development of the lands from which they earned their livelihoods led to the Canadian government setting up an inquiry into the Mackenzie Valley pipeline proposals under the then Mr Justice Thomas Berger (Berger, 1977). He identified that there was a conflict of interest between businesses – local as well as national - and the indigenous groups. Berger concluded that the project would have a huge impact as the corridor through the Mackenzie Valley would have both oil and natural gas pipelines and associated infrastructure. No conditions could be imposed on their construction that would protect the environment and, by implication, the traditional livelihoods of the indigenous populations. He proposed a moratorium on development until the issue of native land claims in the area affected had been resolved. The businesses seeking to develop the oil and gas reserves and build the pipeline would then be obliged to negotiate with the indigenous communities living in the areas and some of the benefits from development would have to be shared with them.

Since 2000, following the increase in natural gas prices, the project has been revived. Public attitudes had changed and the Government of the Northwest Territories voted unanimously to allow the construction of the Mackenzie pipeline. During the intervening period the issues of native land claims in the area have largely been resolved. The Inuvialuit reached a final agreement in 1984 with amendments in 1987 (Inuvialuit R.C., 1987). The Gwich'in reached a comprehensive land agreement with the Canadian government in 1992 (Siddon, 1992) and the Sahtu, whose territory includes the Fort Norman oil wells, in 1993 (Irwin, 1993). The Dehcho, over whose land approximately 40% of the pipeline would pass, agreed a framework agreement with the governments of Canada and the Northwest Territories in 2001, with an agreement in principle in 2007 (Dehcho First Nations, 2001, 2007, 2012). The precise details vary between agreements, for example, whether the claim concerned land that had been surrendered under an earlier treaty over which there were disputes or whether the land had never been subject to treaty. In return for surrendering land over which they had claims, the indigenous groups secured self-governing agreements, financial payments, the protection of wildlife harvesting, habitat management agreements, and the receipt of lands in fee simple with and without oil, gas and mineral rights. They could determine who has access to their land and the terms and conditions on which this takes place. There is protection from the expropriation of their land without fair compensation and the ability to influence environmental protection programmes and policies in the event of development. The tenure over indigenous peoples' lands is collective, vested in a juridical person in which each member of in the community has a share.

In 2001 the Mackenzie Valley Aboriginal Pipeline Corporation entered into a memorandum of understanding with the four producing companies, Imperial Oil, Connoco Phillips, Shell and Exxon and in 2003 became a full participant in the project. The production companies own interests in the Niglintgak, Taglu and Parsons Lake natural gas fields, which were discovered during the 1970s. The Mackenzie Valley Aboriginal Pipeline Corporation is owned by the Aboriginal Pipeline Group, which was formed in 2000 to represent the interests of the indigenous peoples of the area. The Mackenzie Valley Aboriginal Pipeline Limited Partnership holds the APG's financial interest in the Mackenzie Valley Pipeline and is owned by organisations under the direction of the Deh Cho, Sahtu, Gwich'in and Inuvialuit. Other indigenous groups in the Northwest Territories can join at the discretion of the four founding members. The Aboriginal Pipeline Groups owns a 33.3% share in the consortium. Its share of the development costs have to be raised through conventional debt markets with backstop finance being provided by the fields' owners. The project's goals include providing benefits to indigenous communities and its priorities include fostering the development of indigenous and

other northern suppliers of goods and services and consulting with and involving the communities in the area (Imperial Oil Resources Ventures Ltd, 2004). The impacts considered include those on indigenous culture, language, and traditional means of sustaining livelihoods. In addition to the share of the pipeline, applications have to be made for development permissions in the settlement areas, which provides the indigenous groups with some important regulatory powers over land use and water resources, In this way, the indigenous people have a degree of control over the details of the development, but also stand to benefit financially from the pipeline.

3. Comparisons of the case studies

The two cases have a different basis with contrasting results for the oil-gas industry and the indigenous populations. The differences are wide, between cellular compensation and a general approach through the indigenous population sharing in the oil-gas development. Both ways have potential for different conditions and kinds of problem. It is therefore necessary to analyse the main characteristics of the cases to establish their future perspectives, particularly for the conditions of the Russian Federation's Northern regions.

3.1. Direct compensation

This way provides real financial opportunity for indigenous juridical economic bodies, such as cooperatives, to solve some of their problems resulting from losses in their traditional activities because of oil-gas industry development on their territories. It is important to emphasise that the losses were valued on the basis of the destruction of the land they use. The valuation approach was founded on statutory rules with precise definitions and methodology.

(j) *Defined indigenous juridical bodies.* It is necessary to have a concrete and official juridical and economic indigenous participant in commercial dealings, contracts and court actions with interested industrial companies. That juridical face has to be an object with a direct relationship to the indigenous territory and their valued land sites. For the Russian Federation indigenous populations' territories, one of the essential demands is to organise officially recognised juridical and/or physical persons for all the permanent and nomadic settlements and economically valuable land sites of the Northern territories where there is potential oil-gas development or other forms of industrialisation. The indigenous bodies must be officially recognised in relation to all the land sites used for living space or economic activities. In their absence there are difficulties in the valuation of economic losses and the confirmation of compensation payments.

(jj) *Defined property rights for the land sites used by officially recognised indigenous bodies.* The tenure of permitted use has a very significant influence on the calculation of the amount of compensation. The indigenous population has the right to use the land but does not have ownership rights. The indigenous cooperative land sites were held in the recognised tenure. The calculation of compensation takes place within current Russian land and property rights, including those governing sub-soil areas. Consequently the indigenous bodies have the right to use the lands for agriculture because their traditional activities are classified as agricultural ones. This also gives them significant preferences in the tax tariff. It is very important from the economical point of view in relation to the indigenous traditional commercial activities.

(jjj) *Statutory methods and databases for the valuation of claims for losses.* It is necessary to provide a basis for the confirmation of the valuation of the losses that is mutually acceptable to both industrial corporations and indigenous bodies. The market value approach is problematic because of the absence of representative data, particularly of comparable evidence. The statutory approach needs a sophisticated database. It must include detailed mapping of the quantitative

indexes of the characteristics. Any uncertainty about the data, its absence or mistakes in it leads to difficulties, for example, if the operational life of the pipeline and its decommissioning is inaccurate. Changes in property rights in the Northern tundra lands will require considerable alteration in the statutory methods.

(jv) *Financial content of compensation.* One of the serious problems with the statutory approach is the restriction to financial measures of loss of the indigenous population's traditional activities. The valuation concept focuses attention on the commercial content of the indigenous population's life. The social, ecological and other non-financial aspects of losses are outside of the valuation and the approach to fair compensation. Yet the financial assessment needs detailed information from all the regulatory levels, including federal, regional, and municipal, and also from interested corporate bodies and professional associations.

3.2. The profit sharing case

The oil and gas reserves were not created by those who currently own or occupy the land under which they lie. Today's owners are the lucky beneficiaries of circumstances over which they have had no influence, namely the presence of the wealth that the reserves represent and the economic climate that has made their exploitation viable. This raises the question of who should benefit from the presence of these resources. It is understandable that governments should take the view that these are national resources that ought to benefit the country as a whole, particularly through royalties and taxes. The land under which the reserves lie does not have the conventional western land tenures. It has been used by indigenous peoples to generate a livelihood but without the normal trappings of title. The tenure, in any case, is collective rather than individual. There has been a tendency in the three countries to view the land as state land over which the indigenous population have customary use rights. Like any tenant at will, there is no security of tenure once the will of the landlord changes. Compensation for loss of access is likely to be limited to the provision of alternative land and for any immovable property that has to be abandoned. Indigenous peoples typically enjoy a poorer standard of living than the rest of the population. If governments regard their traditional lands as state land over which they have permitted use rights, then governments are the ones who capture the rising values of these. They therefore deprive the indigenous populations of a capital base from which to escape poverty, the degradation of the environment on which their livelihoods depend, or to cope with social transformation (Wily 2006).

Developments on the scale of the oil and gas industry have an enormous impact on remote communities. Whatever environmental safeguards are put in place, it is inevitable that the areas lose some of their wilderness characteristics. Anthropogenic disturbance of habitats, the reproductive rates of plant and animal species, and of water resources through infrastructure and access must inevitably have an impact on the traditional ways in which the indigenous population has earned a living. The danger is that these can result in further impoverishment of groups who already do not enjoy the life chances available to the population as a whole.

What the examples from Alaska (USA) and Canada show is that there is a middle way between the resources being regarded as either belonging to those that control the land or to the state. In both countries the land has been divided into that over which the indigenous population has ownership rights and that which is state land. The indigenous populations have negotiated agreements under which they have surrendered theoretical, but contested, rights over vast areas in favour of receiving clearly defined rights over more limited ones. They have had the opportunity to select the areas that will be under their ownership. In this they are likely to be influenced by social, historical and cultural factors and they may be lucky or unlucky in terms of resource endowment. These are likely to result in inequalities between different groups of indigenous peoples. Even when sub-surface rights are not owned by indigenous groups, they can

use their control of access rights to negotiate a share of the benefits from development. The oil and gas companies must also obtain permits from public governments, for example, for development and building. Whilst these are public governments, the majority of the electors come from the indigenous population. Their decisions are likely to reflect the interests of their citizens, particularly when it comes to issues like offers of planning gain by developers in return for granting consents.

What access to a share of the benefits from development offers indigenous communities is a degree of choice. They have leverage in negotiations over the development itself and what its consequences will be. This gives scope for the protection of the culture and language. It can give the communities control of education and social welfare. It also gives them the chance to tackle despair, particularly amongst the young, by providing employment to replace the opportunities for pursuing traditional means of livelihood that development undermines. This can take the form of employment in the oil and gas industry and the industries that support it. These provide opportunities for unskilled work, particularly in areas like construction, and the opportunity to gain skills and qualifications. By negotiating preference schemes for the award of contracts, indigenous communities can secure some employment opportunities.

4. Economic mechanisms for Russian Federation conditions

The two cases define some conceptual boundaries of the spectrum of economical mechanisms for the protection of indigenous populations' interests. It is important to analyse their possible transformation and adaptation. The materials presented mainly reflect current research and some practical steps according to the conditions in YaNAO and similar Russian Northern regions.

4.1. The direct local compensation concept.

In principle there are number of ways to develop the direct compensation approach for local indigenous economic bodies. Generally all of the improvements are concerned with database development, its local adaptation and diversification. The two main directions of development are as follows.

- A more detailed and better argued foundation for the valuation of compensation that is better adapted to local conditions and the characteristics of the participants. It will require the use of the traditional statutory basis and valuation standards in a more critical manner and, possibly, to widen their framework in order to calculate the impact of a number of additional factors, such as the technological peculiarities of pipeline building and oil and gas extraction processes, the conditions of reindeer herd migrations, the specific geographical and biological characteristics of pastures, fishing behaviour dynamics, and the local peculiarities of wild herb collection.
- Providing compensation based on the totality of the losses and not just on those that can be measured financially. This will require efficient integration of different contents and the measurement of other influences, such as cultural, social, ecological and environmental characteristics. Also the calculation needs to be broader than just land sites and their destruction to include all the characteristics of the indigenous lifestyle affected by the oil-gas industrialisation processes.

The first direction can be realised through detailed development of the current statutory rules. In practice the task is been a step-by-step evolution by regional professional associations and project companies, such as *SeverProekt* (which was the body responsible for the YaNAO case), which specialise in valuation of land site losses in the Russian North.

As to the second direction, it is much more complicated. The majority of advances in valuation that try to transform the non-financial components into financial ones are mainly in the research

sphere (see for example Soloviev & Bocharov, 2011). Moreover, the International Valuation Standards continue to focus on the financial content of valuation. This can be seen in the draft developed for special public property assets (IVSC, 2012). So an integrated approach requires the concentration of efforts into appropriate research and solutions. An integrated approach can be argued as the way to protect and realise the interests of the indigenous population. This direction is the most relevant and important development and amongst the prime steps are defining and interpreting the interests of the indigenous population (Ledkov & Soloviev, 2013).

4.2. Sharing and other ways of inclusion in the oil-gas business.

The compensation payable to an occupier is generally much more limited than that payable to the owner of land taken. The question of whether the indigenous communities are regarded as being customary occupiers or the owners of their land is therefore significant. In Alaska and Canada, the communities have secured recognition of ownership rights over at least some of the land affected by oil and gas development. Even if the ownership rights are just surface ones, access agreements still have to be negotiated, although there are no rights to payments for the mineral extracted. Owners can obtain some share in the development potential, occupiers cannot.

Normally in situations of expropriation there is the opportunity for those whose property is taken to relocate elsewhere. In principle, if one's livelihood is lost at one location, then the compensation provided should enable the person to re-establish himself elsewhere. The compensation should ensure that he is no worse off as a result of the being forced to relocate. The experience of earlier relocations in Canada is one of loss of the environment that supported livelihoods and the decline into social problems for the communities that suffered such deprivation. Pollution, in particular, deprived the communities of the opportunity to re-establish livelihoods elsewhere, resulting in dependency. Providing alternative land of equivalent value is impossible if the wilderness areas that supported hunting, fishing and plant collection have been destroyed or degraded. Compensation has to address the issue of how alternative livelihoods can be constructed. Control by the indigenous population of education provides a means protecting culture, especially languages, as well as ensuring that the younger generation can receive education and training that prepares them for the changed environment. Preferential contract opportunities can ensure that not all the employment created through development goes to outsiders and that entrepreneurs from the indigenous population can establish businesses supplying the oil and gas industries.

The oil and gas reserves have a finite life. One day the area will experience the end of the industry. It will not be able to revert back to the pre-development situation – or at least not during the lifetimes of its human population. By sharing in the benefits of development, the indigenous population have the opportunity to prepare for a post oil and gas world in which neither the industry provides income or employment nor the traditional wilderness exists. Like oil-rich nation states, they can build up endowment funds against that day. They can help their people become urbanised so that they earn their livings in very different ways than their ancestors. They can, as a number of the Alaskan Native Corporations have done, develop businesses that are capable of supplying services throughout the USA using the skills and experience they have acquired in the oil and gas industry.

5. Conclusion

Reconciling the contradictions between interests of the oil-gas industry in developing the Northern Regions and the way of life of the indigenous population needs close cooperation between the participants: the oil-gas corporations, local indigenous associations, and regional and federal authorities. This requires development of the legal and economic mechanisms. They

need clear interpretation and precise content of each category of interest for every one of the participants.

In Russia the concepts and details of the general interests of the regions and corporations can be found in their mission statements and targets, published strategies, long-term projection of development, and macro-economic and techno-economic statistical data. As to the indigenous population, the published data mainly relates to aspects of their human rights, and the protection of historical, cultural and lifestyle traditions. Investigation into the economic mechanisms for the defence of the indigenous population's interests, and how these can be realised, is much less developed. This makes the problem a timely one. In order to build efficient mechanisms it is necessary to define the logical structure behind the interests of the indigenous population, the detailed content of the indexes used in the computations, and the ways for providing the information. This is one of main tasks of authors' current research.

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Biographical Details:

Gregory Ledkov is currently Deputy of the Russian Federation State Duma from Yamal-Nenets Autonomic Okrug (YaNAO). There he is a member of the Nations Affairs Department. Before the State Duma elections, he worked in the YaNAO agricultural cooperative and administrative councils after graduating from St Petersburg Pedagogic University (history and cultural) and St Petersburg State University (jurist). His current activities (participation in researches and publications, reports for International forums) are concerned with the Northern indigenous population's rights and the protection of their traditional livelihoods. He represents the Russian Association of Indigenous Peoples of North, Siberia and Far East in number of international associations.

Richard Grover is currently a part-time senior lecturer in real estate management in the Department of Real Estate and Construction at Oxford Brookes University. Before retirement, he was assistant dean of the School of the Built Environment. He is an economist and chartered surveyor and has worked on land rights, privatisation and land registration projects for bodies such as the UK Know How Fund, World Bank and Food and Agriculture Organization. He represents the Royal Institution of Chartered Surveyors on Commission 7, Land Management and Cadastre, of the International Federation of Surveyors (FIG) and is currently preparing a book for FIG on the management of state and public sector land in transition economies.

Mikhail M Soloviev is currently professor in strategy infrastructure management and real estate businesses in the Department of Management at National Research University Higher School of Economics in Moscow. He is a specialist in management and has worked on state and municipal property rights, valuation and development, economic mechanisms for different kinds of management systems for bodies such as the RF Natural Resources Ministry, United State of Russia and Belarus, IVSC (Valuation of Specialized Public Service Assets), YaNAO, etc. He is author of number of text-books, and is currently taking part in preparing the Russian chapter for a book for FIG on the management of state and public sector land in transition economies.

Corresponding author: **Richard Grover**
Corresponding Author's Email: **rgrover@brookes.ac.uk**