CAFF
Conservation of Arctic Flora and Fauna

CAFF Project:

Scoping for Resilience and Management of Arctic Wetlands

1. Rationale 1
2. Objective 2
3. Study Area 2
4. Project Design 3
5. Relevance to Indigenous Peoples 4
6. Traditional and Local Knowledge (TLK) 4
7. Other Related Projects 4
8. Schedule 4
9. Anticipated Outputs 4
10. Application of Results 5
11. Literature Cited 5
12. Personnel 5

1. Rationale

In December 2015, a historic new global climate agreement was adopted in Paris and, so far, 194 countries have signed the agreement and 117 countries have ratified. Earlier, in September 2015, the UN General Assembly agreed on the Sustainable Development Goals. At the meeting of the Senior Arctic Officials in March 2016, the issues of climate change and sustainability were therefore partly raised in a new global context. Climate change has been part of the Arctic Council's programme of work for many years, but following the level of ambitions in the new UN-agreements, actions have to be taken and all actors, not just national governments, are expected to play a key role in the implementation.

Wetlands constitute a large part of the Arctic and their role for sustainable development in the region is critical, as they are directly related to climate change and adaptation, biodiversity, ecosystem services, and the livelihood of indigenous and local peoples. This is one of the reasons why the CAFF Secretariat and the Secretariat of the Ramsar Convention on Wetlands signed a resolution of cooperation in 2012. The management and sustainable use of wetlands represent critical components of Arctic resilience. The effects of climate change on Arctic wetlands, their biodiversity and functioning, and the benefits they give to the people that depend on them are still little understood but can be expected to be considerable. A better understanding is needed in order to increase the resilience of wetland ecosystems.

Globally, many wetlands are drained or poorly managed, causing loss of values and functions. Many have lost their role as CO2 sinks and have turned into sources. Although Arctic wetlands still tend to be less affected by direct human activities, development trajectories in the region suggest increased pressure over the next decades. Arctic states and countries with arctic responsibilities need to take action for the adaptation of wetland management to climate change and other increasing pressures with an aim to build long-term resilience and secure biodiversity and key ecosystem services. Coordinated and joint actions on wetland issues will be more effective than single actions.

ARCTIC COUNCIL

Sweden proposes that the Arctic Council consider a scoping study aiming at an enhanced engagement in relation to the roles and functions of Arctic wetlands as a resource to support sustainable development and resilience in the region. We need to put the centre of attention on the conservation of biodiversity, adaptation and resilience of ecosystems and their services including climate change mitigation, as critical components of sustainable development and thereby emphasise the major role wetlands play.

Depending on definition, wetlands make up a majority of the Arctic landmass (at least 60 per cent according to the Ramsar Convention, for example). Disturbances, such as climate change, will have a large impact on Arctic wetlands, not least through permafrost thawing, causing releases of greenhouse gases that could increase global warming, thereby creating a vicious cycle. But cause and effects are complex, warming can also increase biological productivity and thus also generate increased biological carbon storage. Probably there is a great variation in this aspect due to wetland type, peat-thickness, humidity, altitude and drainage. The uncertainty thus warrants further studies.

The 12th Conference of the Parties of the Ramsar Convention (2015) states that parties should utilise their national and regional inventories to map the distribution of their peatlands. In addition, in September 2016, during the IUCN World Conservation Congress, a motion on peatlands and wetlands was adopted.

Also, the Ramsar Convention (2015) noted that “in its Fifth Assessment Report, the Intergovernmental Panel on Climate Change (IPCC) concluded that most global estimates do not include emissions from peat burning or decomposition after a land use change; and that particularly, the decomposition of carbon in wetlands and peatlands is not reflected in models despite the large amount of carbon stored in these ecosystems and their vulnerability to warming and land use change”.

The way wetlands are protected, used, managed and restored impacts major parts of the Arctic region and contribute to the resilience of the entire region. Correctly managed, wetlands can contribute to limiting climate change, and also to climate adaptation, water management and contribute with other essential ecosystem services to the people living in the region as well as maintaining biodiversity.

Preserved and well managed wetlands of specific types and qualities, strategically located along flightroutes (in the Arctic and in adjacent areas) for Arctic birds, are crucial for the survival of many arctic bird species.

2. Objective

The project proposed herein covers the work done until the SAO meeting planned for spring 2018. This will be a collaborative scoping effort resulting in a brief lay-of-the-land and a project proposal for continued work on Arctic wetlands within CAFF.

The objective of this scoping study is to enhance the state of knowledge on the status of Arctic wetlands and the effect climate change have on them, as well as producing policy recommendations to support measures and further develop management strategies to conserve biodiversity and ecosystem services including reduction of anthropogenically induced greenhouse gas emissions, improve climate adaptation and explore possibilities for sustainable use, especially for indigenous peoples.

An important aspect will also be to explore possible actions related to relevant SDG objectives and Aichi targets. Since there are similarities in biogeographical and climatological conditions as well as cultures and sustainable land use forms (for example reindeer herding and fishing) joint efforts and coordinated approaches, as well as shared learning related to wetland projects in the Artic can be

more effective than single actions in the different countries. The need to outline ways of concrete cooperation on Arctic wetlands was also pointed out at 2013 Nordic Baltic Wetlands Conference in Ilulissat, Greenland.

3. Study Area

Pan-Arctic approach

4. Project Design

Strengthening the multi-dimensional roles and values of wetlands, including aspects connected to climate change, for broader sustainable development in the region.

The project is comprised of three stages:

Stage 1: 2017, Scoping (the focus of this proposal

- Analysis of inventories of wetlands and their status, including the peat-forming types. The degree of land use and drainage should be included, as well as current different management approaches. Focus should also be to carry out a gap analysis to show where important information is missing and where other Artic Council initiatives could add in data and information. This analysis would define the need for continued work on pan-Arctic inventories or methodologies. The work will build, inter alia, upon efforts undertaken within the CBMP.

Stage 2: 2018, Case studies and publication of stage 1 outcomes

- Identify case studies, where good examples of management could provide a basis for effective policy interventions. This step could also identify a number of regional hot-spots and management opportunities.

Stage 3: 2019, Policy options and publication of stage 2 outcomes

- Develop policy options as well as specific management projects could be introduced in collaboration between several countries with an objective to illustrate options on how to strengthen the resilience of wetlands for sustainable development. Observers to the Arctic Council should be invited to participate in this stage.
- Starting the preparations for continued work on implementation of the policies and projects mentioned above could be carried out towards the end of the scoping, if decided that the work will continue.

Research on the role of Arctic wetlands in relation to climate change, as well as on the effects of permafrost thawing, already exists. The project should therefore build on work already done within the Arctic Council, but also within Arctic nations and other international bodies, such as the Ramsar Convention and the IUCN.

Sweden is prepared to lead this initiative within CAFF and in the project will seek collaboration with other working groups of the Arctic Council as well as with members, permanent participants and other key Arctic actors. A project steering committee will be formed, that will convene at regular intervals and provide oversight and guidance on project development.

5. Relevance to Indigenous Peoples

Wetlands such as different mires (peat forming wetlands) in the inland are used seasonally for reindeer herding, for example in conjunction with annual migrations. Shallow lake wetlands and marine coastal wetlands are important spawning grounds and reproduction areas for different fish-species and marine mammals traditionally used by indigenous peoples. These are only a few examples of the important relationships between indigenous peoples and wetlands. These relationships will be affected by climate change effects on wetlands.

Permanent Participants will be engaged in each stage of the project to ensure that the project will be of relevance to Arctic indigenous peoples.

6. Traditional and Local Knowledge (TLK)

Wetland-related TLK will be an important input to the scoping study both for understanding the wetlands systems and their interactions with people, and for exploring possible effects of climate change on these interactions. Permanent Participants will be engaged to guide the best way to utilize TK along with science within this scoping study**Other Related Projects**

To be further investigated during scoping.

7. Schedule

- 2017: Scoping (the focus of this proposal). Forming of the project group and setting the collaboration structures will start in March. The project group will be guided by a steering committee, which is planned to have a first meeting in April or May. Identification and retrieval of wetland inventories will start in April, and the analysis including gap analysis will be completed in October. This will be followed by searches for additional data that can be provided by other Arctic Council Working Groups etc. In parallel with the analysis of wetland inventories, the project group will engage with Permanent Participants and other relevant actors in a process where the aim is to identify knowledge needs and formulate relevant research questions related to impacts of climate change on Arctic wetlands, and to various wetland management methods. These questions will then form the basis for and help define the objectives and deliverables of the continued work in the later stages (stage 2 and 3), including budget requirements. A workshop will be arranged in late autumn.

  Possible follow-up projects (to be decided at a later stage):

- 2018: Stage 2. Identification of case studies (existing and potential) and if possible initiation of new case studies. Publication of results from stage 1
- 2019: Stage 3. Publication of results from stage 2 and initiation broader scale policy options for wetland resilience and management projects.

8. Anticipated Outputs

This proposal focuses on stage 1 which will produce:

- A scoping study on the knowledge on Arctic wetlands, their status and functioning, ecosystem services and resilience, and how this is expected to be affected by climate change. This could be part of an Arctic contribution to SDG objectives and Aichi targets concerning wetlands, as well as the Paris agreement from UNFCCC CoP 21.

9. Application of Results

The results can be applied for continued projects leading to new or improved policies for wetland protection and management.

11. Literature Cited

12. Personnel

Personnel engaged in the project group will come from the following:

- Staff at the Swedish Ministry of the Environment and Energy (to be completed)
- Stockholm University (to be completed)
- Stockholm Environment Institute (to be completed)
- The Swedish EPA (to be completed)
- Experts appointed by other Arctic states or Permanent Participants (to be completed)

Additional personnel may be added if suitable and possible.

A project steering committee will be formed to provide guidance and overview for the project as it develops. Members will include:

- Swedish CAFF Board member (project lead)
- Swedish Ministry of the Environment and Energy
- Any other Board members who might join as co-Leads
- CAFF Chair/Secretariat

Sweden has reserved 1 000 000 SEK for 2017, consisting of 200 000 to be handled by the CAFF secretariat, inter alia for travel reimbursement, and 800 000 to be handled by SEI to cover SEI and Stockholm University staff time, additional costs, as well as time related to the inclusion of PPs in the project work. The exact division of time and travel budget between the project participants will need to be decided during the project planning stage (March-April).