

IMPACTS OF CLIMATE CHANGE ON OCEANS AND COASTS, BASIC PHYSICAL AND CHEMICAL PHENOMENA INFLUENCE ON BIOLOGICAL PROCESSES AND FISH STOCKS WHILE CONSIDERING THE CHALLENGES AND PROSPECTS FOR THE MARITIME INDUSTRY

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ABSTRACT

Mankind's reliance on the ocean for numerous activities and services means any change occurring in the ocean will have profound influence on our lives. Coasts and oceans are steadily being affected by the change in our climate. Periodic flooding and steady sea-level rise impact coastal areas and inundate fresh water supplies. Elevated storm severity imperils small communities, in addition to big towns. Marine resources allocation, weather patterns, ocean circulation and currents are affected by melting Arctic ice. Coral reefs and other calcium carbonates are made weak by ocean acidification. Food security, lifestyle and economic conditions of numerous countries depending on oceans are at danger. The most direct possible impacts of climate change on fisheries will result from alterations in the places of the fish stock and productivity. Climate change may as well impact the maritime ecosystem that corroborates those populations by changing primary productivity as well as total productivity, composition and structure of the marine ecosystems on which fish rely. Alterations in environmental conditions, ocean temperature and ocean acidification all powerfully impact the locative distribution of fish.

Climate change represents a vital threat to maritime transport, particularly ports. While the rising sea level will definitely raise serious complications to ports, there are other main interests about the raised intensity of extreme events and the combined impact of local environmental situations. Changes in the intensity of waves will as well cause a need to increase dredging of channels and ports in turn raising costs. In addition to direct effects of climate change, there can be indirect impacts, involving possible changes in trade flows as a result of climate change and following changes to transportation infrastructure.

It is for these reasons that governments, organizations, and agencies have begun to act in accordance. The Maritime Sector, while contributing to the increase of GHG emissions noticeably less than other transportation sectors, is taking considerable action to mitigate and adapt to the threats and opportunities inherent within climate change.

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