



World Heritage Glaciers

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Glaciers are set to disappear completely from almost half of World Heritage Sites if business-as-usual emissions continue, according to the **first-ever global study of World Heritage glaciers**. The study, 'Disappearing World Heritage glaciers as a keystone of nature conservation in a changing climate' has been **co-authored by** scientists from the **International Union for Conservation of Nature (IUCN)**.

- The authors of the study also developed the **first ever inventory of glaciers on the UNESCO World Heritage list**, documenting about 19,000 glaciers present in 46 out of the 247 natural World Heritage sites.
- The sites are **home to some of the world's most iconic glaciers**, such as the Grosser Aletschgletscher in the Swiss Alps, **Khumbu Glacier in the Himalayas** or Greenland's Jakobshavn Isbrae.
- **Climate change is the fastest growing threat to natural World Heritage sites**, according to the IUCN World Heritage Outlook 2 Report, with the number of sites threatened by climate change doubling between 2014 and 2017.
- Natural World Heritage sites are recognised as the planet's most important protected areas, providing life-supporting benefits to millions of people worldwide.

Key Findings

- The authors predict **glacier extinction by 2100 under a high CO2 emission scenario in 21 of the 46 natural World Heritage sites** where glaciers are currently found.
Even under a low emission scenario, 8 of the 46 World Heritage sites will be ice-free by 2100.
- The study also expects that **33% to 60% of the total ice volume present in 2017 will be lost by 2100**, depending on the emission scenario.
- Several iconic landscapes found in World Heritage sites will be impacted by rising temperatures.
 - **Los Glaciares National Park in Argentina** contains some of the largest glaciers on the Earth and is threatened by very large ice loss – about 60% of the current

- volume – by 2100.
- In Europe, the disappearance of small glaciers is projected in the **Pyrenees -- Mont Perdu World Heritage site** before 2040.
- **Te Wahipounamu -- South West New Zealand**, which contains three quarters of New Zealand's glaciers, is projected to lose 25% to 80% of the current ice volume over the course of this century.
- **Impact**
 - Loss of glaciers will have **major consequences for the availability of water resources, sea level rise and weather patterns.**
 - This unprecedented decline can also jeopardise the listing of the sites in question on the World Heritage list.
- **Suggestions**
 - **Significant cuts need to be made in greenhouse gas emissions.**
 - This study further emphasises the need for **individual and collective actions** to achieve the mitigation and adaptation aspirations of the Paris Agreement on climate change.

World Heritage List

- The United Nations Educational, Scientific and Cultural Organization (**UNESCO**) seeks to encourage the identification, protection and **preservation of cultural and natural heritage** around the world considered to be of outstanding value to humanity. It has **World Heritage List for the same.**
- This is embodied in an international treaty called the Convention concerning the Protection of the World Cultural and Natural Heritage, adopted by UNESCO in 1972.

International Union for Conservation of Nature (IUCN)

- IUCN is a membership Union uniquely **composed of both government and civil society organisations.**
- Created in **1948**, IUCN has evolved into the world's largest and most diverse environmental network.
- It is headquartered in **Switzerland.**
- The **IUCN Red List** of Threatened Species, is the world's most comprehensive inventory of the global conservation status of plant and animal species.
- The **IUCN World Heritage Outlook** provides **conservation** outlook assessments for **all natural World Heritage sites.**