



*By assisting farmers in Totoro, USAID and its partners also helped protect the endangered red-fronted macaw.*

To advance the journey to self-reliance, we safeguard people and resources by systematically addressing environmental risk.

*Building roads in and around Totoro National Park gave the local farming community better access to resources.*



## Challenges

- Threats to endangered species
- Deforestation
- Soil erosion
- Inconsistent rainfall

## Solutions

- Improved agricultural technologies
  - Greenhouses
  - Crop diversification
  - Irrigation
- Set-aside conservation areas
- Training for communities in USAID environmental compliance and safeguarding

# ENVIRONMENTAL SAFEGUARDING SPOTLIGHT ADVANCING AGRICULTURE AND PROTECTING ENDANGERED MACAWS IN BOLIVIA

When farmers in the remote municipality of Totoro, Bolivia, were asked to stop killing the endangered red-fronted macaw, they were understandably reluctant. The bird—a parrot whose territory is limited to the semi-desert Andean foothills—was eating their crops and the community was facing a food shortage. But when USAID said it would provide technical assistance on agricultural activities such as irrigation and greenhouse development, the farmers were willing to make a deal.

In Totoro, USAID worked with the non-governmental organization Food for the Hungry International (FHI) to undertake an integrated development project supporting road improvement, natural resource management, food security, and water and sanitation activities.



Several areas were set aside to foster native habitat for the macaw.

“This project had a rather innovative environmental component: The quid pro quo for farmers receiving U.S. Government assistance to increase their on-farm productivity was a commitment to not shoot the macaws. The tourism potential of the area was recognized from the start. A Bolivian bird conservation non-governmental organization even set up a lodge for birders in the valley.”

—Lawrence Rubey, Mission Director, USAID/Peru

## Identifying Environmental Challenges

Farming was a challenge in Torotoro in the early 2000s, with widespread erosion, inconsistent rainfall, and deforestation leading to the loss of soil moisture and the reduction of water supply. The agricultural challenges were further exacerbated by the macaw, which frequently ate crops. This situation resulted in human-wildlife conflict where agriculture activities were degrading macaw habitat and farmers were directly killing the birds.

The road network in the area was also rudimentary and in poor condition, limiting tourism to the adjacent Torotoro National Park and requiring some community members to walk several days to reach the nearest city for markets and provisions.

## Working with the Community to Identify Solutions

To address the challenges, USAID and the community made a deal. USAID gave local farmers assistance to increase their farm productivity in exchange for the farmers’ commitment to protect the macaw. Working with FHI staff on environmental compliance and safeguarding issues, USAID established model farms in Torotoro, teaching farmers and households to adopt new technologies (greenhouses, terraces, irrigation, potable water systems) and plant more diverse crops, such as fruit trees. Several areas were also set aside to protect and foster native habitat for the macaw. These conservation areas were integrated with income generation activities, such as grazing of livestock and sustainable harvest of wild grasses.

USAID also led the rehabilitation and construction of roads in and around Torotoro National Park, which increased tourism as well as local access to markets, health clinics, and schools.

## Results

By managing underlying environmental concerns such as erosion, inconsistent rainfall, and deforestation, USAID-supported work in the area increased household income with more productive and diverse farming, reduced child malnutrition by increasing the food supply, and increased sustainable conservation of the park and other forested areas—all in addition to protecting the macaw! Tourism in the Torotoro National Park rose from less than 1,000 visitors per year in 2002 to more than 22,000 visitors in 2016.

## FOR MORE INFORMATION

Visit <https://www.usaid.gov/environmental-procedures> for resources and templates to implement environmental safeguarding procedures.

Contact your environmental compliance officers for guidance and additional resources: <https://www.usaid.gov/environmental-procedures/environmental-compliance-officers>.