



International year of Glaciers 2025

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Introduction

The large body of ice formed on the mountains are called as glaciers. When these starts moving down the slopes and spread itself on a large surface are referred to as melting of glaciers. Glaciers are mainly found in hilly areas where there is very cold climate. Glaciers are formed on land when there is heavy snowfall and later, they are compressed as ice for many centuries. According to the Indian Space Research Organization (ISRO) there are around 16,625 glaciers in India and most of the glaciers are found in Himalaya region. Glaciers are very big and huge in size. They cover a large amount of space. They are very cold when we touch or feel them. The glaciers hold up a large amount of water in them. When they start melting, they can flow up like rivers. In India glaciers can be found in many states such as Sikkim, Himachal Pradesh, and Uttarakhand. Whereas a large number of glaciers are found in the union territory of Ladakh.

Different types of glaciers are:

Ice sheets: Ice sheets are also called as continental glaciers. They cover around figure of around 20,000 square miles. They are only found in 2 places in the world. They are: Antarctic ice sheet and green land ice sheet.

Alpine glaciers: Alpine glaciers are those glaciers which are surrounded up by mountains. They are also called as mountain glaciers. There are 4 types of alpine glaciers. They are: valley, ice field, piedmont and cirque.

Rock glaciers: Rock glaciers are small lenses of ice or frozen sediment and they are usually covered up with rocks and soil. They are normally found at high latitudes places. They extend themselves outward and downslope.

Tide water glaciers: Tide water glaciers are those glaciers which are covered up by snow and flows up to the mountains and the sea. These types of glaciers will break and become salt water glaciers and will go and meet the sea at high tide.

Fresh water glaciers: Fresh water glaciers are usually formed on land and terminates with water bodies. These types of glaciers when they are braked, they are in the form of floating chunks called as icebergs. These types of glaciers are stored with around three quarter of earths fresh water.

Importance of glaciers are:

Ice acts as a protective cover over the earth and the ocean. The ice glaciers which are at very height helps the earth be cool. The heat that comes from the sun are stopped by the ice glaciers and they send back the heat and hence this makes the earth have a cool temperature. Glaciers acts as reservoir of water. When their heavy heat in summer season the glaciers start melting due to high temperature and the ice becomes water and starts flowing. This water helps in the dry places where there is less water quantity dues to summer. They so a water source for plants and animals. The county with more glaciers is Canada. It holds on around 2,00,000sq km space for glaciers. When the glaciers are formed, they take in some essential nutrients as iron in them. But when they start melting the water will go to plants and animals and will get the benefit of that nutrients.

Melting of glaciers

The melting of glaciers can cause a rise in sea level. Due to this high rise in sea level the coastal places in be affected by it. If the sea level rises there a risk of high flood in the coastal region. Because of floods many people will die and many people's life will be in danger including children, women, men, and old aged people. Dues to flood many people will lose their homes and it will affect their daily living. They will not be having any employment to earn money and to feed their family. This will cause a hunger issue to the poor people. The second negative effect of melting of glaciers is there can be huge storms near the coastal region. If the storms occur in cities, it can damage the city. The houses of poor people like huts, houses made of sheets, and many building will also be affected. Due to heavy wind the climate of the place will be changed and it can also affect the health of people. A thunderstorm can produce lighting which can kill the people. There can also be heavy rainfall which will lead to floods.

Hence, we can stop all this by stopping the climate change. Only because of climate change the glaciers starts melting. Some steps we can take to stop melting of glaciers are:

1. **Be informed:** Everyone should be knowing about glaciers and its positive and negative effect. All should be aware of it. If we tell everyone about it and its causes, they will also help each other to avoid it.
2. **Stop water wastage:** Now a days many people are wasting a lot if water. For example, when they wash hands or brush their teeth, they keep the tap open until they finish. Instead, we should take a minimum amount of water that can be used. Some steps to save water are; collecting rain water and using it for many purposes such as gardening and washing vehicles.

3. **Constructing underwater walls:** Many scientists have discovered that constructing a wall at the ends of the sea will help the water not to get in very high level and stops it there only. By this the damage that can be caused will be reduced.

4. **Constructing dams:** Dams are usually constructed to avoid the excess flow of water. Because of Dams many places are out of risk. The most famous dam in India is the Tehri dam which is located in Uttarakhand. It has a height of 260.5 meters. It is also listed in the world's top ten dams. Some other dams in India are: Sardar Sarovar dam which is located in Gujarat (Narmada), Hirakud dam in Odisha (Mahanadi), Nagarjuna Sagar dam in Telangana (Krishna), etc.

5. **Reduce more usage of natural resources:** Natural resources such as petrol, diesel, should be used less. Many people nowadays waste it a lot. When going nearby places also they use vehicles. While there is red light on traffic signals still, they keep their vehicle on which will use the petrol or diesel. Using more and more natural resources will affect the climate change and will make the climate hotter. Later this hot temperature will also affect the glaciers.

Conclusion

The most effective way to reduce melting of glaciers is a rapid and deep reduction in greenhouse gases which usually causes climate change. The melting of glaciers has both positive and negative effects. It will help the economy as well as destroy it. Glaciers play a huge role in keeping the world in cool temperature. Zemu glacier and the Kanchanjunga glaciers are the large ones in India. They lie in Uttarakhand. The Gangotri glacier is located in the state of Uttarakhand in western Himalayas. The largest and the biggest glacier in the world is the Seller glacier located on the Antarctic peninsula. They cover up to 7,018 square kilometres. Spreading the information regarding this will help in reduction of it. When each person will be knowing the advantages and disadvantages of this,

they will try to atop this by using the following methods mentioned above. Hence 2025 is been declared as the international year of glaciers...

Reference

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