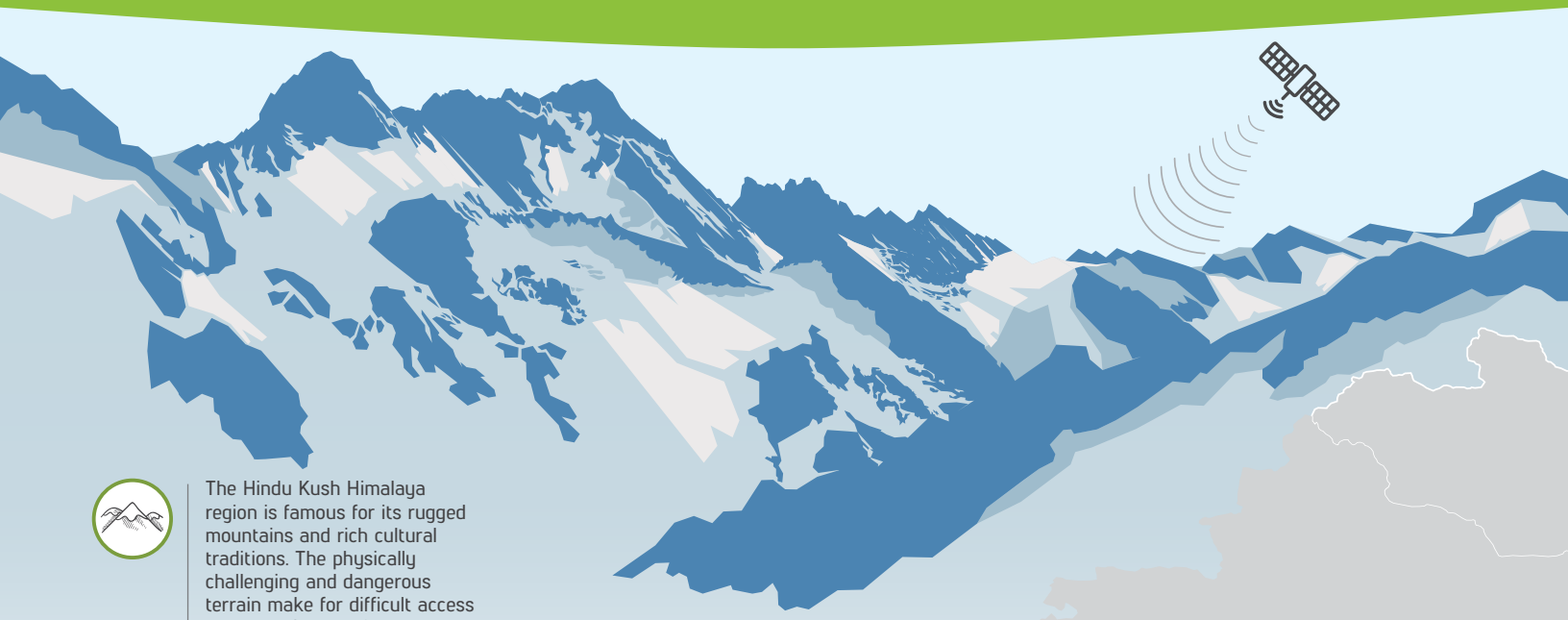
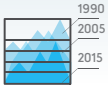
SATELLITE DATA HELPS LAUNCH AFGHANISTAN'S FIRST GLACIER INVENTORY



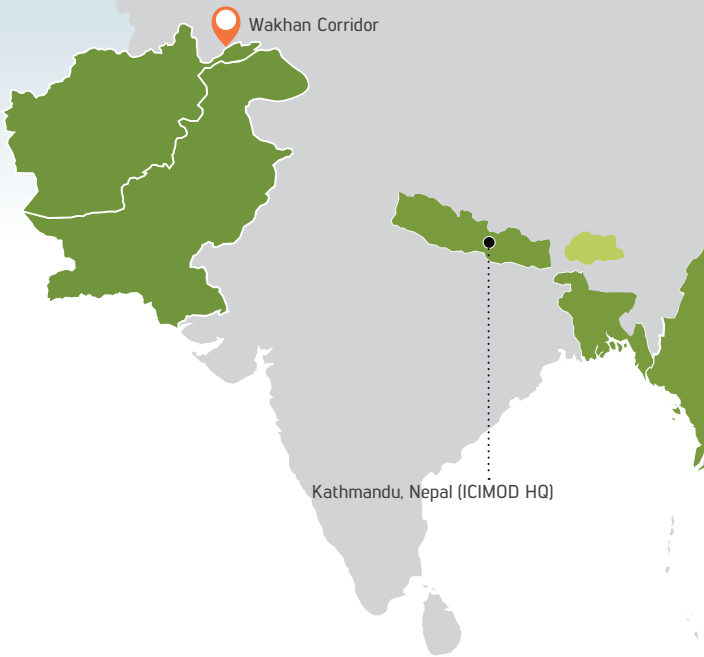
The Hindu Kush Himalaya region is famous for its rugged mountains and rich cultural traditions. The physically challenging and dangerous terrain make for difficult access to much of the region. As a result, only a few of the more than 50,000 glaciers are consistently monitored in situ. Yet glacier melt is an important water resource for parts of the region including some of its densely populated areas.

In collaboration with the Afghanistan Ministry of Energy and Water (now the National Water Affairs Regulation Authority) ICIMOD researchers with the SERVIR-Hindu Kush Himalaya hub have used remotely sensed satellite data to map and monitor glaciers to develop the first-of-its-kind inventory and database of glaciers and glacial lakes. Understanding trends in glacier dynamics can inform water management and can help predict water availability, glacial hazards, and other impacts of climate change.



Afghanistan-based ICIMOD research assistants have developed a database of glaciers from the years 1990, 2000, 2005, 2010, and 2015 to study decadal changes in glaciated areas.

With SERVIR's support, these new datasets and tools enable the government of Afghanistan to make better informed decisions for water resource planning and management.



"Mapping and monitoring glaciers in Afghanistan using GIS (Geographic Information System) and remote sensing techniques has been a breakthrough for us to collect reliable data. Today, we have an exact number and an estimated volume of glacier water reserves."

—Daud Qazizada, *Former Minister of Energy and Water*

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