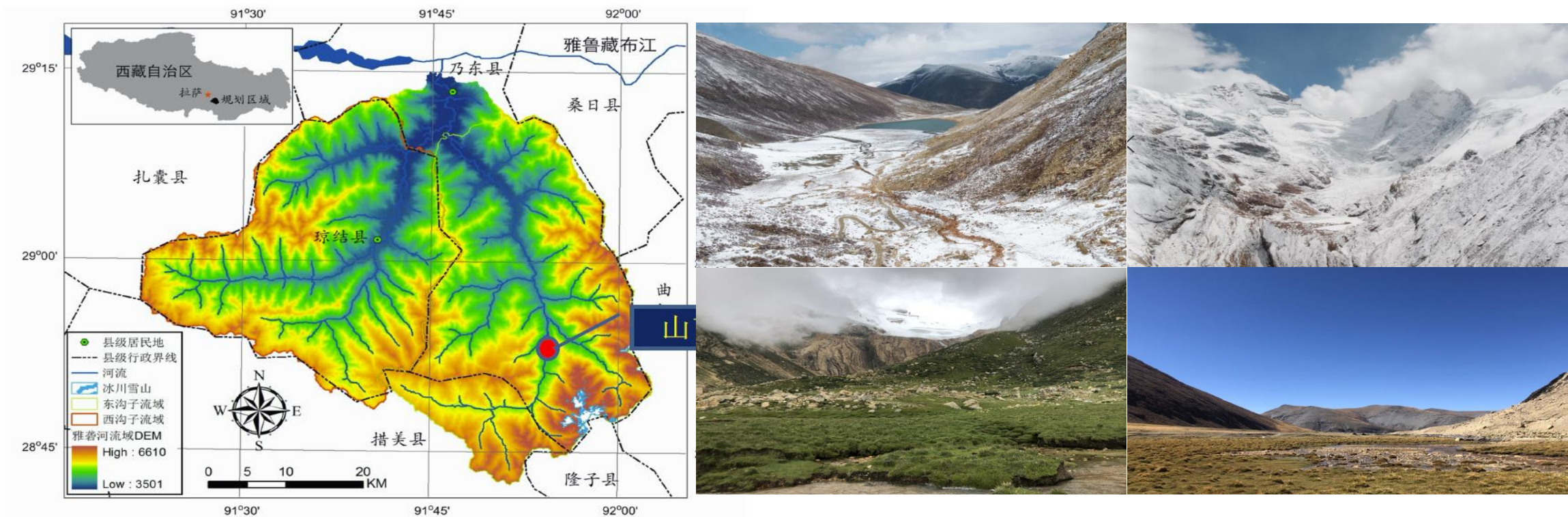


## Yala Shampo Cryosphere Hydro-Ecological Station

Yala shampo Cryosphere Hydro-Ecological Station is located at the source of the Yalong River with geographic coordinates of N28° 55'31" and E91° 53'53". It belongs to Yadui Town, Naidong District, Shannan City, Tibet. The Yalong River originates from the Yala Shampo Snow Mountain on the northern slope of the Himalayas, with modern glaciers widely developed, which serves as an important recharge for the middle reaches of the Yarlung Tsangpo River. The highest point of Yala shampo Snow Mountain has an elevation of 6635m. The Yala shampo Snow Mountain is part of the northern Himalaya's remaining branch, which are mostly high mountains covered by snow and ice. It is a permanent snow glacier as the summer ice could cover an area of about 10.1 square kilometers. In the area beyond 5000m above sea level, there is sparse vegetation on the rock debris slope, which is composed of Phoenix hair chrysanthemum and Rhodiola; at an altitude of 4,500~5,000m, there are small tarragon grass and round spike polygonum, pearl bud polygonum meadow, with a relatively low coverage of 50-60%, the meadow layer is about 10cm thick and the grass production is low.



Geographical location and main sampling plots of Yala shampo cryosphere hydro-ecological station

Equipped with several sets of ecological environment monitoring equipments, the Yala shampo Cryosphere Hydro-Ecological station can work with other nodes of the ecological monitoring network of the autonomous region to complete multi-dimensional ecological monitoring in the Tibet Autonomous Region. The monitoring indicators include grass ecology, runoff, glacial permafrost hydro-ecology, etc. which could provide data and technical support for the scientific management of the ecological environment and the construction of ecological security barriers in the autonomous region. The monitoring takes a comprehensive coverage of the atmosphere, water environment, hydrology, ecology, soil, changes in geological conditions, and meteorology, including multi-scale and all-round monitoring of temperature, precipitation, radiation, relative humidity, wind direction and speed, soil temperature, soil moisture, frozen soil changes, soil respiration, greenhouse gas emissions, and river runoff, etc.



Experiments carried out in Yala shampo cryosphere hydro-ecological station