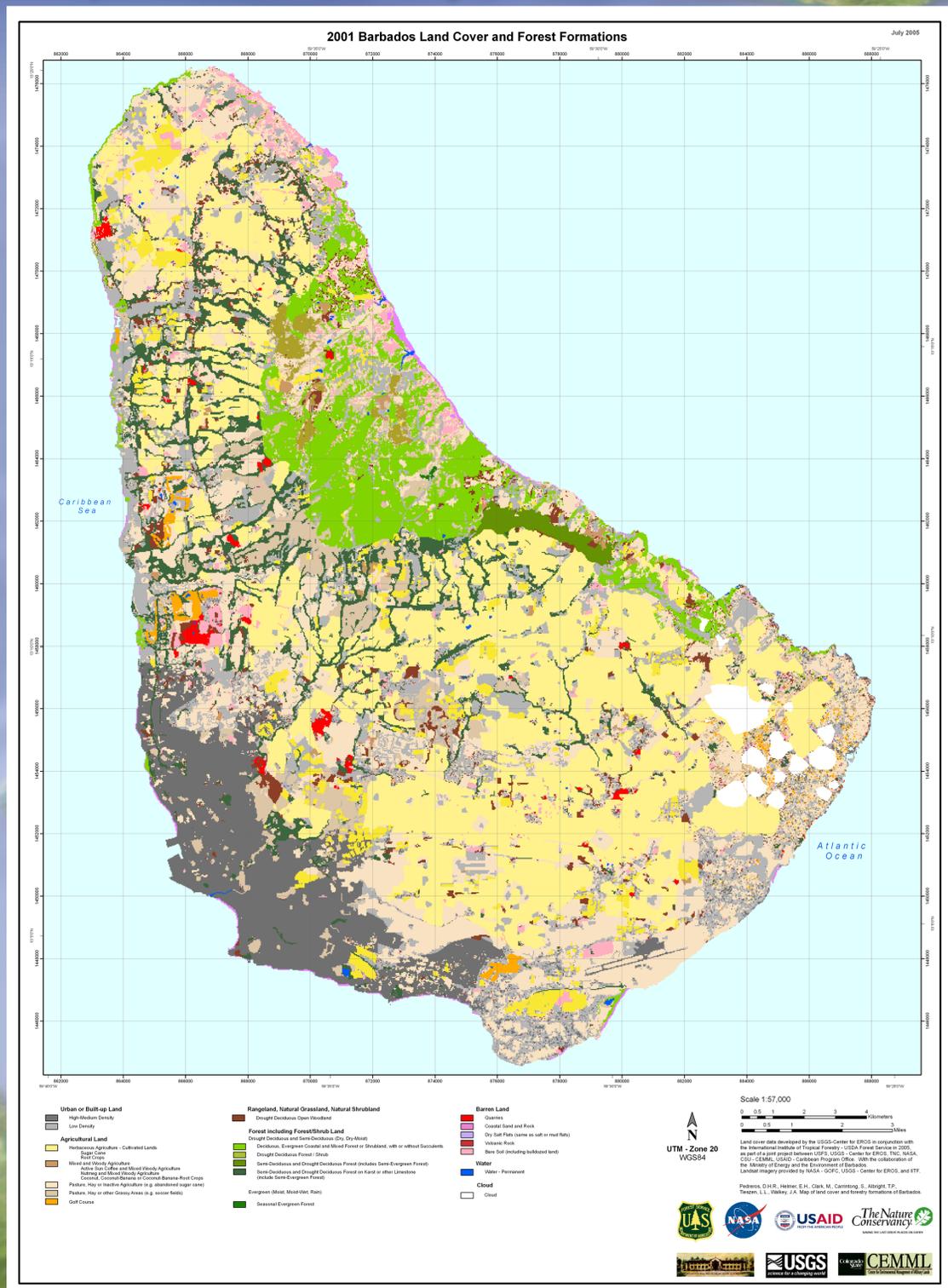


# Forest Formation and Land Cover Map Series: Barbados

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## ABSTRACT

Forest formation and land cover maps for several Caribbean islands were developed from satellite imagery as part of a multi-organization project. For the map of Barbados (Helmer and others, submitted), we used decision tree software as the original approach to classify Landsat Enhanced Thematic Mapper Plus (ETM+) images. Unfortunately, the high cloud cover in the available Landsat images led to a low-quality classified map in many areas. Consequently, an unsupervised classification for 150 classes was applied to IKONOS images for the years 2001 and 2002. Only the pure pixels for a class were retained from this initial classification and the remaining mixed pixels were classified by visual interpretation of the original IKONOS image. The forest classification scheme relates closely to that described by Areces-Mallea (1999), with modifications similar to those in Helmer (2002).

A comparison of land cover areas in the map with the areas reported by Beard (1949), reveals that land under cultivation in Barbados has declined over the second half of the 20th century (Helmer and others, 2007). At the same time, areas of forest cover have increased as young forests have been re-established on lands that were formerly grazed or cultivated. Areas of developed lands have also increased in the country.

## CONTRIBUTORS

The map for Barbados was developed by Diego Pedrerros in collaboration with Eileen Helmer, Mathew Clark, Tom Albright, John Walkey, S. Carrington, and Larry Tieszen, as part of a joint project between the U.S. Department of Agriculture Forest Service International Institute of Tropical Forestry (IITF), U.S. Geological Survey (USGS) Center for Earth Resources Observation and Science, The Nature Conservancy, the National Aeronautics and Space Administration (NASA), the Center for Environmental Management of Military Lands of Colorado State University, the U.S. Agency for International Development Caribbean Program Office and the Grenada Ministry of Agriculture Land, Fisheries, and Forestry (Forestry and National Parks Department and Land Use Division). Landsat imagery provided by the NASA Global Observation of Forest Cover program, USGS, and IITF.

## DATA AVAILABILITY

These land cover data and cartographic products will be available in June 2007 for download at the following Web sites: USGS Center for Earth Resources Observation and Science - International Programs (<http://edcintl.cr.usgs.gov>) and USDA Forest Service International Institute of Tropical Forestry (<http://tropicalforestry.net/>).

## REFERENCES

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Land Cover Maps produced by USDA Forest Service and The Nature Conservancy