Project for the Strengthening of Spatial Data Infrastructures in Members States and Territories of the Association of Caribbean States

Capacity Building Programme

Geographic Information Systems

October, 2016

Venue:	**INEGI, Patriotismo 711, Benito Juárez, Mexico City**
Instructors:	**Dr. Earl Edwards (University of the West Indies)**
	MSc. Valrie Grant (URISA Caribbean Chapter)
Duration:	**2 days**
Date:	**October 2 to 3, 2016**
Schedule:	**9:00- 17:00**

Introduction

Geographic Information Systems (GIS) are a set of tools that integrate and link various components: hardware, software, human capital, data and processes; that capture, store, manage, analyze and model large amounts of geographically referenced information in order to meet the needs related to planning and management.

As an example, a specific and properly prepared GIS allows Emergency Groups to calculate easily the response time in case of natural disasters; Environmental Groups, to identify wetlands in need of protection against pollution; and companies, locate new businesses and take advantage of a market area with little competition.

The Project for Strengthening of Spatial Data Infrastructures in Member States and Territories of the Association of Caribbean States (Caribbean Project), under the Committee of Experts on Global Geospatial Information Management (UN-GGIM), encourages the countries of the Caribbean region their capacity building to improve skills and their capability for production, integration, management and use of geospatial information, with best practices and with the vision of the Expert Committee of the United Nations for Global Geospatial Information Management, in order to facilitate decision-making for better land management and increase resilience at natural disasters.

To achieve the aforementioned purpose through the Caribbean Project, the countries of the region will be provided with computer equipment in order to create a GIS platform that integrates some layers of different information and will be trained with a special course on Geographic Information Systems funded with resources from the Mexican Agency of International Cooperation for Development and with the collaboration and participation as instructors, the University of the West Indies and URISA Caribbean chapter.

Objective:

This workshop will review the fundamentals of GIS; identify appropriate steps for implementing these systems; create and manage geospatial information and also provide participants with hands-on experience in publishing and distributing geospatial data via web-based applications for use throughout the various Caribbean territories.

Learning Outcomes:

At the end of this workshop participants should be able to:

1. Explain the concept of a GIS
2. Describe the major components of a GIS
3. Plan and implement a well-designed system
4. Manage geospatial data
5. Query and analyses spatial and attribute data
6. Use an available software package to manipulate geospatial data
7. Create web-based GIS applications using available software

General Agenda

Day 1 (Sunday, October 02, 2016)
9:00 – 10:00 Welcome Ceremony
Efraín Limones García- Director of the Caribbean Project, INEGI
Valrie Grant – President, URISA Caribbean Chapter
Earl Edwards –Lecturer, University of West Indies

10:00 – 17:00 Initial Session
Introduction

Topic 1. GIS Fundamentals
Activity - Manipulating Geospatial Data in ArcGIS/QGIS

Coffee break

Topic 2. Planning and Implementing a GIS
Activity - Planning for a GIS in your Organization

Lunch

Topic 3. Data Acquisition Techniques
Topic 4. Augmenting Data Acquisition using Small Unmanned Aerial Vehicles (SUAV)

Coffee break

Activity - Creating Geospatial Data from Low-Cost UAV Imagery utilizing ArcGIS/QGIS

Day 2 (Monday, October 03, 2016)

9:00 – 10:00 Welcome Remarks and Official Picture
June Soomer – Secretary General, Association of Caribbean States
Bruno Figueroa – General Director, Mesoamerican Integration and Development Project - SRE
Julio Alfonso Santaella Castell – President, INEGI

10:00 – 17:00
Topic 5. Geospatial Data Management
Activity - Connecting to Distributed Geospatial Data

Coffee break

Topic 6. Spatial Query and Analysis in GIS
Activity - Conducting Spatial Query and Analysis with ArcGIS/QGIS

Lunch

Topic 7. Web based GIS Applications

Demo. Web GIS Applications at UWI, St. Augusitne

Coffee break

Activity - Creating Web GIS Applications using ArcGIS Online

Summary and Closing Remarks