

doi: 10.18720/SPBPU/2/id19-126

SIMONCHUK Vladislava

*Saint-Petersburg Mining University, economic faculty, student,
Russia, St. Petersburg, 199106, 21 linia, 2;
e-mail: s170778@stud.spmi.ru*

SHARANOVSKAYA Polina

*Saint-Petersburg Mining University, economic faculty, student,
Russia, St. Petersburg, 199106, 21 linia, 2;
e-mail: s171797@stud.spmi.ru*

NIKULINA Anni

*Saint-Petersburg Mining University, PhD, associate professor,
Russia, St. Petersburg, 199106, 21 linia, 2;
email: Nikulina_AYU@pers.spmi.ru*

EXPERIENCE OF CANADIAN COMPANIES IN ATTRACTING HUMAN CAPITAL TO REGIONS WITH SEVERE CLIMATIC CONDITIONS

***Abstract.** The attraction of human resources for work in the Arctic is today an urgent task of the state level. It's not just about attracting people to the move, but also about keeping people already working in the region. The task is complex and should include many parameters: state guarantees, corporate social responsibility of companies, living conditions in the region and others. Many foreign companies already have experience in attracting people to regions different from their usual living environment. At the same time, workers are often forced to work in unfavorable or severe climatic conditions (extremely low or extremely high temperatures) far from the main infrastructure facilities. It is necessary to investigate the existing methods of assessing workers' compensation for moral or physical "damage" in connection with work in difficult conditions, away from home, friends and habitat. The experience of staff motivation to work in unfavorable climatic conditions of the largest companies of Canada ImperialOil, RioTinto, Leducor was studied in this paper. Companies in cooperation with the state widely used corporate social responsibility programs for their employees: high level of salary, non request for work experience, construction of houses and other infrastructure in the regions of presence, simplified procedure for obtaining citizenship for workers from foreign countries. The identified methods of attracting human resources have been analyzed. The recommendations for Russian companies working in the Arctic are given.*

***Keywords:** human capital, corporate social responsibility, Canada, motivation, working conditions.*

The Russian Arctic is a vast territory of new opportunities including mining industry but at present day there is a problem of attracting human capital due to the difficult working conditions. The effectiveness of the functioning of the economy is related to the quality of the use of human capital. To find ways to attract human capital we should use foreign

experience in attracting labor force to hard-to-reach areas. Such Canadian companies as ImperialOil, RioTinto, Leducor have production capacities in various countries around the world including the northern regions as well as regions with unfavorable working conditions. Canadian companies have some experience in creating motivation systems that help to attract staff to work in difficult conditions.

In order to study foreign experience in attracting human resources to regions with unfavorable climatic conditions authors decided to select countries with a climate similar to the Russian Arctic: Canada, Norway, USA (Alaska). In addition, many countries that do not have Arctic territories nevertheless carry out economic activities on them. For example, the French oil and gas company Total is working on the Yamal-LNG project together with the Russian company NOVATEK. This paper presents the experience of attracting personnel to the northern regions of the largest companies in Canada: ImperialOil, RioTinto, Leducor [1].

A great experience in attracting human capital to work with unfavorable climatic conditions has the largest Canadian oil company ImperialOil. The company is aimed at providing better working conditions for people. Therefore, its main goal is to attract and retain highly qualified personnel as well as to provide opportunities for future growth, training and an enabling working environment. ImperialOil has many deposits which are in regions with difficult working conditions. For example, the company produces oil on the territory of Coldlake, in the northern province Alberta where the air temperature is -50 degrees, in the marine areas of Atlantic Canada [2].

In connection with the above, ImperialOil participates actively in the social and environmental development of regions of presence which is part of the company's corporate social responsibility program. The company considers the main principles of trust, openness and fair treatment. Thus, the company invested about \$ 12.1 million in the development of education, technology, and social programs; contributes to employees of the company as well as pensioners in the amount of about 3.2 million US dollars. In relation to stakeholders the company conducts various activities such as meetings with local authorities, involving community groups to expand production at Coldlake, exploring northeastern British Columbia and the Beaufort Sea and maintaining relations with indigenous services and northern communities on Mackenzie etc [3].

Imperial Oil implements the following methods of attracting personnel to work in regions with unfavorable climatic conditions:

1) High level of salary. In Alberta there are very severe climatic conditions, people have to work at a temperature of -50 degrees. However, a skilled worker, a supervisor at an oil refinery or on oil rigs receives about \$ 100,000 per year. At the same time, work experience is not required at the beginning of the career [4].

2) Attraction of personnel from other countries. At the moment, the program is launched (including the Internet) which actively invites foreigners to work in Alberta. In this case people get a work visa and in consequence it is easier for them to obtain citizenship in Canada. A number of such programs are the provincial program of Alberta, British Columbia, Manitoba. At the same time, the provinces are ennobled, company builds infrastructure (schools, colleges, houses). Also, there is the possibility of career growth after 2 years of work in the north. There are various agencies that specialize in immigration and help the most profitable way to move people to Canada and get a job [5].

3) Involvement of personnel with little experience. For example, students who have just finished a university can find work in Alberta. They are provided with training, advanced training in the process of work. This is a very good alternative for them: they have the opportunity to get a well-paid job without any special skills and a high level of knowledge.

4) The company ensures high safety of personnel (the rate of injury in the company is 0).

5) Training programs are conducted at local colleges or at the Institute of Northern Alberta, the Technology Institute in Edmonton. The company also conducts career fairs in order to provide feedback and also attract new employees.

Another company that faces the same problem is the Canadian company RioTinto which is the world leader in the production of aluminum for more than 110 years.

Specificity of the company is that its units are located in Australia, Mongolia, Iceland, i.e. in regions with severe climatic conditions. Realizing that people have to face such problem the company's main principle is the care of employees. Rio Tinto pays attention to corporate social responsibility [12].

The company tries to make a positive contribution to partnerships with local communities, stakeholders to maintain and expand its operations, and to improve innovation and technology. Therefore, the company invests huge amounts of money in its employees, offers various types of activities, provides opportunities for career growth and development.

Rio Tinto uses the following methods in order to attract people to work in the company, including working in remote regions and regions with severe climatic conditions.

1) RioTinto takes care of the health of its employees, as it is under attack due to hard work. Therefore, the company is working to create a safe and healthy environment through careful management, strong systems and verification of critical controls. The company's approach is focused on eliminating deaths, disabilities, various occupational diseases, preventing major risks and reducing injuries. In 2015, the company introduced a security management system that helps to eliminate various health

problems among employees. A special team makes checks throughout the year to minimize risks. For example, the company recently implemented the "Listening ear" project which helps people with poor hearing to access the facilities and services in the field of mental health and well-being. The total social investments of the company amounted to 176 million US dollars [13].

2) Rio Tinto attracts indigenous people in its branches. For example, to work in Australia they give people the opportunity of free education, social support, create funds that will help the indigenous people to realize their goals in the future. Company had contracts on 162 million US dollars with natives of Australia in 2017. In fact, 8% of Australia's workforce is working for Rio Tinto.

3) In order to provide comfort to its employees, the company has built about 250 residential properties. Now more than 200 employees live in these houses and rents return to the local economy which guarantees independence to local communities. "This" Housing "helped to turn the local population into a labor force and did not rely on the incoming shift workers. This method is cheaper - the placement of labor at the place of production" - Murray Knivett, general manager of the land management department [14].

4) The company tends to recruit people who just graduated from the institute, giving them at the initial level a high salary, career opportunities.

5) One of the company's divisions is situated in Mongolia where employees have to work in the icy wind, in the desert, in gray dust which is formed from the extraction of bauxite and coal. However, employees say: "Due to high wages only a few of us are ready to say goodbye to this place". The company also invests in the development of the infrastructure of Mongolia. Many residents do not even have water in the house, they live in terrible conditions. Rio Tinto provides people with a comfortable life thereby attracting work in their company. For all these programs: the support of the Mongolian population, the salary for workers in the period from 2010 to 2015, company spent more than 5.4 billion US dollars. One area where Rio Tinto has also had a significant impact is education. In June 2010, the company and the Ministry of Education, Culture and Science of Mongolia signed a Memorandum of Understanding (MoU) for cooperation in the development of the vocational education and training sector. In accordance with the Memorandum of Understanding, Rio Tinto commissioned to invest 126 million dollars (USA) for the implementation of a program aimed at developing the Mongolian labor force and improving the system of technical and vocational training. Through the Memorandum of Understanding, Rio Tinto invested in the construction and improvement of vocational training centers in seven Mongolian cities, supported the training of 1 200 professional teachers and provided scholarships for

hundreds of young Mongolians at national and international universities [15].

Thus, Rio Tinto attracts a large number of staff to work in their company.

The construction company Leducor which was established in Alberta in 1947 has a great experience in this field. In addition to construction, the company provides services and products for the mining, oil and gas, communications, energy, transport and infrastructure industries.

Leducor pays great attention to the health and safety of each employee. The company has a special program that provides:

1. Environmental policy, risk assessment and control
2. Work on education and communication
3. Operation of equipment and maintenance methods

Company has about 80 000 projects. Big part of them is in the north of Canada. Due to the project for the deployment of optical fiber in Nunavut, optical fiber and cable infrastructure are supplied to 25 communities. In each of them Leducor deployed a fiber optic cable to service government agencies, emergency response centers, fisheries, research centers and medical facilities. The construction took place in uncomfortable climatic conditions: most of the territory of Nunavut is the arctic tundra. Having great experience in attracting human capital to work with unfavorable conditions, the company did not encounter any difficulties [19].

One example of the introduction of modern telecommunications services in Canada in the North is the Leducor project in conjunction with the existing local and long-distance telephone service in North Canada, Northwestel. The project of the Mackenzie Valley fiber link project costs about 84 million US dollars. The implementation of this project faced the challenges faced by major construction projects in the north: limited access to the site, climate issues related to the Mackenzie Valley. The project helped not only to provide more than ten communities in the region with high-speed telecommunications services and modernize the economy in the north but also it created the conditions for companies and individuals could confidently invest in the Northern Opportunities and new jobs despite unfavorable working conditions [21].

The development of the Arctic has a great importance for the Russian Federation. Based on the experience of several major Canadian companies such as Imperial Oil, RioTinto, Leducor who have economic activities in regions with unfavorable climatic conditions authors identified the following opportunities for companies operating in the Arctic:

- The methods of the Imperial Oil company to attract personnel to work in regions with an unfavorable climate are relevant for the use of leading companies that operate in the Arctic zone of the Russian

Federation. For example JSC Expedition 2 (SC Rosatom); Vorkutalugol JSC; JSC "Arkhangelskgeoldobycha" (OJSC "Lukoil") and others.

Such methods includes:

- high level of salary (according to the company's data, a qualified worker receives an average of about \$ 100,000 per year);
- recruitment of personnel from other countries with a social package (work visa which facilitates the acquisition of citizenship in Canada);
- personnel with no experience;
- career fairs in order to provide feedback and also attract new employees [23].

- Corporate social responsibility of the company Imperial Oil aims the social and environmental development of regions of presence. A huge contribution (\$ 12 million) is invested in the development of education, technology, contributions for company employees and retirees.

- Rio Tinto pays great attention to the health of its employees as it is under attack due to hard work. So, the company's approach is focused on eliminating deaths, disabilities, various occupational diseases, reducing injuries. For this purpose, a special team has been set up. It performs inspections during the year so that the risks are minimal.

- The company engages indigenous peoples in its branches. According to Rio Tinto, the sum of contracts with indigenous residents in Australia was 162 million US dollars in 2017.

- Ledcor participates in projects of development of the Canadian north (about 80 000 projects). Such projects help not only achieve the goal and provide telecommunications in the northern region of Canada but also create conditions for human capital [23].

Summing up, it can be concluded that companies operating in the Arctic zone of the Russian Federation can adopt the most successful experience of involving personnel in regions with unfavorable climate from their foreign counterparts. The most interesting methods of attracting human resources include the following: the admission of young specialists without work experience for the purpose of their further education, the construction of houses for the permanent residence of workers with the transfer of such houses to the ownership of municipalities, the attraction of foreign labor through an expanded social package and further simplified acquisition of citizenship.

The research is carried out within the framework of the scientific project "Social and Economic Mechanism for Attracting Human Resources to the Arctic Region of the Russian Federation" and implemented through a grant from the Russian Science Foundation (Project No. 17-78-20145) at the St. Petersburg Mining University.

REFERENCES:

1. Nikulina A.Yu., Zhdanyuk A.Yu. *Application of the principles and legislative framework of corporate social responsibility as an instrument of sustainable development of the Arctic*. [Arctic: history and modernity: proceedings of an international scientific conference]. St. Petersburg, April 19-20, 2017 - St. Petersburg: Publishing house Polytechnic. Univ., 2017, pp. 216-223. (In Russ.)
2. Imperial Oil. Official site. Available at: <http://www.imperialoil.ca/> (accessed 20.04.2018). (In Eng.)
3. Annual report of «Imperial Oil» of 2017 year// Available at: http://cdn.imperialoil.ca/~media/imperial/files/company/ir/sec-filings/2017_10k_annual_report.pdf (accessed 17.04.2018). (In Eng.)
4. VoxCanadae «Canada: work in Alberta in oil production 2008» Corporate Citizenship Report Available at: http://www.socialfunds.com/shared/reports/1246564172_Imperial_Oil_2008_CCR.pdf (accessed 17.04.2018). (In Eng.)
5. Ci. W., Hou. F., Morissette R., Acquisition of permanent residence by temporary foreign workers in Canada: a panel study of labour market outcomes before and after the status transition *IZA Journal of Development and Migration*, 8 (1), article № 2, 2018.
6. Jordison S., Canada: The debate about oil and gas management, *Public Brainpower: Civil Society and Natural Resource Management*, pp. 75-90, 2017
7. Social responsibility of Russian company «Expedition». Official site. Available at: <http://expediciadva.ru/socialnaja-otvetstvennost/> (accessed 22.04.2018). (In Eng.)
8. Hughes, L., Relationships with arctic indigenous peoples: To what extent has prior informed consent become a norm, 27 (1), pp. 15-27, 2018
9. Overland, I., Ranking Oil and Gas Companies on Indigenous Rights in the Arctic, source: scopus, 2016.
10. Oparin D. A., Locals and immigrants on the Yamal Peninsula. Social boundaries and variations in migratory experience, *Asian Ethnicity*, 19 (2), source: scopus, 2018. pp. 251-269.
11. Tysiachniouk M., Henry L.A., Lamers M., van Tatenhove J.P.M., Oil Extraction and Benefit Sharing in an Illiberal Context: The Nenets and Komi-Izhemtsi Indigenous Peoples in the Russian Arctic, source: scopus, 31 (5), pp. 556-579, 2018
12. Rio Tinto. Official site. Available at: http://www.riotinto.com/ourcommitment/spotlight-18130_23695.aspx (accessed 20.04.2018). (In Eng.)
13. Rio Tinto 2017. Sustainable development report Available at: http://www.riotinto.com/documents/RT_SD2017.pdf (accessed 18.04.2018). (In Eng.)
14. Romero Manrique D., Corral S., Guimarães Pereira Â., Climate-related displacements of coastal communities in the Arctic: Engaging traditional knowledge in adaptation strategies and policies, *Environmental Science and Policy*, source: scopus, 85, 2018. pp. 90-100.
15. Branigan T., «Mongolia: 'The Gobi desert is a horrible place to work'» // Available at: <https://www.theguardian.com/world/2014/apr/20/mongolia-gobi-desert-coal-mining> (accessed 17.04.2018). (In Eng.)
16. List of leading employers' companies operating in the Arctic zone of the Russian Federation. Available at: <http://arctic-union.ru/napravleniya/kompanii-rabotodateli/> (accessed 22.04.2018). (In Eng.)

17. Tysiachniouk M.S., Petrov A.N., Benefit sharing in the Arctic energy sector: Perspectives on corporate policies and practices in Northern Russia and Alaska, Energy Research and Social Science, source: scopus, 39, 2018. , pp. 29-34.
18. Hébert R., Canada: Application of a coordinated-type integration model for vulnerable older people in Quebec: The PRISMA project Handbook Integrated Care, source: scopus, pp. 499-510, 2017
19. Ledcor. Official site. Available at: <http://www.ledcor.com/home> (accessed 20.04.2018). (In Eng.)
20. Gilles Rhéaume and Margaret Caron-Vuotari, «The Future of Mining in Canada's North». Available at: http://www.canada2030.ca/wp-content/uploads/2013/08/Future-of-mining-in-Canadas-north_cfn.pdf (accessed 20.04.2018). (In Eng.)
21. Sharp G.: «Bringing state of the art telecommunications to Canada»// Available at: <http://www.highnorthnews.com/bringing-state-of-the-art-telecommunications-to-canadas-north/> (accessed 20.04.2018). (In Eng.)
22. Pereira E., Ahn S., Han S., Abourizk S., Identification and Association of High-Priority Safety Management System Factors and Accident Precursors for Proactive Safety Assessment and Control Journal of Management in Engineering, 34 (1), source: scopus, article № 04017041, 2018.
23. Arctic and development of the Arctic zone: Kartamysheva NS, Biekenova AS Arctic and development of the Arctic zone. Young Scientist. 2015. № 13. pp. 333-337. Available at: <https://moluch.ru/archive/93/20714/> (accessed 04.25.2018). (In Eng.)