The European Environment Agency is working closely with the Commission on Arctic Issues. In particular the Agency is assessing the state and evolution of the Arctic environment in order to contribute to the formulation of appropriate EU policies and is contributing to international efforts to improve sharing of monitoring and research information. Arctic issues will be covered in the State and Outlook Report to be published by the European Environment Agency in 2010.

**Transatlantic co-operation on Arctic issues**

The TRANSFORM study (Transatlantic Policy Options for Supporting Adaptations in the Marine Arctic) published in 2009 as part of the European Union-United States dialogue explores the roles of EU and US marine policies in light of the changing climate and the current political and legal complexities of the Arctic region. [www.arctic-transform.org](http://www.arctic-transform.org)

**The EU’s contribution to Arctic research**

The EU and its Member States are major contributors to Arctic research. Between 2002 and 2006 the EU’s Sixth Research Framework Programme provided €86m for Arctic-related research. New projects and large-scale undertakings are foreseen for the subsequent period (2007-2013) under FP7. European polar research is coordinated by the European Polar Board with the aim of harmonising and maximising its impact.

One such project is the €16m EU-funded DAMOCLES project (Developing Arctic Modelling and Observing Capabilities for Long-term Environmental Studies). Launched in 2006 the aim of the project is to observe, understand and quantify climate changes in the Arctic through the use of a monitoring and forecasting system that studies the ice, atmosphere, and ocean. The project focuses on the impact that significant reductions in sea ice cover may have on the environment and on human activities, locally and globally. [www.damocles-eu.org](http://www.damocles-eu.org)

**Managing accident risks in the Arctic**

The remoteness, harsh climatic conditions and sensitive environment of the Arctic pose special risks to navigation in ice-filled waters and in the advent of accidents such as oil spills. The EU is committed to cooperating with its partners to reinforce prevention, preparedness and disaster response to natural and manmade accidents in the Arctic. Its Monitoring and Information Centre can contribute to enhancing EU disaster response capacity in the Arctic. The European Commission also supports the Barents Euro-Arctic Council (BEAC) agreement on emergency prevention and response.

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**For more information:**

Commission Arctic webpages:

EU research on the Arctic environment:
- [http://ec.europa.eu/research/environment/newsanddoc/article_2993_en.htm](http://ec.europa.eu/research/environment/newsanddoc/article_2993_en.htm)

European Polar Board:
- [http://www.esf.org/research-areas/european-polar-board-epb.html](http://www.esf.org/research-areas/european-polar-board-epb.html)

European Environment Agency:

Common Concern for the Arctic - high-level meeting in Ilulissat, Greenland organised by the Nordic Council of Ministers in September 2008:
The Changing Arctic Environment

The Arctic region is widely defined as the area within the Arctic Circle (latitude 66 degrees North). The Arctic’s unique nature is still relatively undisturbed. It is very rich in resources such as hydrocarbons and fish stocks. However, it is under increasingly intense pressure from pollution, climate change and unsustainable development. The increasing economic development occurring in the region - such as the extraction of oil or natural gas under the sea and new shipping routes – must take into account the preservation of this unique and highly vulnerable environment.

The Arctic plays a key part in regulating the world’s climate. Climate change has already had an impact on the Arctic, and if climate change is left unchecked it will have profound consequences on the Arctic and the global environment.

Vulnerable to changes in temperature

Climate change has a greater impact on the Arctic compared to other regions. Temperatures there have increased by twice the global average over the past 50 years. This temperature rise in the Arctic in turn causes temperatures to increase everywhere else on the planet.

In the summers of 2007 and 2008 the coverage and volume of Arctic sea ice were the lowest on record. Large tracks of white surfaces of ice that normally reflect a large portion of the sun’s rays were replaced by dark sea, thus absorbing most of the heat that used to be reflected. Over the last 30 years the snow cover over Arctic land areas has decreased by approximately 10%. More heat is absorbed by bare ground and increasing vegetation than by white snow and tundra.

It is estimated that permafrost cover is likely to decrease by 20 to 35% by 2050. Melting of this permanently frozen layer of soil or bedrock that covers about one fifth of the Earth’s land surface releases CO₂ and methane - a potent greenhouse gas - into the atmosphere.

A repository for pollutants

The Arctic is a global sink for contaminants discharged from industry, energy production, agriculture and other human activities carried out elsewhere in the world due to the transport of pollutants with ocean and atmospheric currents. Persistent organic pollutants and mercury are of special concern. These contaminants accumulate and remain in the thick fat tissues that Arctic animals need for insulation and energy reserves. The contaminants pass to humans when these animals are consumed.

Biodiversity and ecosystems in danger

Some ecosystems and species in the Arctic are clearly at risk, particularly the hundreds of endemic species specially adapted for life on the sea ice. Many migrating species from Europe such as birds, whales, and fish, some of which are of high commercial value, depend on the high productivity of the Arctic ecosystems in summer for foraging and reproduction.

The role of the European Union

The EU is committed to working with the Arctic States, local communities and other stakeholders to address the environmental challenges facing the Arctic.

In November 2008 the Commission presented a discussion paper which outlines the EU’s interests and proposes a set of actions for EU Member States and institutions. It is the first step towards an EU Arctic policy.

The EU’s main objectives are:

• To protect and preserve the Arctic in union with its population
• To promote the sustainable use of resources
• To contribute to enhanced multilateral governance of the Arctic.

The EU’s main policy goal is to prevent and combat the negative impact of climate change and to support adaptation to the inevitable changes it will bring about. Another goal is to help prevent and lessen the impact of worldwide economic activity on the Arctic, such as pollution from land-based sources of persistent organic pollutants, heavy metals and other contaminants. This needs to be complemented by integrating environmental concerns in all policies and developing ecosystem-based management of human activities to ensure sustainability. Improving prevention, preparedness and response to accidents and emergencies is also necessary.

The Commission stresses the need for more efforts to be made to implement existing obligations fully. It supports the further development of existing legal and cooperation frameworks to adapt them to new conditions or those of the Arctic.

For further details

http://ec.europa.eu/external_relations/arctic_region/index_en.htm

EU-Arctic Interfaces

Eight states have territories in the Arctic Circle. Three of these are EU Member States — Denmark (Greenland), Finland and Sweden. Two others — Iceland and Norway — are members of the European Economic Area, and the three remaining - Canada, Russia and the United States - are strategic partners of the EU. The high seas and seabed of the Arctic Ocean beyond areas of national jurisdiction are managed by the International Seabed Authority.

The EU is committed to an open dialogue with the people who live in the Arctic. Some four million people live within the Arctic region and about a third of them are indigenous peoples. Their communities and traditional lifestyles are particularly vulnerable to the increasing pressures of climate change.

The European Union is a member of a number of international organisations that deal with Arctic issues. It is a party to the Convention for the Protection of the Marine Environment of the North-west Atlantic (OSPAR) which covers about a third of the Arctic Ocean up to the North Pole. It is also a member of the Barents Euro-Arctic Council (BEAC). A number of other multilateral environmental agreements of which Arctic States are members cover the Arctic to some extent. The European Commission attends meetings of the Arctic Council as an ad hoc observer and has applied to become a Permanent Observer.

The UN Law of the Sea provides an international legal framework that also applies to the Arctic Ocean. It contains provisions for deciding territorial claims and rules for the use of living and non-living resources and protection of the environment.

European Arctic areas are at the heart of the Northern Dimension, a shared policy between the European Union, Iceland, Norway and the Russian Federation. The aim of the policy is to promote stability, prosperity and the sustainable development of Northern Europe and the well-being of its population. Through the Northern Dimension Environmental Partnership facility the EU is helping to fund environmental and nuclear clean-up projects in the Arctic region.