

First tests at the Tambopata Flux Tower for the Andesflux-Network

As a project partner of the PUCP in particular the Institute for Nature, Earth and Energy led by Eric Cosio, we are working on supporting the build-up of an infrastructure to connect multiple eddy covariance towers located in the Amazon basin into one network and also develop and install LoRaWAN Hardware, which is used to gather information from the area surrounding the towers.

Remote Connection

In the last couple of days, we were installing the first system at the tower in Tambopata. The central part which enables us to establish a remote connection to the towers is the [Teltonika RUT 955 4G Router](#).

The problem before was that you were unable to communicate with the tower before. All the measured data had to be get in person at the tower itself, which is very time-consuming and inefficient. The way the new router is configured allows the researchers at the PUCP in Lima, Penn State University, and other collaborating institutes to connect remotely via a private VPN to all the installed devices at the tower, the most important one being the LiCor Smartflux 2.

Later on, in the project, it is possible to connect other towers to this VPN as well which would make it the central hub for data exchange in the Andesflux tower network.

The first test has proven that it works as intended, but only long-term use can show if it is suitable for the given task in the long run.

LoRaWAN

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