

**REPORT OF THE DATA COLLECTION AND AUTOMATION IN GIS WORKSHOP
UNDER THE AUSPICES OF COMPONENT 3 – INVENTORY OF COASTAL
RESOURCES AND USES**

Cable and Wireless Training College, Castries, St. Lucia

March 20th to 25th, 2000

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Introduction and Objectives

The Data Collection and Automation in GIS Workshop is the second training Activity held under the contract with APA/ESSA/UWI for the creation of coastal resources inventories (CRIS) for the twelve CPACC countries under Component 3. The training activities were specifically designed to complement the development of the CRIS and to facilitate effective technology transfer.

The workshop was held at the Cable and Wireless Training College, in Castries, St. Lucia from March 20th to 25th. Some aspects of the training were held at the Statistics Department in Castries.

The course was designed to expose the participants to data collection and data automation techniques in GIS. At the end of the training programme the participants should be able to:

- Design spatial databases for GIS
- Digitize and edit errors in mapped data
- Extract specific data from existing records
- Use GPS and map geographic features
- Integrate data (scanned images, videos)
- Manage spatial databases.

Attendance

Each of the CPACC countries was invited to nominate two representatives to participate in the workshop. Unfortunately, no representatives participated from St. Vincent and the Grenadines. Several additional representatives from St. Lucia participated in the Workshop as participation

represented no additional costs, but. This represented little inconvenience, particularly given the absence of participants from St. Vincent and the Grenadines

The full attendance list is appended to this report.

Facilities and Accommodation

Accommodation was at the Islander Hotel, Rodney Bay, Gros Ilet. The hotel and staff, particularly Ms. Patrick, were very cooperative. The participants appeared to be satisfied with the arrangements

Workshop Review

Generally, the workshop was successful in achieving its stated objectives as listed earlier. The course was challenging, well structured and comprehensive given the limitations of time (see course outline- Appendix 2). The course materials were well prepared and the delivery was well executed. Apart from adequate preparation which facilitated the success of the workshop, the commitment and enterprise of the participants and the interaction between the participants and trainers also were critical to the success of the workshop.

The workshop comprised of lectures based on multimedia presentations addressing general and conceptual issues and group instruction addressing specific activities. Four groups were established based on the country pilot projects. These groups were then separated for instruction and practical exercises in the following areas: scanning, georeferencing and creation of digital raster graphics; heads up digitizing; heads down digitizing; error editing and topology; and use of global positioning systems. In both the lecture sessions and group exercises, accompanying documentation was presented in the training materials.

The groups had to give a presentation at the end of the workshop in which they identified the data sources and information requirements for their Pilot Component and outline how they would develop the database. The countries executing Pilot Component 7 – Economic Valuation of Coastal and Marine Resources, Dominica, St. Lucia and Trinidad and Tobago, were adjudged to have made the best presentation.

One of the challenges of the workshop was to ensure that it was sufficiently challenging and beneficial to the more experienced GIS users and the not beyond the sector specialists with limited GIS experience. This challenge was realized for the most part for several reasons including: the preparation undertaken by the trainers and the collaboration between participants, including willingness to help each other. Also, the course addressed broad issues to benefit the relative inexperienced GIS users; offered very competent trainers and resource persons to assist in the more complicated issues; and finally, the course focused on the conceptual and theoretical issues, which was to benefit of all participants.

The final element of the workshop was a review of the prototype Coastal Resource Information Systems (CRIS) presented by Colin Daniel of ESSA Technology. Whereas comments from the participants were both welcome and valuable, the main benefit of the review was to provide the

country representatives with an understanding the CRIS' development so they would be better able to understand the design specifications when these are submitted.

The participants' questionnaire responses also confirmed the success of the workshop. One general concern identified by some participants in the questionnaire and in discussion was that the GPS sessions were not sufficiently comprehensive. It was accepted however that to properly address the application of GPS, a longer or more specialized workshop would be necessary.

Conclusion

The workshop satisfied its objectives as earlier. This workshop was the second under the contract with APA/ESSA/UWI to facilitate technology transfer while developing CRIS for each of the countries. In addition to the factors identified for the success of the workshop, the approach of the CPACC Project to focus on designated repositories and lead agencies has influenced the success of the workshops. Specifically, there has been a high level of repetition between the participants of the Component 3 workshop which has had a number of consequent benefits including: participants having a familiarity with CPACC officers, consultants and the process and therefore feeling a part of the project; and a high level of camaraderie leading to improved collaboration.

There has also been a high degree of collaboration and understanding between the consultants and the CPACC officers that has lent to the workshop success. Beyond the workshop, the network that has been established between all participants should also provide also assist individuals in addressing problems encountered in their regular activities.

Appendix 1: Participants List – Data Automation and Collection Workshop

Country	Name	Agency	Tel	Fax	Email
Antigua & Barbuda	Philmore James	Fisheries Division	268-462-1362		abiola@hotmail.com
	Alva Guishard	Development Control Authority			authority@candw.ag
Bahamas	Tamica Rahming	Department of Fisheries	242-393-1777	242-393-0238	trahming@hotmail.com tjahming@masaka.com
	Nakira Gaskin	BEST Commission	242-327-4691		ngaskin@hotmail.com
Barbados	Althea Batson	CZMU	246-228-5950/1/2	246-228-5956	abatson@coastal.gov.bb
	Angelique Brathwaite	(as above)	(as above)	(as above)	abrathwaite@coastal.gov.bb
Belize	Ian Gillett	CZM Authority & Institute	501-2-30719	501-2-35738	czmbze@btl.net
	James Azueta	Fisheries Department PO Box 148, Belize City	501-2-32623/44552	501-2-32983	species@btl.net
Dominica	Emmanuel Joseph	Physical Planning Unit	767-449-6026		ejoe6@hotmail.com
	Jiselle Allport	Fisheries Division	767-448-0141		cfra@cwdom.dm
Grenada	Trevor Thompson	Land Use Division Ministry of Agriculture	473-440-2708	473-440-4191	trevort_lud@yahoo.com
	Fabian Purcell	Physical Planning Unit	473-440-2471	473-440-4115	fpurcell@netscape.net fabula@caribsurf.com
Guyana	Rajkumar Singh	EPA	592-22-2277	592-22-2442	raj_dude@hotmail.com
	Zainool Rahaman	Hydromet Department, Ministry of Agriculture	592-27-2463	592-26-1460	hydromet@networksgy.com zainoolm@yahoo.com
Jamaica	Ainsley Henry	Coastal Zone Mgt. Branch NRCA Kingston 5, 10 Caladonia Ave	876-754-7569	876-754-7595	ainsley@masaka.com czmb_jcrap@yahoo.com nrca@infochan.com
	Lisa Latchman	Watershed Mgt. Branch NRCA	(as above)	(as above)	bright4@excite.com nrca@infochan.com
St. Kitts & Nevis	Graeme Brown	Physical Planning Unit	869-465-2521 ext 1058/1064/1055		mastergraeme@hotmail.com
	Austin Farrier	(as above)	(as above)		jay_farrier@hotmail.com
St. Lucia	Bennet Charles	Min of Agriculture	758-450-2484		kareem_jg@yahoo.co.uk
	Daune Heholt	Physical Planning Min of Planning	758-453-1276		gisunit@hotmail.com heholdt@hotmail.com
	Rebecca Rock	(as above)	(as above)		gisunit@hotmail.com
	Sherma Lawrence	Statistics Department	758-452-3716		sherma_l@yahoo.com

	Darryl Theobalds	Statistics Department	(as above)		
	Vernisha Charles	C&W, Box 111, San Souci, Castries	758-453-9844		smart_vern@hotmail.com verny_77@yahoo.com
Trinidad & Tobago	Gerard Alphonso	EMA	868-628-8042	868-628-9122	galphonso@ema.co.tt galphonso@hotmail.com
	Yashua Ragbirsingh	IMA	868-634-4291-4	868-634-4433	yosh@ima.gov.tt yragbirsingh@hotmail.com
Consultants	Jacob Opadeyi	Centre for Geospatial Studies, UWI, Trinidad	868-645-3232 ext 2109		jopadeyi@hotmail.com
	Shahiba Ali	(as above)	(as above) 868-663-7424 (h)		shahibaa@hotmail.com
	Dexter Davis	Kenesjay, UWI, Trinidad	868-622-8918/8852	868-628-2358	ddex@hotmail.com kjgis@hemail.net
	Eva Chin		868-637-0976 (h)		gce@trinidad.net
	Colin Daniel	ESSA Technologies			cdaniel@essatech.com
CPACC	Ian King	CPACC RPIU	246-417-4579/80	246-417-0461	kingcpacc@sunbeach.net
	Leslie Walling	246-417-4579/80	246-417-4580/82	246-417-4579/80	wallingcpacc@sunbeach.net

Appendix 2: COURSE SCHEDULE:

Monday March 20, 2000

0830 - 0900: Registration
 0900 - 0915: Introduction and welcome
 0915 - 0930: Psychological Contracting
 0930 - 1030: Introduction to data automation concepts and issues [1]
 1030 - 1100: *TEA BREAK*
 1100 - 1200: Logical design of spatial database [2]
 1200 - 1300: *LUNCH*
 1300 - 1400: Intro to map projection and coordinate systems [3]
 1400 - 1500: Data automation methods [4]
 1500 - 1530: *TEA BREAK*
 1500 - 1630: Introduction to Group Tutorials and Map preparation (Tutorial) [5]

Group Tutorial Schedule

<i>Tuesday</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Group 4</i>
March 22				
0830-1000	SDRG	HDD	GPS	HUD
1000-1030	<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>
1030-1200	GPS	HDD	SDRG	HUD
1200-1300	<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>
1300-1430	HUD	SDRG	HDD	GPS
1430-1500	<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>
1500-1630	HUD	GPS	HDD	SDRG
1630-1730	Review session	Review session	Review session	Review session

<i>Activity</i>	<i>Activity Code</i>
1. Scanning, Georeferencing, and creation of Digital Raster Graphics [6]	SDRG
2. Heads-up digitizing [7]	HUD
3. Heads-down digitizing [8]	HDD
4. Error editing and topology [9]	EET
5. Use of Global Positioning Systems [10]	GPS

<i>Activity</i>	<i>Instructors</i>
1. Scanning, Georeferencing, and creation of Digital Raster Graphics	Vernisha/Jacob
2. Heads-up digitizing	Shahiba/Jacob
3. Heads-down digitizing	Darrell/Jacob
4. Error editing and topology	Eva/Jacob
5. Use of Global Positioning Systems	Dexter/Jacob

Wednesday March 23	Group 1	Group 2	Group 3	Group 4
0830-1000	HDD	HUD	HUD	EET
1000-1030	<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>
1030-1200	HDD	HUD	HUD	EET
1200-1300	<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>
1300-1430	EET	EET	EET	HDD
1430-1500	<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>
1500-1630	EET	EET	EET	HDD
1630-1730	Review session	Review session	Review session	Review session

Thursday March 23, 2000

0830 - 0930: Creating attribute database [11]
0930 - 1030: Creating attribute database (Tutorial) [11a]
1030 - 1100: *TEA BREAK*
1100 - 1200: Integration of databases: attribute data, documents, and video [12]
1200 - 1300: *LUNCH*
1300 - 1430: Data Visualization / Preparation of layouts [13]
1430 - 1500: *TEA BREAK*
1500 - 1630: Managing data automation and Quality control [14]

Friday March 24, 2000

0830 - 1000: National strategy to GIS data management [15]
1000 - 1030: *TEA BREAK*
1030 - 1200: **Country status reports on the creation of Metadata**
1200 - 1300: *LUNCH*
1300 - 1430: **Group presentation of tutorial results**
1430 - 1500: *TEA BREAK*
1500 - 1700: Review of Concepts and Course Evaluation

Saturday March 25, 2000

0830 - 1000: **Introduction to CRIS database**
1000 - 1030: *TEA BREAK*
1030 - 1200: **Feedback session: CRIS database**
1200 - 1230: Course evaluation and Closing [16]
1230 - 1330: *LUNCH*