

Transformation of daily food practices of indigenous peoples of Taimyr through the prism of environmental change

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Abstract. This paper presents the results of a trip to the Krasnoyarsk Krai in the spring of 2021. The work was carried out in the cities of Dudinka, Norilsk and in the settlements of Ust-Avam, Volochanka, Levinsky Peski of the Taimyr Dolgan-Nenets municipal district of the Krasnoyarsk Krai. The main purpose of the study was to examine the transformation of the food system of the residents of the above-mentioned settlements, as well as to consider the problem of delivery of goods and their transportation to these remote settlements, and the impact of these difficulties on the life and economy of local residents. Environmental changes are also an important factor in the formation of local food resources. Their influence plays one of the main roles in the self-sufficiency of the peninsula residents in food supply. The work was conducted with various categories of the population: people of different ages, men and women, hunters, fishermen, hunters, reindeer breeders, representatives of the administration, employees of trading companies and people employed in the sphere of educational field.

1 Introduction

Every year, the interest and close attention of the world community to the study and development of the Arctic region and the study of the indigenous peoples of the North is steadily increasing. Due to various recent events, special attention in the media agenda is given to Taimyr. This unique and picturesque peninsula is rich in minerals and inimitable human resources. Strongpoints of the Northern Sea Route, industry, production, mining are located and develop on its territory. However, among the global projects and primary issues that are important for the well-being of the state, we must, first of all, remember that this region is home to unique peoples - Dolgans, Nganasans, Nenets, Evenks, Enets. The peoples who have been living for centuries in harmony with the nature of Taimyr and have drawn from it the everything necessary for life. However, with the development of technology, the increase in production and other industries, the blow to the ecology of the region is becoming more and more powerful every year. One of the striking examples of recent years is the diesel fuel spill in Norilsk on May 29, 2020. It is important for researchers to analyze how this environmental disaster affected the local population in the year after the spill and how the situation will develop in the future. In March-April 2021, as part of the project on nutrition research in the Russian Arctic (RSF, project No. 19-78-10002), field work was carried out in Taimyr, namely in the heart of the Avamskaya tundra. The materials of these field studies are presented in the article and are intended to demonstrate the main difficulties in

maintaining the everyday food practices of local residents and the transformation of traditional environmental management and nutrition within the framework of globalization processes.

2 Research

The main part of the expedition work was carried out in the settlements of Ust-Avam and Volochanka of the Taimyr Dolgan-Nenets Municipal District of the Krasnoyarsk Krai. As a brief historiographical reference, it should be noted that all the original ethnographic sources of the region under study include all sorts of information, such as: official dispatches of service people about the current state of administrative, military, economic affairs and events, yasak, salary, yavche and other books which recorded information on the number, structure of the Russian and aboriginal population, and also reflected economic processes, in particular, the payment of yasak, taxes. Various expeditions, including geological exploration expeditions, were carried out on the territory of the region. Of the ethnographic expeditions, it is necessary to note the materials of the expedition of A.F. Middendorf (1842-1845), who in his materials touched upon the issues of traditional nature management and food practices of the local population. In the 1970-1980s, in the territory, at that time of the Taimyr Dolgan-Nenets National District, the leading researcher of the MAE RAS G.N. Gracheva, Candidate of Historical Sciences, collected the unique field materials and the ethnographic objects that affect various

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aspects from shamanism and shaman attributes to everyday life and mapping fishery grounds [1].

The first settlement is Ust-Avam in the Taimyr Dolgan-Nenets Municipal District of Krasnoyarsk Krai. Administratively, included in it is part of the urban settlement of Dudinka. It is located in the tundra zone within the North Siberian Lowlands on the right bank of the Avam River (left tributary of the Dudypa River), on the western slopes of the Maly Kamen Upland. The direct distance to the administrative center of Dudinka is 313 km. It was founded in 1935 on the 15th of July - the day of the village foundation. At that time, the first Red Nart plagues were organized on this territory. The population according to the 2010 All-Russian Census is 513 people. According to the official page of the settlement, 336 people live in it. Of these, 327 people are indigenous peoples: Dolgans (172), Nganasans (154), Nenets (1) [2]. Currently the village has 387 residents [3]. Ethnically, the population is represented by Dolgans, Nganasans, Russians. Representatives of small indigenous peoples of the North - Dolgans and Nganasans- in the village are approximately equal in numbers.

The second settlement is Volochanka settlement of the Taimyr Dolgan-Nenets Municipal District of the Krasnoyarsk Krai. Administratively, it is included in the urban settlement of Dudinka. It is located in the tundra zone in the southern part of the North Siberian Lowland on the left bank of the Kheta River in the tundra area. The distance to the town of Dudinka in a straight line is 410 km. To Ust-Avam in a straight line is 70 km. The first mention of the Volosyanka camp dates back to the 1640s. The settlement emerged as an intermediate on the crossing that connected the rivers Kheta and Pyasina. Old Volochanka was located a few kilometers from the new settlement. The modern village was founded in March 1931 as the center of the newly formed Avamsky district until its abolition in 1964. According to the 2010 All-Russian census, the population is 530 people [2]. The official page of the settlement lists 445 people [4]. There are 415 indigenous nationality: Dolgans (200), Nganasans (212), Nenets (3). As of January 1, 2021, 422 people lived here. The mortality and fertility rates are 1 to 1, there are 8 newborns for 8 dead people [3]. The increase in the population is due to those who are registered but live in Dudinka. Ethnically, the population is represented in the same way as in Ust-Avam.

The transportation situation is as follows. Year round, the villages can be reached by helicopter, mainly MI-8. Norilsk Avia is the monopolist of air transportation on these routes. The helicopter flies 2 times a week: Monday and Wednesday. The tickets are subsidized, so they are relatively inexpensive: Dudinka - Ust-Avam - 3971 rubles; Ust-Avam - Volochanka - 1047 rubles. The luggage is 15 kg. You have to pay extra for the rest of the cargo, but there is a restriction on the transportation of paid kilograms. In particular, the territorial department for the Volochanka settlement has disagreements with the carrier, due to which the transportation of paid cargo to the settlement is considerably complicated. Also, fishermen travel to Dudinka and Norilsk in caravans on snowmobiles to

deliver over their catch to the town. The main modes of transport for the local population are: in winter - snowmobiles, it is worth noting that in Ust-Avam the "vehicle fleet" is being renewed, including after compensation payments after the diesel fuel spill at CHPP-3 in Norilsk, many have new Arctic Cat and Yamaha snowmobiles, while in Volochanka the Soviet Burans prevail. In summer, modes of transportation are boats, cutters, and cars.

The main commercial activities are fishing and hunting. They hunt hares, partridges, wolverines, wolves, bears and so on. The main commercial fish are broads, omul, whitefish, tugunok, pike and some more. In Soviet times, a branch of the Taimyr State Industrial Enterprise was located on the territory of Ust-Avam settlement. fish and carcasses of wild reindeer, extracted as a result of fishing, were handed over for processing to the Gospromkhoz. In Volochanka, the collective farms named after Stalin (among the specializations are horse breeding and gardening), Schmidt and Iskra were subsequently merged into the state farm Volochansky, which was engaged in hunting fur-bearing animals, fishing, and reindeer breeding. Livestock and fur farms existed on the basis of the state farm t. Currently, crop farming is virtually non-existent. Some grow green onions and potatoes in buckets. There is no cattle breeding. It is becoming more and more difficult to hunt wild reindeer, as they changes their migration routes and moves away from villages and outlets every year further. Some informants attribute this to geological prospecting expeditions, environmental degradation, and warming. In addition to the above, in the last few years, there have been fewer fish, while fish with mutations (growths, black meat, helminths) began to appear; it is worth noting that such fish began to appear before the 2020 spill, but locals expect long-term consequences this year when the water rises ... Many note that it is necessary to monitor this issue, because, even despite the fact that there is no direct pollution, harmful substances can be carried by living organisms: birds, fish, mammals and, according to residents, toxic substances got into the groundwater [3]. For the first time in three years, according to informants, the winter of 2020-2021 was the coldest and snowiest, which is why they expect floods and, accordingly, the consequences of a spill due to underground currents.

The nomadic way of life left this territory. The locals stopped reindeer husbandry in Soviet times. Only the elderly remember nomadism and reindeer herding is remembered. In 2007, the Committee for the North and Indigenous Peoples of the RF Federation Council published data from the Federal Real Estate Cadastre Agency : "Established since the beginning of the 1930s, the structure of natural resource use and the concept of development of the North gave priority to the development of industry at the expense of traditional industries, which led to extensive foci of severe pollution and degradation of the natural environment, which led to the disturbance and retirement of the most agriculturally valuable lands. ... First of all, significant damage was caused to reindeer pastures ... The factor that significantly destabilizes the environmental situation in

the territories of traditional nature management is the stressful impact of industrial facilities on reindeer pastures and hunting grounds, covering up to 40% of the area of traditional nature management” [5]. As part of the policy, a number of steps were taken that have negatively affected the indigenous population of the Arctic region, including the transfer of the nomadic population to sedentary position, a blow to family reindeer herding and “the conversion of the northern population to an average diet of 'mainland inhabitants'” [6]. All this resulted in the younger generations losing touch with traditional aspects of the primordial nature resource management. attempts are being made to revive reindeer husbandry, but time will tell how successful they will be.

Many societies, tribal communities, and family farms have been formed in the settlements. Within up to 100 km, each community has its own point. This is the name given to the places where the main fishing grounds are located. The formation of these points was influenced, in addition to the fact that during the Soviet period, houses were built there, by the fact that people stayed in these places during their nomadic wanderings. The main dwelling at such points was a beam or a typical Soviet house for 2-4 families. Currently, there are points where people live all year round. However, it should be noted that the composition of residents living at these points has changed significantly. Previously, families lived there, but now it is mainly men [3].

The main difficulties are associated with the delivery of food by winter road, by air and by water. This affects the final cost of goods, significantly increasing it. A large number of overdue items occur in late summer and fall, when there are difficulties with deliveries due to interruptions in the establishment of communication lines. for the period March-April there were no expired goods in stores. It should be also noted that the assortment in Volochanka stores is wider than in Ust-Avam (although two stores belong to the same entrepreneur). This is due, among other things, to slight differences in the routes of delivery. With the establishment of the winter road, fresh dairy products, fruit and vegetables are delivered to the shops. Due to the absence of a bakery in Ust-Avam, fresh bread and flour are transferred from Volochanka (parcels by snowmobiles, helicopters, boats). Some residents of Ust-Avam bake bread in small batches for sale. However, there is an acute shortage of fresh flour products in the village, in contrast to Volochanka, where the local bakery offers a relatively wide range of products on the shelves (bread, loaves, buns with jam / poppy seeds / sprinkles, etc.), in addition to cereal products. between the two villages, there is a circulation of food in both directions, as well as to points [3]. Regarding the first point: when there is no delivery, residents of the two settlements go to the neighboring village for food; goods are transported between Ust-Avam and Volochanka. The second point: the main products are brought to the point in the tundra, taken out for subsequent delivery to entrepreneurs/sale, the carcasses of wild reindeer, fish, game. As for the geography of exchange in settlements, the following schemes operate: between villages,

between tundra and settlement, between settlement and town, between friends and relatives, between residents and entrepreneurs. Barter and debt exchange are also in effect.

They store food outside, in containers, sheds, glaciers, chests, refrigerators (for example, the grocery store in Volochanka sells refrigerators brought by the winter road). In this regard, the temporality of the products changes. Seasonal foods are available frozen all year round. For example, autumn berries (cloudberries, lingonberries, blueberries) in March or tugunok, which goes in August-September, in April.

Regarding questions related to changes in food taste and taste preferences, few informants reported a change in taste in traditional foods. Also, there is a slight tendency to modernize dishes, a synthesis of traditional and European cuisine [3].

3 Conclusion

Thus, the main difficulties of the settlements are related to transport infrastructure and accessibility. Additional helicopter flights are needed to increase the supply of basic consumer goods, as there is a demand for them. the lack of local food processing/production facilities also negatively affects the infrastructure and local residents. Self-sufficiency in food security is a key component in maintaining the traditional diet of local people. The basis of the population's diet is the meat of wild reindeer, fish, seasonal game, collecting of wild plants. It should be noted that traditional local food is becoming a local brand in the region. Those who come to these settlements eat traditional fish dishes (stroganina, sugudai, yukola, etc.), venison (jerky, liver/kidney stroganina, tongue, brain, etc.), berries/mushrooms/young larch cones. Last but not least, they collect young shoots of cones from larch trees and cover them with sugar, wait for the syrup to be produced. This is a local anti-cold remedy, quite fortified. Locals try to maintain food autonomy as much as possible through various strategic decisions: moving out on their own, various forms of exchange and the use of new technologies for storing food. However, due to environmental pollution, the expansion of mining, geological surveys, fires, oil spills and other factors, the ecosystem is changing, which leads to adjustments in the migration routes of wild reindeer, mutations in fish, and the gradual disappearance of various plants. The environmental consequences of the the Norilsk CHPP spill must be monitored over a long period of time to determine how they will affect the life of the local population and the traditional use of natural resources. Any changes in the ecosystem, especially such large-scale ones, could entail a significant decrease in the ability to maintain food autonomy and, accordingly, the inability of the population to make up for food shortages on its own.

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