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Arctic tourism and sustainable development of local communities

Climatic changes have a critical impact on the territory of the Arctic zone, which includes the northern regions of Russia. In addition to the destruction of natural landscapes and the biosphere as a whole, forced migration and destruction of local communities are an important climatic risk. Against this background, in recent years, the so-called "last chance" tourism has begun to develop, when tourists go to places endangered due to global climate change. One of these areas is the Arctic (Groulx et al., 2016; Lemelin et al., 2010). Ironically, the carbon emissions from travel and waste generated by Arctic tourism also contribute to the global challenge of climate change (Dawson, Stewart, Lemelin & Scott, 2010).

Arctic tourism is just beginning to develop in Russia. 2021-2022 during Russia's chairmanship of the Arctic Council, one should expect increased attention from the international community to this topic. The relevance for Russia is also associated with the approval of the Strategy for the Development of the Arctic, which largely presupposes mainly resource development of the region, which is primarily justified by the country's economic interests.

However, taking into account international trends and possible climatic risks for Russia, from our point of view, it is necessary to conduct additional research on the sustainable development of territories and local communities in the Arctic zone. The research results can further supplement the existing Arctic Development Strategy and program documents, incl. stimulating the attraction of international investment.

Natural tourism is the main engine for the development of local communities and economies in many Arctic countries. For example, Churchill's community, Manitoba, Canada, has for decades been known as the 'world capital of polar bears', relies heavily on income generated from polar bear sightings (Lemelin, 2008), while people in the Nunavut Territory of Canada rely on polar bear population for both food and income from sport hunting (Dowsley, 2010).

In Finnish Lapland, including the communities of Saariselkä and Kilpisjärvi, tourism development has led to tensions with Sami reindeer herders and local residents.

The concept of tourism dependence suggests that communities may become overly dependent on tourism income (Markuller and Cordell, 2000; Krannich, 2014; Kranich and Petrzalka, 2003; Stedman, 2013). Resilience is defined as an organized network of adaptive capacities related to people's ability to function and adapt after a disruption (Norris et al., 2008), including social and environmental change. We focus on the understanding of community resilience proposed by McLennan and Moyle (2016) as "the ability of a community to use its resources to adapt to change" (p. 432).

Currently, a large body of work related to tourism and community resilience began to emerge in the late 1990s and early 2000s, including early conceptual work by Farrell and Twining-Ward (2004, 2005) and later work by Cochrane (2010) and Strickland-Munroe, Allison & Moore (2010). More recently, research has examined the relationship between tourism, resilience, and the ability of communities to adapt to environmental changes, especially climate change (Cheer & Lew, 2018a; Hall, Prayag, & Amore, 2018;

Lew & Cheer, 2018a; Lew, Ng, Ni and Wu, 2016). The authors note that the difficulty in understanding and assessing the resilience and resilience of communities is due to confusion, especially due to insufficient conceptual definitions and lack of distinction between the two terms (Lew et al., 2016). In addition, the concept of sustainability is often applied using environmental sustainability theory. However, it is necessary to take into account the social causes and consequences of these changes (Hall et al., 2018). The Arctic should be viewed as a socio-ecological system, since humans simultaneously receive ecosystem services from the natural environment and also influence this natural environment (Hall et al., 2018; Hillmer-Pegram, 2018).

The purpose of this study is to clarify hypotheses and develop the main provisions of a model for sustainable development of local communities and their dependence on tourism in protected areas of the Arctic in the context of climate change.

Local communities of protected areas of the Republic of Komi

Local communities are understood as the main stakeholders in the development of tourism in protected areas in the Komi Republic - local communities, including indigenous and small-numbered peoples of the North, and communities formed with the participation of NGOs, business and government authorities.

Preliminary research indicates the presence of resilient communities involved in promoting eco-tourism to the PAs under consideration.

The study presented international experience in the development of tourism in the Arctic and its impact on the life of local communities and their sustainable development, clarified hypotheses and developed the main provisions of a model for sustainable development of local communities and their dependence on tourism in protected areas of the Arctic in the context of climate change.

Research methodology

As a general conceptual framework, we focused in particular on studies of the sustainability and impact of tourism on protected areas and society (Strickland-Munro et al., 2010), as well as on a methodology for studying the relationship between tourism and local communities directly related to change. climate (Kajan, 2013). The framework is designed to collect data and assess the vulnerability of communities to "climate risks" (p. 289). The approach of measuring the sustainability or vulnerability of the Arctic territories depending on the development of tourist resources was chosen as the most relevant research model (Abigail M. Sisneros-Kidd, 2019).

We develop these ideas, complementing the conceptual framework, which more specifically defines the factors of dependence on tourism and a set of practical indicators that allow us to supplement the description of the model by comparing a number of cases of community development and their dependence on tourism development in protected areas of the Arctic in Russia (Komi), Finland and Norway. and comparatively measure the degree of this dependence.

Research methods: desk research (including case studies of sustainable tourism in protected areas of the Arctic countries), focus groups and in-depth interviews.