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Rural Yakutia: perception indigenous population changes in environment¹



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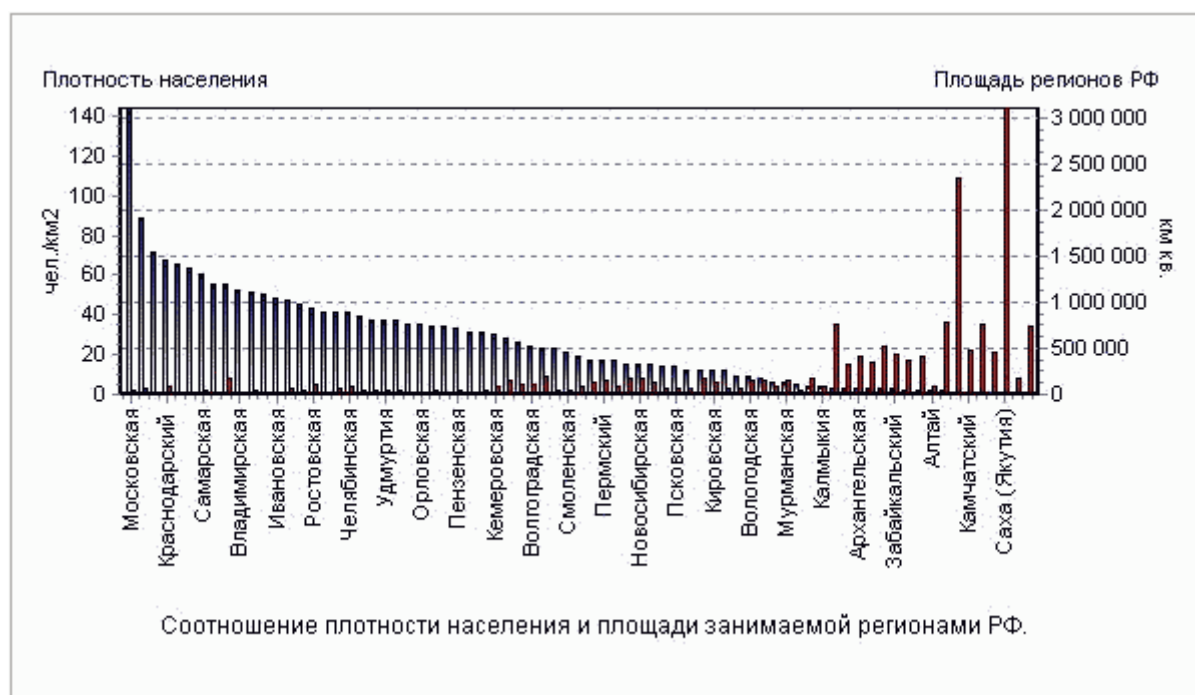
Abstract

In rural Yakutia climatic factors were added to human impacts on the environment. The phenomena of melting permafrost, rising water in rivers and lakes were recorded in rural areas. Normal Windrose has changed as well as temperature fluctuations in different seasons are marked. Environmental changes are perceived the indigenous population as a serious threat to quality of life.

Keywords: *Arctic North, Yakutia, rural ecology, climate change, quality of life.*

Today in the Republic of Sakha (Yakutia) in the village of 35.7% of the population lives, which is high for the Russian Federation, where the countryside, on average 26.7% of the population resides. According to official data, census 2002 in Yakutia was 364 rural administrations (naslega) and 590 rural settlements that occupy the bulk of the territory. According to the 2002 census, 65.3% of the Yakuts continues to live in the countryside, and on the 1989 census, this figure was even higher - 74.3%. The vast majority of the indigenous peoples of the North, including the Russian Arctic veteran, also is in a rural environment. The population density in rural Yakutia ranges from 0.01 (Oleneksky ulus) to 2.76 people. at 1 m. km in the central encampments (Megino Kangalesskii-ulus). The density of the population in Yakutia is extremely low as sraveneniyu with other regions of Russia.

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Picture 1. The population of Yakutia

In the interpretation of socio-economic processes in Yakutia is almost always referred to the enormity of its territory, exceptional mineral wealth and unspoiled nature. The vast territory of the edge, really rich in natural resources, with its water and air - property of the whole country, its cultural and ecological reserve. The quality of life in the country is directly dependent on natural and ecological situation. The state of the rural environment – is a very important factor not only of everyday rural life, but the entire population of the country. In addition to providing agricultural, rural Yakutia is also a place of employment, rest much of the population of working towns and cities. Meanwhile, rural Yakutia has long ceased to be an area of pastoral harmony with nature, a safe living environment. The story of environmental conflicts, the expected and actual environmental threats addressed here by using materials of the current archive of the Institute of Russian Academy of Sciences PMNS (1991-2008 gg.), Field research of the author in 2009-2010 conducted in Central Yakutia.

Start of the ecological imbalance in Yakutia was laid at the turn of the XIX-XX centuries, when the expanded development of the placer gold, entailed the destruction of the natural environment, as well as forest logging, fires and poaching. In the Soviet times, the needs of macroeconomics demanded greater industrial expansion: expanded scale mining of gold and diamonds, and other strategic raw materials. Was initiated hydroelectric development of the northern rivers? The natural environment was under massive pressure with state industrial policies do not provide for the protection of cultural habitat of the indigenous population. They had lain funding of the conservation lifestyle, traditional economic foundations, traditions and language of the indigenous people. On the ancestral lands of ethnic functioned major mining companies, shipping lines were laid, were built energy facilities.

The Industrial intrusion into the agricultural and fisheries world took place under the ideological concept of the national interests, implying the well-being of all citizens, including Aboriginal people of the North. But by the second half of the twentieth century became clear the particular vulnerability of the Arctic territories of Yakutia with their particular slow recovery. The activities of the extractive industrial centers have led to a concentration of the technology and population in the northern region, which influenced the ethno-economic systems of the indigenous population, built in the mode of the ecological balance.

The official authorities of quiet discontent of the indigenous population about the attitude towards natural resources into account not accepted. The accumulated problems in public opinion were voiced only in the period of adjustment. When in 1991 the Institute of Ethnic Minorities of the North, Russian Academy of Sciences conducted a sociological survey in the encampments of the Arctic Yakutia, the results showed a critical assessment of the ecology. Thus, 62% of respondents said the poor state of the Arctic sea coast, lakes, rivers, pasture conditions worrying from the point of view of ecology recognized 58% of the atmosphere - 45% of respondents. Every third respondent noted that their being squeezed out of traditional areas of employment: crafts, hunting and fishing, and it was as an indirect (through takeovers of industrial and transport facilities) and direct - the invasion of employees of the state farms, Podkhodz industrial enterprises, as well as poachers².

Environmental traditions of indigenous people, including the code of the moral and behavioral norms were affected alien norms for a long time. Local religious beliefs of a person treated as a child, and the organic part of nature, from which it followed for nature as a mother. Honoring natural laws of nature, the psychological humanization of the forests, rivers and lakes, birds and animals were part of the culture of indigenous people of Yakutia, save, and under the Soviet atheism.

An important behavioral norm for the Yakuts, Russian veteran, Even, Evenki, Dolgan and Udege was a conscious restriction of the consumption of natural resources - intelligence scale gathering, hunting, fishing, do not exceed the current needs of society. To date, the members of the older generations of indigenous peoples denounce wastefulment and predation in relation to nature. To a certain extent this is due to the fact that the North eco-natural interventions are fraught with more significant and long-lasting consequences on time than in regions with mild, pleasant climate, which allows intervention in the ecosystem, stimulating their productivity or changing system parts.

The climate of Yakutia is characterized as continental, with a long harsh winter. Almost all rural areas are located in the permafrost zone, which leads to the riskiness of agriculture. Northern nature is very sensitive to external influences, including the occasional negative factors. Such circumstances specifically limit the number of the residents in the local systems; limit the extent of the impact on the ecosystem. It is the traditional system of the human relations with the envi-

² The current archive of the Institute of Russian Academy of Sciences PMNS. Background on opinion polls. 1991

ronment dictated the specifics of the scattered settlement, which was destroyed during the so-called villaging [1, p. 139]. Instead, alas (farmhouse) and the settlement system of management by the end of the 1950s. throughout the country have centralized settlement. Accordingly, increased environmental pressures on the ground on all the surrounding natural resources.

This also applies to the central regions of Yakutia, more, compared with the Arctic, favorable natural and climatic conditions. You must specify that the tangle of environmental problems emerged during the Soviet period and carried more than man-made. Reforms 1960-1970 in agriculture followed by concentration of production, the campaign for economic consolidation settlements. All this triggered a depletion of water and soil, degradation of flora and fauna of the local ecosystems. An additional aggravating negative for Yakutia and today remains the high cost of recycling, waste transportation, lack of adapted technologies used resource cleansing products.

It can be said that the eco-economic system is in a rural Yakutia under prolonged stress, characterized by a decrease of the range of traditional economic activity, a decline in agriculture and fisheries, jobs crisis and, more importantly, fluctuation of economic prospects for people living in small and remote villages. The last decades of the rural societies of Yakutia have a difficult time: the crisis has deepened the socio-economic problems of the region, updated the environmental problems.

No wonder that with the environmental protests and movements in defense of traditional nature management originated socio-political movement of indigenous peoples in transition stroechnye 90th. Today is history, the memory of how the movement to protect rivers Amga, genuine natural pearls Yakutia, as union protest against the construction of hydropower plants on the northern rivers stirred up the public of the republic. [2] Actually rural ecological history of Yakutia in the last half-century has gone through various stages, from the collective farm, retaining many elements of traditional land to the modern period, with a fundamentally new socio-economic conditions. Changed the system of settlement, the organization of the entire space of life of the indigenous population. Changed the perception of the environment and the representatives of the rural world.

The preliminary results of surveys and interviews in the central regions of Yakutia in 2009-2010., For rural residents of the senior and elderly "this-pubic" ecological time [3, p. 213] dosovhozhnoe stands for the central areas - this time around, until the seventies of the twentieth century. "In my childhood there was little transport. There was one on-board truck. In it who has ever rolled out of children - considered a great success ... In the village street was almost no dust, clean it. The forest was rich, full of different berries and mushrooms, which were not collected ... Even the moss, I remember it growing up ... " - recalled a resident of the small village of Central Yakutia³.

A native of the same village adds: "In a rural lake we caught fish, the water in it was clean. No one poured into the sewage lake, each family had its scaffolding from which they took the water for

³ Field's material (the ACA - LV). Write to Churapchinsky Ulus of Sakha (Yakutia). 2010 Informant B. E., born in 1948.

household needs. Water from the lake is not drinking - was considered stagnant, tasteless. In the summer we drank ice water from ice reserves rustless last winter and stored in the basement. Who ended with ice and drinking water from the river. Garbage along the banks of rivers and lakes do not have any. And how rubbish come from? The glass bottle was needed in the economy - oil store or something. Shoes and clothing wears the whole family, tools, everyday household objects repaired, never thrown. Diesel fuel, any fuel took care of question - poured onto the ground or into the water ...»⁴.

Members stress that a few decades ago, the environment was perceived by them as something stable, it is stable. Crashes have been the subject of a distant future. Thus, it was assumed a global change of the world due to overpopulation: "The old saying is that when people become more than ants and mosquitoes, the land will not be able to feed them all. Depleted the fertility of the fields and meadows, will pestilence and death ... " ⁵. In general, the threat of the destruction of the natural environment and economic environment seemed hypothesis related or very distant future, or a geopolitical disaster. "We had a neighbor - an old woman with a past (since the XIX century. - LV) still century. So she said she will soon launch the sky-hole, and will ruin the wild-life ... We thought the taiga and the river can only be destroyed in the event of war - if the Americans attack, or someone else. And so, the wealth of the black forest, quicksilver rivers and lakes will always, like all living things ... " - spoke informant, recalling his youth the end of 1960.⁶.

In contrast to the idyllic memories of "old nature", now the villagers from the sword-alarming changes in the environment: in the temperature regime seasons in the ground state and the local fauna. Our field data 2009-2010, indicate that the quality of life of the rural population of Yakutia experiences, among others, and environmental challenges. The inhabitants of the villages of the republic concerned about the following phenomena: frequent floods, melting of the ice layer in the soil, forest fires. Members notice the consistent "bundle" phenomena: the death of forests - the melting of the soil - the excess water. Environmental changes associated with warming, thawing permafrost fix virtually all professionals who work with natural phenomena in Yakutia.

Rural population changes in the environment, not only perceives as a threat to social production, family life and a way of life, but also as a threat to the personal view of the world. Human memory is cherished friends from childhood and adolescence landscapes associated with precious memories of past years. "Do you see the water? And before that there was a dirt road. Look at those ravines - they are in my childhood was not. Water coming to the farm, because bank collapses. Getting out of the soil and ice melting. I'm afraid that even before his death, old age and see the ruined mansion, who went into the land of the house ... " ⁷

Ecological imbalance and its impact in the rural areas of Yakutia has long been the subject of public discussion. In the rural communities complain about the lack of proper state control over the condition of natural resources. General rating of the local authorities in the sphere of relations

⁴ The same place. Informant B. P., 1950.

⁵ PMA. An entry in the Tattinskiy Ulus (Yakutia).2009 г. Информант В. К., 1946 г. р.

⁶ The same place. Informant B.I.,1950

⁷ PMA. An entry in the Ust-Aldan ulus of Sakha (Yakutia).2010 г. Информант А.С., 1954

"man - the environment" is very low: every second assessed the activities of local authorities to prevent environmental negatives as unsatisfactory. Residents of the villages of Yakutia are concerned that the system is not conducted environmental-protection or restoration work. They are dissatisfied with public indifference to the scale and prospects of climatic changes.

The villagers themselves have their own interesting assessments and conclusions about the processes of climatic and environmental changes in rural areas of Yakutia. During fieldwork in the villages surveyed persons of mature and old-age residing in the surveyed encampments, including the elders recognized in the local societies custodians of traditional knowledge. In their view, the current changes in the environment are objective reasons "no economic relationship to the consumption of wealth of the land and its mineral" waste, predation violate the recovery of natural resources ", " believe that this is due to the global "greenhouse effect, too we burn a lot and throw up in the air ", " we should have expected the impoverishment and destruction, because mother Nature has hurt us and even punish you ... "8.

The surveys, interviews and conversations visible emotion estimates due to the direct dependence of the traditional livelihoods of the rural population of Yakutia on the environmental situation. In today's reality of the countryside, there are disturbances to production routes, and social communications related to growing up the water level in the reservoirs, flood control, frequent rain, thawing of frozen soil layer.

In general, the basis of climatic changes, according to both the public and professionals are not only natural and natural, but also man-made factors. In any case, the combined effect of these changes can cause a wide range of effects, some of which are already evident at the level of everyday life of the rural population of Yakutia. In the Republic of climate and weather phenomena are observed in the presence of aggravating additional loads: pollution from industrial facilities and high background radiation, depletion of the biological resources, land use change, irregular migration.

The perception of the environmental risks among the indigenous population is differentiated by age groups of villagers. Characterized assessment of actual and potential environmental threats from representatives younger age groups (under 30), caught in the surveys and interviews: they are less critical. The young are more tolerant with respect to visual nature of negatives to the local human-induced destruction. Thus, the components of the rural cultural landscape in Yakutia - abandoned industrial sites with rotting bodies of water, stainless tech-tion, pipelines and electricity transmission lines that run through the taiga, excluding the natural ecology and economic routes, they are not perceived as a sharp negative. They were born and raised in the living environment, allowing similar nature ... Young villagers are actively responding to the threat of flooding. Here they stand in solidarity with the older age groups, reproduces the historical memory of the disastrous floods of the past. In the Republic the most severe flooding in the Lena River and its tributaries during the spring opening of the rivers. To floods during the summer-autumn

⁸ PMA. Entries in Ust-Aldan, Churapchinsky, Tatta, Megino-Kangalassky encampments of Sakha (Yakutia). 2009-2010 years.

floods, especially after heavy rains. Russian media coverage of the floods in 1998, 2001 and 2010. Floods of water during the catastrophic floods cause devastation of Housing Fund, high voltage transmission lines, telecommunication lines, roads and bridges, to the death of farm and wild animals.

The "wind rose" is worryingly in the villages of the attendance of strong, cold winds that do not fit into the schedule of "people's calendars." Influence on the production of the seasonal anomalies: in particular, engaged in crop uluses central point to such phenomena as the cold late spring or prolonged warm autumn with dangerous for all secondary flowering plants. Listing the changes in the local fauna, seasons, temperature regime, the villagers point out those frequent and mild winters with average temperatures above normal. Universally point to the fact melting of permanent ice, with a visual argument - indeed, reduce the area of known sites of visible outputs of the sea ice to the surface.

The fears are not unfounded rural residents: experts say that the permafrost in Russia for the period from 1970-1990's was an increase in the temperature of the upper layers of permafrost associated with the warming of the atmosphere. The observed increase in the Yakut daily seasonal defrosts frozen ground subsidence confirmed by Yakut, and foreign researchers [4, p. 7]. It is known that the temperature rise in different parts of the Arctic over the past decade was 0.7 to 4 degrees Celsius; the total area of the Arctic sea ice has decreased by 2 million square feet. km. For Yakutia, a significant part of which is included in the arctic and sub-arctic zone, these changes can not take place without a trace.

Forming part of the image of the rural Yakutia has long been a full environmental safety, stability of systems of life. The continuing lack of development of transport communications canned remnants of the rural way of life, implying a "sea of green taiga" high environmental quality of life. In the modern Yakutia taiga decreases with frightening clearly (moth, fires, shrinking permafrost, predatory harvesting for export, etc.). Rural Yakutia, apparently, is not ready to answer all current environmental threats. Subjective response to the effects of the climatic change on the countryside - current and potential migration, the growing of the social tensions.

At first glance, agrarian rural Yakutia, sparsely populated, with poorly developed commodity production can not qualify for special government attention. But the territory of the republic is part of the Russian Arctic, which makes the taiga and tundra beyond the subject of strategic importance. In addition, rural Yakutia objective - is a significant recreational reserve, and not just for the country's population. Republic - traditionally agricultural, with the unique experience of the northern farming, with a rare gene pool of horse and cattle population, with preserved from ancient times crafts. It could be a revival of the agricultural area, of course, with serious investments with innovative approaches and technologies, and in this light it is important to avoid social and irreversible environmental negatives on its rural areas.

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