

STUDY OF MELTING GLACIERS WORRIES METEOROLOGISTS



Meteorologists worried at the depletion of glaciers in Pakistan studied six glaciers in the Karakorum Range recently, and the results have made them worry even more.

“All of them were found melting at a faster rate. The changing climate is taking a heavy toll on our glaciers,” Chief Meteorologist of Pakistan Met Department (PMD) Dr Ghulam Rasul told Dawn.

And the disaster awaiting the nation can be imagined as depletion of glaciers in northern Pakistan during the last decade had been consistent with the rising temperature.

Experts say the study showed that the Hinarchi glacier, which had retreated 800 metres in the 32 years between 1977 and 2009, retreated another 300 metres during the next five years.

Similarly, the Baulter glacier which had retreated 1,500 metres shrank another 400 metres by 2014. The future of the Barpu glacier looks gloomy as it has shrunk 640 metres since 1977.

Dr Rasul explained that due to rising temperature the glaciers had been losing their ice mass at a faster rate than ever before.

“The last 15 years witnessed a big escalation in the thermal regime of glaciated and snow covered region of Pakistan. We recorded more than one degree Centigrade increase in temperature which triggered the formation of glacial lakes and the phenomenon of GLOF – glacial lakes outburst floods – occasionally high river flows, land slips and slides,” he said.

The Met Department study suggests that accelerated melting of glaciers, together with intense monsoon rains, brought river flooding downstream.

It notes that formation of glacial lakes inside the glaciers is now “fairly frequent.” High temperatures, glacier movement or weakening ice walls can cause them to burst open suddenly, flooding areas downstream.

Sometimes, glacial lakes mysteriously appear and disappear suddenly.

A massive lake on the Hinarchi glacier, which PMD team started studying in 2012, disappeared suddenly in August 2014.

Similarly, a massive lake was discovered at the mouth of Liligo glacier in the summer of 2013 that did not exist in 2010 when it started receding.

“Since 2010, Pakistan has regularly suffered floods caused by intense monsoon rainfall, which weathermen had been predicting will further intensify. The floods in 2010 and 2014 inflicted historic losses,” he recalled.

The 2010 floods left no region of the country untouched. It devastated Punjab, Azad Kashmir, Gilgit-Baltistan, Khyber Pakhtunkhwa, Balochistan and Sindh to various degrees.

Floods visited Balochistan and Sindh in 2011, Punjab and Sindh 2012, Azad Kashmir, Khyber Pakhtunkhwa, Punjab and Sindh in 2013 and Azad Kashmir, Punjab and Sindh in 2014.

Pakistan has been holding the top position among the 10 highly vulnerable nations to climate-induced disasters, according to the organisation, German Watch.

“It is not a matter of pride rather a moment to think about a day when it could be declared as disaster resilient one. Unfortunately, so far no serious thought has been given to mitigate the disaster risk except routinely delivering relief goods and distribution of cheques, which poor economy of Pakistan cannot afford. The development policies of most of the countries are streamlined with the global warming and climate change projections but Pakistan has failed to head in that direction,” lamented Dr Rasul.

Source: <http://chimalaya.org/2014/11/24/study-of-melting-glaciers-worries-meteorologists/>