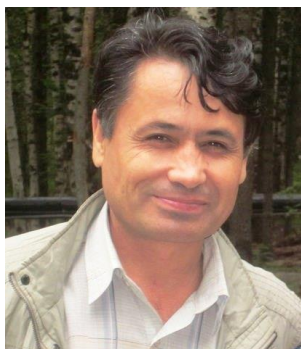


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The study of public opinion on industrial mining in the Nefteyugansk district of Yugra



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Abstract. In this article, we consider the views of respondents on the industrial development of mineral deposits on the example of the Nefteyugansky district, Yugra. The analysis of views regarding the development of mineral deposits represents a comparative sociological study. It summarizes the results of a poll

conducted in 2015 on the territory of Nefteyugansk district and earlier studies done in 2008 and 2012. The results of polls showed that most respondents had positive sentiments to the industrial mining. On the other hand, in contrast to 2008, in 2015, the proportion of people, who opposed the commercial development of mineral resources, got bigger. At the same time, most respondents believed that industrial mining resulted in environmental degradation of the area (district) of their residence.

Keywords: *industrial mining, public opinion, poll, environmental condition, respondents, small-numbered indigenous peoples of the North, experts, results of industrial mining*

The rapid growth and development of industrial facilities, new technologies, development of new mineral deposits, and creation of powerful industrial equipment represent a potential risk of industrial accidents and their negative consequences for human health and the environment.

This is because the deposits of mineral resources that meet the industry needs are mainly on the territories of traditional nature use (TTNU) of indigenous peoples of the North (IPN). The TTNU are generic lands, tribal (family) lands and grassland. Over the past 40–50 years in the district, there was a significant reduction in TTNU of the IPN. Their main traditional economic activities have trouble. It results in the deterioration of the social and economic situation of indigenous peoples, requiring a special attention now.

The uniqueness of the ecosystems of the North determines their special place in the system of national environmental interests. Therefore, the Northern areas are home of indigenous peoples and their system of environmental management. The ecological value of these territories is even more evident [1, Talkhigova M.S., pp. 385–388].

The industrial development of the subsoil of the Northern territories, especially the Khanty-Mansiysk Autonomous Okrug — Yugra, its economic, environmental and social aspects are explored in the works of V.G. Loginov, V.V. Balashenko [2], V.G. Loginov, F.V. Melnikov [3], N.I. Novikov [4], S.Kh. Khaknazarov [5; 6] etc. Let us note that an important milestone in the history that lead up to the next change of emphasis in national policy was the discovery of the richest oil and gas fields, coal

and diamonds in the remote areas. The departmental approach in the development of natural resources in 1960–1980 years, had determined the guiding principle of natural resource development. Its essence lies in the disregard of the protection of the environment and culture of indigenous peoples of the North. “Arrangement” the North took the form of predatory exploitation of its mineral and other resources.

Brief description of the study area

Geographically, the Nefteyugansk district is in the central part of the Khanty-Mansi Autonomous District — Yugra (KMADY) and in the middle reaches of the Ob River, within the forest and swamp zone of the West Siberian lowland. Its territory is 24.5 km². On the territory of the Nefteyugansk district, there are 11 settlements. They are home to 45.9 thous people, incl. little more than 480 indigenous people — the Khanty and the Mansi⁷. According to the Department of natural resources and non-commodity sector of Yugra, the district has 33 territories of traditional nature use (tribal lands, communities) of indigenous peoples, with a total area of 121 7140 hectares. The areas are home to 39 indigenous families (280 people). Their main activities are hunting, fishing, harvesting.

The area has a convenient and developed transport system: aviation, railway, water and road transport. The car road connected the area with the other district centers and settlements with paved roads. Dynamic economic development, active construction, and developed transport make it one of the most affluent areas of the KMADY.

The economy of the district is based on enterprises of the energy complex, e.g. “Yuganskneftegaz”, Salym petroleum development NV, OJSC “Surgutneftegas” and others. The most important fields are the Mamontovskoe, Pravdinskoe, Uzhno-Surgutskoye, Malo-Balykskoye, Ust-Balykskoye, etc. Pumping oil to refineries is a job for the OJSC “Sibnefteprovod” of the Control of Oil Pipelines. Forest processing industry is also developed in the Autonomous District, along with the oil industry. Its volume ranked second in Russia. Currently, there are four large timber developing and wood processing mills in the Autonomous District. All the autonomous district’s wood export amounts to more than 7 million m³.

Pollution of air on the territory of Nefteyugansk district is mainly determined by local sources and to a smaller degree — it is a transfer from the other areas. The main causes of air pollution are emissions from industry, burning of associated petroleum gas in flares, evaporation of light fractions

⁷Obshhie svedeniya o korennyh narodah [General information about indigenous peoples] URL: <http://www.admoil.ru/index.php/korennye-narody-severa/obshchie-svedeniya> (Accessed: 19 July 2016) [in Russian].

of hydrocarbons from the surface of oil spills, sludge pits, storage tanks of oil and exhaust gases of transport.

According to the “Report on the environmental situation...”⁸ in 2014, emissions of harmful substances (pollutants) into the atmosphere was 1,466.81 thous tons, including:

- solid pollutants — 56.90 thous tons (or 3.9%);
- gaseous and liquid pollutants — 1 409.91 thous tons (96.1%).

In 2013, emissions were 1 866. 16 thous tons. The share of solid pollutants was 4.5% (83.102 thous tons), and gaseous and liquid pollutants — 95.5 % (1,783.058 thous tons). Among the 23 municipalities of the Autonomous District, the largest air pollution is consistently accounted for Nizhnevartovsk, Surgut, Nefteyugansk and Khanty-Mansiysk districts. In 2014 their share accounted for 73.9% of all emissions (2013 — 74.0% and in 2012 — 78.1%).

According to data provided by oil and gas companies in 2014, the oil fields of the Autonomous District had 2,538 spills associated with extraction of hydrocarbons. 1,345 of incidents happened on pipelines, 1,159 — water supply system, 34 — gas pipelines. The main reason for emergency is corrosion — 2,457 cases (97%)⁹.

Assessment of the situation and the effect of the oil companies involved in production on the territory of the Autonomous District shows that, as in previous years, the highest number incidents are the oil companies on the territory of Nefteyugansk district. They are OJSC “NK Rosneft” — 2,307 or 91% of the total number of incidents on oil pipelines and water supply system and JSC “Tomskneft VNK” — 67 or 2.6% of the total number of accidents. The largest area of contaminated land¹⁰ are the lands of JSC “RN-Yuganskneftegaz” (OJSC “NK “Rosneft”) — 2,055 ha, accounting for 46.7% of all the contaminated land.

Administratively, the highest accident rates are in Nefteyugansk (57.8%), Nizhnevartovsk (28.7%), Khanty-Mansiysk (7.4%) and Surgut (5.1%). For the second year, the Khanty-Mansiysk is the third — 189 accidents, it is “ahead” of Surgut — 131 accidents (incl. data on accidents on gas pipelines).

Next, we turn to the generalization of the sociological survey results about study. In 2015, the staff of the Ob-Ugric Institute of Applied Research and Development (Khanty-Mansiysk) held

⁸ Doklad ob ekologicheskoy situatsii v Khanty-Mansijskom avtonomnom okruge — Yugre v 2014 godu [The report on the environmental situation in the Khanty-Mansi Autonomous District — YYugra in 2014.]. URL: <http://prirodnadzor.admhmao.ru/doklady-i-otchyety/doklad-ob-ekologicheskoy-situatsii-v-khanty-mansijskom-avtonomnom-okruge-yugre/vlozheniya/373983/> (Accessed: 20 July 2016) [in Russian].

⁹ Doklad ob ekologicheskoy situatsii v Khanty-Mansijskom avtonomnom okruge — Yugre v 2015 godu [The report on the environmental situation in the Khanty-Mansi Autonomous District — YYugra in 2015.]. URL: <http://www.prirodnadzor.admhmao.ru/upload/iblock/b76/doklad-2015.pdf> (Accessed: 20 July 2016) [in Russian].

¹⁰ Ibid.

ethnic and sociological¹¹ research on the territory of Nefteyugansk district of Yugra to study current environmental and socio-economic status of indigenous peoples there. Sociological survey took place in the following settlements: Cheuskino, Lempino and Salym of the Nefteyugansk district of the Khanty-Mansiysk Autonomous District-Yugra. 73 respondents answered the questions about their attitudes to the resource extraction and processing industry.

During the studies we needed to know the attitudes of the respondents to the industrial development of the subsoil and its results on the territory of Khanty-Mansi Autonomous Okrug — Yugra.

Answering the question: *“How do You feel about mining in our region?”* a relative majority of respondents from the Nefteyugansk district had a positive attitude (41.1%). Negative and indifferent to the industrial development were 35.6% and 17.8%, respectively (tab. 1). Only 5.5% of the respondents found it difficult to answer.

Table 1

*The distribution of respondents' answers to the question:
“How do you feel about the fact that deposits of minerals are in the area/district of your residence?”*

<i>The response options</i>	<i>Number of respondents</i>	<i>% of respondents</i>
Positive	30	41.1
Negative	26	35.6
Indifferent	13	17.8
Undecided	4	5.5
Total	73	100.0

In contrast to 2008, in 2015, the proportion of persons who had a negative attitude industrial subsoil development is higher (27.15% in 2008 and 35.6% in 2015). Even though over the past 40–50 years, in the district, a significant reduction of the TTNU of the indigenous peoples of the North occurred and affected the major traditional economic activities, most respondents still have a positive attitude to the commercial development of mineral resources.

To determine the cause of these answers, we tried to clarify: *“If it's positive, why?”*. The information we got is in the table. 2.

¹¹The main method of research: a questionnaire. The survey was conducted through a questionnaire directly at the respondents' place of residence. Dates: June–July 2015. Population of the area: 289 indigenous representatives (over 18 years) of the district. A sample size of 73 respondents. Confidence probability 90%. The response rate — 25.25%. The confidence interval (“error” ±%) — 7.24%. The number of selection steps — single-stage sampling. The sample was a quota of representation by age, nationality and district of residence. Leader of the research — the author. An empirical survey was held in 2015 by the author. Processing of results using Excel and Vortex — scientific staff of the Division for Socio-Economic Development and Monitoring: V.T. Karamzin and N.V. Tkachuk.

Table 2

*The distribution of respondents' answers to the question: "If positive, why?"
(Respondents could select no more than 3 acceptable options)*

<i>The response options</i>	<i>Number of respondents</i>	<i>% of respondents</i>
It is beneficial for the economy of the country	18	24.7
This is beneficial for the economy of the district (area)	20	27.4
It helps the improvement and development of social infrastructure of the district	12	16.4
New jobs are created	26	35.6
Other	2	2.7
Undecided	34	46.6
Total	73	100.0

Data from the table 2 makes it clear that most respondents (35.6%) believed the development of mineral resources helped to create jobs. A third of respondents (27.4 %) believed that it was beneficial for the economy of the region (the surrounding areas). A minority (16.4 %) of the respondents supported the idea that the results of the industrial development of the subsoil contributed to the improvement and development of social infrastructure in the region. 24.7% of respondents believed that it was beneficial for the economy of the country. This data suggests that the economic issues (tab. 2) are much more important than environmental issues (tab. 3) for the respondents.

For comparison, we noted that the results of a survey conducted in 2013 on the territory of Nizhnevartovsk district revealed the similar opinions. In the respondents' view: the resource development industry creates new jobs — 64.7%; it helps to improve and develop the social infrastructure of the area — 50.0%; it is beneficial for the economy of the region (surrounding area) — 43,1%; it is advantageous for the economy of the country — 34.3% [5, Khaknazarov S.Kh., pp. 227–236]. In the context of the topic, it is important to have a look at respondents' assessment of the ecological status of the area. The views of respondents on what is happening in the industrial development of the subsoil are in tab. 3.

Table 3

*The distribution of respondents' answers to the question:
"Do you agree that a result of industrial development is ...?"*

<i>The response options</i>	<i>Number of respondents</i>	<i>% of respondents</i>
Worsening of the environmental condition in your area (district)	55	75.3
Improvement of the ecology of the area (district)	5	6.8
Causing the displacement of the indigenous population from the territory of residence	25	34.2
Other	2	2.7
Undecided	6	8.2
Total	73	100.0

The tab. 3 shows that the majority (75.3%) of respondents of the Nefteyugansk district noted that worsening of ecology is a result of industrial development. On the second place, there is the idea that the displacement of indigenous peoples and the degradation of their culture (34.2%) are the result of industrial development. Only 6.8% of the respondents noted that the industrial development contributed to the improvement of the ecology of the area (district) of their residence.

According to the results of the study completed in 2006–2008, a significant majority of respondents — representatives of indigenous communities and experts of the Nefteyugansk district also noted that the industrial development resulted in a worsening of ecology in the area (60.00% and 69.02% respectively). Unlike the experts, the respondents from the indigenous communities of the North put second the option that industrial development caused displacement of the indigenous population and the degradation of culture (30,77% and 24,51%, respectively) [5, Khaknazarov S.Kh., pp. 227–236; 6, Khaknazarov S.Kh., pp. 6–21]. According to the results of the survey made in 2012, most indigenous respondents (50%) of the Nefteyugansk district also noted that the industrial development resulted in a worsening of ecology. This indicator is accounted for 69.0% in 2008. 27.8% (6.77%)¹² respondents believed that industrial development would improve the ecology of the area and 25.9 % (15.59%) of respondents believed that the displacement of the indigenous population was taking place. The data in brackets proves that reduction of the two last indicators. This parameter was only 6.8% in 2015.

For comparison, the results of the previous surveys in other regions of Yugra: 81% of respondents from the Kondinskiy, 74% — from the Khanty-Mansi, 56% from the Oktyabrskogo and 61% from Nizhnevartovsk districts expressed the view that the industrial development of the subsoil resulted in a worsening of ecology. As we can see, most respondents chose this opinion. Some respondents noted the displacement of the indigenous population and degradation of indigenous culture (31% in Kondinskiy, 41% in Oktyabrskiy, 47% in Khanty-Mansi and 35% in Nizhnevartovsk districts) [6, Khaknazarov S.Kh., pp. 6–21]. During the study, we got answers to the question: “How do you assess the current ecological situation in the area?” They are in the tab. 4.

Table 4

*The distribution of respondents' answers to the question:
"How do you assess the current ecological situation in the area?"*

<i>The response options</i>	<i>Number of respondents</i>	<i>% of respondents</i>
Satisfactory	27	37.0
Unsatisfactory	29	39.7
Indifferent	8	11.0
Undecided	9	12.3
Total	73	100.0

¹² The data for the year 2008 is in brackets

The table 4 proves that most of the respondents noted the unsatisfactory ecological situation in the area (39.7%). 37.0% consider it satisfactory, and 11.0% of the respondents did not assess the current ecology. In addition, according to the results of a survey completed in 2012, most respondents (55.6%) considered the ecological situation unsatisfactory [6, Khaknazarov S.Kh., pp. 6–21], whereas 33.3% said it was satisfactory. 7.4% of the respondents could not assess the ecology of the areas. It is important to note that the views of the respondents on this issue had not changed, i.e., most of the respondents felt that the environmental situation is unsatisfactory.

Answering the question (2015): “How do you assess the environment in your residence?” most respondents (52.1%) considered it unsatisfactory. 38.4% of respondents said it was satisfactory. 9.6% of respondents found it difficult to answer (Fig. 1).

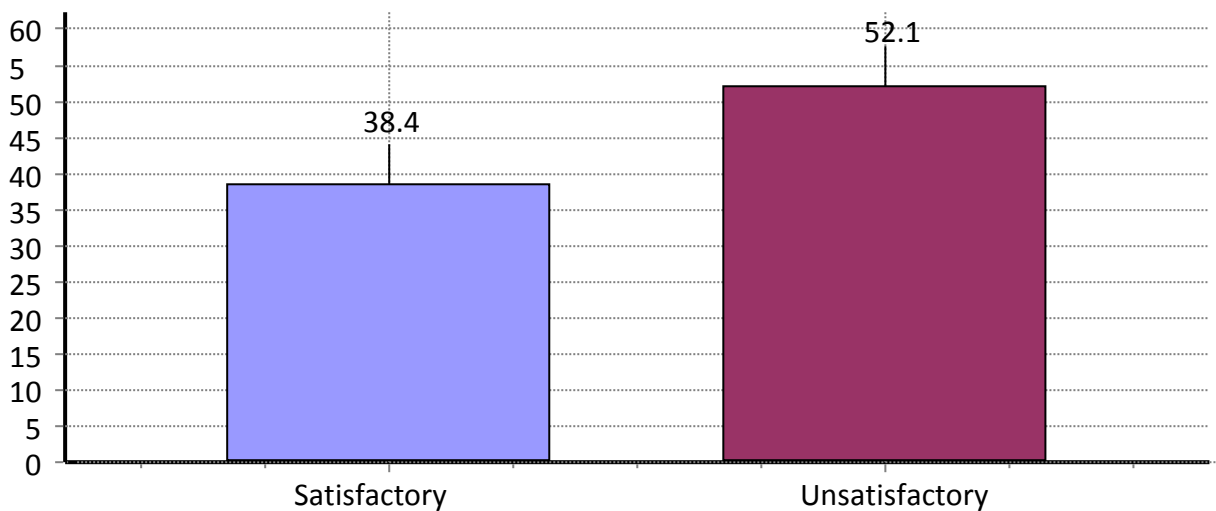


Figure 1. Distribution of answers to the question:
“How do you assess the environment in your residence?”
(n=73) %, 2015¹³

Speaking on this matter, we noted the results of the previous survey made in 2012, when most respondents (61.1%) had also found their local environment unsatisfactory. However, 33.3% of the respondents found it satisfactory (Fig. 2).

¹³ This question has not been considered before.

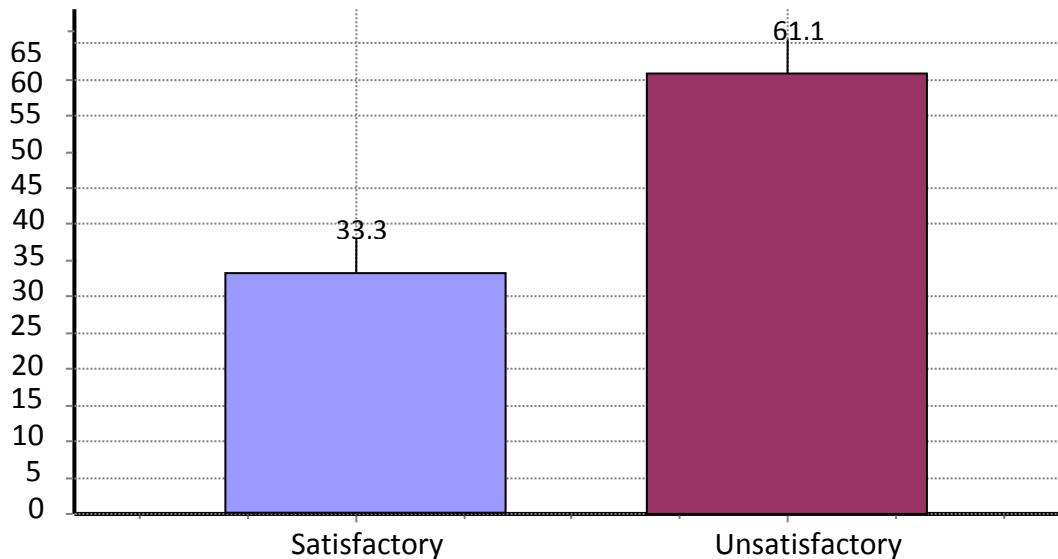


Figure 2. Distribution of answers to the question:
 “How do you assess the environment in your residence?”
 (n = 54) %, 2012

To find out the reasons for the unsatisfactory rating, we added the question: “And if it is unsatisfactory, explain why?” The respondents’ answers were distributed as follows (Fig. 3): pollution of rivers and water bodies — 79.6%; drying of forests and their cut down — 42.6 %; reduced number of animals, birds and fish — 38.9%; pollution of air — 26.9%; reduction of lands and pastures, etc. — 16.7%.

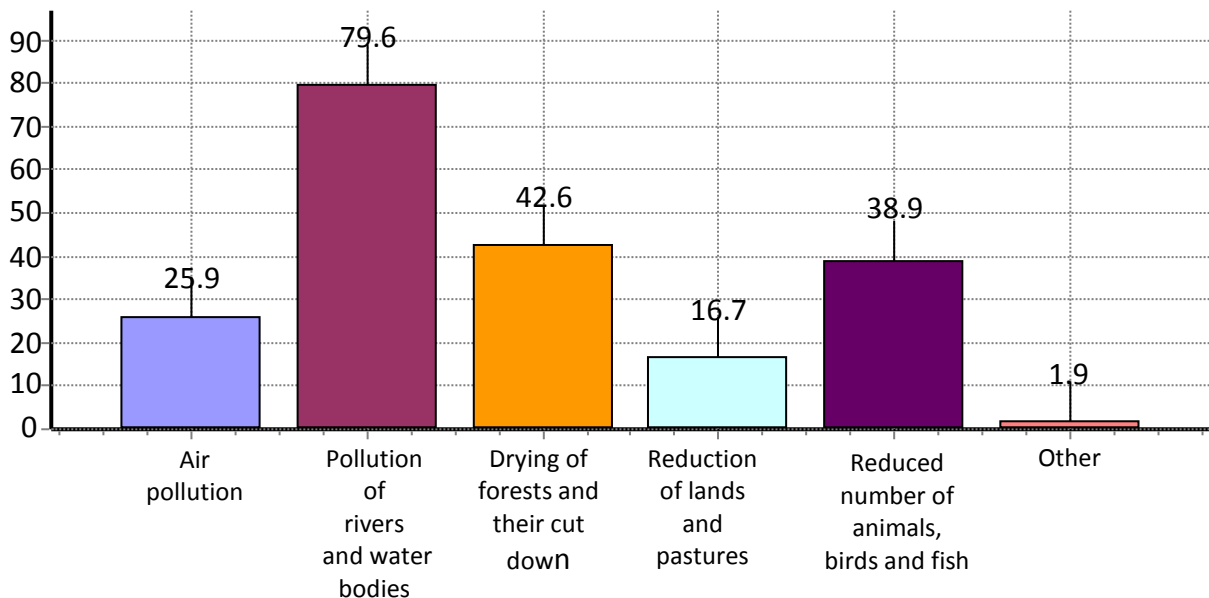


Figure 3. Distribution of answers to the question:
 “And if it is unsatisfactory, explain why?”
 (n = 54) %, 2012.

Answering the question: “What are the main polluters of the environment in your residence?” almost all respondents noted that the main polluters are: 1) oil and gas industry (59.3%); 2)

transport (25.9) and private companies (25.9%); 3) municipal utilities (14.8%); 4) fish processing (5.6%). 11.1% of respondents found it difficult to answer.

Turning to the issue of participation of indigenous representatives in environmental or other expertise, in the development of federal and regional state programs of natural resource use and environmental protection, we noted that most respondents (55.6%) answered that they had not taken part in it. 35.2% of the respondents believed that the indigenous peoples participated.

Conclusion

The residents of the Nefteyugansk district feel different about the consequences of industrial development of minerals. Most respondents from the district have positive attitude to the development of mineral deposits, arguing that the development of mineral resources helps to create jobs, and it is beneficial for the economy of the area (district).

At the same time, most respondents believe that industrial development of the subsoil still results in a worsening of ecology of the area (district) of residence, displacement of the indigenous people from the territory of their residence and degradation of their culture.

Most respondents also noted that resource extraction and processing industry pollutes rivers and water bodies, contributes to drying up of forests and cut down, reduces the number of animals, birds and fish and pollutes the air, etc.

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