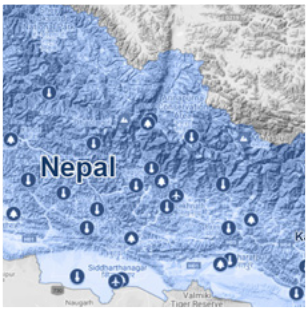
MicroStep -MIS

COMPLEX SOLUTIONS FOR THE REAL WORLD



Success Story

Surface Meteorological Network of Nepal

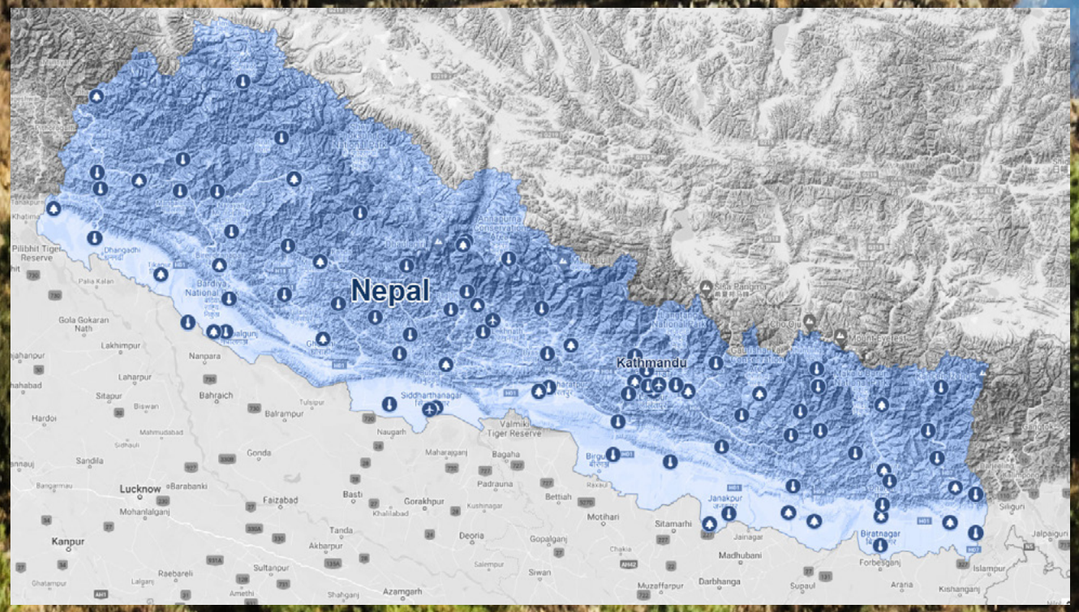
Overview

Tender

Supply, delivery, installation, and commissioning of the Surface Meteorological Network | Pilot Program for Climate Resilience (PPCR) - Building Resilience to Climate Related Hazards (BRCH)

Client

Department of Hydrology and Meteorology, Nepal (DHM) under Nepal's Ministry of Energy, Water Resources, and Irrigation, monitors and manages hydrological and meteorological activities across the country. DHM provides critical data for water resource planning, disaster mitigation, aviation weather services, and agriculture. It delivers flood forecasting, early warning systems, and climate advisories while contributing to global meteorological initiatives as a member of the World Meteorological Organization (WMO).



Nepal has a diverse geography, including fertile plains, subalpine forested hills, and eight of the world's ten highest peaks, including Mount Everest, the highest point on Earth.

The Surface Meteorology project was part of the Building Resilience to Climate-related Hazards (BRCH) project to move Nepalese hydro-meteorological services to a modern service-oriented system that would build resilience and adaptive capacity for the future.

The project aims to increase government capacity to mitigate climate-related hazards by increasing the accuracy and timeliness of weather and flood forecasts

Simikot Airport

Mushikot AWS

to prepare the general population climate-vulnerable communities for disasters. It also supports farm management information system services that help farmers mitigate climate risks.

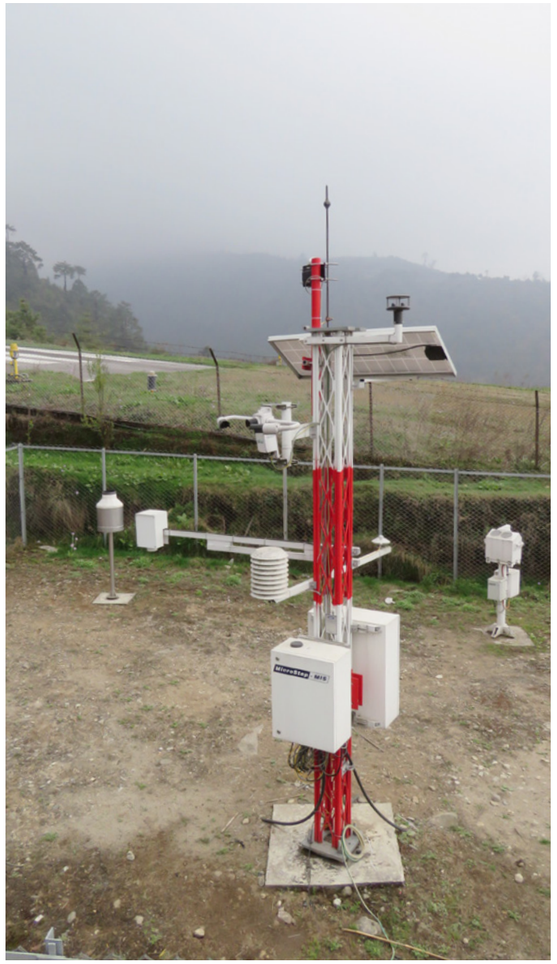
The Pilot Program for Climate Resilience (PPCR) is a program of the Climate Investment Funds (CIF), administered by the Multilateral Development Banks (in Nepal the Asian Development Bank, the International Finance Corporation, and the World Bank) to support the implementation of country-led programs and investments. The overall objective of the PPCR is to demonstrate ways to integrate climate risk and resilience into core development planning.

The procurement contract was signed between MicroStep-MIS and the Department of Hydrology and Meteorology (DHM), Government of Nepal. The project

Success Story Nepal

had to roll out as per the design of the System Integrator (SI) consortium, led by the Finnish Meteorological Institute.

The project was completed in a span of over 24 months and a major part of the installations happened at the peak of the pandemic wave. The project heralded the transition from a conventional meteorological system to a national meteorological network of 88 stations of five different categories ranging from agro-meteorological to Automated Weather Observation Systems. Central Climatological Database is an integral part of the unified data collection, monitoring and analysis system.



Lukla Airport

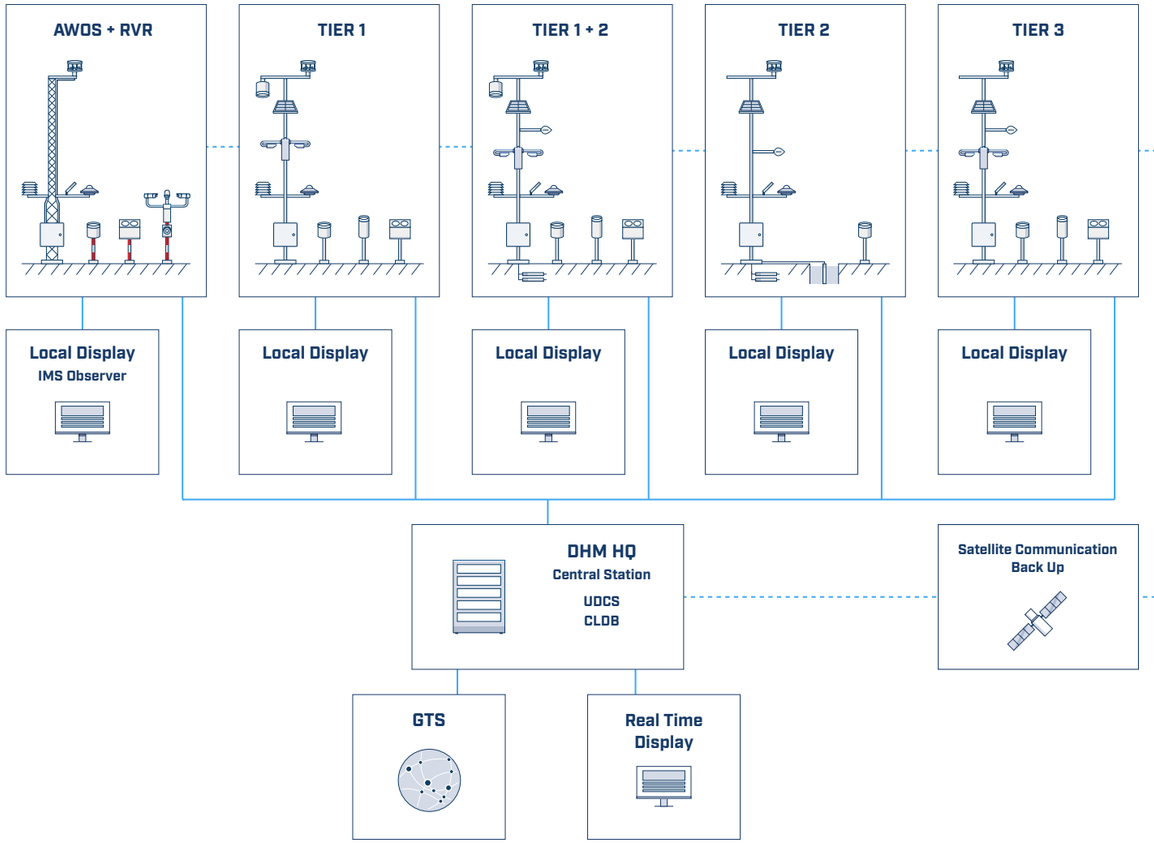
Syangboche Airport

Numerous stations have been installed across the Great Himalayan Range, with some of them positioned at the highest altitudes on earth. Among them, the scenic Lukla Airport, recognized as one of the most perilous airports worldwide, situated at an elevation of 2,845 meters at the foot of Mount Everest, and the Syangboche Airport, the highest station within the network at 3,780 meters above sea level, serving the Solokhumbu District in Nepal from the town of Namchee Bazaar. This airstrip stands as the nearest landing site to both Mount Everest and the Everest Base Camp.

The project also covered many tourist airports, some of which are only open for a few months a year, thus posing a serious challenge in terms of time management and installation planning. Given the extreme weather conditions, meticulous planning had to be done to mobilize the resources on time. Some of the stations were located in high altitude locations or deeply in forests with no road connectivity resulting in carrying the equipment to sites on foot. Similar problems often led to a redesign of the system at many levels. However, 60 % of the installations were completed during 2020 despite the challenges and limitations caused by a pandemic.

The project demanded a high level of engagement and coordination by the team in the Bratislava head office, and local coordination by the MicroStep-MIS India team. This mutual effort has helped to resolve all the issues despite the limitations and bring the project to a successfull conclusion.

Success Story Nepal



Schematic visualization of the system

TIER 1	11 regional baseline synoptic stations
TIER 2	24 agrometeorological stations
TIER 1 + 2	5x combination of tier 1 and tier 2 stations
TIER 3	45 supplementary stations
AWOS	3 Automated Weather Observations Systems

150+

talented and dedicated professionals working together

CONTACT US

info@microstep-mis.com
www.microstep-mis.com