

Question :-

Discuss the various consequences of melting of glaciers in Polar and Mountain regions and suggest measures to overcome the problem.

Answer :-

Recently a study by University of Leeds found that world loose its 2.8 trillion tonnes of ice between 1994-2017. Shrinking of ice cap of earth is most alarming matter for the world.

→ World's largest freshwater exist in the form of ice or glaciers, are at polar regions and Mountain caps.

There is two type of melting of ice caps

In the form of Mountain ice caps - on land

In the form of sea ice. ~~ice~~ eg Arctic sea ice.

→ It is estimated that at the end of 21st century around 48cm seawater rise from today's level.

→ These all are result of Green House Effect. Steadily increase of green house gases such as CO_2 , CH_4 , CFC etc. as contribution of Human activities and interference in natural cycle of ecology is the main reason, which leads to danger danger earth towards danger.

CONSEQUENCES :-

There are many situations which are created by melting of ~~sea level~~ glaciers.

- 1) Scarcity of fresh water. → As we know glaciers and polar ice is largest freshwater on the earth
- 2) Negative impact on food security :- As ice melts on mountain which is source of fresh water and irrigation for Agriculture, River flow through rivers.

3) Unregulated River flow :- Due to melting of ice on mountain river flow increases and sometimes it lead to floods nearby areas of the river bed.

4) Rising sea level :- Sea level rising is main concerning thing due to glacier melting. Coastal areas of ~~the~~ land are more vulnerable. In India with 7500 km sea coast it is most concerning. cities like Mumbai, Chennai are more vulnerable.

5) Threat to Tundra Ecosystem :- Although there is no rain fall Tundra Ecosystem is much important for the world.

6) Rise in Heat in the Environment :- with respect of insolation received from sun. Ice caps reflect its 2 units back to the called albedo, which prevents earth from heating up.

SOME MEASURES TO OVERCOME THIS PROBLEM :-

- ↳ Main thing which human being can do is Reduce green house gas emission.
- ↳ Policies with respect to PARIS AGREEMENT - reduce earth temp. below 2°C and 1.5°C if possible from pre-Industrialisation era.
- ↳ Sustainable development goal 13 is with respect to climate change — steps to achieve it.
- ↳ Afforestation \rightarrow is a key to reduce GHG.
- ↳ Electric vehicles also a notable solution for reducing GHG emissions.

There are many consequences due to glacier and mountain ice melting. These can lead human life into danger and also it is threat to Ecology of earth. We should work towards preventing this effect by social awareness. If every one aware about their actions and its reactions on ecology than may be we can prevent it.