

Ringvorlesung WasserWissen



FH Münster / Universität Münster
Mittwoch, 24.04.2024, 18:15 Uhr
FHZ, Corrensstr. 25, 41849 Münster
Zoom Meeting (Link s. Website)

Titel: Climate Change and Glaciers – Significance and Impact on Water Resources in the Third Pole

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Climate change is one of the main security threats of the 21st century affecting the stability of societies, nation-states and regions. The changing cryosphere, which includes changes in snow cover, glaciers and permafrost has become an icon for climate warming. The headwaters of the Amu Darya and Syr Darya in the western Tien Shan, Pamir and Hindu Kush mountains are a major source of stream flow into the Aral Sea Basin. Under ongoing climate change, the implication of altering meltwater released by snow, ice and permafrost will become increasingly relevant for the fragile mountain and lowland environments affecting a total population of more than 60 million over an area of 4 million km².

Similarly, changes in the Himalayas will affect water availability for up to a billion people. If present retreat trends continue, the total glacier area in the Himalayas will likely shrink from the present 500,000 to 100,000 sq. km by the year 2035.

Furthermore, hazards associated with glacier or permafrost degradation are also expected to become more frequent and stronger in magnitude with the ongoing climate warming. In order to highlight the severity of the situation, the UN general assembly has declared 2025 as the International Year of Glaciers' Preservation and to proclaim 21 March of each year the World Day of Glaciers, to be starting in 2025.

In this presentation the impact of Climate Change on water resources in the Himalayas will be presented along with Adaptation strategies for future water management.