

# CLIMATE CHANGE IMPACT ON ARCTIC REGION

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## **GUIDE TO ACRONYMS AND ABBREVIATIONS**

<b>ACRONYM</b>	<b>DEFINITION</b>
ACIA Arctic	Climate Impact Assessment
AMAP	Arctic Monitoring and Assessment Program (Arctic Council working group)
AMSA	Arctic Marine Shipping Assessment
CO2	Carbon dioxide
COLREG	Convention on the International Regulations for Preventing Collisions at Sea, 1972
IACS	International Association of Classification societies
MARPOL 73/78	International Convention for the Prevention of Pollution from Ships, 1973 as Modified by the Protocol of 1978
NOx	Nitrogen Oxide
PAME	Protection of the Arctic Marine Environment (Arctic Council working group)
SAR	Search And Rescue
SOLAS	International Convention for the Safety of Life at Sea, 1974
SOx	Sulfur Oxide
STCW	International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978
UNCLOS	United Nations Convention on the Law of the Sea, 1982

## **ABSTRACT**

The life in the Arctic is very vulnerable and resilient because of the short growing season and the small variety of living things. The rapid rate of climate change poses challenges to the resilience of the Arctic life and now a day an extraordinary transformation in the Arctic region is taking place including the natural resources, environment, economy and the Arctic life style. The reason is the demand for the Arctic development, the creation of new shipping access routes, the increased population, the extra exploitation of natural resources and the impacts of several added activities. These factors when combine threatens the adaptive capacity and natural service provided by the Arctic ecosystem and will in return impact the whole planet in the form of global warming, rise of sea level and the protection of biodiversity.

The paper is discussing the risks from the Arctic shipping which increased due to the diminishing ice and glacier melt, as well as the exploitation of natural resources and economic development which require actions to face the changes in the Arctic ecosystem by the Arctic states. The paper also discusses the Arctic states role and the assigned Arctic council for promoting cooperation, coordination and interaction between the Arctic States to face the Arctic new challenges. Moreover, the convenient approaches to protect and restore the marine environment in parallel with the development requirement, the economic needs, social and cultural demands and the protection of the marine ecosystem by applying MPA network and spatial planning.