

Rio Loco Coral Reef Watershed Management Project



Jose A Castro
Assistant Director
USDA-NRCS
Caribbean Area

Purpose

The “Rio Loco Coral Reef Watershed Project” seeks to improve and protect coral reef ecosystem from agricultural nonpoint source pollution.



Unique Project Aspects

- Support of US Coral Reef Task Force
- USDA – NOAA - DNRE – DA Leading Partnership
- Tropical ecosystem
- Humid to semiarid climate



Watershed Description

- South-West Coast of PR
- Subtropical Dry Forest Zone
- Subtropical Humid Forest Zone
- Steep to nearly level topography
- Size - 54,193 acres
- Highly weathered to aridic soils
- Precipitation range from 100 to less than 20 inches
- Predominant land Use – Agriculture



Historical Background : Environmental Prospective

- Guanica Bay suffered an accelerated degradation by the mid of last century as consequence of the land use conversion to sugarcane and coffee plantation.
- Guanica lagoon filtering capacity was reduced significantly by ditching and draining activities.



Agricultural Non Point Sources

- Cropland in highly erodible soils
- Cropland with inefficient irrigation systems
- Overgrazed pasture land
- In stream channel erosion
- Pollutants from Livestock and coffee by product enterprises

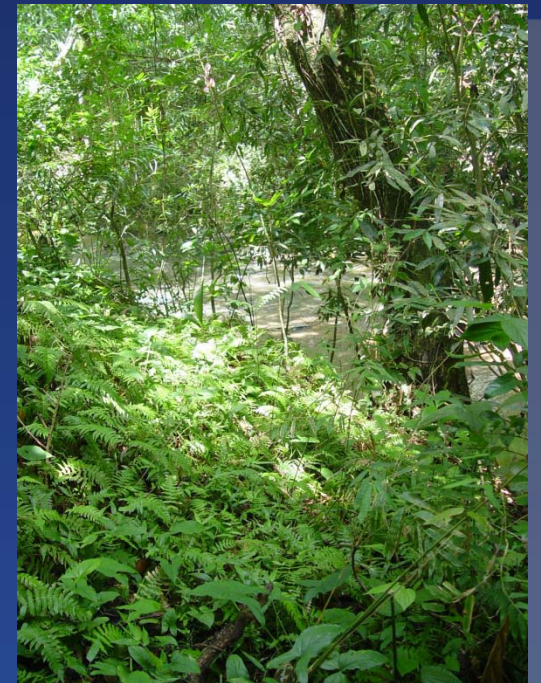
Watershed Resources Concerns

- Soil erosion road, stream bank, and sheet and rill
- Reduced capacity of conveyances by sediment deposition and inadequate outlets
- Excessive runoff, flooding, or ponding
- Excessive nutrients and organics, and turbidity in surface water
- Inefficient water use on irrigated land
- Noxious and invasive plants

Agricultural Land Management Practices

Healthy Forest and Riparian Forest Buffer

- Tree/Shrub Site Preparation
- Tree/Shrub Establishment
- Riparian Forest Buffer
- Forest Stand Improvement



Agricultural Land Management Practices

Erosion and Sediment Control

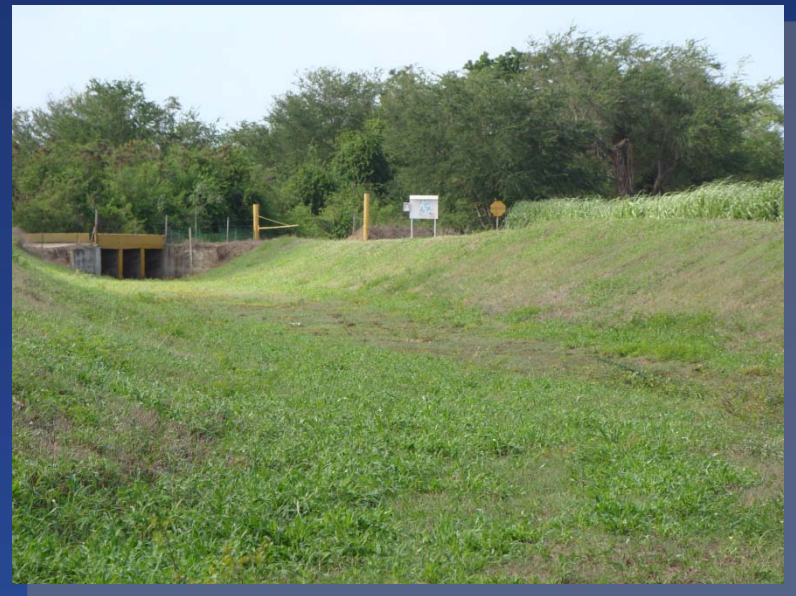
- Streambank and Shoreline Protection
- Trails and Walkways
- Residue and Tillage Management
- Hillside Ditch
- Cover Crop



Agricultural Land Management Practices

Runoff and Flooding and Inadequate Outlet

- Runoff Management System
- Row Arrangement
- Open Channel
- Irrigation System
- Grassed Waterway



Agricultural Land Management Practices

Organics, Nutrients, and Pesticides Runoff Control

- Waste Utilization
- Pest Management
- Nutrient Management
- Irrigation Water Management

Benefits for Coral Reef Ecosystem

- Reduce pollutant discharge to Guanica Bay
- Reduce soil erosion and sedimentation
- Increase filtering capacity of riparian



NRCS activities ...

- Co-lead coordinating agency
- Collaboration of additional partners Provide administration of conservation Farm Bill
- Provide planning and implementation assistance to landowners/operators
- Promoted land stewardship and land protection of sensitive lands in the watershed

NRCS activities ...

Farm Bill 2008 Conservation Program

- Environmental Quality Incentive Program
 - Conservation Innovation Grants
 - Technical Service Providers
 - Cooperative Conservation Partnership Initiative
- Wildlife Habitat Incentive Program
- Wetland Reserve Program

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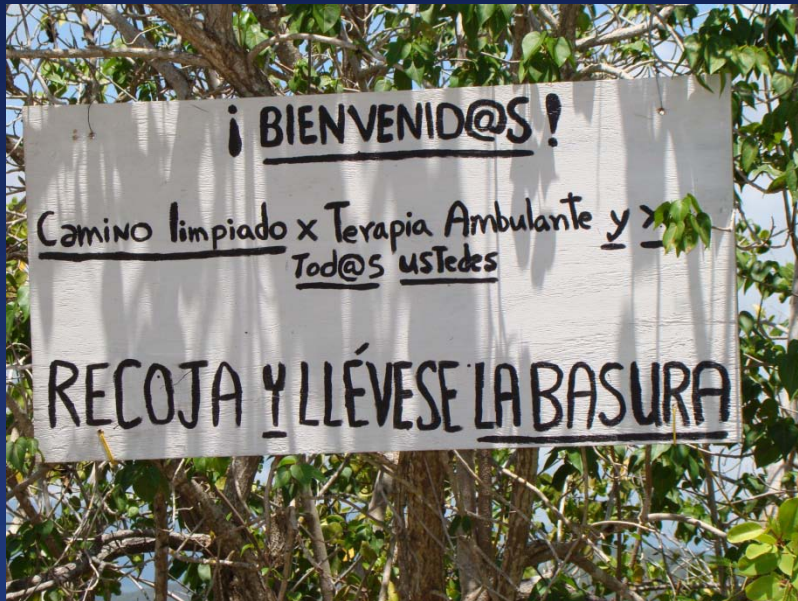


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Questions?

