

*Brazil*

# *Balancing the needs of tourism and biodiversity in Rio de Janeiro*

Urban consumption, tourism and deforestation threatens one of the most biologically diverse regions in the world. The Rio de Janeiro Water Fund is working to drive conservation.

### *The context*

Rio de Janeiro's c.10 million urban residents and tourists each use almost 300 liters of water each day—well over Brazil's national and global averages. The increasing demand for water is impacting an already-stressed water source. About 80 percent of the water used in Rio is supplied by the Guandu River System, but more than 50 percent of this water is lost to leakages and other faults in the transfer system. Rio is surrounded by remnants of the Atlantic Forest, one of the most biologically diverse ecoregions of the world but forest loss threatens these species and their habitat. Centuries of agriculture, cattle ranching and urban development have led to the deforestation of almost 90 percent of this ecoregion and have caused intensive sedimentation of water sources.

### *The action*

TNC recognised the strategic opportunity of investing resources in The Upper Pirai watershed, where natural vegetation remains relatively intact. The Upper Pirai directly contributes to the Guandu system and ultimately supplies the city of Rio with 12 percent of its water. The Nature Conservancy and its partners supported

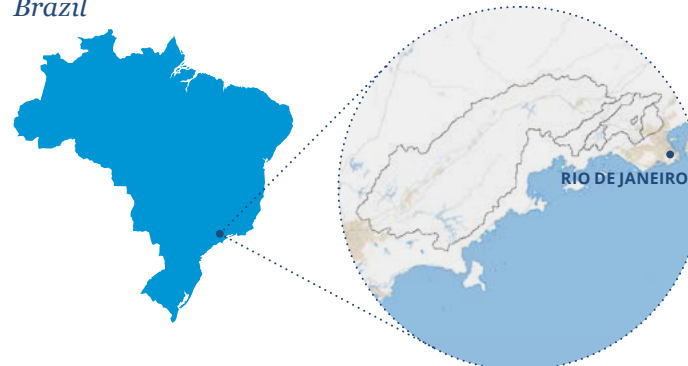
the Brazilian National Water Agency and the Guandu Watershed Committee in creating a Water Fund to compensate local landowners for conserving and restoring forests in the headwater catchments.

### *The future*

From 2009-2016, the Water and Forest Producer Project Water Fund distributed US\$110,000 to 62 landowners for reforesting almost 500 hectares of degraded land and for protecting an additional 3,000 hectares of existing forest. While maintaining base flows and reducing sediment loads were priority objectives, the fund's managers also recognized the importance of investing in a robust biodiversity monitoring program. Baseline inventories have so far revealed a thriving population of an endangered fish species and 38 bird species that had never been observed previously in the region. Future monitoring will benefit the Water Fund as it adaptively manages its program, and it should generate findings of relevance to other forest restoration efforts in the region and elsewhere in the world.



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*More than 20,000 species of plants and 2,200 species of mammals, birds, reptiles, amphibians and freshwater fish live in the Atlantic forest region surrounding Rio de Janeiro. Approximately 60 percent of all threatened animals in Brazil reside within this ecoregion.*

*Read the full story at: [global.nature.org/content/beyond-the-source](http://global.nature.org/content/beyond-the-source)*

## Lead the way to a secure water future with the Water Funds Toolbox

### What are Water Funds?

A Water Fund is a framework that enables cities, communities and companies to invest in the management of the landscapes where their water is sourced; so that upstream forests and wetlands are protected to continue naturally cleaning and filtering water. Upstream communities can benefit from enhanced livelihoods and improvements to health and wellbeing whilst downstream communities experience improved water quality and, in many cases, fewer disruptions and shortages.

### What is the Water Funds Toolbox?

The Water Funds Toolbox is a step-by-step online guide for developing a Water Fund. It features videos, testimonials, templates, tools, case studies and much more. The heart of the toolbox is the Water Fund Project Cycle, which outlines the five phases that take a Water Fund from feasibility through to maturity.



### Ready to make a difference?

#### Develop your knowledge

Through the Water Funds Toolbox you can access the state of the art curriculum for developing Water Funds. Authored by Water Funds practitioners for practitioners.

#### Curriculum includes:

- Water Funds 101
- Stakeholder Analysis
- Action Planning
- Courses specific to governance, science, finance, implementation and communications

[nature.org/WaterFundsTraining](https://www.nature.org/WaterFundsTraining)

#### Build your network

Join the global community of Water Funds practitioners working to apply and refine the Water Fund model around the world.

#### Network activities:

- Webinars
- Discussion boards
- News
- Member profiles
- Recognition programs
- Network-wide competitions
- Peer learning & review

[nature.org/WaterFundsNetwork](https://www.nature.org/WaterFundsNetwork)

### Water Fund Project Cycle

1

#### Feasibility

Defining the problem, attracting partners and hiring the WF Director

2

#### Design

Developing a strategic plan with solutions and establishing the WF governance

3

#### Creation

Formalizing the WF structure and official launching

4

#### Operation

Developing and implementing annual work plans

5

#### Maturity

Securing the WF's long-term viability and creating large-scale impacts