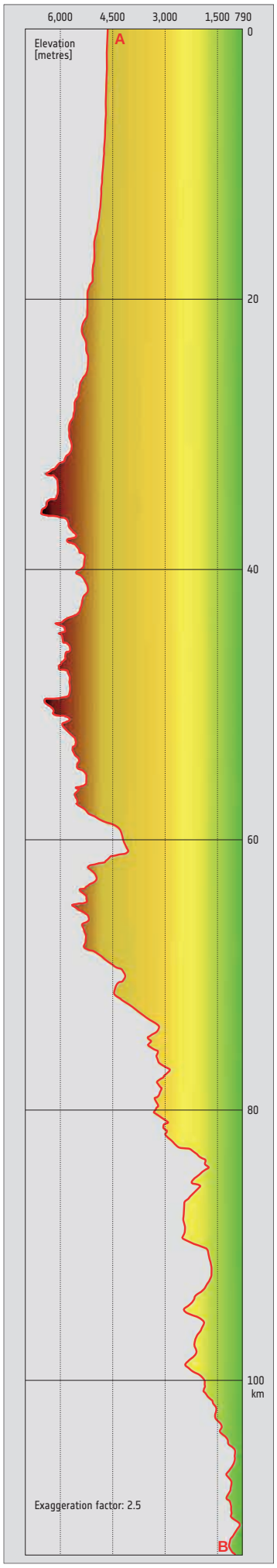
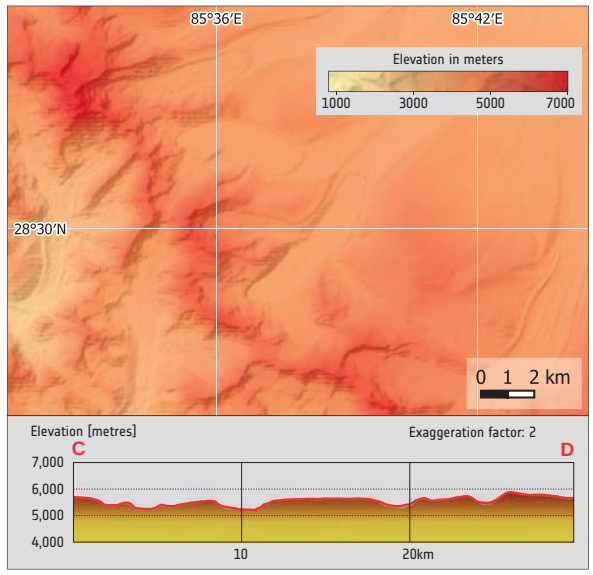


1. *A north-south cross-section through the Himalayas.*

2. *The Himalayas separate the green lowlands in the south from the arid Tibetan Plateau in the north. Sentinel-2, 2023-10-22.*



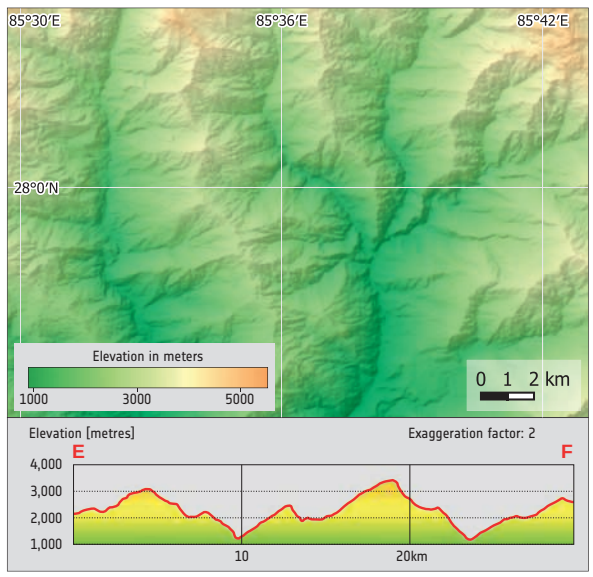
3. *Typical smooth, U-shaped valleys formed by glaciers are accompanied by moraines and glacial lakes.*

Landscapes shaped by Erosion

The slopes of the Himalayas are tectonically active. The collision between the Indian Plate and the Eurasian Plate results in crustal uplift and the formation of the Himalayan mountain range. Different erosion processes are slowing down the uplift of the mountain range.

The northern slope of the Himalayas, the Tibetan Plateau, is characterized by high plateaus, deep valleys, and rugged terrain. This area is largely arid and has a higher average elevation compared to the southern slope. Here the erosion is largely governed by glaciers, leading to the typical U-shaped valleys and moraines of glacial erosion.

The southern slope of the Himalayas is generally more varied in relief, with lower valleys and higher peaks. This region includes the foothills of the Himalayas, which gradually transition into the vast plains of the Indian subcontinent. Here mainly fluvial erosion is seen. The landscape is formed by rivers and landslides, leading to V-shaped valleys.



4. *Typical V-shaped, rugged valleys formed by the rivers along the southern slopes of the Himalayas.*