



United States Department of Agriculture



NRCS Caribbean Area 2020 Annual Report



Caribbean Area

Natural
Resources
Conservation
Service

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Greetings from the NRCS Family!

As we celebrate the new year and get ready for our upcoming endeavors, it is my pleasure as the Caribbean Area Director to present the NRCS Caribbean Area Annual Report. Our employees and partners are committed to protecting and conserving the natural resources in the Caribbean and it shows in this report. In 2020, we implemented over **18,400** acres of conservation practices, planted about **8,200** trees, impacted communities through emergency relief and provided technical assistance to **3,546** clients, all while maintaining COVID-19 safe practices. This assistance has been crucial in reducing soil erosion, improving water quality and mitigating floods, directly impacting watersheds and communities throughout the region. With an agency workforce of **62** employees, some of our accomplishments would not be possible without the help of all our valuable partners. Included in this report are some examples of our partnerships and the work that they are doing with us to reach more customers, develop new tools and increase overall conservation on the ground.



After three years of recovering from hurricanes, drought, earthquakes and other extreme weather events, our agency is committed to increasing agricultural resiliency for our farmers and rural communities. FY 2021 is gearing up to become a year where some of the strategies identified in 2020 are coming to fruition with new watershed and landscape initiatives and additional focus on Soil Health, Water Quality and Climate Resiliency Projects. I invite you to participate in these efforts and other opportunities through our different steering committee opportunities. The State Technical Committee and Local Working Groups are venues where you can advise NRCS to address specific resource issues and a place for a wide variety of expertise and experience to come together and form strategies for efficient conservation.

If you are interested in participating in our meetings or programs, or if you have a project where NRCS can help, please contact me at the NRCS Caribbean Area State Office, 654 Muñoz Rivera Ave., Suite 604, Hato Rey, PR 00918-4123; 787-766-5206, or luis.cruz-arroyo@usda.gov.

Yours in Conservation,
Luis A. Cruz-Arroyo, Director, NRCS Caribbean Area



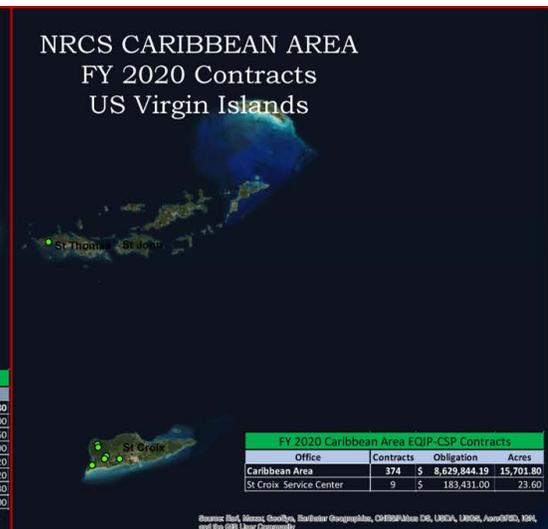
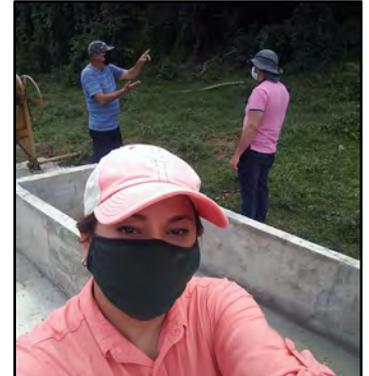
Conservation Assistance Programs

NRCS Caribbean Area provides conservation assistance to Puerto Rico and U.S. Virgin Islands (USVI) farmers through the **Environmental Quality Incentives Program (EQIP)** and **Conservation Stewardship Program (CSP)**.

EQIP is the primary financial assistance program in the Caribbean Area. EQIP helps farmers and ranchers improve and protect environmental quality on their land by offering financial and technical assistance to voluntarily implement conservation practices. CSP helps farmers build on conservation efforts from improving grazing conditions to increasing crop yields or developing wildlife habitat, while strengthening operations. NRCS also continues to help farmers recover from hurricanes and rebuild storm-damaged conservation practices through EQIP disaster relief.

In FY 2020, NRCS processed over **1,400** conservation assistance applications, obligating **374** contracts for over **\$8.6 million** on over **15,700 acres**. We also paid out over **\$5.8 million** to producers to apply **1,413** conservation practices on more than **18,400 acres** in the Caribbean Area under existing contracts. NRCS Caribbean Area continued to reimburse farmers for implementing storm recovery practices contracted in FY 2018 and FY 2019. In FY 2020, NRCS paid over **\$3.7 million** for FY 2019-contracted emergency practices, and over **\$17 million** for FY 2018-contracted emergency practices.

- **18,405** acres of conservation practices applied.
- **16,827** acres of conservation planning completed.
- **6,516** acres of cropland conservation applied to improve soil health.
- **13,079** acres of conservation applied to improve water quality.
- **743** acres of conservation applied to improve irrigation efficiency.
- **10,061** acres of grazing land conservation applied.
- **8,195** trees delivered to farmers for shade coffee/ agroforestry.
- **767** acres of conservation applied to improve fish and wildlife habitat.



Engineering

Our civil engineers and civil engineering technicians support our Field Offices and clients with technical advice, design and certification of NRCS engineering practice standards. About **350** engineering practices were certified in FY 2020. The most certified practice was Obstruction Removal (43%), followed by Watering Facilities, Livestock Pipelines, and Roofs and Covers. In 2020 Engineering staff assisted several special projects including Coloso Valley, Santa Isabel, and Húcar, all providing irrigation system conservation practices for vast land areas serving several farms.

The **Coloso Valley project** is a partnership with Oeste Soil & Water Conservation District (SWCD), the PR Land Authority (PRLA) and PR Department of Agriculture (PRDA). It began in 2013 to serve seven farmers on 417 acres. In 2020 NRCS inspected irrigation pump and pipeline installations (right: Oeste SWCD members unload new irrigation water pumps).

The **Santa Isabel project** began in 2012 in partnership with Caribe SWCD, PRLA and PRDA. During 2020, NRCS helped complete **15,930** linear feet of Irrigation pipeline to provide 11 farmers with clean water to improve 2,101 acres of prime farmland (right).

Emergency Watershed Protection

NRCS continues to provide technical and financial assistance through the [Emergency Watershed Protection Program \(EWPP\)](#) to repair watershed damage from hurricanes Irma and María. Immediately after the storms, NRCS teams assessed over 1,000 potential EWPP project sites and approved **489** exigency project sites for debris removal from waterways, **127**

non-exigency sites for streambank stabilization, and **2** sites to repair erosion to watershed dams.

NRCS is also providing EWPP assistance for damages from tropical storms Dorian (2019) and Isaias (2020, left). Three sites impacted by Dorian have been approved and funds allocated. The contracting process with sponsors will begin in FY 2021. Six sponsors have been identified and potential sites defined for recovery work from TS Isaias. Reports on damages and cost estimates will be completed by February 2021.



To date, NRCS has completed **250** exigency sites, **170** were completed by other partners, and **4** were eliminated due to lack of accessibility. Work is underway by others to complete the remaining sites by the end of 2020 for an allocation of about **\$18.6 Million**. Design work on the two dams is underway and the stabilization projects are expected to begin in early 2021, representing an additional **\$20 million** allocation. In FY 2020, NRCS issued 26 agreements and signed 6 Federal contracts, completing 77 DSRs. NRCS also signed the Añasco Dams IDIQ contract, obligating **\$481,250** in technical assistance to repair the dams.

Ecological Sciences

The Ecological Sciences Division (ESD) is working with our staff and partners to reinvigorate conservation planning by enhancing and strengthening the effectiveness of our planning and partnership workforce. ESD executed a Programmatic Consultation Agreement with the US Fish & Wildlife Service (USFWS) to assist with Section 7 Environmental Compliance evaluations on over 60 EQIP Emergency projects and over 240 regular EQIP projects in FY 2020. We also executed a cultural resources contract with the PR State Historic Preservation Office to develop over **130** project descriptions for evaluation under Section 106 of the National Historic Preservation Act.

ESD coordinated extensive and intensive trainings with partners and other government agencies, holding at least **16** sessions on payment schedules, environmental compliance and cultural resources consultations, cultural resources identification (right, top), wetlands identification (right, bottom), soil health and special initiatives for NRCS staff and partners. Trainings were held both in-person and hands-on before the COVID-19 pandemic, and using new technology like Zoom, Teams and Adobe Connect in the months afterwards.



ESD and Engineering completely updated the Caribbean Area Field Office Technical Guide (FOTG), including conservation practice standards (CPS), statements of work (SOWs), operation and maintenance standards, practice overviews and narratives for each discipline. Eighty-eight (**88**) Ecological and ninety-six (**96**) Engineering CPSs and SOWs were revised and updated. FOTG is now available for planners, partners and public use at <https://efotg.sc.egov.usda.gov/#/>, select “Caribbean Area” from the pull-down menu.



In FY2020, ESD provided environmental compliance assistance developing, reviewing and revising environmental evaluations (CPA-52s) and Section 7 and 106 consultations for over **400** EWP projects lacking environmental compliance



documentation. ESD also led the Caribbean Area's annual Quality Assurance review for all Field Offices, reviewing **31** conservation plans and CPA 52s. ESD and Soils Division staff are also developing a research and demonstration project under the Coffee Conservation Initiative to evaluate the efficacy of using *Arachis pintoi* (perennial peanut) as a conservation cover for coffee plantations (previous page).

Soil Science and Health

NRCS provides Technical Soil Services (TSS) to customers in the Caribbean Area. TSS includes wetlands and HEL (highly erodible land) determinations for regulatory compliance, onsite conservation planning assistance, training and soil education activities (right), promoting soil health systems and helping the public obtain and use soils data available through the Web Soil Survey, eFOTG and other web applications. During FY 2020, over **845** clients received technical soil services benefitting over **225,000** acres in the Caribbean Area. About **125** TSS requests were reported for over **2,000** hours of work.

The Soils team completed 17 HEL determinations, developed the Caribbean Area Offsite Methodology for wetlands identification and completed wetlands inventories for **16** cases, identifying over 1,000 acres. Soils staff led a variety of activities to promote Soil Health. Staff designed an in-field soil health assessment training for conservation planning, holding 3 virtual workshops for about **215** clients. Soils staff also published two Soil Health Technical Notes.

In FY 2020, the Soils team refreshed tabular and spatial data for **8** soil survey areas in the official soil survey database, developed **43** soil interpretation and property maps for PR and the USVI, received advanced training



on interpretation development, drafted phase 2 of the Provisional Ecological Sites for PR & USVI project, and continued partnerships through cooperative agreements to develop a soil mass movement potential soil survey interpretation and identify spatial distribution of coastal lowlands acid sulfate soils in the Caribbean Area.

The Soils team conducted a virtual National Cooperative Soil Survey Conference to provide updates on Soil Survey activities in the Caribbean Area and received feedback from **45** collaborators about needs and potential future projects. Three virtual web soil survey workshops were also led in partnership with the PR Agronomists Board, World Central Kitchen, and the PR Appraiser's Institute for over **175** participants, and two soils education outreach activities were held reaching over **75** children and adults.



Caribbean Area NRCS collaborated with the National Climate and Water Center to purchase equipment to repair hurricane damage to 10 **Soil Climate Analysis Network (SCAN)** stations that monitor soil moisture content, air temperature, relative humidity, solar radiation, wind speed and direction, liquid precipitation and barometric pressure.

Partnerships & Agreements

NRCS invested over **\$1.79 million** in cooperative and inter-agency agreements to assist our farmers and field offices. Cooperative Agreements were executed with:

- University of Puerto Rico-Mayagüez (UPRM) to determine the Soil Mass Movement Risk Rating;
- ACES Program to increase conservation capacity with experienced individuals;
- Puerto Rico Association of Conservation Districts (PRACD) to provide engineering assistance for the Roofs and Covers conservation practice; and
- Envirosurvey, Inc. for PR and USVI pollinator guide with native shrubs and for capacity building with Local Working Groups (LWGs).

NRCS also established an Interagency Agreement with the USDA International Institute of Tropical Forestry (IITF) for Ecological Site Descriptions and Vegetation Inventory Phase II.

Recruitment / Earth Team

NRCS hired **8** new employees: Assistant State Conservationist for Programs, State Agronomist, State Resource Conservationist, 4 Soil Conservationists and 3 Engineers. We participated in **1** Job Fair at the University of Puerto Rico-Mayagüez before the COVID19 shutdown to promote careers in agriculture and natural resources, interacting with over **20** students. We also led virtual Pathways Program trainings for **20** student interns (right) about understanding [USAJobs](#)



notices and the USDA recruitment process. As a result, we recruited one summer intern for the Ecological Sciences Division who then transferred to the national Pathways Program. NRCS Earth Team volunteers also provided invaluable assistance, contributing **275 hours** in the Arecibo, Mayagüez and San Juan offices.

Outreach

In 2020 NRCS provided Conservation Technical Assistance to over **3,500** clients and media outreach to over **1 million** residents through over **790** separate activities and contacts. Over **96%** of the financial assistance we provided went to beginning, limited resource or socially disadvantaged farmers, and **12%** of our FY 2020 participants were women, **3%** were black and **92%** were Hispanic.

604 Personal contacts	107 Newspaper and 580 radio ads reaching over 1 million people
26 Newspaper & blog articles	52 Public notice mailings & e-blasts to over 3,425 recipients
6 Trainings & workshops	2 Job fairs and presentations reaching over 40 people
43 Public meetings	12 Conference presentations and fair exhibits reaching over 940 people
42 Publications	507 Social media notices reaching over 24,200 clients and partners





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