

a) Wang, C. Yu, M. Gao, Q. Wang, X. 2016. "Puerto Rico Land Cover/Land Use Map in 2010", doi:10.7910/DVN/VS5JDP, Harvard Dataverse, V4

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<https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/VS5JDP>

Description

This data set provides land cover and land use(LCLU) classification product at 30-m spatial resolution for Puerto Rico in 2010. The LCLU data was derived from Landsat 7 Enhanced Thematic Mapper Plus (ETM+) and Advanced Land Observing Satellite (ALOS) Phased Array L-band Synthetic Aperture Radar (PALSAR) data around the year of 2010. The ground reference data were acquired by historical LCLU map, field trip surveys, and visual interpretation of high spatial resolution imagery from Google Earth and aerial photos. The classification model was created with Random Forest classifier. The data was produced by the Department of Environmental Sciences, University of Puerto Rico-Rio Piedras.

Subject

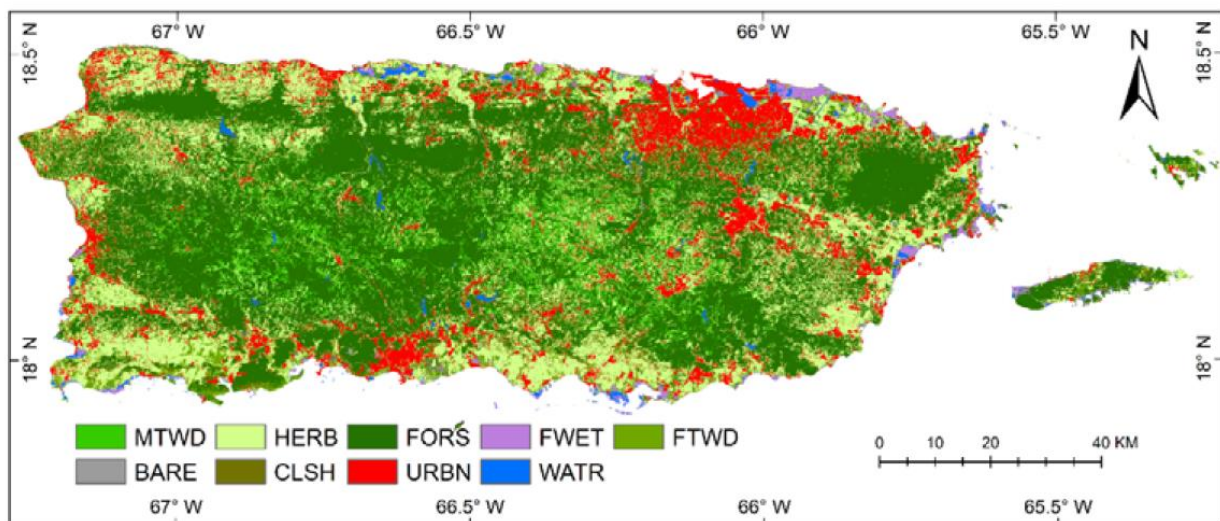
Earth and Environmental Sciences

Keyword

Puerto Rico, land cover/land use map, ALOS PALSAR, Tropical forest

Related Publication

Wang, C., Yu, M., and Gao, Q. 2017. Continued reforestation and urban expansion in the new century of a tropical island in the Caribbean. *Remote Sensing* 9(7), 731. doi:10.3390/rs9070731



b) Davila, D; Yu, M, 2016, "Wetlands migration in Toa Baja, Puerto Rico", doi:10.7910/DVN/GJJXFS, Harvard Dataverse, V1

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Description

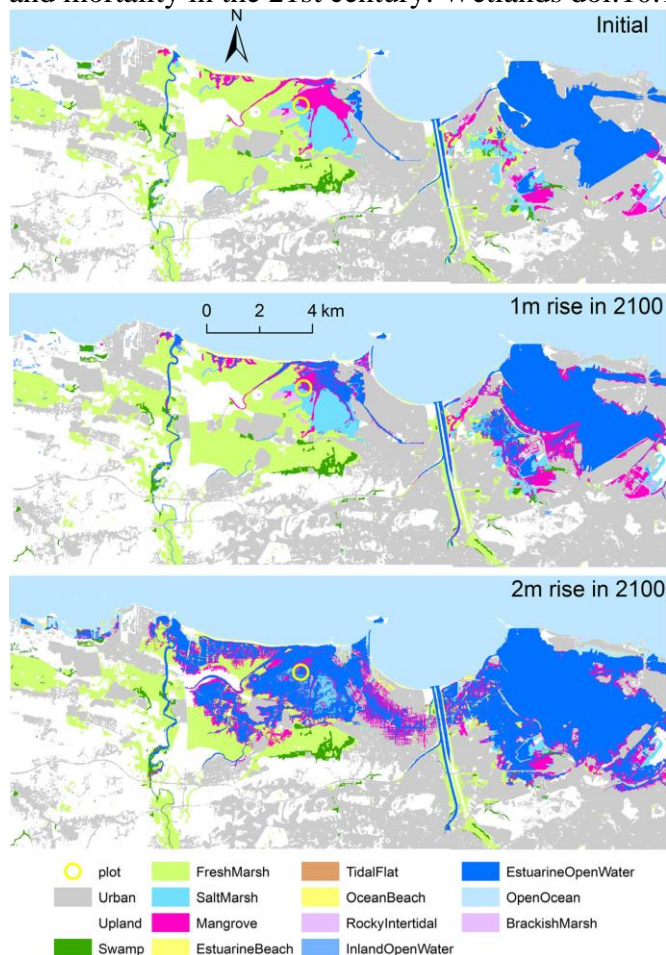
We simulated the coastal wetlands migration under sea level rise scenarios using the Sea Level Affecting Marshes Model (SLAMM). The input DEM is at the spatial resolution of 5 m created from Lidar data accessible at Digital Coast website. The wetland distribution is according to the National Wetland Inventory and the wetlands classification was modified to fit that in SLAMM manual. The developed areas were delineated according to the aerial photos taken in 2010 at the spatial resolution of 0.4 m. The wetland migration maps are at the spatial resolution of 5 m.

Subject

Earth and Environmental Sciences

Related Publication

Yu, M., Rivera, E, Heartsill, T, Davila, D, Rios, N, and Gao, Q. 2019. Landscape-level consequences of rising sea-level on coastal wetlands: Saltwater intrusion drives displacement and mortality in the 21st century. Wetlands doi:10.1007/s13157-019-01138-x



c) Yu, M; Gao, Q, 2016, "Fragmentation of Forest, Wetland, and Urban Area", doi:10.7910/DVN/QEFV4W, Harvard Dataverse, V1

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<https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/QEFV4W>

Description

We created land fragmentation datasets in 1991 and 2000 for forests, urban areas, and wetlands according to the corresponding land cover maps (Kennaway and Helmer, 2007). Spatial resolution: 3 km; Temporal periods: 1991 and 2000.

Subject

Earth and Environmental Sciences

Related Publication

Gao, Q and Yu, M 2014. Discerning the fragmentation dynamics between tropical forest and wetlands in the context of reforestation, urban sprawl, and policy change. PLOS ONE doi:10.1371/journal.pone.0113140 doi: 10.1371/journal.pone.0113140

