



U.S. Department of Agriculture
Natural Resources Conservation Service



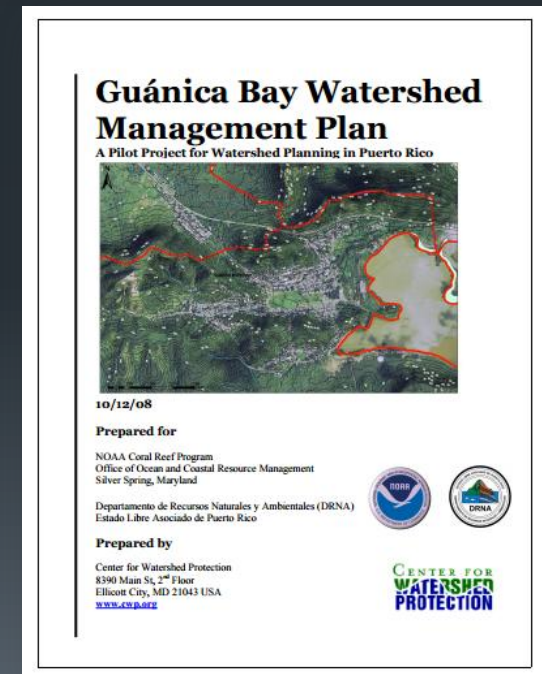
Rio Loco Watershed Conservation Efforts



USCRTF- October 29, 2015
USDA-NRCS Edwin Almodovar
DOI-USFWS- Edwin Muniz

Rio Loco Watershed Management Plan

1. Upland erosion in the coffee growing region
2. Reservoir sedimentation and transport
3. In-stream channel erosion
4. Loss of Historic Guánica Lagoon
5. Legacy contaminants
6. Sewage treatment.



USDA-NRCS Accomplishments 2010 at Present

- Total of 59 conservation contracts; 50 completed contracts addressing resources concern
- Total obligation: \$3,724,556
- 4,823 acres impacted/contracted
- 250 square miles
- Over 43 different conservation practices types (BMPs) implemented along the watershed

Accomplishments Cont.

- *Conservation District*- Outreach activities, new proposal in the watershed and Lajas Valley Area (e.g., water management initiative, agricultural water treatment, and tail water recovery)
- Irrigation Water Conveyance, Irrigation Pipeline, Irrigation Reservoir, Irrigation Upgrades, Water and Sediment Control Basin , Pumping Plant implemented.
- *Bioengineering Projects* for Stream banks stabilization: 3 projects (\$448K).
 - Permits has been processed and approved

Bioengineering Project



Bioengineering Project



Bioengineering Project

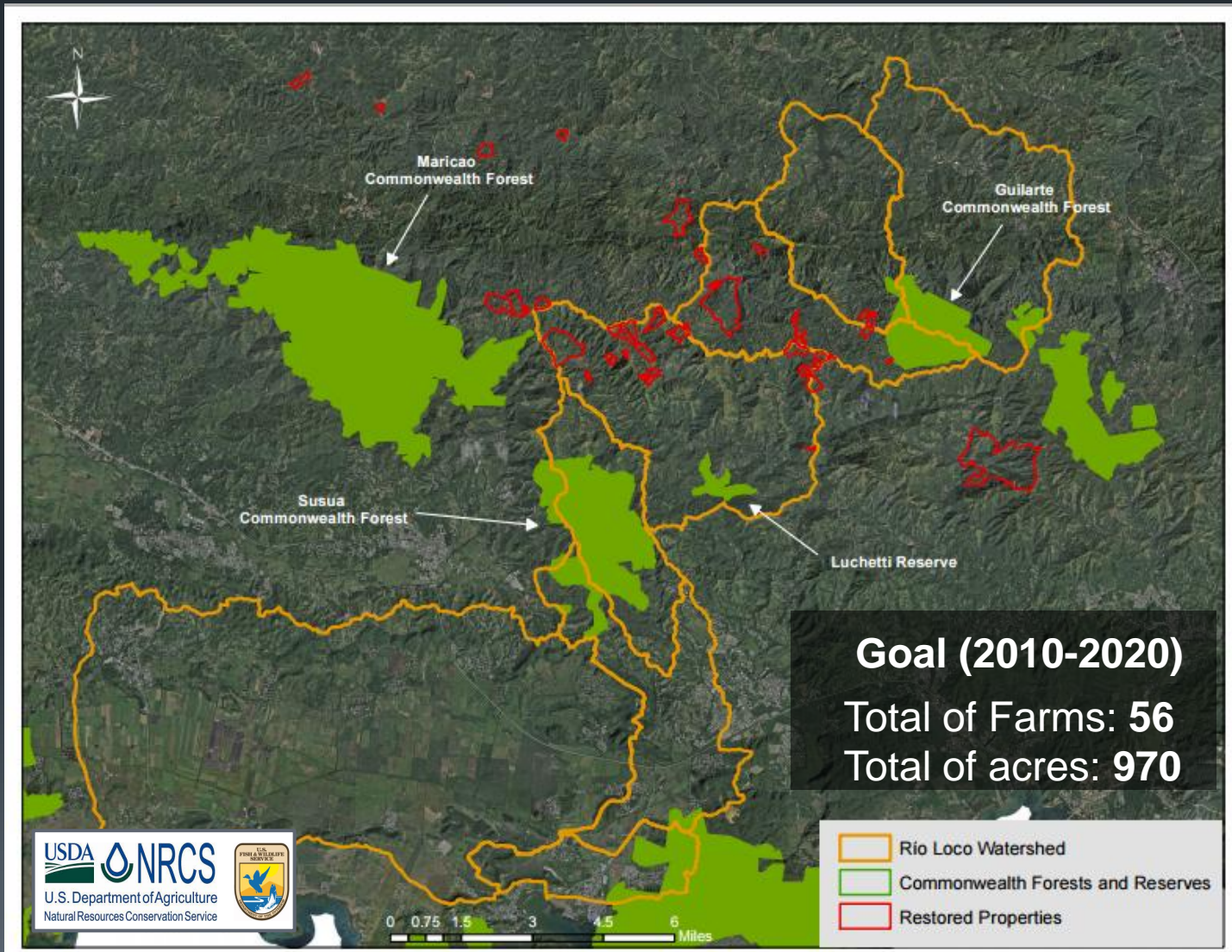


Shade Grown Coffee Initiative



USDA-NRCS and DOI-USFWS in partnership
with local NGOs and Landowners

Shade Grown Coffee Summary 2010-Present



USFWS ROLE

- Contact landowners
- Provide orientation about conservation programs
- Provide technical assistance (demonstrating practices on the field, deliver native trees, coffee round table)
- Provide incentives for tree production and the implementation of restoration practices
- Evaluate and certificate project completion



Sustainable Practices in the Coffee Region

- **Benefits of implementing Shade-Grown Coffee, Forest Enhancement and Riparian Buffer practices**
 - Reduce soil erosion, sedimentation, and contaminants.
 - Require less use of herbicides, fertilizers and provide cooler temperature that helps when collecting coffee.
 - Provides habitat to native wildlife, migratory birds, federally-listed and candidate species.

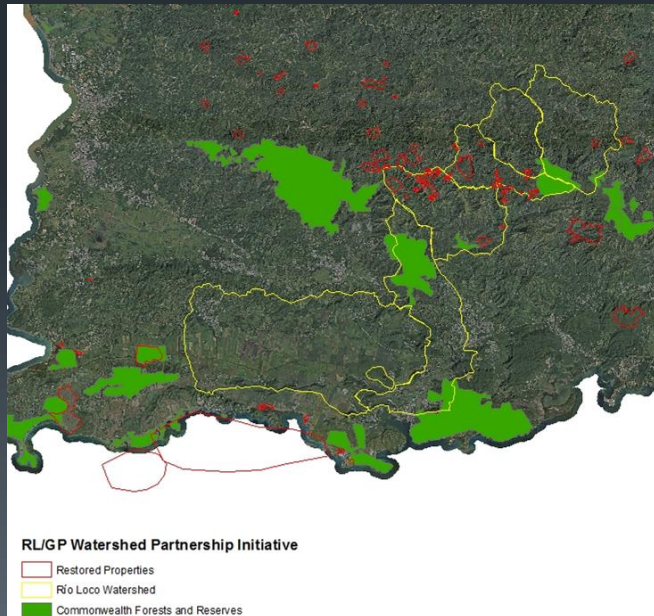


Private landowners engagement has been essential to ensure the success of this initiative.

Accomplishments 2010-Present

Guánica Bay/Río Loco Watershed and Maricao Conservation and Restoration Initiative FY 2010-2015

Number of properties with NRCS & USFWS Agreements	Total delivered and planted trees	USFWS funds provided for production of trees	Total Acres Restored
59	34,087	\$272,696.00	854.47



Conversion of Sun to Shade Coffee



2001



2006



2003



