

# Chapter 18

## Sustainable Development of the Arctic: Approaches to Monitoring and Assessment

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### **ABSTRACT**

*Circumpolar territories and the regions related to the Arctic are those rich with natural resources. They have a high potential for the development of mining and extractive industries. The abundance with resources makes the North increasingly attractive for investments. However, circumpolar territories are characterized by peculiar socio-economic, natural, and climatic conditions which taken together frequently pose a negative impact on people and hinder the exploration opportunities of the Arctic resources. In global, regional, and sub-regional levels, the development of the Arctic is heavily regulated by multilateral international treaties. However, the issues of monitoring and assessment of the sustainable development of the Arctic remain open, which stems from the absence of agreed criteria and indicators for assessing sustainability in the context of national, regional, and scientific approaches. It necessitates the development of a specific methodological approach to the establishment of a system to monitor and assess the sustainable development of the Arctic.*

### **INTRODUCTION**

In all Nordic countries, Arctic territories are economic regions that possess rich natural resources and have a high potential for development. This status makes them highly attractive for investments. However, the Arctic regions are characterized by peculiar socio-economic, natural, and climatic conditions which frequently have a negative impact on people and hinder the exploration of the Arctic territories and their resources. The mentioned peculiarities of the Arctic are the main factors that jeopardize its sustainable development.

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## ***Sustainable Development of the Arctic***

Development of the Arctic is regulated by multilateral international treaties on all levels of legal regulation: universal, regional, and subregional. However, the issues of monitoring and assessment of the sustainable development of the Arctic remain open, which stems from the absence of agreed criteria and indicators for assessing sustainability in the context of country, regional and scientific approaches. This necessitates developing a specific methodological approach to the formation of a system to monitor and assess the sustainability of development of the Arctic.

Nowadays, the main parameters of the regional policy implemented in the territory of the Arctic zone are defined by extracted natural resources. The major trend of sustainable development of the Arctic zone is resource exploitation that makes it possible to preserve polar ecosystem as well as to promote overall development of northern territories and increase their investment attractiveness.

In this context, there is always a risk of negative tendencies to arise in the socio-economic development of particular territories. In addition to the internal causes of crisis phenomena, there should be considered the external factors that characterize the state of external forces represented by indicators of the world and national economies as well as implemented regional policies.

At the moment, it is difficult to monitor and objectively assess the efficiency of the state regulation of economic security of the Arctic region due to the disagreement of assessment indicators and their criteria. Forward-looking development management is impossible without taking into account both the conception of economic security and sustainable development approaches. In this respect, economic security should be understood as an aggregation of internal and external factors (conditions and potentials) of effective functioning of the region that taken together reflect its ability to maintain sufficient economic growth and high standards of living and provide a certain degree of protection.

The Arctic requires adjustment of traditional indicators due to such objective challenges to sustainable development as poor transport accessibility, adverse climatic conditions, and aging of the population.

## **BACKGROUND**

Arctic territories include eight Nordic countries – Iceland, Denmark (Greenland), Norway, Canada, the USA, Russia, Finland, and Sweden. Development of Arctic territories also involves, in varying degrees, member states of the European Union (EU) (France, Germany, Poland, and others) and countries of the Asia-Pacific Region (APR) (Singapore, the Republic of Korea, China, Japan, and India). This creates a picture of the Arctic as a region of global cooperation, resource reserves, ecosystem, and transportation system (Kharlampieva, 2014; Dodin, 2005).

At the beginning of the XXI century, the Arctic became a key region possessing both strategic communications and global resources. The Arctic's hydrocarbon potential is of great importance for the development of the world and national economies, but its efficient and safe exploitation is impossible without developing international cooperation, primarily between the countries that have immediate access to the Arctic Ocean. In such cooperation, a very important role is played by the coordination of the participants' activities and safeguarding their strategic interests. The Arctic region's peculiarities in the context of climatic, ecological, and geological characteristics generate considerable risks associated with the exploration and exploitation of its potential.

Since the Arctic is a global source of resources, its development is regulated at the global level, particularly, by the United Nations (UN). It is this organization that first posed a question about the necessity to work out the indicators of sustainable development. They were approved at the UN confer-

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