



Change in the weather and  
climate in the world



Changing weather and climate are variations in the Earth's climate as a whole or of its separate regions with the passage of time, resulting in a statistically reliable deviations of parameters of weather from the multiyear averages for the period of time from decades to millions of years. Take into account changes as the average values of weather parameters, and changes in the frequency of extreme weather events. The study of climate change engaged in science paleoclimatology.





Factors of climate changes are caused by changes in the earth's atmosphere, the processes occurring in other parts of the world, such as the oceans, glaciers, as well as the effects associated with human activities. External processes that shape the climate are the changes of the solar radiation and the Earth's orbit.





A satellite view of Earth showing the Americas and surrounding oceans with swirling cloud patterns. The text "Change of weather and climate impacts on our planet now!" is overlaid on the image.

Change of weather and climate  
impacts on our planet **now!**

A large glacier is melting into the ocean, with several icebergs floating in the water. The sky is blue with some clouds. The text "The glaciers are melting" is overlaid on the image.

The glaciers are  
melting



# Increased acidity of the oceans







Or coral reefs will  
lose color



The weather is becoming  
more severe







The weather is becoming  
more severe



# Threat to the survival of small island





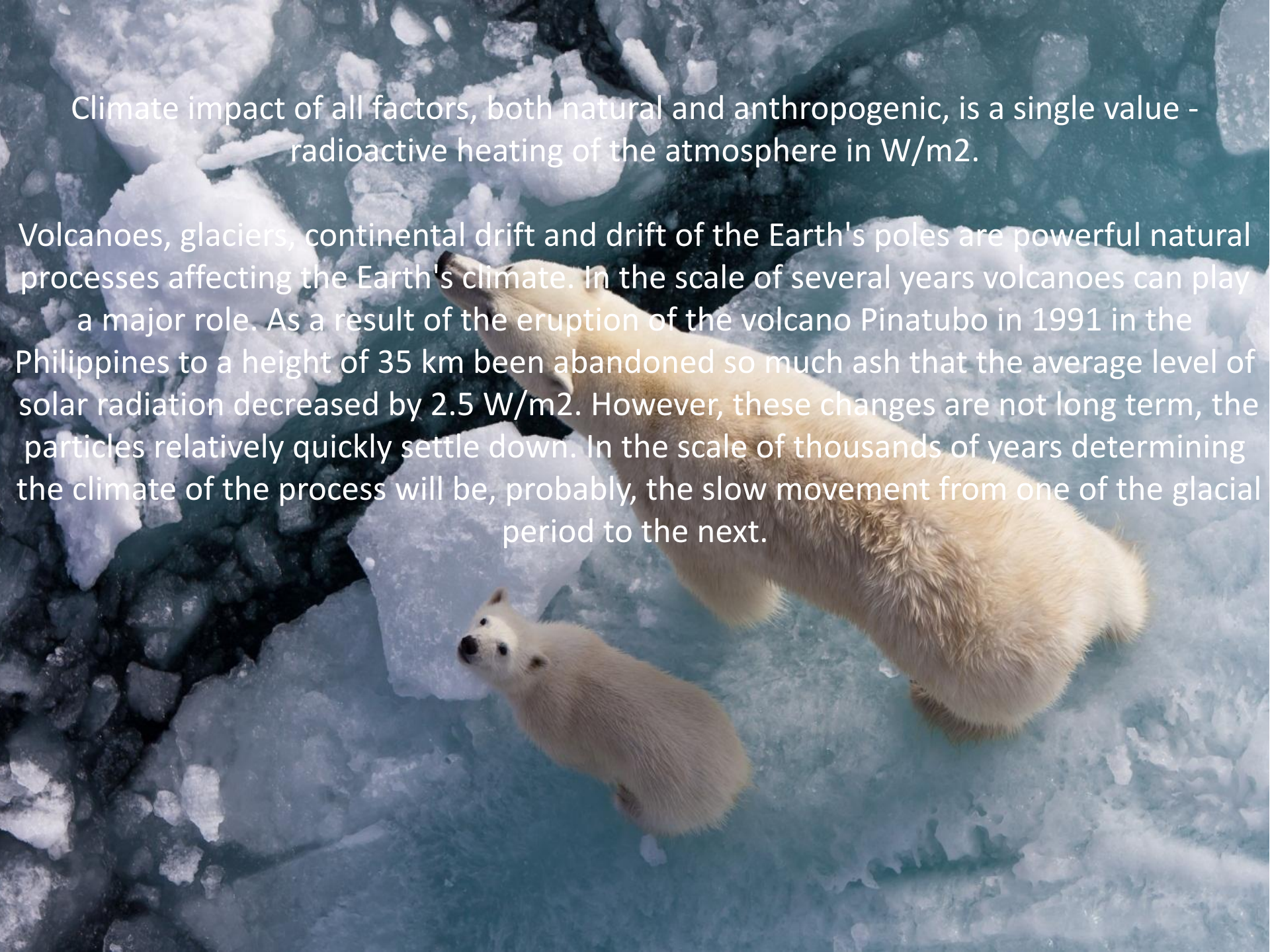
Affects the livelihood  
of local residents





Climate impact of all factors, both natural and anthropogenic, is a single value - radioactive heating of the atmosphere in  $W/m^2$ .

Volcanoes, glaciers, continental drift and drift of the Earth's poles are powerful natural processes affecting the Earth's climate. In the scale of several years volcanoes can play a major role. As a result of the eruption of the volcano Pinatubo in 1991 in the Philippines to a height of 35 km been abandoned so much ash that the average level of solar radiation decreased by  $2.5 W/m^2$ . However, these changes are not long term, the particles relatively quickly settle down. In the scale of thousands of years determining the climate of the process will be, probably, the slow movement from one of the glacial period to the next.

A photograph of a polar bear and her cub walking on a sea ice floe. The bear is in the foreground, walking towards the right, and the cub is following her. The ice is broken into smaller pieces, and the water is visible in the background.



24 October - the international  
day dedicated to the climate action.





Thank you for your attention!

