Socially engaged Buddhism: cattle-breeding initiative of the Buryat Buddhist sangha and its ecological significance in the Baikal region, Russia

B Dondukov¹, O Dorzhigushaeva² and G Dondukova¹

¹ Department of Organization and Management of Scientific Researches, East-Siberia State University of Technology and Management, Ulan-Ude, 670013 Russia
² Department of Philosophy, History and Cultural Studies, East-Siberia State University of Technology and Management, Ulan-Ude, 670013 Russia
E-mail: dondukovb@gmail.com

Abstract. The article focuses on the environmental consequences of abandoning rural life, increasing urbanization and the problem of deforestation in the Baikal region, Russia. Specifically, it analyzes a recently proposed “Social Flock” project of the Buryat Buddhist community for the revival of nomadic cattle breeding in the districts of Buryatia, and its potential impact on the environment. We argue that taking into consideration the global value of the Lake Baikal, the “Social Flock” project can not only satisfy the practical needs of people and reduce the social aspects of environmental problems in Buryatia, but also potentially contribute to dealing with environmental problems of global importance.

1. Introduction
The Republic of Buryatia is located in the southeastern part of Russia and covers an area of 351,334 km². The population of the republic is 985,937 people and mainly consists of Russians and Buryats. The region borders with Mongolia in the south and is also very close to the Russian-Chinese border. To the east, the republic is located along the shores of lake Baikal – the deepest lake in the world. In 1996 Baikal was declared a UNESCO World Heritage Site as the largest freshwater lake containing about 22% of the world’s fresh surface water. Taking into account the fact that according to World Economic Forum in 2018 water scarcity was listed as one of the top five global risks in terms of potential impact over the next decade [1] the ecological situation on the territories around Lake Baikal is of global importance. At the same time, rich in various natural resources the territories of Buryatia are an object of intensive economic development. That is why the Baikal region can hardly boast with favorable environmental conditions [2].

Scientists who study the ecological situation of the region mainly focus on the problems of large industries, which can be solved only at the state level, while the social aspect of environmental problems lacks attention. At the same time people inhabiting Buryatia, as well as their life activities negatively influence the environment. This article focuses mostly on the environmental consequences of abandoning the rural life, increasing urbanization and the problem of deforestation. Specifically, the article analyzes a recently proposed “Social Flock” project of the Buryat Buddhist community for the revival of nomadic cattle breeding in the districts of Buryatia, and its potential impact on the environment. The uniqueness of this case study lies in the fact that along with ideological influence, the Buddhist community of Buryatia offers rather practical solutions of social as well as ecological problems.
2. Materials and methods
The Buddhist sangha [community] initiative seeks to solve the two major environmental problems of social origin in the region, such as increasing urbanization and intensive deforestation. We start with the overview of peculiarities of these two problems in the republic of Buryatia, and proceed to closer view of the nomadic cattle breeding project of the Buryat Buddhist community. We use the methodology of discourse analysis supported by statistic data, media articles, interviews, as well as broader cultural and historical context of Buryatia. The scope of two allocated above problems is quite large, however, as we show it below, it often does not find reflection in the official statistics. Deforestation as well as the ecological problems arising from urbanization mainly derive from the depressive state of the rural areas of Buryatia. According to the 2019 statistics report, Buryatia is positioned among the regions with high unemployment rate with 9.4 %. Notably, almost 60 % of the unemployed are rural residents. The lack of alternative sources of income led to the fact that rural people usually get into timber business. About 83% of the territory of Buryatia is covered with forests, which is approximately 30 million hectares. From this perspective, it is no surprise that wood turns into an open-access resource.

2.1. Deforestation
In Buryatia, timber sale business is considered highly profitable. High profitability is due to the large demand both domestic and foreign. On domestic market the wood is one of the most affordable materials for private house construction, as well as the cheapest type of heating for private houses [3]. While in many countries houses made of wood refer to luxuriousness, in Buryatia the majority of private houses are built entirely of wood because of its cheapness. What is more, high electricity rates and lack of natural gas heating infrastructure make firewood the most low-cost option for heating. Thus, wood is always in high demand in Buryatia. As for the foreign market, due to territorial proximity to China and Mongolia, wood export is well developed. For example, in 2017 China imported about 2.4 million m$^3$ of raw wood from Russia [4]. Of course, such volumes were mainly logged on the border territories of Zabaykalsky Krai as well as neighboring Buryatia. Moreover, apart from legal logging, there exists illegal one. Large forest areas of Buryatia are prohibited for cutting and logging, especially in the Baikal zone. That is why many people are logging forest at risk of being caught by law enforcement agencies. Due to large areas and inaccessibility, it is very difficult to control illegal logging. In this case, it is impossible to provide any exact data representing the real scale of deforestation. What is more, illegal logging involves corruption [5] when businessmen try to get permission to deforest certain territories. The situation gets even more complicated with the forest fires. In summer of 2015, Buryatia suffered from catastrophic fires, which burned almost 900 thousand hectares of forests, while in relatively favorable years fires covered about 74 thousand hectares [6]. According to some scientists as well as social activists, the main cause of forest fires are attempted arsons [7]. They serve as a tool to bypass the bans on timber production: the areas where forest fires have occurred become allowed for logging. The so-called “sanitary deforestation” is aimed to eliminate the burnt forest. However, burnt trees in their core remain suitable for further use that is why fires give access to a large amount of wood for illegal sale. In addition, entrepreneurs receive funds from the republican budget for elimination of burned forests. The version of intentional arsons is not officially recognized, due to the lack of evidences. Nevertheless, the scientists indicate that the quantity of fires is directly dependent on the population density as well as density of route network. With the decrease of these factors the number of fires noticeably reduces [8]. As for the official data, the major cause of fires is generally called anthropogenic, however, with no further explanations. Unfortunately, such approach cannot lead to effective measures for reducing forest fires and deforestation. The forests of the region take a special biosphere role, forming a kind of ecological framework of the natural complex of the Lake Baikal. Sustainable condition of the Baikal ecosystem as well as the purity of water depend on water-regulating, water-protecting and soil-protective functions of the forests. In addition to deforestation, Baikal is heavily polluted by the products of fires: storm water drains the products of combustion into rivers, thereby significantly polluting the water [9]. Thus, deforestation and fires cause enormous environmental damage to the entire ecosystem of the Baikal region.
2.2. Urbanization

Not all of the rural residents turn to destructive logging; many of them prefer to move to Ulan-Ude, the capital of the republic, which seems to be a more attractive place from the point of view of labor market. The last 25 years have seen a continuous urban growth. As we have mentioned above, official data do not reflect the scale of urbanization. According to the official statistics, the number of residents of Ulan-Ude over the past 25 years has increased from 352,513 to 426,650 people, that is, by 21% [10]. However, the scope of urbanization in the capital of Buryatia is much larger: a significant number of residents has moved to the settlements located in close proximity to Ulan-Ude (10-30 km), but belonging to its neighboring districts. For example, according to the official website of Ivolinsky district, the number of residents of Poselye village, which actually integrated with the city of Ulan-Ude, has grown more than 20 times over the past 15 years, from 358 people in 2002 to more than 7600 people at the end of 2017. Poselye is not the only village that merged into Ulan-Ude; most of them are perceived as areas of the city today. Thus, the growth scale of Ulan-Ude is much more than 21%. Notably, 92.3% of new residents of the capital have moved from villages [10].

With the spread of suburbs Ulan-Ude has become surrounded by a huge number of private houses. The city was not ready for such growth, which resulted in many problems. One of the most urgent of them is the problem of household waste. The waste issue affects the pollution of the Selenga and the Uda Rivers of Ulan-Ude. With the growth of the city, the amount of wastewater discharged to the Selenga through sewage treatment facilities increased. According to the water samples, the concentration of harmful chemicals is many times higher than the norm [11], which means that treatment facilities are unable to purify effectively such amount of wastewater. Meanwhile, the Selenga is the largest tributary of the Lake Baikal. Thus, it turned into the largest supplier of contaminated water to Baikal; whereas 35% of its waste comes from the sewage treatment facilities of Ulan-Ude.

Another factor of water pollution is the lack of access to urban sewers in the suburbs. As a result, a huge number of private houses dump liquid waste into the ground, thereby polluting groundwater. Moreover, uncontrolled growth of the private sector has led to growth of unauthorized landfills near Ulan-Ude. In 2014, there were about 400 of them [12]. Due to slope landscape, storm drains, which are subject to intense chemical pollution, flow from landfills into large rivers. According to environmentalists, the increased amount of harmful chemical compounds entering through the Selenga led to growth of Spirogyra algae on Baikal. In addition, the scientists notice deterioration of water quality and deprivation of indigenous species of flora and fauna, especially the Baikal sponge, which cleans the lake of dirt [11].

Thus, we can see that the identified environmental problems of deforestation and water pollution are somehow linked to social processes. Rural unemployment and further unattractiveness of rural life in general can negatively affect the environmental situation in the region. Taking into account the dynamics of these problems, we can conclude that the government does not pay much attention on these phenomena and the social factor of environmental problems in general. Nevertheless, we can observe the activities of the Buddhist clergy, which connects the current situation with the loss of traditional nomadic cattle breeding of the Buryats.

3. “Social Flock” project

The Buryats are an ethnic group of the Mongolian people included in the Russian Empire in the 18th century after delimitation of the Russian-Manchu border. As any other Mongols, cattle breeding historically has been the main activity of the Buryats, while the majority of the population was rural. With the rise of Soviet regime, the Buryats were intensively forced to transit to sedentary lifestyle, which resulted in almost total loss of cattle breeding as their main activity. Several factors influenced the cattle breeding decline: first of all, massive collectivization of property of the Buryats, including livestock; secondly, the USSR recognized the Buryat cattle as economically inefficient, replacing them with other species. The main activity of the population started to be focused on the work on factories, collective farms and various state institutions, which led to further urbanization [13].

After the collapse of the USSR, a return to private cattle breeding was difficult due to the loss of Buryat types of cattle, which were adapted to the climatic and environmental conditions of Siberia. Crossbreeding of native and stud breeds led to almost total extinction of certain breeds. In such a way,
in Buryatia there is no more camels and Tofalar deer, while the Buryat native sheep transformed into fine fleece ones. The number of yaks has decreased. The Buryat cattle is on the verge of extinction. Today, the maintenance of livestock during long winter period requires a lot of effort and financial costs, because it is necessary to have winter stalls and put in storage large quantities of hay. Thus, private cattle breeding turned into economically inefficient and unattractive. In addition, over the past century, the traditions of cattle breeding have been lost and the majority of modern Buryats are not able to run a cattle farm.

Buddhism is the traditional religion of the Buryats and has been the main religion in this region for over four centuries. The activities of the Buryat Buddhist sangha can be referred to the so-called “socially engaged Buddhism”. The term “socially engaged Buddhism” in academic literature usually refers to modern movements in Buddhism with the goal of applying the teachings of Dharma and practice of meditation to solve the problems of social, political, environmental and economic spheres of life in order to reduce the number of suffering and injustice in them [14]. Such definition can be attributed to the Buddhism of Buryatia with the remark that social involvement of the Buryat sangha is more a heritage of the past than a new phenomenon.

Tibetan Buddhism started to spread on the territory of modern Buryatia in the 17th century. Buddhist institutions quickly turned into centers of cultural and social life of the Buryats. The role of Buddhist leaders in society was growing and soon they began to play a key role in the variety of issues concerning Buryat ethnicity, including building ties with the Russian Empire [15]. In 1764, Buddhism was officially recognized as one of the official confessions of Russia, while the title of Khambo Lama received official state status of the head of the Buddhist sangha. Thus, Khambo Lamas traditionally engaged not only in religious development, but also had a great influence on secular processes.

With the October Revolution in the beginning of the 20th century Buddhism in Russia suffered decline and significant repressions. Despite its partial existence in Soviet times, the Buddhism actually began to revive only in the 1990s. In 1995, Damba Badmaevich Ayusheev was elected as Khambo Lama of the Buddhist traditional sangha of Russia. Following the historical tradition, Khambo Lama Ayusheev today assumes functions of not only religious, but also secular leader of the Buryats. Ayusheev initiates and supports various projects for the revival of Buryat traditions, including national sports and revitalization of the Buryat language [16]. In other words, Khambo Lama poses himself not only as a clergyman, but also as a national leader. He proposes solutions to various socio-economic problems. Thus, though corresponding the new movements of socially engaged Buddhism, the social involvement of Buryat Buddhism is a historically developed phenomenon, which continues to be applied by the current Khambo lama.

In 2009, Khambo Lama Ayusheev began to develop the “Social flock” project. The idea of this initiative is to donate flocks of 300 or more sheep of the Buryat breed Buubei for subsequent breeding. Revival of the Buryat breeds adapted to local climatic conditions can help to solve the problems of economic feasibility of cattle breeding. Local breeds of national selection can boast with the most valuable genetic resources. Though lacking high productivity, they show high resistance to harsh climatic conditions as well as various diseases. They can be characterized by high adaptive value, but are less liable to selection pressure in comparison to stud breeds. The adaptivity of Buubei sheep lies in tolerance to prolonged cold weather, as well as their ability to dig grass from under the snow for consumption, which minimizes the costs for haymaking. Buryat native sheep do not need specific winter buildings or stalls; in winter they can live under fence roofs or simple places sheltered from the wind. After successful growth within several years, the project participant must give part of the flock to another person who wants to go in for cattle breeding in the village. In 2012, Khambo Lama had an appointment with V.V. Putin, the President of Russia and shared his idea. The president supported this initiative and financed the project for 70 million rubles (about $ 2 million in 20121). With these funds, 10,000 Buryat ewes were purchased from different regions and the distribution of the first flocks began. As of 2019, 52 flocks of 300 or more sheep and 22 flocks of 100 sheep were given to farmers. In total, almost 20 thousand sheep were given by the Buryat Buddhist sangha during this period. Every year the number of sheep for further sharing is growing. In 2016, about 3,300 sheep were given to new farmers, and in 2019 there were already 5050

1 https://burunen.ru/site/news?id=24152, Accessed October 15, 2019
of them. In 2020, it is planned to distribute 6,800 lambs and in 2021 – 8,100. According to the forecasts of sangha, in 2020 the total number of sheep handed out will reach 25 thousand\(^2\). Thus, the dynamics of the project indicates good prospects.

Nowadays, in addition to distributing sheep and in order to use more efficiently the cattle, Buddhist sangha is building a manufactory for processing wool and hides. The President of Russia V.V. Putin financed sangha with additional 30 million rubles for this purpose. Along with sheep breeding, the Buddhist community is preparing a project of “Social Herd”, when Buryat breeds of cows will be distributed on the same principle. The launch of the project is scheduled for the nearest future.

While many modern Buddhist leaders follow the strategy of adapting Buddhism to modern realities and creating a global model of Buddhism, Khambo Lama offers a return to Buryat traditions as a reply to many challenges of our time. One can observe that Khambo Lama constantly criticizes migration of Buryats to the cities: “Cities absorb the lives of our children like a vacuum cleaner, dissolving them. The larger the city, the less likely it is to find oneself in it” [17]. Life outside the city, and especially livestock farming, according to Khambo Lama, is a good and also economically viable choice for modern Buryat youth [18]. According to him, “without a sheep flock a decent life is impossible. Only alcoholism, fights and theft... Sheep farming is our locomotive” [17].

We planned a personal interview with Khambo Lama, but due to the COVID-19 pandemic, we had to cancel it. Luckily, the leader of Buryat Buddhism has a Facebook account, so we managed to communicate online. Khambo Lama told us the following: “Of course, the decline of rural life brings many problems, including environmental ones. Buryats have lost cattle breeding and either leave the villages or begin to cut down the forest, even illegally. Logging is not a traditional type of activity for the Buryats-nomads; in former times there was a system of taboos for logging. We understand that people are engaged in this trade for their survival. However, sheep breeding, as a traditional occupation of the Buryats, will help to reorient rural residents to more environmentally friendly activities. In the past we did not experience such environmental problems, and people were more responsible for the world around them. I think that the loss of traditions in general affects the decline of the Buryat spirituality, therefore their revival is of exceptional value”. (Khambo lama Damba Ayusheev, Facebook message to author, April 12, 2020)

At this point we find it necessary to clarify the connection between sheep breeding and the Buddhism. In the light of modern Buddhist trends, the development of cattle breeding by the Buddhist sangha of Buryatia looks rather contradictory, because global Buddhist leaders such as His Holiness the 14\(^{th}\) Dalai Lama, the 17\(^{th}\) Karmapa and others often encourage vegetarianism. Sympathy for vegetarianism is based on the important Buddhist principle of ahimsa – refusal to cause suffering to living beings. The 17\(^{th}\) Karmapa, Ogyen Trinley Dorje has been promoting vegetarianism for a long time, pointing to inhumanity of industrial livestock: “There are many great masters and very great realized beings in India and there have been many great realized beings in Tibet also, but they are not saying, “I’m realized, therefore I can do anything; I can eat meat and drink alcohol”. It’s nothing like that. It should not be like that <…> anybody that is using meat and saying it is something good, this is completely against the dharma and against me and they completely have nothing to do with dharma” [19].

The 14\(^{th}\) Dalai Lama supports people who are vegetarians and also supports Buddhist leaders who promote vegetarianism in Tibet. At the same time, he admits that Tibet conditions are too sharp for growing plants, that is why cattle breeding should be seen as one of the ways for survival. In addition, he argues that it would be better if nomads kept their centuries-old natural dwelling and remained in the pastures [20]. The Dalai Lama himself tried to refrain meat, but due to health problems and because of recommendations of doctors he was forced to add meat to his diet.

When spreading among the Tibetan and Mongolian people Buddhism as an adaptive religion accepted cattle breeding as a condition for survival. While the climate conditions of India allowed to live on a plant diet, the severe climate of Central and North Asia demanded higher calorie expenditure even for body warming. In this context, various arguments related to the value of human life and the importance of its preservation were used. Therefore, meat food was perceived not as an object of gluttony, but as a cure necessary to maintain life [21]. Nevertheless, it should be noted that at all times hunting was

\(^2\) https://www.baikal-daily.ru/news/16/378272/ Accessed October 15, 2019
condemned sinful by the Buddhist leaders and almost disappeared on the territories of Tibet, Mongolia, as well as Buryatia [22]. Thus, despite the fact that the principle of ahimsa contradicts cattle breeding, in the North Asian regions this type of life activity has got along with Buddhism.

Today in Tibet, the topic of vegetarianism is subject to widespread discussion in society. Following the global Buddhist leaders, Tibetan monks often call for abandoning of cattle breeding. However, Tibetan laymen acknowledge that abandoning of livestock breeding lead to increasing urbanization and sedentariness, which many Tibetans are unprepared for. In addition, Tibetan social activists point that abandoning of meat consumption can lead to health problems due to deficiency of minerals. Nevertheless, many Tibetans are ready to follow religious leaders. There is an opinion that, in addition to promoting religious values in the form of vegetarianism in Tibet, such initiatives aim to maintain the image of a “holy country” in the eyes of the West and contribute to the global expansion of modern leaders of Tibetan Buddhism [20]. Today the majority of modern Buddhist leaders developing a global model of Buddhism focus primarily on the adaptation and dissemination of Buddhist philosophy in the world. In this context, the global model acts as the universal one and for this reason cannot offer practical solutions to problems of certain communities, taking into consideration their specific conditions.

In our case, as you can see, Khambo Lama is focused on the local problems of a certain community: he does not criticize cattle breeding, instead he personally develops it, since he sees it as a necessity for the Buryat people. From this perspective sheep farming should be perceived as the need to return to the traditional way of life, not the need for a meat diet. According to Khambo Lama, today there are a few alternative ways to counteract urbanization or destructive activities of people in villages, such as deforestation. Nomadic cattle breeding turns into an important direction for preserving biodiversity of farm animals, as well as producing environmentally friendly and competitive goods.

It should be noted that Khambo Lama also criticizes the global model of Buddhism, insisting on the autocephalous status of the Buryat sangha. From this perspective, the Buryat Buddhism is somehow cut off from many other Buddhist communities and movements. For this reason, his activities cannot be adjusted by global Buddhist communities, which may not share his initiatives. Thus, being a local Buddhist leader, he focuses on the specific problems of the Buryats, offering fairly practical solutions. At the same time, Khambo Lama does not see his project exclusively in practical terms, but emphasizes its spiritual benefit for the participants. In one of his interviews he says: “A person will learn to give. Naturally people do not like to share anything. And here we teach people to give. If he takes sheep for free, then let him learn to help others. He does not help his relatives: the person whom he transfers the sheep – they do not even know each other, and here is the beauty. The psychological state of a person who is able to share is worth a lot”3. According to Khambo lama, the project provides an understanding of the principle of giving (dāna) as a significant and ancient Buddhist practice. The transfer of livestock to others develops paramita [excellence, dignity] of generosity – one of the key perfections necessary to achieve the state of Buddha. The principle of functioning of the project is based on the principle of bodhisattva path [18]. A bodhisattva is an individual who strives to become a Buddha not for his own liberation, but in order to help other beings to achieve enlightenment. Thus, we see that the project for revitalizing of the rural life, developed by a spiritual institution, is able to provide not only economic aid, but also ideological attitudes.

Another important aspect of the development of cattle breeding is that this type of activity is experiencing problems with prestige among the population. The government usually does not take into account this aspect. However, when cattle breeding is offered by the Buddhist sangha in the format of returning to traditions, developing spirituality and caring for the environment, it takes on a slightly different meaning than just economic activity. In the context of revival of traditions, Buryat farmers, in addition to their practical advantages, also begin to bear a symbolic meaning. Taking into consideration the media and social network articles, we observe mainly positive perception of such initiative by the population.

4. Conclusion

3 https://youtu.be/-VFEHhfVBU?t=188 Accessed January 11, 2020
Rich forest resources as well as socio-economic conditions of the Baikal region negatively affect the environmental situation. In our opinion strengthening of the control without suggesting any alternative activities for rural residents is not effective for dealing the environmental problems. In this situation, traditional cattle breeding is a good opportunity to stop the growth of urbanization, as well as deforestation. The importance of sangha participation in the development of nomadic cattle breeding can hardly be overestimated, because in addition to financial aid, it has a great ideological basis crucial for the Buryats. While at the stage of spreading of Buddhism among the Mongols, this religion was forced to accept cattle breeding as a basis for survival, in the current environmental conditions of the Baikal region the Buryat sangha revives cattle breeding not for the sake of food, but to resist the challenges of our time. Despite the local interests of Khambo Lama, and taking into consideration the global value of the Lake Baikal, the “Social Flock” project can not only satisfy the practical needs of people and reduce the social aspects of environmental problems in Buryatia, but also potentially contribute to dealing with environmental problems of global importance.

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