

## Restoration of natural capital

An innovative approach to financing conservation is building long-term income and water security for hundreds of families by protecting rainforests and reducing flood risks. It is now being replicated across the region and featuring in global climate negotiations.



THRIVING ECONOMIES



IMPROVED LIVELIHOODS



FOOD SECURITY



WATER SECURITY



HEALTHY BIODIVERSITY



CLIMATE RESILIENCE



SUSTAINABLE DEVELOPMENT

# Communities working together to protect their water supply

## BOLIVIA

### Context and challenge

Central Bolivia, where the Andes meet the Amazon, is one of the most biologically diverse regions on Earth, rich with lush rainforests. Here, people's livelihoods are closely intertwined with nature, but a lack of cooperation between upstream and downstream communities in the vast Rio Grande catchment was creating a lose-lose situation.

Water from the 57,000km<sup>2</sup> catchment is needed to irrigate the valuable agricultural lands of the Santa Cruz lowlands, but this vital ecosystem service is jeopardised when – in the absence of economic alternatives – people upstream are forced to cut down forests to make space for cattle. The resulting flooding is decimating downstream agricultural production and has caused €250 million of damage since 1992<sup>1</sup>. Cattle farming also pollutes adjacent rivers, leading to the contamination of downstream water sources, causing disease as well as missed school and work opportunities for the neighbouring villagers. Precious forest biodiversity is being destroyed to make way for low-productivity upstream agriculture that threatens the health and livelihoods of people downstream.

Hydrological analysis clearly showed that protecting the remaining forests could help reduce the severity of the flooding, as well as safeguarding the many other ecosystem services provided by the forests such as carbon capture, non-timber forest products, and cultural values.

### Taking an ecosystem approach

The ecosystem approach promotes the integrated management of land, water and living resources in a

way that achieves mutually compatible conservation and sustainable use, and delivers equitable benefits for people and nature.<sup>2</sup> In this case, an Ecosystem Alliance project worked with local communities to pioneer a new approach to watershed management, focusing on Amboró's cloud forests: 'Acuerdos Recíprocos por Agua' or Reciprocal Watershed Agreements, a bottom-up version of the traditional 'payment for ecosystem services'. Since 2004, such agreements have conserved thousands of hectares of biodiversity-rich forest and helped reduce poverty and insecurity in the participating municipalities.

Reciprocal Watershed Agreements are based on two simple axioms: 1) protecting upstream forests will help maintain both the quantity and quality of water supplies; and 2) downstream water users should contribute to this protection by compensating people upstream for leaving natural vegetation intact.

Between 2004 and 2010, ground-breaking watershed agreements expanded more than ten-fold to protect around 5,000 hectares of forest. Since the launch of the joint Ecosystem Alliance programme in 2011, growth has been explosive. By 2013, 22 municipal governments and water cooperatives had joined the movement. More than 30,000 downstream users were compensating 1,500 families upstream for protecting 87,000 hectares of forested 'water factories'. Compensation came in the form of barbed wire, cement, fruit tree seedlings, bee-keeping equipment, piping, water tanks and roofing materials. People are experiencing first-hand the tangible social and economic value of maintaining healthy, functioning ecosystems.



Sandy Rojas Natura technician explains meteorological monitoring in Moro Moro



Ambooró National Park

In 2009, Fundación Natura partnered with Rare Conservation and 10 Andean institutions to promote new Reciprocal Watershed Agreement initiatives in additional countries. Within three years, 10 municipal programs in Colombia, Ecuador and Peru had developed local sustainable financing mechanisms founded on this model and put 15,000 more hectares under conservation agreements. The lessons-learned will be synthesised into a toolbox to help more communities design their own agreements in the future and take a proactive role in the preservation of their natural capital.



**Childrens views of the importance of water to life**

*“By creating and strengthening new institutional structures, we have helped communities to focus on the social component of water conservation. Prior to the project, landowners did not act as conservationists, nor did they interact with their neighbours to discuss and act on conservation issues. We have created communities of conservation in which, for the first time, people are talking and acting together about better protecting their environment.”*

Nigel Asquith,  
Director of Policy  
Fundación Natura,  
Bolivia

## Impacts on communities, nature and policy

- A self-sufficient conservation financing mechanism has been developed and rolled out.
- More than 17,000 hectares of upstream forests have been conserved for the long term.
- Deforestation rates inside the watershed agreement areas have been reduced.
- Incomes of 445 families among some of the poorest communities have increased by over 10%.
- Gender integration in decision-making has been measurably improved.
- Communities are empowered to negotiate their own compensation schemes for forest conservation and watershed management, leading to balanced agreements between equals.
- Upstream environmental service providers have an institutional structure through which to negotiate future agreements with local water users or international carbon buyers.
- Santa Cruz city now has capitalised a trust fund, with a contribution pledged by the government.
- In their preparations for the United Nations Framework Convention on Climate Change COP17 in 2011, the Bolivian government proposed “... that non market based approaches, such as joint mitigation and adaptation approaches for the integral and sustainable management of forests as a non-market alternative that supports and strengthens governance ... could be developed”.<sup>3</sup>
- In the REDD+ negotiations, Bolivia has promoted ‘Sustainable Forest Life’ – a non-market based mechanism for mitigation, adaptation, restoration, and ‘climate compatible’ economic development.

Staff at Bolivia Nature are also advising the Mexican Forestry Commission, the Peruvian Ministry of the Environment, and the Beijing Forest Society as they develop and refine new payment for ecosystem services programs. It is hoped that this will prompt other governments to see the benefits of taking an ecosystem approach with the help of such initiatives.

Governments in the global north have a role to play in encouraging such local civil society efforts including by providing financial support to their often stretched budgets and ensuring that civil society is given a voice in relevant international fora. All governments and businesses must examine their approaches and supply chains and ensure that their trade policies and practices are fully sustainable and respectful of social rights and norms. This project shows how a local community intervention can reverberate throughout an entire region and even take on global significance.

## For more information, please contact:

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## Further reading

1. [www.naturabolivia.org/index.php?option=com\\_content&view=article&id=68&Itemid=37&lang=en](http://www.naturabolivia.org/index.php?option=com_content&view=article&id=68&Itemid=37&lang=en)
2. [www.naturabolivia.org/images/pdf/hojas%20informativas/Tratos%20Justos%20small.pdf](http://www.naturabolivia.org/images/pdf/hojas%20informativas/Tratos%20Justos%20small.pdf)
3. [www.povertyactionlab.org/evaluation/paying-environmental-services-experimental-study-bolivia](http://www.povertyactionlab.org/evaluation/paying-environmental-services-experimental-study-bolivia)
4. [www.naturabolivia.org/images/pdf/libros/Asquith%20%20Vargas\\_2007eng.pdf](http://www.naturabolivia.org/images/pdf/libros/Asquith%20%20Vargas_2007eng.pdf)

## REFERENCES

1. Asquith and Vargas. 2007. Fair deals for watershed services in Bolivia. Natural Resource Issues No. 7. International Institute for Environment and Development. London, UK.
2. <http://www.cbd.int/ecosystem/>
3. The proposal entitled ‘Sustainable Life of Forests’ was presented by Bolivia at COP17 in Durban, 2011, and this text was adopted as paragraph 67 of decision 2/CP.17 ‘Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention’. [http://unfccc.int/files/cooperation\\_support/market\\_and\\_non-market\\_mechanisms/application/pdf/nma\\_bolivia\\_03092013.pdf](http://unfccc.int/files/cooperation_support/market_and_non-market_mechanisms/application/pdf/nma_bolivia_03092013.pdf)

## Looking to the future

Scale-up initiatives are focusing on changing social norms around conservation and helping potential participants to appreciate how they can contribute directly to community well being and build a secure future for their families. The project is creating engaged and committed ‘communities of conservation’.

