

Case Study: Timburi-Cocha Research Station

Conservation research in Sumaco National Park, Ecuador

The challenge

Loss of biodiversity and its supported ecosystem services is a global concern. In the Amazon basin climate change and deforestation are continuing to dramatically alter the region, with ramifications for the entire planet.

The Payamino community in Ecuador lives within a UNESCO biosphere reserve that is recognised internationally as a biodiversity hotspot. Despite living in an area of such global importance, the indigenous community was under pressure to financially sustain themselves by working in ways that harmed the environment, including extensive logging, hunting and fishing.

In 2002 the Timburi-Cocha research station was established, and sits on land belonging to the 300 indigenous people of the Payamino tribe, close to Sumaco National Park in Ecuador. The activities of the research station provided alternative employment and training that reduced exploitation of the local forest. In 2011 the project that funded the research station came to an end, and its future was in doubt. This would have resulted in loss of employment for the local people, the loss of local biodiversity information sharing with the neighbouring national park, as well as a return to environmental exploitation.

The University of Manchester solution

The University of Manchester was already leading in biodiversity research in the Ecuadorian Amazon and Natural Environment Research Council funded projects had fostered strong links between the University and the Timburi-Cocha research station. Crucially, their research was able to demonstrate that self governance by the indigenous community can help to mitigate the influence of market pressures.

Researchers from Manchester have now funded and assisted in the reconstruction and substantial expansion of the Timburi-Cocha research station, with the express aims of providing employment for the Payamino community, and facilitating biodiversity research in this area of high endemism.

In March 2011 an agreement was reached between the Ecuadorian Ministry of the Environment, Sumaco National Park, the Quito Museum of Natural Science, local universities and the Payamino community to support the long-term future of the Timburi-Cocha research station.



The Timburi-Cocha Research Station has changed the attitude of the people of the community in terms of how to obtain an income without hunting, logging, or indiscriminate fishing practices.

Javier Patino,
Station Manager,
Timburi Cocha Research Station



Timburi-Cocha Research Station sits on 17,000 ha of land belonging to the indigenous people of the Payamino tribe, next to Sumaco National Park in Ecuador. It is primarily used as a research base, where volunteers, students, and scientists come to study the biodiversity of this internationally recognised area of endemism.

www.timburi.org



The research conducted at the station has not only provided novel scientific information, but has also fed directly into local conservation and policy development. For the local Payamino community, the people who make the decisions about conservation are the people who work with us at the research station.



*Professor Richard Preziosi,
Faculty of Life Sciences,
The University of Manchester*

A formal agreement between Universidad Estatal Amazonica and The University of Manchester for the joint management of Timburi-Cocha Research Station was completed in February 2013. This new management structure ensures that research will continue to support the local community through capacity building, employment and knowledge discovery.

- **Collaboration:** NERC funded University research at the station has ensured collaboration at local, national and international levels is fostered and maintained, and that research and monitoring of species in this biodiversity hotspot is a priority for many parties.
- **Support:** The Timburi-Cocha research station is now formally supported by The Faculty of Life Sciences at The University of Manchester, which includes funding for the station management and a student programme.
- **Security:** The University's Professor Richard Preziosi established the research centre as an independent charity. Universities and individuals pay to use the station, and all of the money raised is ploughed back into the station, or used to support the indigenous community.

The benefits

The University and its research have had a direct and measurable impact on the quality of life in a developing country, improving conditions for the Payamino community. Local people have access to the information they need to protect their land, and they have been trained in biodiversity monitoring methods giving them the ability to adaptively manage their own resources.

- **Policy:** Debate has been stimulated at many levels, from local community through to national conservation bodies, and policy decisions have been made in direct response to the work carried out at the station. This has influenced the decision making process of local government, national conservation bodies and the GTZ (a German development agency that works closely with Sumaco National Park) for methods of best practice.
- **Research:** For the University there are more opportunities to conduct cutting-edge research in an area of endemism, and the research and partnership contributes to the University's social responsibility agenda. University students have access to unique field courses. Currently projects include systematic camera trapping to measure mammal biodiversity, as well as on site conservation of amphibians.
- **Employment:** Members of the local community work with visiting researchers, carry out vital maintenance, coordinate community projects and act as guides and cooks. Two Ecuadorian nationals are also employed to manage and develop research projects in association with Sumaco National Park.
- **Public Health:** The research station provides free medical clinics and water filtration systems for the community. Local nurse assistants are trained to diagnose malaria, and employees are supported to use western medicine in a way that compliments traditional methods.