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# Managing ecosystems in the Arctic region

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## Abstract

Arctic ecosystems are often used as examples of large socio-economic and ecological impacts of climate change – however, there is little that can be done locally to mitigate climate change. Management policies should focus on local drivers, estimating their effects, and in particular how they may interact with climate change, the most important global driver. I will focus on our research program within the Climate-ecological Observatory for Arctic Tundra (COAT; <http://www.coat.no/>). Examples will cover critically endangered populations such as the Arctic fox as well as "overabundant" herbivores (geese, ungulates), and management policies related to semi-domestic reindeer, hunting and control of "invasive" species. Given the current and expected rate of climate change in the Arctic regions, management and monitoring have a steep learning curve to climb.

**Keywords:** adaptive management, adaptive monitoring, invasive species, interactions, arctic

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