An Evaluation of the Urban Forest of the National District of Santo Domingo: Management Implications

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ABSTRACT

As with many small island nations, the Dominican Republic is vulnerable to climate-related impacts, including sea level rise, flooding, heat, prolonged droughts, and disruptions in water supply. Urban areas, such as Santo Domingo, are of concern because of a great number of people are living in particularly in poor, marginalized communities located in high-risk areas. The University of Puerto Rico in partnership with the International Institute for Tropical Forestry USDA Forest Service (International institute of Tropical Forestry and The Office of International Programs), the "Instituto Tecnológico de Santo Domingo" (INTEC), USAID and, The Municipality of Santo Domingo, implemented the iTree tool, to assess urban trees in three areas with marked differences in population density and socio-economic profiles within the Santo Domingo's National District as a way to link urban forest management to environmental quality and community livability in the Santo Domingo area. Our research questions are: What is the quality (biodiversity, structure) and distribution of urban green infrastructure associated to common and private green spaces and in the city of Santo Domingo? How urban green infrastructure associated to urban social/economic/environmental is attributes at the landscape level? What is the capacity of common green areas to provide multiple ecosystem-based adaptations services? Preliminary results will be discussed as well as their management implications and recommendations.

BIOGRAPHY

Elvia Meléndez-Ackerman (BSc, MSc Biology at UPRRP, PhD in Ecology and Evolutionary Biology at UC Irvine) - I am an ecologist by training but an interdisciplinary researcher by experience. I have a broad background in evolutionary-ecology, conservation, ecological responses to climate variability. In more recent years my research has expanded to address sustainability and adaptive capacity issues within the

context of urban social-ecological systems. How feedbacks between social and ecological factors influence human wellbeing is a current research interest. I have been working with the San Juan ULTRA Network (Urban long-term research Areas) for over 10 years evaluating the social and ecological factors that influence the vulnerability and adaptive capacity of the city of San Juan. My research group concentrated on the quantity and quality of green infrastructure, provision of ecosystem services and the social and ecological factors that drive variability in the functionality of green spaces in the city. My students and I have been collaborating in projects incorporating the inventory of urban trees in San Juan (Puerto Rico) and Santo Domingo Dominican Republic to evaluate the spatial and temporal variation of tree abundance, diversity and associated services with variation in social and ecological factors in those cities.