

Draft Recommendations to the Ministerial Meeting in Kiruna. Version 18.02.13.

Based on the conclusions from the AMAP AOA scientific assessment the following recommendations

Why are higher CO2 levels over the World's Oceans a global Problem?

The current accelerating global use of fossil fuels leads to higher levels of CO2 in the atmosphere and over the world's oceans. Greater amounts of CO2 are being absorbed in marine waters making them more acidic.

Why does it matter to the Arctic Nations and it Peoples?

By affecting the capacity for key marine organisms to form calcium-based shells and skeletons, increasing ocean acidification will affect marine ecosystems, from plankton to fish, including globally important northern commercial fisheries such as crab, cod and salmon.

The Arctic is particularly vulnerable due to the higher capacity of cold waters to absorb CO2. Other factors such as loss of sea ice resulting from a changing climate are also contributing to increased absorption of CO2 at high latitudes. Regions of the Arctic Ocean are already showing the effects of acidification.

What can the Arctic Council and the nations do to address this serious challenge to our future?

Since about two thirds of global CO2 emissions from fossil fuels come from the Arctic Council states and observer countries, the Arctic Council has an opportunity to provide global leadership by addressing the global ocean acidification issue. It is increasingly clear from the scientific evident that Immediate cuts in CO2 emissions are essential to slow the acidification of the Arctic Ocean.

The biological, social and economic effects of ocean acidification are potentially very significant for Arctic nations and global society. Effects on the marine ecosystems and northern societies due to acidification are [very] likely to have significant impacts, particularly on future fisheries and harvesting of marine resources. There remain large gaps in knowledge that currently prevent reliable projections of these impacts.

Therefore it is recommended that the Arctic Council:

- 1) Urge its member states, observer countries and the global society to reduce emission of CO2 as a matter of urgency.**
- 2) Urge its members to implement adaptation strategies that address all aspects of Arctic change, tailored to local and societal needs.**

Comment [S1]:

Note: This figure is based on UNFCCC data sources and includes CO2 emissions from Arctic Council member states, and the present (official) observing countries and ad hoc observing countries.

If a decision on observers is made by the Arctic Council that affects the basis for this calculation then the stated proportion of global CO2 emissions may need to be changed accordingly.

(Arctic Council member states and observing countries excluding ad hoc observers are responsible for more than one third of global CO2 emissions).

- 3) Advocate for enhanced research and monitoring efforts that expand understanding of the accelerating acidification processes and potential effects on marine life and northern societies.**

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