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# The Importance of Preserving Glaciers: A Challenge for the Future of the Planet

The geographical article written by the journalist Sara Fresi, aims to raise public awareness about the issue of glacier preservation.



Gonzalo Barcaza/Imaggeo

By **Web newspaper Le Muse News**  
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The Importance of Preserving Glaciers: A Challenge for the Future of the Planet



In 2025, the United Nations has declared the International Year of Glaciers' Preservation (IYGP 2025), aiming to raise awareness among the public and institutions about the urgent need to protect these fragile environments.

Glaciers hold about 70% of the Earth's freshwater and play a vital role in climate cycles, water systems, and the stability of mountain and polar ecosystems. Their rapid retreat is a clear indicator of climate change and poses a concrete threat to tens of millions of people.

Glaciers are among the oldest and most fascinating features of our planet. Formed over thousands of years through the accumulation and compression of snow, these massive ice reservoirs contain nearly 70% of the world's freshwater. Yet in recent decades, glaciers across the globe have been retreating at an unprecedented rate due to climate change. Their gradual disappearance is not only a symptom of a warming planet but a warning sign of the environmental, economic, and social consequences this phenomenon entails.

Therefore, preserving glaciers is not just an ecological issue—it is a fundamental necessity to ensure climate stability, water security, biodiversity protection, and the well-being of future generations.

Glaciers are true “natural thermometers” of the climate. Their sensitivity to temperature changes makes them valuable tools for monitoring the progression of global warming. The melting of glaciers over the past 150 years has provided unequivocal data: the rise in global average temperatures, particularly in alpine and polar regions, is closely linked to the reduction of glacial mass.

According to the Intergovernmental Panel on Climate Change (IPCC), the rate of glacier melt has increased since the end of the 20th century. Satellite images, combined with field measurements, reveal the retreat of iconic glaciers such as the Mer de Glace on Mont Blanc, Perito Moreno in Argentina, and Columbia Glacier in Alaska.

One of the most critical aspects of glaciers is their role as freshwater reservoirs. In summer, glaciers release water that feeds rivers and lakes, supporting agriculture, hydropower production, and water supply for millions of people—in



Their reduction or disappearance risks seriously disrupting the water balance of entire communities. In the long term, this could shift from a temporary surplus of water caused by accelerated melting to a dramatic shortage. Such a scenario would threaten food security and socioeconomic stability, particularly in developing countries or those already facing water stress.

Glaciers and their surrounding ecosystems often host unique life forms, many of which have adapted to extreme cold and low-nutrient conditions. Glacial melting not only leads to the loss of habitat for these species but also causes deep changes in downstream ecological balances.

Changes in temperature and the water cycle affect the chemical composition of rivers, fish species distribution, mountain flora, and interactions between terrestrial and aquatic ecosystems. Moreover, melting glaciers can release bacteria and viruses that have been trapped for centuries, posing potential risks to human and animal health.

The value of glaciers goes beyond environmental aspects—they also represent a significant economic resource. In many mountain regions, glacier-related tourism—hiking, skiing, mountaineering—is a major source of income. Their decline may lead to reduced tourist appeal and considerable economic losses for local communities.

Beyond economics, glaciers hold symbolic and cultural value. In many traditions, especially among Indigenous populations such as those in the Andes or the Himalayas, glaciers are seen as sacred entities—sources of life and spirituality. Their disappearance represents a deep cultural wound: the loss of an intangible heritage that may never be recovered.

Glacier melt directly contributes to sea level rise, affecting coastal populations. While continental glaciers—such as those in the Himalayas, Alps, or Andes—have a smaller impact than the ice sheets of Antarctica or Greenland, their contribution is still significant.

According to some estimates, the complete melting of mountain glaciers could raise sea levels by about 30 centimeters. Combined with the melting of polar ice sheets and the thermal expansion of the oceans, this could render many coastal



Preserving glaciers requires coordinated action at local, national, and global levels. Reducing greenhouse gas emissions is the first and most urgent step. This involves accelerating the transition to renewable energy, improving energy efficiency, reducing fossil fuel consumption, and promoting sustainable lifestyles.

At the local level, it is essential to constantly monitor the state of glaciers through observation networks, scientific studies, and educational projects. Raising public awareness—especially among young people—can help build a collective consciousness of the importance of glaciers for our future.

Mountain tourism can also play a positive role if managed sustainably. Investing in low-impact infrastructure, promoting eco-friendly activities, and respecting the delicate balance of alpine ecosystems are necessary steps to protect these fragile areas.

Glaciers are much more than mere masses of ice—they are witnesses of the Earth's climatic history, vital freshwater sources, biodiversity guardians, and cultural symbols. Their gradual disappearance is one of the most serious and urgent environmental challenges of our time.

Preserving glaciers does not only mean saving a spectacular landscape or a useful resource—it means safeguarding our future. This is a task that involves governments, scientists, local communities, and individuals alike. Through a collective effort, we can ensure that glaciers continue to exist and play their essential role in maintaining the Earth's balance.

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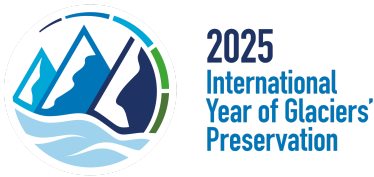
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