

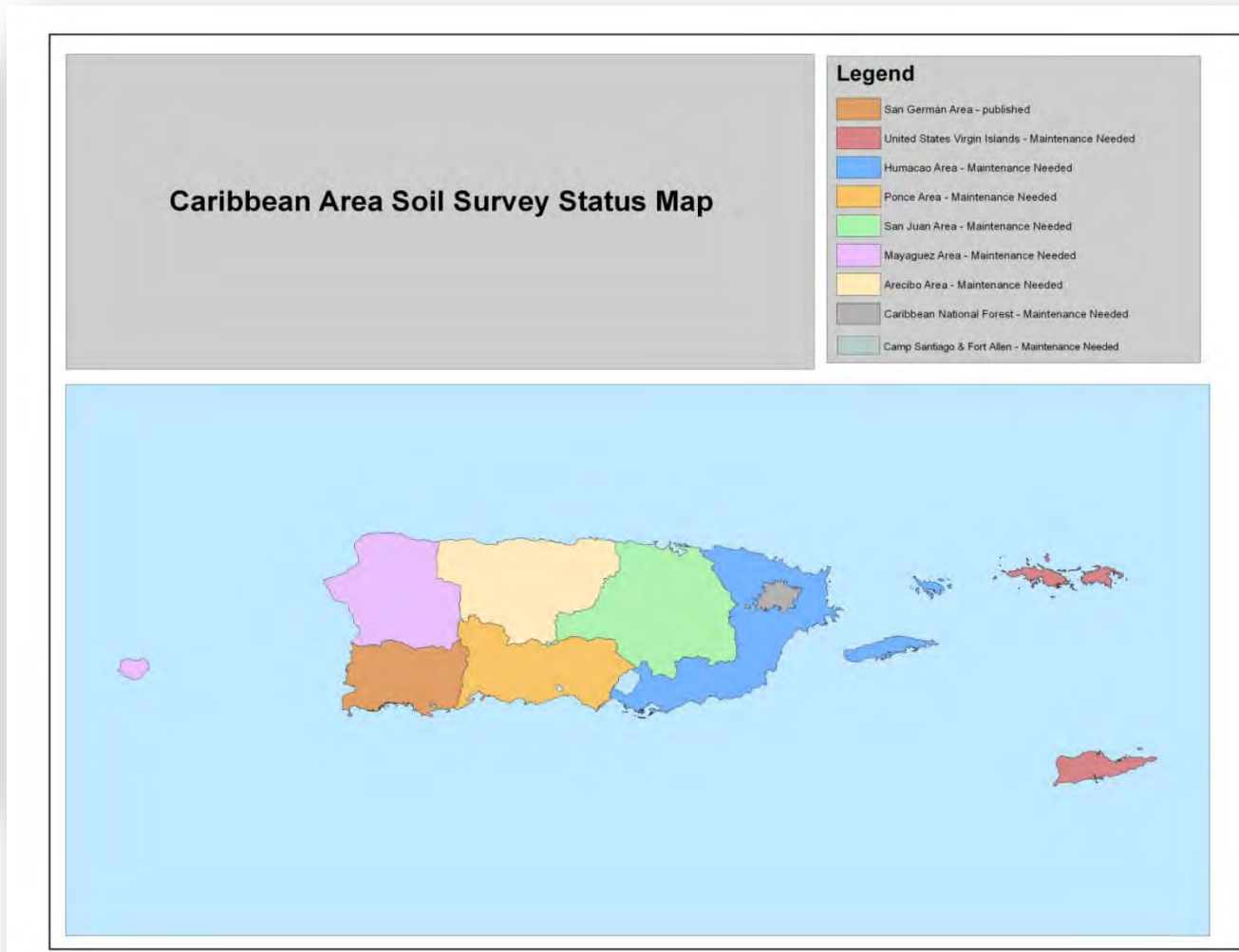
Helping People Understand Soils

Soil Survey Program:

Soil surveys provide critical information for land use decisions, both on the farm and in the city. Whether a developer is looking to build on or purchase land, or a farmer is considering alternative crops, soil survey data is a critical element in the equation that produces profits. This is essential to rural America and the need for producers and ranchers to maximize productivity without harming natural resources. To access soil survey information, visit www.websoilsurvey.nrcs.usda.gov.



Soil Scientists evaluating soils at the El Yunque National Forest, as part of the soil survey update.



Soil Technical Services:

A major responsibility of Technical Soil Services within NRCS is to assist users with understanding and properly using the soil survey and to provide users with predictions and interpretations about the behavior of each kind of soil mapped or identified under defined situations.

- On-site investigations.
- Special projects, studies and inventories.
- Determination of hydric soils and highly erodible lands.
- Providing education and training.
- Promoting customer awareness of soils information.
- Assisting to other units of government.



Manuel Matos, MLRA leader, explains to a student how to use the Munsell color book to describe colors of a soil sample.



Samuel Ríos, MLRA Soil Scientist, collecting soil samples to evaluate soil physical and chemical characteristics needed for soil/land use interpretations.

Soil Climate Analysis Network (SCAN) Stations:

WHAT IS SCAN?

The Soil Climate Analysis Network (SCAN) is a comprehensive, nationwide soil moisture and climate information system designed to provide data to support natural resource assessments and conservation activities. Administered by the United States Department of Agriculture Natural Resources Conservation Service (NRCS) through the National Water and Climate Center (NWCC), in cooperation with the NRCS National Soil Survey Center, the system focuses on agricultural areas of the U.S. monitoring soil temperature and soil moisture content at several depths, soil water level, air temperature, relative humidity, solar radiation, wind, precipitation, barometric pressure, and more.

To access the SCAN data, visit <http://www.wcc.nrcs.usda.gov/scan/>

Information Collected from a Standard SCAN Site

Parameter Measured	Description
Precipitation	Storage-type gage or tipping bucket.
Air Temperature	Collected by a shielded thermistor.
Relative Humidity	Collected by a thin film capacitance-type sensor.
Wind Speed and Direction	Collected by a propeller-type anemometer.
Solar Radiation	Collected by a pyranometer.
Barometric Pressure	Measured by a silicon capacitive pressure sensor.
Soil Moisture	Collected by a dielectric constant measuring device. Typical measurements are at 2", 4", 8", 20", and 40" where possible.
Soil Temperature	Collected by an encapsulated thermistor. Typical measurements are at 2", 4", 8", 20", and 40" where possible.



Combat SCAN Site at Cabo Rojo, P. R.



Susannaberg soil profile from St. John's SCAN Station.

All sensor measurements are reported hourly.

Puerto Rico SCAN Sites

- Select a SCAN Site
- Bosque Seco (2067)
- Combate (2068)
- Fortuna (2122)
- Guilarte Forest (2045)
- Isabela (2052)
- Maricao Forest (15)
- Mayaguez TARS (2112)



National Cooperative Soil Survey Program (NCSS):

The Caribbean Area Soil Science Division is part of the National Cooperative Soil Survey (NCSS) program. The NCSS is a nationwide partnership of federal, regional, state, and local agencies and institutions committed to delivering science-based soils information that helps people be good stewards of the Nation's soil, water, and related natural resources.



Manuel Matos, MLRA leader, explains the Corozo series' soil formation factors to a group of students and professors from North Dakota University as part of their activities on the Puerto Rico Soils Tour sponsored by the University of Puerto Rico - Mayaguez Campus.

Carmen L. Santiago, State Soil Scientist, met with soil survey cooperators to discuss the Caribbean Area Soil Survey Programs goals and activities.



National Resources Inventory Program (NRI):

The National Resources Inventory (NRI) is an inventory of land cover and use, soil erosion, prime farmland, wetlands, and other natural resource characteristics on non-Federal rural land in the United States. The primary objective of the NRI is to provide natural resource managers, policy makers, and the public with scientifically valid, timely, and relevant information on natural resources. This information can provide the scientific basis for effective public policies, sound agricultural and natural resource legislation, sensible local and national conservation programs, and targeted USDA financial and technical assistance in addressing natural resource concerns.

To access the NRI data, visit <http://www.pr.nrcs.usda.gov/technical/NRI/index.html>

