Peru needs glacier loss monitoring: dire UN warning

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Peru needs a permanent monitoring system to gauge Andean mountain glacier shrinkage caused by global warming and its effect on people who depend on the ice for water, UN experts warned.

"We have spoken with Peruvian government institutions, and there is no sufficient monitoring system to tell us the current trend in glacier shrinkage, and its consequences," said Anil Mishra, a UNESCO specialist in hydrological systems.

Mishra took part this week in a conference called "Impact of Glacier Retreat in the Andes" with Thomas Shaaf, of Germany, who leads the UNESCO biodiversity science department. It aimed to deliver policy recommendations to regional governments.

"We are in Peru to work with scientists from the region, with their specialists, to identify and understand the process of glacier shrinkage," Mishra added.

Experts say the monitoring system should include scientists, high-tech equipment and hydrologists to identify the degree of ice melting, the degree to which rivers fed by them are losing water supplies; and which down-mountain areas will be affected by the loss of water supplies and how much.

"In the Andes, runoff from glaciated basins is an important element of the regional water budget, and is essential to the integrity of mountain
ecosystems," UNESCO said in a statement on the gathering last week.

A 2009 World Bank report said that in the last 35 years, Peru's glaciers have shrunk by 22 percent, leading to a 12 percent loss in the amount of fresh water reaching the coast, home to most of the desert country's citizens who depend on the water supplies downstream.

And the local Glacier Science Office has reported that the glaciers in the Cordillera Blanca in northern Peru, the highest tropical mountain chain in the world, have shrunk by 30 percent in the past 40 years due to climate change.

"The scientific community and governments have got to understand what the consequences will be for river systems when the glaciers no longer exist," Mishra warned.

Shaaf added that with the passing years there is less snow falling on the high mountains even as the ice is shrinking "and so less water is going into river systems, even if the population has not felt it yet.

Many scientists believe that with climate change, rain cycles will speed up and rains will be heavier in tropical and already wet areas but that dry and semiarid areas will see less and less precipitation.

Peru's population is almost 30 million.

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