

## **Station Briefing Papers**

**Science-Based Solutions for the Four Threats  
to the Health of the Nation's Forests and Grasslands**

**International Institute of Tropical Forestry**

USDA Forest Service



Research and  
Development

IITF Contact: Ariel Lugo (787) 766-5335  
R&D Contact: Dave Cleaves (703) 605-4195  
OC Contact: Lennie Eav (202) 205-3818

Website: <http://www.fs.fed.us/global/iitf>

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### **LOSS OF OPEN SPACE**

#### **Current Emphasis**

IITF is conducting analyses of forest fragmentation and urbanization in lands bordering the Caribbean National Forest/Luquillo Experimental Forest in Puerto Rico.

#### **Research Results**

- ✓ A high rate of land-cover change is encircling the Caribbean National Forest/Luquillo Experimental Forest with urban development.
- ✓ Proximity of urban systems to natural areas impairs the ability to protect the biodiversity of the Caribbean National Forest/Luquillo Experimental Forest.

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### **INVASIVE SPECIES**

#### **Research Results**

- ✓ About 25 percent of the tree species in Puerto Rico are alien species.
- ✓ The most common tree species in the island is a non-native invasive species.
- ✓ Species invasion is associated with habitat disturbance by humans.
- ✓ Invasive tree species restore forest conditions to degraded sites.
- ✓ Invasive trees allow recovery of native tree species on degraded sites.
- ✓ Invasive tree species form new forest ecosystems that are now prevalent on the island's tropical landscape and the population values them.