

Transformation of Ecological Traditions in the Context of the Evolution of the Traditional Economy System (through the example of the Baikal region)

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Abstract—Ecological traditions are the most important elements of the traditional economic system. They are features distinguishing the traditional economy from the innovation-based one and characterizing intra-system relations of the traditional economy. Therefore, transformation of ecological traditions to a model of environmental management aimed at extracting the maximum short-term benefit (a priority of individual interest above public ones) becomes one of the destructive processes that is destroying the traditional economic system. On the contrary, preservation of ecological traditions contributes to the sustainability of the traditional economic system and protects the environment. The validity of these provisions is confirmed by the study of the traditional economy of the indigenous population of the Baikal region – the Buryats and Evenks. The concept “traditional economic system” is a “live” model that changes and reflects the evolution of both social relations and ideas about them.

Keywords—traditional economy, Baikal region, Buryats, Evenks, ecological traditions

I. INTRODUCTION

The study of the history of environmental management is one of the most crucial problems of modern science. In the second half of the twentieth century, the environmental problem turned into a global problem of humanity. Its main manifestations are depletion of natural resources, reduction of biological diversity, environmental pollution (air, water and soil pollution). In turn, the environmental problem is closely connected with other global problems: it affects the spread of poverty, exacerbation of social conflicts, development of radical ideas, mass and intensive migration of the population; it impedes economic growth, violates the mechanisms of economic interaction between countries and peoples. The relationship of the global environmental problem and negative social transformations is obvious. Solution of the environmental problem is a required condition for “sustainable development” whose concept is a basis for the UN programs aimed at improving the welfare and protection of our planet.

However, it is evident that international conservation programs designed to level the environmental problem are ineffective under the current world economic system (based on the capitalist ethics guided by personal profits of individual

entrepreneurs, corporations, governments) and poor ecological literacy of the majority of the population who do not correlate their economic behavior with interests of future generations. Therefore, development of resource-saving technologies, implementation of environment management mechanisms by national and international authorities and other measures have to provide for “an objective basis for environmental education and culture” [1].

In this regard, it is important to study the experience of peoples who follow the laws of the traditional economy (often regarded as “backward” economy and opposed to the “innovation” economy). This experience can be both positive (if ecological traditions that form an integral part of the traditional economy continue to exist) and negative (if they disappear or are disappearing influenced by the capitalist economy). In any case, the experience is useful, since its practical application will contribute to the sustainable use of natural resources. “Sustainability” should not be viewed as a sign of “backwardness”, since “sustainability discourse is intertwined with development discourse rather than supplants it” [2].

The indigenous population of the Baikal region – the Buryats and Evenks – have their own environmental management experience, which has been accumulated for centuries adapting to the local rich, generous but harsh nature. The researchers note that the nature management model used by the indigenous people of the region was optimal for the local landscape, “ecologically correct” [3]. However, since the end of the XIX century, this model has been transformed. These transformations have been affecting ecological traditions. The study of these transformations (causes, nature, consequences) is the main task of the article.

II. MATERIALS AND METHODS

To study transformations of the traditional economy, it is necessary to consider this economy as a system whose elements are economic traditions of the population, and the dependence of environmental management on the environment is a system-forming factor. When analyzing the traditional economy as a

system and identifying its intra-system relations, we proceed from two postulates.

First, the traditional economy should be analyzed within the society. Human economic activities can hardly be determined by limited resources, apart from other forms of social relations. As Carl Polanyi said, the term “economic” has formal and substantial meanings. According to the formal definition, the economy is a choice of limited resources and a desire to meet unlimited needs under limited economic resources. However, it is a theoretical provision.

In practice, according to the substantial definition, the economy reflects human dependence on nature and society, “characterizes relationship of the human and the natural and social environment to satisfy material needs” [4]. For most of human history, human only adapted to the surrounding conditions. Human can choose only when economic relations no longer depend on other spheres of public life, i.e. in a free market economy which is young enough, and the distribution is extremely limited. Thus, economic categories, including “traditional economy” (as a stage of economic evolution or a “backward” form of the economy) cannot be used for scientific analysis of the traditional economy that differs from the free market.

Norms (“institutions”) of the environmental management should be examined in order to meet the needs (this is the nature of “economy”) and consolidate these norms (“institutions”). Speaking of traditional economy, we must proceed from the fact that it is inseparably linked with other spheres of public life, being its sub-system.

Second, the traditional economy as a system should be considered within an era. The traditional economic system, like any other “system”, is a model designed by the researcher which does not reflect the diverse and complex reality. When constructing a “system”, researchers rely on the analysis of scientific and historical facts, i.e. conclusions derived from the study of historical facts rather than on historical facts (events, phenomena, processes). The traditional economy model cannot substitute the reality, since inferences can change over time, new facts can be discovered and interpretation methods can change. It is important to keep the “golden mean” when observing the balance between inevitable simplification of economic relations in constructing the “system” and not to lose a certain trend, a balance between the “method” and the “subject” in order to prevent the “divorce” of the economy and stories [5, 6].

III. TRADITIONAL ECONOMY AS A SYSTEM

Assuming that the traditional economy is a system rather than a set of economic traditions, we identified features of the traditional economy and its structure, i.e. relations between elements of the system.

The main feature is direct and immediate dependence of economic traditions on natural conditions. The society does not adapt the nature for humans. It adapts itself for the nature. This approach to economic activities is determined by their goal-setting which is reproduction of the population and preservation of social stability [7]. The society chooses a nature management

method that is optimal for specific environmental conditions; the goal of economic activity is to satisfy needs rather than to consume goods.

The second feature closely related to the first one is the natural character of the economy. The economy that depends directly on natural conditions, suitable for the environment, aiming at reproducing the population and preserving the existing social system makes it possible to have everything necessary for life, without resorting to exchange. The exchange may exist, but it is not the main way to redistribute wealth and develop economic relations.

The third feature is a priority of social economic interests above individual economic ones. The dependence of economic activities on customs, traditions, religious attitudes, political tendencies, “integration” of economic relations into social relations is also connected with social economic interests. Redistribution of consumer products, regulation of business practices, and application of production tools are controlled by the society. The purpose of this control is to limit individualism in the economy, since it is opposed to social interests.

The fourth feature is a set of ecological traditions based on rational estimation and understanding of the need for rational use of natural resources rather than on irrational love of nature since the ultimate goal of any community is its physical preservation.

The interrelation of these features is a basis for sustainability of the traditional economy. Stability and sustainability cannot be perceived as an inability to develop – traditional economies have repeatedly demonstrated their ability to adapt to new conditions (during mass migrations, abrupt changes in the environment, critical fluctuations in the number of populations, etc.). The traditional economic system is able to change because it is determined by nature itself and develops aiming at self-preservation.

IV. ECOLOGICAL TRADITIONS OF THE INDIGENOUS POPULATION OF THE BAIKAL REGION

The indigenous population of the Baikal region – the Buryats and Evenks – considered human as part of nature. Nature was deified. Therefore, communication with nature was regulated by sacred norms consecrated by shamans. “Since human activities could not affect the environment, harm nature, the Buryats and Evenks had rites of repentance for their sins before the spirits of stone, wood and earth. Their everyday life was regulated by various taboos” [8].

The Buryats had many prohibitions and restrictions related to the use of forests. There were “sacred groves” and “sacred forests” which were considered inviolable. It was prohibited to carry out any economic activities there. Forest areas where shamans were buried or “sacred stones” (meteorites), were found considered sacred.

It was believed that the death of a tree in these places could cause human deaths. Therefore, when a lot of trees were destroyed during thunderstorms or storms, numerous deaths were expected. There was a ban to cut down trees without much need. For firewood, they used dead trees and dry branches.

There was a cult of "eternal trees" – cedar and spruce were especially revered and their use was limited.

For the Evenks, the forest was home. Unlike the Buryats who lived in the steppe and forest-steppe landscapes, the Evenks lived in the forest areas. Therefore, they treated forests with reverence, like homes. For example, regardless of the circumstances, the camp should have been clean (all waste was buried). It was forbidden to throw wool, animal bones, anything that could produce an unpleasant smell into fires. Like the Buryats, the Evenks had their own sacred tree – larch. It was forbidden to approach it in spring. There were deadlines for extracting birch sap, gathering wild plants and bark. The bark was used to make temporary dwellings. It was allowed to remove it only during the foliage (it caused less damage to trees). The dead Evenks were not buried in the ground, so as not to spoil groundwater. They were hung between trees in coffins carved out of dry tree trunks. When migrating, they extinguished fires, so as not to cause a forest fire.

Many taboos concerned hunting. According to the Buryat hunters, the success in hunting depended on the will of Khangai, an owner of the taiga who embodied the image of natural forces. The desire not to anger him, not to transgress the measure of what was permitted, allowed him to control behavior of hunters. People hunted only to meet their own needs. It was necessary to keep the taiga clean and quiet, not to cut down trees near parking lots, not to brag about meat. There were obligatory ceremonies to treat the master of the taiga (sacrifice). The Buryats believed that each hunter can kill only a certain number of animals. If he killed more animals, he could pay with his life or lives of his children. Knowledge of the animal lifestyle allowed them to choose the right time, hunting methods which helped preserve the population of game animals.

According to the Evenk tradition, hunting and hunting areas were divided between families and clans who were obliged to protect their lands. Due to this, ethics of the Evenk hunter was formed. It did not allow them to kill queens, shoot chicks, hunt birds in spring, to kill beyond measure. Hunting periods depended on the lifestyle of animals. In case of violation, the hunter was forbidden to go to the forest and was obliged to perform female work. The Evenks never ruined bird nests. The fishermen never caught spawning fish. It was forbidden to pollute water. Many animals were objects of worship (reindeer, swan, eagle, sable, roe deer, ermine, wolf, maral, bear, raven, woodpecker). It was forbidden to kill them [9].

Cattle breeding was either the main or one of the main methods of environmental management for the Buryats. In Transbaikalia, the Buryats were cattle breeders, while in the Baikal region, the Buryats were cattle breeders and farmers. Therefore, a lot of ecological traditions were associated with cattle breeding. When choosing pastures, the Buryats took into account the soil quality, relief, and availability of water sources. Herders constantly changed pastures and did not allow for soil depletion. In Transbaikalia, the Buryats migrated long distances; in the Baikal region where natural conditions were different, the Buryats migrated short distances (10-15 km) from summer pastures and back [10]. Therefore, different pasture periods and different pastures were used for different types of livestock (horses, sheep, cows). This allowed them to preserve

the economic value of pastures (for the same purposes, the multi-field system and grass sowing are used in agriculture).

The ecological traditions of the Buryats and Evenks were closely connected with other components of the traditional economic system.

The relation to the first feature of the traditional economic system – dependence of economic traditions on the surrounding natural conditions – is due to the utilitarian nature of restrictive ecological traditions (not to take more than necessary to satisfy needs). For example, the Evenks did not live in one place, they constantly roamed through the taiga. Therefore, they did not need to kill animals "as a reserve". Their careful attitude toward the deer was connected with the fact that it was the most important means of transport in the taiga conditions; no migrations and hunting were possible without the deer [11]. The respect to forest groves was due to the important role of forests in the steppe and forest-steppe conditions: they preserved groundwater, prevented soil erosion, and served as a shelter.

The relation to the second feature of the traditional economic system – the natural character of the economy – is found in ecological traditions. Each Buryat and Evenk family or clan migrated long distances returning to the starting point from time to time. Therefore, preservation of resources along their "routes" was necessary. The goal of ecological traditions was rational nature management in own interests and interests of future generations for ensuring sustainable development of society and people rather than a desire to enjoy the beauty of nature or supernatural relationship with it (shaman talks about this relationship encouraged people to follow ecological traditions).

Violation of environmental management taboos led to public obstruction, because these taboos curbed the desire of individuals to get personal gain at the expense of other members of the society. The sacred nature of ecological traditions gave them social significance, reinforced their importance. Thus, the control over ecological traditions is the third feature of the traditional economic system – priority of public economic interests above individual ones.

V. TRANSFORMATION OF ECOLOGICAL TRADITIONS OF THE INDIGENOUS POPULATION OF THE BAIKAL REGION

The traditional economy, like any system, is constantly changing under the influence of various factors. One of these factors is the environment. The traditional economy can change (for example, as a result of migration of representatives of economic traditions into a new landscape), which will affect the whole system. Ecological traditions of the Buryats and Evenks (as an integral part of the system of traditional economy) were described by the researchers of the 19th - early 20th centuries. However, they differ from the earlier traditions of these peoples, since they lived in other places and used other environment management methods. By analyzing transformations of the traditional economy of the Siberian peoples (and transformation of ecological traditions as one of the manifestations of this process), researchers speak about changes in the development of capitalist relations in Siberia (the late 19th – early 20th centuries), formation of socialist economic models (the twentieth century) and transition to the

market economy (the late 20th - early 21st centuries). However, this does not mean that by the end of the XIX century, the system did not change. Since the end of the XIX century, the traditional economy was modernized. This modernization began to threaten the very existence of the system.

The impetus to the large-scale transformation of the traditional economy of the Baikal Siberia was construction of the Trans-Siberian Railway in the late 19th - early 20th centuries. Under the influence of sharply increased rates of economic development of the region and an increasing number of the population, involvement of Evenk hunters and Buryat herdsmen in commodity-money relations and changes in environmental management methods were accelerated.

The first feature of the traditional economy – dependence of economic traditions on the surrounding natural environment – changed due to the reduction of land areas used by the Buryats (considerable land areas were given to migrants) which forced them to engage in farming and abandon migrations. Most Evenks began hunting for fur-bearing animals which enhanced the role of the deer as a transport means due to the expansion of the migration zone.

The change in nature management methods transformed the second feature of the traditional economy – the natural character of the economy. The Buryats, who turned into farmers, preserved the natural character of the economy. The issue of marketability of grain products in Siberia could be solved positively due to the development of large-scale land tenure or destruction of the community (as in the European part of Russia). However, the reform of land management of Siberian peasants, which began at the turn of the XIX-XX centuries and covered the Buryats, equalized land plots, consolidated the communal land use and land redistribution. Buryat farms were small. For the Evenks, the transition to commodity hunting affected foundations of the traditional economic system – the natural economy. Some Evenks became breeders and farmers. However, this was the exception rather than the rule. Most Evenks remained hunters, and the evolution involved only transition to hunting for fur-bearing animals. The Evenks searched for alternative sources of well-being. As a result, they became dependent on Russian merchants who bought fur in exchange for small arms ammunition and food.

The Russian government contributed to the preservation of traditional intra-system relations in the Buryat economy by conserving the communal land. Therefore, the third feature of the traditional economy – subordination of personal economic interests to communal needs – remained relevant. For the Evenks, the government played an opposite role as it indirectly destroyed the traditional economy, collected taxes and ignored facts of enslavement of Evenk hunters by merchants. Generic ties of the Evenks loosened, and private economic activities grew out of the community.

Following the first three features of the traditional economy, ecological traditions changed as well. The ecologically oriented cycle of migration of the Buryats was destroyed. The Buryats began to cut down forests and use available arable land plots until their complete exhaustion [12]. However, this process was rather limited due to the fact that the land management reform was not completed until 1917. The Evenk hunting acquired a

predatory nature that affected the number of game animals, especially fur-bearing ones.

In the Soviet period, the traditional economy of the indigenous population of the Baikal region was integrated into the national economy, but in other ways. It is hardly possible to say that crisis phenomena in the traditional nomadic economy of the Buryats or Evenks were associated with the policies of the Soviet government as the crisis transformation of the traditional economy began much earlier [13]. In the 1920s, the Soviet government tried to act according to the needs of the indigenous peoples, studied their economic activities in natural conditions. Since the 1930s, the traditional economy of the Buryats and Evenks contributed to the socialist economic system. Buryat farms were united into collective farms, the Evenks created trade artels and reindeer-breeding state farms. These processes were accompanied by further transformation of environmental management methods that began in the late 19th century: the Buryats turned into farmers (some researchers believe that cattle breeding was more efficient even when primitive methods were used) [14], and some Evenk hunters became cattle-farmers [15].

Pressure on the natural character of the traditional economy weakened, since in the USSR, there was no market production redistribution mechanism. Government authorities controlled collective farms and national artels. This approach had the same negative effect on the traditional economy as the transition to the market economy in the previous era. For example, Evenk deer-breeding state farms having little concern for deer reproduction were engaged in cattle slaughtering [16].

Evolution of the third feature of the traditional economic system involved replacement of the community control over individual economic activities with the government state control, which was even more comprehensive than before. Thus, the principle of priority of “public” (i.e. government) interests was preserved and strengthened.

Under these conditions, transformation of ecological traditions is contradictory. On the one hand, oppression of religions characteristic of the Soviet ideology that regulated many aspects of environmental management and industrial development of the region involving the indigenous peoples into urbanization and migration destroyed the ecological culture. On the other hand, “the national intelligentsia was formed, the level of education increased which contributed to the development of “scientific environmental awareness” [17].

After the collapse of the Soviet Union, in the conditions of the uncontrollable developing market economy, people began to discuss traditional forms of environmental management, paying attention to their “environmental friendliness”, the need to apply the experience of “developed Western countries [18]. However, the return of the Buryats to nomadic cattle breeding is impossible, and reindeer breeding in the Evenk community is declining [19, 20].

Further trends in development of the traditional economy should be studied. In any case, they can be associated with the traditional economy (including rational environmental management) within the global economy rather than with isolated systems of the traditional economy. This process

cannot be accompanied by the destruction of the traditional economic system. It should be maintained because it is an extremely important ethno-preserving factor. Nevertheless, the traditional economy cannot develop in isolation from the other elements of the economic system being a subsystem of the economy. Ecological traditions are important as a research object, a basis for sustainable development programs and a factor present in human lives, contributing to environmental awareness at planetary, regional, state, public, and individual levels [21].

VI. CONCLUSION

Traditional economies are dependent on people experiencing environmental problems. In the modern world, these connections become even more complex: the direct dependence of environmental activities on economic activities makes physical existence of peoples dependent on conservation, while ecosystems sustainability depends on the well-being of the ethnos [22].

This relationship illustrates one of the main directions of “sustainable development” which links social well-being and environmental problems. It is impossible to improve living standards of the population living in these areas without developed ecological culture. Historical experience of the indigenous peoples and their ecological traditions are crucial.

Due to its natural originality, the Baikal region can be a model sustainable development area [23]. However, to implement this idea, it is necessary to pay attention to ecological traditions of the Buryats and Evenks, which allowed them to co-exist with nature and conserve the unique Baikal eco-system for future generations.

However, the study on ecological traditions and attempts to follow them are not efficient if we do not understand that they are an integral part of the traditional economic system. It means that they can be studied or introduced only in the following conditions: 1) nature management methods are determined by the environment; 2) natural farming; 3) subordination of personal interests to public ones. These measures are hard to implement in the current socio-economic and socio-political conditions. However, the ecological experience of the Buryats and Evenks can be used to increase the level of ecological culture of the population of the region.

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