**Peruvian glacial retreat and its impact on water security and resilience to natural hazards**

The aim of this programme is to provide an improved understanding of the rate of glacial retreat in Peru and its impact on water security and natural hazards.

This collaboration between the UK and Peru aims to provide an improved understanding of the rate of glacial retreat in Peru and its impact on water security and natural hazards.

This programme is funded by the Newton-Paulet Fund, an initiative agreed between the UK government and Consejo Nacional de Ciencia, Tecnología e Innovación Tecnológica (CONCYTEC). The objective is to support Peru’s research and innovation capacity for its sustainable growth in the long term.

This collaborative programme will provide increased knowledge on glacial retreat, and the impacts that this will have on water supply in the region. The outputs will also provide further knowledge on the increased risk of natural hazards that glacial retreat causes, which can be used to inform disaster mitigation strategies.

Peru hosts 71% of the world’s tropical glaciers and relies on glacial runoff to provide water for drinking, agriculture, hydroelectricity and industry. The Pacific coast, where about 56% of the population and most of the economic activity is situated, is vulnerable to changes in water availability due to its desert climate and low rainfall. Andean populations, though more dependent on rainfall, also depend on glacial water during the dry season.

Peru is also heavily dependent on agriculture, and 50% of energy supply in the country is provided from hydroelectric power, both of which are reliant on glacial runoff water. This supply of water is now at risk due to a significant reduction in the surface area of glaciers in the Peruvian Andes. They have reduced by more than 20% in the past 30 years. Changes in glacial runoff are also leading to increased risks from glacial outburst floods and glacial avalanches.