

Economic valuation of the biodiversity-related changes in ecosystem services of the arctic caused by climate change

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Abstract

According to the present observation by NOAA (US National Oceanic and Atmospheric Administration), 2015 is the warmest year based on global average temperature since 1880. The air temperatures in the Arctic have been increasing at almost twice the global average and the extent and thickness of sea ice in the Arctic have declined. And the warming process in the Arctic is increasing rapidly. These effects of drastic change in sea ice caused by climate change in the Arctic threaten the eco-system service and biodiversity in the Arctic. This study intends to evaluate the economic value on changes in eco-system services and biodiversity of the Arctic caused by climate change. The result of the valuation designates that the total benefit from improvement of ecosystem in the Arctic ranges from 318.6 billion won to 715.9 billion won per annum. Replication scenarios can be explored into two broad categories in upcoming studies: scenarios in consideration of conflicts of different stakeholders and scenarios based on wider or narrower definition of biodiversity in the Arctic.

Evidence that the earth's weather is converting is overwhelming, and due to the fact weather impacts temperature, styles of move and chemistry of the ocean, marine ecosystems are converting as well. Effectively lowering weather-associated threats calls for control responses that circulate past disjointed efforts and that combine various control movements with the intention of growing adaptive capacity. The improvement of sturdy signs—quantitative measurements that offer perception into the nation of herbal and socio-financial systems—is an important step in the direction of those dreams due to the fact signs offer statistics that lets in control techniques to be evaluated and refined.

In this paper, we define an indicator choice that melds social and herbal technology. Our technique recognizes that the price of particular signs to coverage makers and useful resource managers can diverge from the medical price of those signs. In addition, it's far grounded in rigorous medical analyses that meet broadly established hints for environment signs. Our technique additionally acknowledges that a collection of signs is needed, and we argue that the highest quality portfolio of signs is one which guarantees suitable medical statistics is captured even as additionally maximizing the price of the signs for coverage makers. We contend that integrating herbal and social technology is essential as we start to understand the capacity outcomes of weather extrade on marine ecosystems and are searching for approaches to conform present control techniques to opportunity futures.

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