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ROLES: Undergraduate Student
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DISCIPLINES: Geomatics Engineering (Hydrography, Surveying; GIS)

KEYWORDS: Surveying, Hydrography



RESEARCH INTERESTS:

Climate change is the change in the average weather over an extensive time period. One result of Climate change can be a rise in sea levels that can be caused from the melting of the ice caps and/or thermal expansion of seas and oceans due to rising temperatures. Sea level rise due to climate change has been predicted by many entities including the Intergovernmental Panel on Climate Change (IPCC) among others. At risk are many coastal communities worldwide, and to know the danger posed by predicted sea level rise to these communities is to arm them with information that can contribute to the development of appropriate mitigation and adaptation strategies.

Grande Riviere, located in the North of Trinidad, is a coastal community where the local economy depends mainly on tourism and agriculture. Environmentally and economically, the annual nesting of the leatherback turtles and presence of the native Pawi provide attractions for tourists that add to the income of the community. Any significant rise in sea level could have adverse impacts on the community's social and economic wellbeing.

Safiya, as part of the ICURA project entitled Managing Adaptation to Environmental Change in Coastal Communities: Canada and the Caribbean and in fulfilment of her academic obligation to produce a senior research report, used surveying techniques to create beach profiles of Grande Riviere and to analyze the potential impacts of sea level rise on the community based on the predictions of IPCC and other research entities. Her work was supervised by Drs. Michael Sutherland and David Neale.

BIOGRAPHY:

Safiya Alexander recently completed a BSc. Geomatics Engineering at the University of the West Indies St. Augustine, 2010, with particular interests in Hydrography, Coastal Zone Management, Geographic Information Systems (GIS), Land Economy, Planning and the use of Geomatics in monitoring climate change and sea level rise. This research project has allowed Ms. Alexander to enhance her research skills, communication skills and to expand her knowledge base on issues regarding climate change as well as techniques used to monitor, measure and assess sea level rise. This research further developed her skills set acquired both at the University and through working as a trainee for three months at Ali, Deonanan and Associates Limited, Land Surveyors. Ms Alexander's ability to conduct field work, specifically beach profiles was exercised and she obtained a greater appreciation for issues surrounding climate change and sea level rise. Currently Ms. Alexander is seeking employment with any company that would offer her valuable experience in her field and plans to start a master's degree in Civil and Environmental Engineering at the University of the West Indies St. Augustine, in the next academic year (September 2010).

Safiya reports that her involvement with the ICURA Project entitled Managing Adaptation to Environmental Change in Coastal Communities: Canada and the Caribbean has given her a greater appreciation of GIS and Geomatics and their contributions to solving the world's social, economic and environmental problems.