Ilulissat Icefjord

2025 Conservation Outlook Assessment

SITE INFORMATION

Country: Denmark
Inscribed in: 2004
Criteria: (vii) (viii)

Located on the west coast of Greenland, 250 km north of the Arctic Circle, Greenland's Ilulissat Icefjord (40,240 ha) is the sea mouth of Sermeq Kujalleq, one of the few glaciers through which the Greenland ice cap reaches the sea. Sermeq Kujalleq is one of the fastest (19 m per day) and most active glaciers in the world. It annually calves over 35 km3 of ice, i.e. 10% of the production of all Greenland calf ice and more than any other glacier outside Antarctica. Studied for over 250 years, it has helped to develop our understanding of climate change and icecap glaciology. The combination of a huge ice-sheet and the dramatic sounds of a fast-moving glacial ice-stream calving into a fjord covered by icebergs makes for a dramatic and awe-inspiring natural phenomenon. © UNESCO

SUMMARY

2025 Conservation Outlook

Finalised on 11 Oct 2025

GOOD WITH SOME CONCERNS

There is increasing concern about the future impacts of climate change on the glacial landscape and natural phenomenon of glacial calving. Although the site still represents an outstanding natural phenomenon, studies are increasingly demonstrating the significant mass loss to the Greenland Ice Sheet, with the Jakobshavn Isbræ (Sermeq Kujalleq) being the largest single contributor over the past three decades. The increase in mass loss has been attributed to both climate and ocean warming at tidewater glacier margins, as their low elevations and direct contact with water makes them particularly sensitive to increases in temperature. Current predictions suggest substantially enhanced melting in the near future, indicating that the Greenland Ice Sheet may reach a tipping point beyond which its current configuration would become unstable. Since the Illulissat glacier front has retreated, due to climate change, the front is now standing on the submarine rocks. Overall, while certain Arctic-boreal species show regional stability, overall patterns highlight increasing pressures on ice-reliant taxa and shifts favouring species adapted to warming conditions. Aside from climate change current threats include impacts from tourism, fishing, boat traffic and helicopter/plane flights, but the management authorities are addressing current threats mostly effectively. However, some concerns exist regarding the lack of human resources to effectively monitor the site, enforce regulations and the capacity to fulfil the management objectives with a growing tourism industry.

FULL ASSESSMENT

Description of values

Values

World Heritage values

▶ **The only remnant in the Northern Hemisphere of the continental ice sheets from the Quaternary Period** **Criterion:(viii)**

The Ilulissat Icefjord is an outstanding example of a stage in the Earth's history: the last ice age of the Quaternary Period. The ice-stream is one of the fastest (40m per day) and most active in the world (WHC, 2014). Its annual calving of over 40 cu. km of ice which accounts for 10% of the production of all Greenland calf ice, more than any other glacier outside Antarctica (Joughin et al 2013). The glacier has been the object of scientific attention for 250 years and, along with its relative ease of accessibility, has significantly added to the understanding of ice-sheet glaciology, climate change and related geomorphic processes (World Heritage Committee, 2014). The ice sheet formed during the Middle and Late Pleistocene over a once temperate landscape, the south central part of which drained through large rivers to Disko Bugt, still marked as channels under the ice and submarine troughs. The ice sheet's oldest ice is estimated to be 250,000 years old, which is fed by an annual accumulation of snow matched by loss through calving and melting at the margins. The ice sheet holds a detailed record of past climatic change and atmospheric conditions (in trapped air bubbles) for this entire length of time, and shows that during the last ice age the climate fluctuated between extreme cold and warmer periods.

▶ **Natural spectacle** **Criterion:(vii)**

The combination of a huge ice sheet and a fast moving glacial ice-stream calving into a fjord covered by icebergs is a phenomenon seen in Greenland and Antarctica. Ilulissat offers both scientists and visitors easy access for close view of the calving glacier front as it cascades down from the ice sheet and into the ice-choked fjord. The wild and highly scenic combination of rock, ice and sea, along with the dramatic sounds produced by the moving ice, combine to present a memorable natural spectacle (World Heritage Committee, 2014).

Other important biodiversity values

▶ **Arctic vegetation**

The flora of the area is a low-arctic type, typical of the nutrient-poor silicaceous soil which, where humid, shows solifluction an effect such as frost boils. Colonization of the margins of retreating ice also provides examples of plant succession. The most widespread vegetation is the mountain heath characterized by heather-like stunted bushes like dwarf birch, crowberry, and whortleberry. Moreover, around 160 species of flowering plants and 200 lichen species grow in the area (Steering Committee Ilulissat Icefjord, 2021).

▶ **Sea life**

The upwelling caused by calving icebergs brings up nutrient-rich water which supports prolific invertebrate life and attracts great numbers of fish, seals and whales that feed on the generated nutrients. 20 species of fish have been recorded in the area; the dominant species is the flatfish Greenland halibut (Reinhardtius hippoglossoides) which feeds mainly on northern shrimp and euphausid crustaceans (IUCN, 2004). The halibut migrates seasonally in and out of the fjord, living both on the benthos and in the open sea. High-Arctic ice cod Arctogadus glacialis has also been recorded recently (Schiøtt et al. 2023). Ringed seals live in the ice fjord year-round (Steering Committee Ilulissat Icefjord, 2021). Harp seals, fin, humpback and minke whales occur in summer at the fjord mouth with very occasional blue and Greenland whales. Beluga visit Disko Bugt in autumn and winter (IUCN Consultation, 2024).

▶ **Sea birds**

The seabirds are typical for the area, with numerous breeding colonies attracted by the high primary productivity of the glacier front, and by fish discarded by the local fishery. Large flocks of northern fulmar and gulls feed among the grounded icebergs. These are mainly Iceland gulls, glaucous gulls with lesser numbers of great black-backed gulls, kittiwakes and guillemots with great cormorant (IUCN, 2004).

▶ **Land birds and mammals**

Land birds include several species of geese, snow buntings, rock ptarmigan and Peregrine falcon. There are few mammals within the property. The Arctic fox, the Arctic hare, the ptarmigan and the raven are among the animals often seen in the area (Steering Committee Ilulissat Icefjord, 2021). Reindeer are found primarily south of the ice fjord - an original population of reindeer lives on the South Eastern part of the property. In 1993 Musk Oxen were released in the South Eastern part of the Disko Bay. This population is doing very well and have now reached the southern part of the property (IUCN Consultation 2024).

Assessment information

Threats

Current Threats

Low Threat

Climate change is the greatest current threat. Other main current threats include impacts from tourism, fishing, boat traffic and helicopter/plane flights. The situation is still under control; the management plan addresses most of the issues and regulations have been updated and implemented.

▶ **Atmospheric & Space Activities**
(Helicopter/plane flights)

Very Low Threat
Inside site, localised(<5%)
Outside site

Boat traffic in the bay as well as sightseeing helicopter flights impact the spectacular aspect of the site as well as some of its biological values. The disturbance affects nesting birds and sea life (State Party of Denmark, 2009; WHC, 2007; WHC, 2009). However, within the protected area, flights lower than 1000 meters are not permitted due to the area's wildlife (Steering Committee Ilulissat Icefjord, 2021). The number of helicopter flights has fluctuated between 84 and 99 in 2016 and 2018 respectively to 109 and 139 in 2015 and 2019 respectively. There has been a drop due to COVID-19 and in 2021 only 9 flights were recorded with around 50 passengers (Steering Committee of Ilulissat Icefjord, 2021).

▶ **Recreational Activities**
(Impact of tourism)

Low Threat
Inside site, localised(<5%)
Outside site

Ilulissat is Greenland's favorite tourist destination with approximately 46,000 visitors in normal years (2019) (Steering Committee, Ilulissat Icefjord, 2021). Of these, 15,000 were cruise passengers (NIRAS, 2023). A new visitor centre opened in 2021 and an Auoracenter is to be opened in the buffer zone. A new hotel has opened in the town in 2021 and a new Atlantic Airport opened in Ilulissat in 2024. These developments raise the likelihood of increasing tourism in the World Heritage site (State Party of Denmark, 2024). Furthermore, predictions have stated that the number of tourists in Greenland could reach 90,000 people per year by 2027 representing an annual increase of 6% (Poiret, 2024).

The most common activities by visitors include helicopter and fixed-wing flights (see above), sailing, dog sledding, whale watching, kayaking, snowmobiling and hiking (Steering Committee of the Ilulissat Icefjord, 2021). These daily activities contribute to damaging the site, including its archaeological dimension (Poiret, 2024). Tourism pressure brings physical damage, such as erosion of vegetation, as

well as noise and pollution from motorized vehicles, vessels and helicopters. It also has the potential to stress the capacity of local utilities such as potable water, sewer, electricity production, and communications infrastructure. The situation is addressed through the revised management plan and is under control (Steering Group, 2018). Snowmobile tours have become more popular in recent years, replacing dogsledding transportation, which has also increased snowmobiling in the site and buffer zone. Motorized traffic in the World Heritage Area and buffer zones is not permitted except for the traffic corridors laid out in the Avannaata Municipality's municipal bylaws for motorized traffic in the open countryside. However, these regulations are not always complied with (NIRAS, 2023). There is a need for the city's business owners and citizens to have a clear understanding of the rules to avoid offroad driving which can negatively impact flora and fauna (Steering Committee for Ilulissat Icefjord, 2021). However, currently due to the physical scale of the site and its accessibility, the level of impact is considered low (State Party of Denmark, 2024).

► Fishing, Harvesting & Controlling Aquatic Species

Low Threat
Inside site, scattered(5-15%)
Outside site

(Fishing)

Other targeted species names

Reinhardtius hippoglossoides, Pandalus borealis, Gadus morhua

Fishing in and around Ilulissat Isfjord is the main source of income in Ilulissat town, and fishing employs a large number of people. Halibut is mainly fished from smaller dinghies (approx. 240 licenses) or larger boats (approx. 40 licenses) – figures from January 2021. In 2021, a total of 397 recreational fishing permits and 231 commercial fishing permits were registered in Ilulissat town and surrounding settlements (NIRAS, 2023). There is no hunting or fishing in the buffer zone near the town, while it is widespread in both the landscape buffer zone and the UNESCO area. Activities involve sailing with dinghies for halibut, with cutters for halibut and shrimp, fishing on the sea ice, transport of fish by snowmobile on land, sailing and seal hunting and catching of smaller, quote-based whale species (Steering Committee of Ilulissat Icefjord, 2021).
The total catch in Greenlandic waters overall in 2023 is about 244, 000 tonnes and is dominated by three species: shrimp (Northern prawn, 48 %), cod (23 %) and halibut (22 %). About 10 % is caught by foreign vessels (exclusively in offshore waters), with halibut being the main species caught (Scholaert et al. 2025). In 2021, around 22,000 tonnes of Greenland halibut were landed at Ilulissat town (NIRAS, 2023). The Disko Bay is of major importance to the shrimp fishing industry and studies suggest that by-catch of Greenland halibut could have a negative effect on recruitment to the inshore stock component (Nygaard, 2019). The North Atlantic Fisheries Organization (NAFO) has continuously lowered their advice regarding the Total Allowed Catch (TAC) for the coastal Greenland halibut fisheries in Western Greenland due to concerns of overexploitation of the fishery. However, West Greenland offshore and inshore fish stocks seem stable overall although in some species indicated decreases total biomass have led to changes in total allowable catches (Fredenslund, 2022; Scholaert, 2025).

► Changes in Physical & Chemical Regimes, Changes in Temperature Regimes

High Threat
Inside site, throughout(>50%)
Outside site

(Climate change)

Due to global warming, the melting of the glacier is accelerating and the calving front is changing. The Greenland Ice Sheet’s fastest glacier, Sermeq Kujalleq (Jakobshavn Isbræ), sped up more than sixfold between the 1980s and 2000s and has overall lost mass every year since 1998 (Mouginot et al., 2019). The increase in annual discharge could extend the factor to 10 within decades (Joughin et al., 2014). While the potential for large losses depends on a number of factors, including the depth and inland extent of glaciers, for the majority of Greenland's glaciers it will be difficult to sustain such large increases in ice discharge (Joughin et al., 2014). Climate changes also cause changes for indigenous use of the area. The sea ice is getting thinner in the winter, forcing dogsleds to change their driving routes and also where to go fishing and hunting in the winter. Erosion caused by the loss of permafrost, mostly seen in the cultural heritage areas Qajaa and Sermermiut, within the natural heritage site (State Party of Denmark, 2024). Fishermen have observed the immediate effects of climate change from changes in the ice conditions, a change in the ford's accessibility, and the occurrence of Atlantic cod, which were not

present in the ford system in such numbers before (Schiøtt et al. 2022). Ongoing climate change may lead to fundamental changes both to the marine ecosystem in the Iceford, but also to the strategies used by local fishers, in which a change from traditional fishing using sledge dogs for transportation to and from the fishing grounds moves toward more modern methods in which fishing from boats or vessels becomes dominant.

Measurable decrease in sea ice thickness and that ice clearing events happen more often now during the winter in the main ford have been reported. In the context of these observed changes, it is important to monitor the marine ecosystem in the ford, to see how current changes are influencing species diversity of the ford’s ecosystem, and how the size and abundance of, for example, halibut will be affected, as overfishing might become a relevant issue in the future. Changes in the plankton community also need to be considered as changing sea ice conditions can initiate cascading events in the food web. Thinner sea ice conditions, more open water and increased freshwater discharge from below glaciers may lead to an increase in nutrient transport from deeper waters to the ford surface, which may enhance phytoplankton production in the upper stratified water column, that is often nutrient limited during summer as seen in other ford systems (Schiøtt et al. 2022).

Potential Threats

Data Deficient

Ilulissat currently lacks the capacity to accommodate more tourists, however there are indications that tourism may increase substantially in the next decade. Any developments to accommodate more tourists, especially the development of a port, need to be carefully assessed for any potential negative impacts on the site's OUV prior to construction.

▶ Shipping Lanes

Data Deficient

(Port development)

Inside site, extent of threat not known

Ilulissat currently lacks the capacity to accommodate more tourists, however there are indications that tourism may increase substantially in the next decade (State Party of Denmark, 2024). A new port has been under discussion for about thirty years. The current port size is too restricted to accommodate both the fishing and tourism industries simultaneously. A study by Poiret (2024) indicates that some stakeholders envision Ilulissat becoming the new starting point for cruise ships, replacing Kangerlussuaq, allowing more ships to dock. The potential impacts of developing such a port and the expected increase in cruise ships would need a careful evaluation to avoid potential negative impacts on the site's OUV.

Overall assessment of threats

Low Threat

Climate change is already affecting the site and is most likely to have the largest impact in the future. Due to global warming, the melting of the glacier is accelerating and the calving front is changing. The sea ice is getting thinner in the winter, forcing dogsleds to change their driving routes and also where to go fishing and hunting in the winter. Erosion caused by the loss of permafrost, mostly seen in the cultural heritage areas Qajaa and Sermermiut, within the natural heritage site. Fishermen have observed the immediate effects of climate change from changes in the ice conditions, a change in the ford's accessibility, and the occurrence of Atlantic cod, which were not present in the ford system in such numbers before (Schiøtt et al. 2022). Ongoing climate change may lead to fundamental changes both to the marine ecosystem in the Iceford, but also to the strategies used by local fishers, in which a change from traditional fishing using sledge dogs for transportation to and from the fishing grounds moves toward more modern methods in which fishing from boats or vessels becomes dominant. In the context of these observed changes, it is important to monitor the marine ecosystem in the ford, to see how current changes are influencing species diversity of the ford’s ecosystem. Other current threats include the impact from tourism; fishing, boat traffic and helicopter/plane flights. The managing authorities are handling current threats efficiently. There are currently some concerns about future developments in tourism, for example the development of a port at Ilulissat, due to the expected increase in overall tourism to the site.

Protection and management

Assessing Protection and Management

▶ **Involvement of stakeholders and rightsholders, including indigenous peoples and local communities, in decision-making processes** — **Mostly Effective**

Residents from Oqaatsut, Ilulissat, Ilimanaq, and Qasigiannguit use the ford system as a fishing and hunting ground. Oqaatsut has 30 inhabitants, Ilulissat 4.630, Ilimanaq 53, and Qasigiannguit has 1.086 inhabitants (Schiøtt et al. 2022). There is a local and political desire to clarify the possibilities for urban and tourism development in both the urban and rural buffer zones demonstrating some tension between conservation and development priorities. At present, this is not possible due to the municipal plan provisions for the buffer zones. Known desires include urban development in extension of the city to solve the acute housing shortage, construction of an Auroracenter and construction of cabins in the rural buffer zone. A dialogue process with local stakeholders is developing to clarify needs and wishes and a detailed landscape analysis will be prepared as well as an analysis of the natural values in the buffer zones to assess where construction, urban development and other development wishes in the urban buffer zone can be considered (Steering Committee for Ilulissat Icefjord, 2021).
There is also possible conflict between commercial fishermen and increasing tourism. It can be expected that the area will attract even more commercial fishermen in the future, and the increasing number of tourists means that there will continue to be a high demand for tourist sailing in the protected area. Both industries are important for the municipality's earnings. There is therefore a risk that in the future there may be massive sailing with a large number of boats in the mouth of the Isfjord. This can create conflicts between, for example, fishing and tourist sailing. There are already problems with tourist boats sailing too close to the fishing lines. Likewise, a large number of boats, or very large ships in the protected area, could ruin the tourists' experience of the large, majestic icebergs. The same applies if a large number of cruise ships anchor immediately next to the protected area. In response, guidelines for tourist boating in collaboration with the fishing industry and tourist skippers is being developed (Steering Committee of Ilulissat Icefjord, 2021). Although there is a Steering Committee to support the management and governance of the site, there is no indication that local community representatives actively participate in the management decision-making processes.

▶ **Legal framework** — **Mostly Effective**

Overall, a strong legal framework is in place. The principle legislative instrument is the 1980 Nature Conservation Act of Greenland (IUCN, 2004). In 2007 the Executive Order no 10 of June 15 2007 on the protection of Ilulissat Icefiord was endorsed by the Parliament in Greenland. This was a revision of the Executive Order no 7 of March 25 2003. The conservation order protects the area primarily through the regulation of traffic, construction, driving, sailing and flying. The current management plan foresees a revision of the order for Ilulissat Icefjord from 2007 (Greenland Home Rule Government Order No. 10 of 15 June 2007 on protection of Ilulissat Icefiord) to ensure it encompasses developments in the area, however no update is available yet.

▶ **Governance arrangements** — **Mostly Effective**

The central authorities for the management of the Ilulissat Icefjord World Heritage Area are the Danish Agency for Palaces and Culture, the Ministry of Agriculture, Self-Sustainability, Energy and the Environment and Avannaata Municipality. Management is carried out in close cooperation among the local authorities. Avannaata Kommunia has the day-to-day responsibility for the administration of the area. Since 2008, the three authorities have organized themselves into a formalized steering group for the Ilulissat Icefjord World Heritage Area, where management is planned and coordinated. The Steering Group aims to ensure close cooperation on management that meets the area's threefold objective: protection, development opportunities and increased information. The Steering Group includes members from the Ministry of Agriculture, Sustainability, Energy and Environment, from Avannaata Kommunia, from the Danish Agency for Palaces and Culture, from the Ministry of Education, Culture and Church,

from the Ministry of Business, from the National Museum of Greenland, from the Ilulissat Icefjord Center and the site manager.

► Integration into local, regional and national planning systems (including sea/landscape connectivity) — Mostly Effective

The buffer zone for the Ilulissat Icefjord World Heritage Site consists of two types of buffer zone: the landscape buffer zone, which is a 2km buffer zone surrounding the entire World Heritage area with the exception of Ilulissat town and the area immediately south and east of the town; and the urban buffer zone, which encompasses the area located to the south and east of Ilulissat town, where the landscape buffer zone ends. The two buffer zones are laid out in the municipal plan of Avannaata Municipality. The municipal buffer zone regulations regulate use, construction and traffic in the buffer zones (Ilulissat Steering Committee, 2021). The drinking water in Ilulissat comes from surface water from a number of lakes east of the city. The area east of the city is thus protected as a water abstraction exclusion zone. The water exclusion zone extends over both the urban and the rural buffer zones, which adds an extra layer of regulation to these parts of the buffer zones that must be taken into account. While the water exclusion zone is necessary to maintain a healthy quality of drinking water for Ilulissat's residents and fish factories, the water exclusion zone also prevents development in a larger area east of Ilulissat. The water abstraction area is covered by the Government's Executive Order No. 4 of 17 February 2022 of the Inatsisartutlov on the Protection of the Environment 17. According to this provision, motorized means of transport or motorized tools/tools may not be used in the area. At the same time, no buildings, roads or paths may be established, while existing buildings may not be expanded. In addition, no commercial enterprises may be operated or institutions or the like may be located in the water barrier zone. According to the Nature Protection Act18 , no changes to the terrain may be made within a distance of 100 meters from the coast in the open countryside. The Nature Protection Act thus covers both the UNESCO area, the landscape buffer zone and the urban buffer zone (NIRAS, 2023).

► Boundaries — Highly Effective

The boundary of the site has been drawn to encompass all the interdependent elements of the geological process of the Icefjord – the relevant portion of the inland ice sheet, the ice stream, the glacial front and the fjord. The boundary also follows the watershed of the fjord and thus incorporates the adjacent moraines, kame terraces and deltas. Excluded are the settlements of the nearby villages of Ilimanaq and Ilulissat where a de facto buffer zone is defined within the municipality plan (IUCN, 2004). The landscape buffer zone was implemented in the municipal plan in 2014 and is a 2 km buffer zone from the World Heritage boundary and buffer area south of Ilulissat. The buffer zone is intended to protect the World Heritage site against construction, buildings, and installation (Steering Group, 2018). This minor boundary modification was approved for Ilulissat Icefjord by the World Heritage Committee in 2019 (World Heritage Committee, 2019).

► Overlapping international designations — Data Deficient

N/A

► Implementation of World Heritage Committee decisions and recommendations — Data Deficient

Several measures have been undertaken to respond to World Heritage Committee Decisions and a detailed report was submitted in 2007 (State Party of Denmark, 2009). In 2009 the World Heritage Committee recommended that the State Party develop adaptive management measures to ensure the long-term protection of the site in response to climate and other environmental change. It also encouraged the State Party of Denmark to collaborate with other States Parties whose World Heritage sites contain glaciers to monitor the impacts of global climate change (World Heritage Committee, 2009). No information about these implementations is available. In 2019, in the Decision approving the creation of a buffer zone for this site, the Committee also requested the State Party to clarify the policies that will apply to the local and recreational buffer zones, in particular regarding the scope of development that is anticipated to be permitted (World Heritage Committee, 2019), which was provided to the World Heritage Centre in January 2020. This seems to be addressed in the current management

plan although no detailed response to the Committee in this regard was provided.

► Climate action — Mostly Effective

The DMI (Danish Meteorological Institute) is monitoring the temperature for Ilulissat, but not specifically for the Icefjord area. The park Ranger manually monitors the temperature in Ilulissat and reports it to the steering group. Ongoing monitoring and dissemination about the climatic consequences to the traditional ways of using the area are also reported on as changes to the oceanic waters causes the fishing and hunting industry and dogsled culture to change strategy when using the area (State Party of Denmark, 2024).
Indigenous knowledge of the ford ecosystem can be used to assess what to expect in the future and how the ford system may develop, if climate change continues to impact the local marine ecosystem. Knowledge about these topics may address specific conditions and fluctuations that can be used to better foresee future activities and avoid overfishing or be used to assess changing abundances of local species that are of social and economic interest. Indigenous knowledge may complement scientific knowledge in areas where cause-and-effect processes or local dynamics governing ecosystems such as the Iceford remain incomplete (Schiøtt et al. 2022).

► Management plan and overall management system — Mostly Effective

The site's management plan is updated every 5 years and there is an annual monitoring plan and an annual workplan that adapts management priorities according to updated information to allwo for an adaptive management approach (State Party of Denmark, 2024; Steering Committee of Ilulissat Icefjord, 2021).

The central authorities for the management of the Ilulissat Icefjord World Heritage Area are the Danish Agency for Palaces and Culture, the Ministry of Agriculture, Self-Sustainability, Energy and the Environment and Avannaata Municipality. Management is carried out in close cooperation among the authorities. Avannaata Kommunia has the day-to-day responsibility for the administration of the area. Since 2008, the three authorities have organized themselves into a formalized steering group for the Ilulissat Icefjord World Heritage Area, where management is planned and coordinated. The steering group is to ensure close cooperation on management that meets the area's threefold objective: protection, development opportunities and increased information. The Steering Group includes members from the Ministry of Agriculture, Sustainability, Energy and Environment, from Avannaata Kommunia, from the Danish Agency for Palaces and Culture, from the Ministry of Education, Culture and Church, from the Ministry of Business, from the National Museum of Greenland, from the Ilulissat Icefjord Center and the site manager.

► Law enforcement — Some Concern

Only one park ranger with limited or no transportation opportunities is employed to monitor the wilderness area of 4000 km2 with no authority to issue fines. The only option is to report offences to the police (State Party of Denmark, 2024). With the expected increase in tourism, this is of some concern.

► Sustainable finance — Mostly Effective

The financial framework for the site's management is composed of resources from the Avannaata Municipality, the Ministry of Agriculture, Self-Sustainability, Energy and Environment and the Danish Agency for Palaces and Culture, as well as possible funds from various foundations (Steering Committee Ilulissat Icefjord, 2021).
Funding could be further improved according to the latest periodic report. Actions to secure the basic management needs on local level depend on political budget processes. Development projects and improvement projects related to the property depend on received funding. A visitor fee has recently been implemented (10EUR per person), as well as other opportunities for financial income with the purpose of making the WH site management sustainable (State Party of Denmark, 2024).

► Staff capacity, training and development — Some Concern

In addition to the site manager and park ranger, other municipal employees work to varying degrees with the World Heritage Area. Employees in Avannaata Municipality contribute with strategic planning, urban planning, municipal plan supplements, environmental considerations, business efforts especially from the tourism and fishing/hunting industries. In addition, municipal operations staff contribute with various tasks. All initiatives and tasks are coordinated through the site manager (Steering Committee Ilulissat Icefjord, 2021). As only 2 full time positions are responsible for the daily management of a wilderness area of 4000 km2, daily management tasks require careful prioritisation. There is currently no approach to solving this lack of capacity issue (State Party of Denmark, 2024).

► Education and interpretation programmes — Mostly Effective

As of May 2014, there is a detailed website with information on the site, including access, research and administration. The new Ilulissat Icefjord Center opened in the summer of 2021 and is the first visitor center in Greenland giving both local and global visitors an experience and education. An Auoracenter is to be opened in the buffer zone in the next few years. Avannaata Kommunia has started updating their website and a new communication video informing visitors about the Icefjord and its values as a World Heritage site has been developed (Steering Committee for Ilulissat Icefjord, 2021).

► Tourism and visitation management — Some Concern

Starting in June 2025, Avannaata Municipality will introduce a fee of 10 euros per visitor for access to the land area between Ilulissat town and the Icefjord. This one-time fee covers the visitor's entire stay in Ilulissat and helps fund the maintenance of trails, boardwalks, and daily supervision of the area. As part of the fee, visitors will also gain access to a 30-minute audio guide that provides insights into the area's natural and cultural history (Ilulissat Isfjordskontor, 2025a). To improve the monitoring of visitors and their movement patterns, four people counters have been installed at different places in the site (Ilulissat Isfjordskontor, 2025b). Motorized vehicles are only permitted in designated corridors and the Avannaata Kommunia is the supervisory authority and ensures that the driving rules and conditions for driving are complied with (Steering Committee for Ilulissat Icefjord, 2021). However, a lack of human capacity and the size of the area makes enforcement challenging.
The municipality has implemented a "tourism strategy". Since Ilulissat is too small to accommodate this tourist flow, the municipality plans to send them, through marketing campaigns, to small nearby towns like Uummannaq, so they can benefit economically. To implement this plan, the municipality has organized meetings with Ilulissat's tour operators. They plan to build hotels and restaurants. They also consider extending the tourist season to benefit from it year-round (Poiret, 2024).With indications that tourism may increase in the next years (State Party of Denmark, 2024), there is a need to ensure careful coordination among relevant stakeholders and clarify prioritise to avoid over tourism and associated impacts e.g. waste and off road access.

► Sustainable use — Mostly Effective

Residents from Oqaatsut, Ilulissat, Ilimanaq, and Qasigiannguit have used the ford system as a fishing and hunting ground. Oqaatsut has 30 inhabitants, Ilulissat 4.630, Ilimanaq 53, and Qasigiannguit has 1.086 inhabitants (Schiøtt et al. 2022). The management plans 2009-2014 and 2018-2020 aimed to minimize threats to the site while ensuring sustainable activities including tourism, hunting and fishing and sustainable land use can continue (World Heritage Committee, 2009). These aims are still ongoing in the current management plan through supporting a biologically sustainable basis for hunting and fishing (Steering Committee for Ilulissat Icefjord, 2021). Sustainable hunting and fishing are very important inside the protected area. The Ministry of Fisheries and Hunting, Avannaata Kommunia, Greenland Institute of Natural Resources, GFLK, KNAPK, SQAPK, Royal Greenland and Halibut Greenland signed an intent in 2017 with the purpose to create a starting point for future discussions on practicing responsible fishing for halibut at local, regional, and national level (Steering Group, 2018). Fishing is generally quota based and tourist activities are restricted to defined corridors.

► Monitoring — Highly Effective

A comprehensive Monitoring Plan was developed in 2007 by the Geological Survey of Denmark and Greenland (GEUS) (State Party of Denmark, 2009). Avannaata Municipality at the Icefjord Office is

responsible for implementing the monitoring plan. An annual monitoring programme is now in place with a focus in particular on capacity, visitors, wear and tear and the amount of waste in the area. The annual monitoring data will also form the framework for the preparation of an annual report, which will be shared with the members of the steering committee. The annual report will convey existing knowledge about the use of the World Heritage area, its state of conservation and activities carried out in connection with the annual management (Steering Committee of the Ilulissat Icefjord, 2021).

▶ Research — Highly Effective

The Sermeq Kujalleq glacier at the base of the Ilulissat Icefjord is unique, both in terms of its extreme speed and its productivity. This, combined with its relatively easy accessibility by helicopter from Ilulissat, has given it a special position in glaciological research for many years. Sermeq Kujalleq is one of the best-studied glaciers in the world, and research has made a significant contribution to the knowledge we have today about glaciers and glacier movement. In recent years, there has been a sharp increase in research related to the glacier, which is due to the increased focus on global warming. National and international research projects are investigating how natural conditions such as salinity and sea temperature affect the ice flow. The Greenland Institute of Natural Resources has research projects on the seals of the ice fjord (Steering Committee of Illulissat Icefjord, 2021). Studies, especially over the last 10-20 years using aerial photography, core drilling, deep radar sounding and satellite monitoring, have been intensive. Such research has enlarged understanding of ice-stream dynamics, glacial erosion and deposition, Quaternary geology and prehistoric climates through the examination of ice cores. Regarding monitoring of the impacts of global climate change, Ilulissat will have much to offer in future as well. The ISAAFFIK website provides an overview of arctic research activity and projects in Ilulissat Icefjord (ISAAFFIK, 2020).

▶ Effectiveness of management system and governance in addressing threats outside the site — Some Concern

With predicted increase in tourism it is important that a sustainable approach to tourism is developed. The current legal framework remains robust and is being updated in part to reflect recent developments, however, with limited human capacity it is unlikely the current management system is sufficient to enforce limitation regarding use of the trails. Furthermore, conflicts between tourists and fishers demonstrate the need for deeper dialogue processes with all involved stakeholders. With discussions around the development of a port facility in Ilulissat, it is critical to prioritise the protection of the site's key attributes along with the traditional sustainable use of it's resources and prevent any potential negative impacts.

▶ Effectiveness of management system and governance in addressing threats inside the site — Some Concern

The management system appears effective with some concerns around the low number of employees working in the site and the capacity to fulfil the management objectives with a growing tourism industry. Although a current management plan is in place, no sustainable tourism plan is in place for the World Heritage site. Furthermore, some conflicts between the tourism and fisheries stakeholders indicated the need for further engagement in the site's management.

Overall assessment of protection and management — Mostly Effective

The site appears to be well managed overall, however some concerns exist regarding the lack of human resources to effectively monitor the site, enforce regulations and the capacity to fulfil the management objectives with a growing tourism industry. Although starting in summer 2025 a visitor fee is being implemented and people counters have been installed, there is a lack of an overall tourism management plan, which would support the protection of the key attributes along with maintaining the traditional use of natural resources. With come conflicts between local communities, tourism stakeholders and local fishers, ensuring open dialogue and deeper engagement in decision-making processes is critical.

State and trend of values

Assessing the current state and trend of values

World Heritage values

The only remnant in the Northern Hemisphere of the continental ice sheets from the Quaternary Period

High Concern
Trend:Deteriorating

Jakobshavn Isbræ (Sermeq Kujalleq) has been the largest single contributor to mass loss from the Greenland Ice Sheet over the past three decades (Picton et al. 2025). The Greenland Ice Sheet (GrIS) has undergone a six-fold acceleration in mass loss over the last four decades reaching a peak (melt season maximum) mass loss rate of 200 ± 12 Gt yr −1 (2003–2019), contributing ~8.9 mm to total sea level equivalent. The increase in mass loss has been attributed to both climate and ocean warming at tidewater glacier margins, as their low elevations and direct contact with water makes them particularly sensitive to increases in temperature (Baratta et al. 2024).
It has been suggested that, in response to anthropogenic global warming, the Greenland Ice Sheet may reach a tipping point beyond which its current configuration would become unstable. A crucial nonlinear mechanism for the existence of this tipping point is the positive melt-elevation feedback: Melting reduces ice sheet height, exposing the ice sheet surface to warmer temperatures, which further accelerates melting. Current predictions suggest substantially enhanced melting in the near future (Boers and Rypdal, 2021).

Natural spectacle

High Concern
Trend:Deteriorating

There is a concern about the future impacts of climate change on the glacial landscape and natural phenomenon of glacial calving. Since the glacier front has retreated, due to climate change, the front is now standing on the submarine rocks (IUCN Consultation, 2024). During winter 2020/2021, ice velocities remained elevated, with sustained thinning and iceberg calving observed. This unusual behaviour corresponded with a significant decrease in rigid mélange extent, likely driven by increased ocean temperatures observed in Disko Bay and Ilulissat Icefjord. Studies have pointed to the complexity of climatic forcing at the ice-ocean interface, highlighting that both oceanic and atmospheric forcing must be considered when projecting the future behaviour of marine-terminating outlet glaciers (Picton et al. 2025).

Summary of the Values

Assessment of the current state and trend of World Heritage values

High Concern
Trend: Deteriorating

There is increasing concern about the future impacts of climate change on the glacial landscape and natural phenomenon of glacial calving. Although the site still represents an outstanding natural phenomenon, studies are increasingly demonstrating the significant mass loss to the Greenland Ice Sheet, with the Jakobshavn Isbræ (Sermeq Kujalleq) being the largest single contributor over the past three decades. The increase in mass loss has been attributed to both climate and ocean warming at tidewater glacier margins, as their low elevations and direct contact with water makes them particularly sensitive to increases in temperature. Current predictions suggest substantially enhanced melting in the near future, indicating that the Greenland Ice Sheet may reach a tipping point beyond which its current configuration would become unstable. Since the Illulissat glacier front has retreated, due to climate change, the front is now standing on the submarine rocks.

Assessment of the current state and trend of other important biodiversity values

High Concern
Trend: Deteriorating

Sea life may be affected by boat traffic and fishing along the coast, as well as by a reduction of ice calving in the bay. There are also concerns regarding potential overfishing of some fish stocks and potential cascade affects on the marine ecosystem. Overall, while certain Arctic-boreal species show regional stability, overall patterns highlight increasing pressures on ice-reliant taxa and shifts favouring species adapted to warming conditions (Bachmann and Nielsen, 2025).

Fish: Ilulissat Icefjord in Greenland is experiencing the effects of climate change, with the Sermeq Kujalleq glacier being one of the fastest-moving and most productive ice streams in Greenland. This is likely affecting the distribution of species in the fjord, including those important to local fisheries. Some reports indicate that the fish community is becoming less diverse further into the main fjord, becoming dominated by large Greenland halibut that prey on smaller fish. Locals have described that the deep-water fish roughhead grenadier has decreased drastically in abundance in recent years (Schiøtt et al. 2023). However, West Greenland offshore and inshore fish stocks seem stable overall although in some species indicated decreases total biomass have led to changes in total allowable catches (e.g. for the West Greenland Northern Prawn) (Scholaert, 2025). The North Atlantic Fisheries Organization (NAFO) has continuously lowered their advice regarding the Total Allowed Catch (TAC) for the coastal Greenland halibut fisheries in Western Greenland due to concerns of overexploitation of the fishery. Nevertheless, some reports find that the stock of Greenland halibut in the Disko Bay is not further decreasing at current harvest levels (Fredenslund, 2022). Local fishers have indicated that halibut are generally bigger in the main ford and bigger than the ones in Disco Bay. The halibut are bigger the further in you go in the main ford, where smaller individuals also become less abundant and the fish community less diverse and dominated by bigger halibuts the closer you get to the glacier front. Atlantic cod has become more abundant in the Iceford, which has not been observed in the same extent before (Schiøtt et al. 2022). Arctic specialists like Arctic char in Southwest Greenland will collapse (-30% by 2050) from salmon competition and habitat loss (Bachmann and Nielsen, 2025).

Vegetation: Besides the vastly decreased ice cover (− 28,707 km2 ± 9767 km2), studies have found a doubling in total areal coverage of vegetation (111% ± 13%), a quadrupling in wetlands coverage (380% ± 29%), increased meltwater (15% ± 15%), decreased bare bedrock (− 16% ± 4%) and increased coverage of fine unconsolidated sediment (4% ± 13%). Ice loss from the Greenland Ice Sheet and from glaciers and ice caps has increased since the 1980s and consequently the proglacial parts of Greenland have expanded rapidly. The vegetation spread particularly in the southwest, east and northeast. Typical wetland plants increased most in the vicinity of Kangerlussuaq in the southwest and in individual areas in the northeast. In general, an increase in vegetation along a gradient between 63 and 69 degrees north latitude and a decline north of that has been observed (Grimes et al. 2024). The erect dwarf-shrub tundra in the Low Arctic has already and will likely become decreasingly temperature- and increasingly moisture limited. Such counter-acting mechanisms could offer an explanation for the vegetation stability observed over large parts of the Arctic (Weijers, 2022).

Birds: The warming of the Arctic had lead to a diverse range of impacts on local biota, including northward shifts of some species ranges. The little auk population in region is estimated to be 5,200 pairs in the 1930s, 6,000–6,500 pairs in the 1940-1970s and 70–80 pairs by the 2000s. Observed contraction of the breeding range and a decrease in abundance of the little auk may be attributed to more complex climate-driven changes in the marine ecosystem at finer spatial and temporal scales and/or cannot be easily detected given the coarseness of data used (Jakubas et al. 2024). Several Arctic-boreal bird species exhibit positive trends, including Barnacle goose (Branta leucopsis), Canada goose, Pink-footed goose (Anser brachyrhynchus), common eider (Somateria mollissima), and mallard (Anas platyrhynchos), will likely benefit from expanding breeding grounds and milder temperatures. Some seabirds and scavengers, such as the Common guillemot (Uria aalge), Iceland gull (Larus glaucoides), Great black-backed gull (Larus marinus), and Great cormorant (Phalacrocorax carbo), will likely also show increasing trends. Conversely, several Arctic-boreal seabirds and waterfowl decline, including King eider (Somateria spectabilis), Long-tailed duck

(Clangula hyemalis), Thick-billed murre, Little auk (Alle alle), and Glaucous gull. Declining trends are also observed for Black-legged kittiwake (Rissa tridactyla), Common loon (Gavia immer), Northern fulmar (Fulmarus glacialis), Common raven (Corvus corax), and Black guillemot (Cepphus grylle), likely due to changing prey availability, habitat shifts, and human-induced pressures (Bachmann and Nielsen, 2025).

Mammals: Generally Arctic species, particularly ice-dependent mammals and seabirds are expected to decline by 2050. For Arctic mammals, beluga whales in Baffin Bay is expected to increase by 5% until 2050, showing localized stability. Narwhals remain stable in most monitored regions in West Greenland, with no significant declines projected. Atlantic walrus also shows some regional stability despite ongoing habitat loss. Arctic-boreal and boreal mammals, such as Harp seals (Pagophilus groenlandicus) and Hooded seals (Cystophora cristata), are expected to experience regional increases, though trends vary across populations. Harp seals (Pagophilus groenlandicus) in the Northwest Atlantic will decline by 15% as changing ice conditions impact pup survival. Ringed seals in West Greenland are expected to decline 15% by 2050, suffering ice loss and novel pathogens. Some boreal and Arctic-boreal mammals benefit from changing conditions, but overall trends remain mixed (Bachmann and Nielsen, 2025).

Additional information

Benefits

Understanding Benefits

► **Outdoor recreation and tourism,**
Natural beauty and scenery

Ilulissat Icefjord is the most visited site in Greenland offering outstanding natural beauty, scenery and wilderness.

Factors negatively affecting provision of this benefit :
- Climate change Impact level - High, Trend - Increasing
- Overexploitation Impact level - Low, Trend - Continuing

► **Importance for research,**
Contribution to education

The site has an outstanding record of glacial history and is a critical site for studying glacier dynamics. It also has an exceptional potential for observation of the impacts from climate change.

Factors negatively affecting provision of this benefit :
- Climate change Impact level - High, Trend - Increasing

Research and records on climate changes are important to monitor, understand, and predict the situation in the future. They can also be base for public education f.ex. how human lifestyle can influence the environment.

► **Legal subsistence hunting of wild game,**
Fishing areas and conservation of fish stocks

Seal hunting and fishing are permitted inside the site and usually carried out by individuals on small dinghies or dog sleds. These activities are important elements of Greenland cultural heritage and identity. It is, however, important to ensure that the hunting and fishing are sustainable.

Factors negatively affecting provision of this benefit :
- Climate change Impact level - Very High, Trend - Increasing
- Overexploitation Impact level - Low, Trend - Continuing

- Habitat change Impact level - Low, Trend - Increasing

The traditional sustainable relationship between habitat and cultural heritage will vanish with climate change.

► **History and tradition,**
Wilderness and iconic features,
Sacred natural sites or landscapes,
Cultural identity and sense of belonging

The site has been home to human settlements for hundreds of years and represents an important piece of Inuit history and cultural heritage.

Factors negatively affecting provision of this benefit :
- Climate change Impact level - Very High, Trend - Increasing

Recent changes, such as the loss of the glacier's floating ice tongue and the glacier's rapid retreat, represent significant changes that have an influence on the daily lives of Ilulissat residents. While on the surface some activities, such as moving ones boat out of the port to ride out tidal waves caused by large calving events, may seem like positive changes, they point to substantial changes in what it means to live in a glaciated landscape and loss of the associated cultural norms.

► **Provision of jobs**

The number of people employed in the fishing industry in Ilulissat is around 370-590 people and there are approx. 180 employees at the two large fish factories in the city. Furthermore, there are other fisheries-related jobs meaning that in total it is estimated that up to 800 people are employed in fishing in Ilulissat (Steering Committee of Ilulissat Icefjord, 2021). Several tourism operators use seasonal employees in the summer due to large seasonal changes in the number of visitors. Tourism-related full-time jobs in Ilulissat therefore fluctuate between 200-400 employees depending on the season, in addition to a number of part-time jobs (Steering Committee of Ilulissat Icefjord, 2021).

Summary of benefits

Ilulissat Icefjord World Heritage site has become iconic for understanding and studying the impacts of global climate change. The knowledge is important for education on a global scale about glacier, climate, habitat and human influence. The vulnerable Arctic environment is changing and this affects traditional cultural heritage. Some traditional activities might disappear, but the site's outstanding natural beauty and scenery of a fast melting glacier attracts tourists and supports the ecosystems on which fisheries depend, alleviating some of the negative impacts associated with this loss of traditional activities. Currently fishing and tourism are important contributors to local jobs and the local economy.

REFERENCES

№	References
1	Bachmann, M. E., & Nielsen, M. R. (2025). Scalable framework to assess population trends for Greenland's data-scarce wildlife. Future Arctic Lives. Available at: https://futurearcticlives.eu/deliverables/FutureArcticLives…
2	Baratta, S. J., Schild, K. M., & Sutherland, D. A. (2024). Ilulissat Icefjord Upper-Layer Circulation Patterns Revealed Through GPS-Tracked Icebergs. Journal of Geophysical Research: Oceans, 129(1), e2023JC020117.
3	Boers, N., & Rypdal, M. (2021). Critical slowing down suggests that the western Greenland Ice Sheet is close to a tipping point. Proceedings of the National Academy of Sciences, 118(21), e2024192118.
4	Fredenslund, T. (2022). Identifying overexploitation in the coastal Greenland halibut fishery in the Disko Bay using static bioeconomic modelling. Fisheries Research, 254, 106417.
5	GEUS (n.d.) The nutrient-rich icefjord - animals and plants. Geological Survey of Denmark and Greenland. Available at: https://eng.geus.dk/explore-geology/learning-about-geology/….
6	Greenland Institute of Natural Resources (2012) Hellefiskene i Ilulissat, Uummannaq og Upernavik [website]. Available at: https://natur.gl/afdeling/afdeling-for-fisk-og-skaldyr/hell… [Accessed 28 August 2017].
7	Grimes, M., Carrivick, J. L., Smith, M. W., & Comber, A. J. (2024). Land cover changes across Greenland dominated by a doubling of vegetation in three decades. Scientific Reports, 14(1), 3120.
8	ISAAFFIK (2020) ISSAFFIK website. Available at: https://isaaffik.dk/
9	IUCN (2004). World Heritage Nomination - IUCN Technical Evaluation, Ilulissat Icefjord (Denmark). Gland, Switzerland: IUCN. Available at: https://whc.unesco.org/document/151883 [Accessed 28 August 2017].
10	Ilulissat Isfjordskontor (2025a). Introduction of site fee. Visit the Ilulissat Icefjord. Avannaata Kommunia. Available at: https://kangia.gl/besoeg-isfjorden/nyheder/2025/02/site-fee…
11	Ilulissat Isfjordskontor (2025b). People Counters. Visit the Ilulissat Icefjord. Avannaata Kommunia. Published online 10 February 2025. Available at: https://kangia.gl/besoeg-isfjorden/nyheder/2025/02/counting…
12	Jakubas, D., Wojczulanis-Jakubas, K., Petersen, A., Evans, P. G., & Boertmann, D. (2024). Decline in the West Greenland population of a zooplanktivorous seabird, the little auk Alle alle. Scientific Reports, 14(1), 20686.
13	Joughin et al. (2013). Influence of ice sheet geometry and supraglacial lakes on seasonal ice-flow variability. The Cryosphere, 7, pp.1185-1192.
14	Joughin, I., Smith, B.E., Shean, D.E., Floricioiu, D. (2014). Brief Communication: Further summer speedup of Jakobshavn Isbræ. The Cryosphere 8, pp.209-214. [Accessed 28 August 2017].
15	Mouginot, J., Rignot, E., Bjork, A., van den Broeke, M., Millan, R., Morlighem, M., Noel, B., Scheuchl, B., Wood, M. (2019). Forty-six years of Greenland Ice Sheet mass balance from 1972 to 2018. National Academy of Sciences (PNAS), 116, 19, 9239-9244. doi: 10.1073/pnas.1904242116.
16	NIRAS (2023). Muligheder for at øge fordele og mindske ulemper ved UNESCOområdets omfang, Ilulissat Fjorden. Grønlands Selvstyre, Departementet for Landbrug, Selvforsyning, Energi og Miljø. Published 9 May 2023. Available at: https://ina.gl/media/2n2dgtzd/pkt83_redegoerelse-vedr-mulig…

№	References
17	Nygaard, R. (2019). Commercial data for the Greenland Halibut Stock Component in NAFO Division 1A Inshore. Scientific Council Meeting – June 2019. Serial No. N6949. NAFO SCR Doc. 14/041. North Atlantic Fisheries Organization. Available at: https://www.nafo.int/Portals/0/PDFs/sc/2019/scr19-032.pdf [Accessed 15 April 2020]
18	Picton, H. J., Nienow, P. W., Slater, D. A., & Chudley, T. R. (2025). A reassessment of the role of atmospheric and oceanic forcing on ice dynamics at Jakobshavn Isbræ (Sermeq Kujalleq), Ilulissat Icefjord. Journal of Geophysical Research: Earth Surface, 130(4), e2024JF008104.
19	Poiret, A. (2024). The Glacial Fjord of Ilulissat: The Touristic Development of a Natural Heritage Site. Études caribéennes, (57-58).
20	Schiøtt, S., Jensen, M. R., Sigsgaard, E. E., Møller, P. R., de Paula Avila, M., Thomsen, P. F., & Rysgaard, S. (2023). Environmental DNA metabarcoding reveals seasonal and spatial variation in the vertebrate fauna of Ilulissat Icefjord, Greenland. Marine Ecology Progress Series, 706, 91-108.
21	Schiøtt, S., Tejsner, P., & Rysgaard, S. (2022). Inuit and local knowledge on the marine ecosystem in Ilulissat Icefjord, Greenland. Human Ecology, 1-15.
22	Scholaert, F. (2025). EU-Greenland relations in fisheries. Briefing PE 769.534. EPRS | European Parliamentary Research Service. European Union. Published online March 2025. Available at: https://www.europarl.europa.eu/RegData/etudes/BRIE/2025/769…
23	State Party of Denmark (2009). Report of the State Party to the World Heritage Committee on the state of conservation of Ilulissat Icefjord (Denmark). Government of Denmark. [Accessed 28 August 2017].
24	State Party of Denmark (2024). Periodic Reporting Cycle 3, Section II: Ilulissat Icefjord. Available at: https://whc.unesco.org/en/list/1149/documents/
25	Steering Committee for Ilulissat Icefjord (2021). Management Plan for the World Heritage Site Ilulissat Icefjord 2021-2025. Ministry of Agriculture, Self-sufficiency, Energy and Environment, Avannaata Kommunia, The Danish Agency for Palaces and Culture. Available at: https://kangia.gl/fakta-om-isfjorden/verdensarv---beroemmel…
26	Steering Group (2018). Management plan for Ilulissat Icefjord 2018 – 2020. The steering group for Ilulissat Icefjord. 2nd edition. pp. 1-56. Available at: https://whc.unesco.org/en/list/1149/documents/ [Accessed 7 March 2020].
27	Weijers, S. (2022). Declining temperature and increasing moisture sensitivity of shrub growth in the Low-Arctic erect dwarf-shrub tundra of western Greenland. Ecology and Evolution, 12(11), e9419.
28	World Heritage Committee (2009). Decision 33 COM 7B.23. Ilulissat Icefjord (Denmark). In: Report of decisions of the 33rd session of the World Heritage Committee (Seville, 2009). [online] Paris, France: UNESCO World Heritage Centre, pp.72-73. Available at: https://whc.unesco.org/archive/2009/whc09-33com-20e.pdf [Accessed 28 August 2017].
29	World Heritage Committee (2014). Decision: 38 COM 8E Ilulissat Icefjord Statement of Outstanding Universal Value (Denmark). In: Decisions Adopted by the World Heritage Committee at its 38th Session (Doha, 2014). [online] Paris, France: UNESCO World Heritage Centre, pp.258-261. Available at: https://whc.unesco.org/archive/2014/whc14-38com-16en.pdf&nb… 28 August 2017].