



Where I work Hemu Kafle

Photographed for *Nature* by
Monika Deupala.

This is one of the low-cost meteorological stations that we designed and developed here at the Kathmandu Institute of Applied Sciences. We made the first prototype three years ago – this is the fourth. It measures temperature, humidity, pressure, wind speed and direction, and rainfall.

In the old days, my grandfather talked about a drought in Nepal – they call droughts '*khadēri*' in Nepali. But when I tried to research droughts in Nepal, there was very little information. Nepali people talk about floods and landslides – they are visible disasters – but not about drought. However, droughts can drastically affect crop production, especially in rain-fed agriculture with no irrigation facilities.

There were very few meteorological stations, and because our topography is so mountainous, people cannot go out to calibrate the instruments, so many of the meteorological data are missing. I did my PhD on remote sensing at Nagoya University in Japan, and I thought I could use satellite data sets to fill in the gaps and build the

whole picture of drought in Nepal. But I needed a modelling computer, and my institute at the time said no.

I was not satisfied. There were other researchers with the same mindset, who had studied outside Nepal and wanted to research the specific problems of our country. After several meetings, in 2015 we established our institute, which supports research in wildlife conservation, extreme climatic conditions and environmental pollution.

It's now been seven years, and thanks to foreign grants we have a very good institute. I got my computer, and I did a drought analysis of Nepal as well as of parts of India, Bangladesh and Pakistan.

In developing countries, so much local research work needs to be done. We also want to train young scholars so as to produce more of the scientists and visionaries needed for Nepal to graduate from developing to developed country.

Hemu Kafle is an environmental scientist and founder of the Kathmandu Institute of Applied Science. **Interview by Bianca Nogrady.**