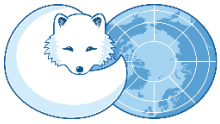

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Report to Arctic Council Ministerial Meeting, May 2019

Status Report on Arctic Spatial Data Infrastructure (Arctic SDI)

Background:

The Arctic SDI was established to address the need for readily available geospatial data in the northern areas of the globe. The Arctic SDI works with stakeholder organizations to make their key data accessible and interoperable. With a focus on the Arctic Council and its working groups, the Arctic SDI facilitates data sharing at all levels: local, national, regional and global. Arctic SDI documents and applies information management best practices, based on open international standards, to build communities of practice around sharing and using geospatial data.

The Arctic Spatial Data Infrastructure is based on a Memorandum of Understanding between the eight circumpolar countries' National Mapping Agencies (Canada, Finland, Iceland, Denmark, Norway, Russia, Sweden and United States) and its Chairmanship rotates in unison with Arctic Council.

Arctic SDI Products and Services:

The Arctic SDI has produced a **harmonized basemap** that provides a unified topographic view over the entire Arctic with details such as elevation, rivers and lakes and other geographic features. It is produced using the existing data from the Arctic Mapping Agencies. Arctic SDI aims to make more datasets available to allow mash-ups and development of applications that are limited only by the imagination of the stakeholders and scientists using the data.

The Arctic SDI **Geoportal** was launched in 2014 to allow browsing, visualizing, analyzing, and sharing of geospatial information. Users can:

- combine map layers to visualize the phenomena of their choice and it is available free of charge to anyone, including decision makers
- view a number of CAFF datasets provided by the Arctic Biodiversity Data Service (ABDS) by using the Geoportal Time Series Tool, which allows users to visualize how various phenomena like sea surface temperature change over time in the Arctic
- create dynamic interactive maps, known as embedded maps, for delivery via any website without any coding and just a few quick steps
- search for, and discover, locations throughout the Arctic with a Circumpolar Gazetteer that uses place name data from the Mapping Agencies
- change the map projection as all six Arctic projections are supported by the Geoportal

The Arctic SDI has been expanding its **international cooperation** to include Conservation of Arctic Flora and Fauna's Arctic Biodiversity Data Service, International Hydrographic Organization Arctic Regional Hydrographic Commission's Arctic Regional Marine SDI Working Group (ARMSDIWG), Sustaining Arctic Observing Networks, Open Geospatial Consortium, International Organization for Standardization, United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) and University of Minnesota Polar Geospatial Center supported by the US National Science Foundation and the National Geospatial-Intelligence Agency.

Arctic SDI has engaged with the Arctic Data Committee (Sustaining Arctic Observing Networks, International Arctic Science Committee) to facilitate data accessibility and influence information management best practices.

Arctic SDI was given opportunity to organize a side event at United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) at UN Headquarters in New York in August 2018 to highlight the value and power of regional cooperation towards spatial data infrastructure development.

Next steps

- The Arctic SDI seeks continued support for outreach activities across Arctic Council Working Groups to facilitate adoption of open standards and common data management practices across the Arctic.

- Arctic SDI is in dialogue with the Arctic Council Secretariat on the best ways to engage with these stakeholders and share guidelines for data providers. Arctic SDI is also working to update and generate data-driven Arctic Council maps on the Arctic Council website.

- Arctic SDI is partnering with the Arctic Regional Marine Spatial Infrastructure Working Group of the International Hydrographic Organization Arctic Regional Hydrographic Commission to provide interoperable land and sea data in a regional SDI to connect users, across domains - a service that is not available from many parts of the world!

- Arctic SDI will also seek closer cooperation with other international initiatives, such as Sustained Arctic Observing Network, Svalbard Integrated Arctic Earth Observing System and International Arctic Science Committee.

- Arctic SDI Geoportal is preparing a new tool for visualizing statistical information over the Arctic, such as the UN-GGIM sustainable development indicators. Further, visualizing time series for the indicators will be possible.

FURTHER INFORMATION:
Arctic SDI Website arctic-sdi.org
Arctic SDI Geoportal geoportal.arctic-sdi.org

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