

Report from St. Lucia metadata workshop

November 15 – 17, 2000

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Background

The first metadata workshop sponsored by the Caribbean Planning for the Adaptation to global Climate Change (CPACC) project was in September of 1999. Following that workshop the twelve countries involved in the CPACC project were required to submit metadata records for spatial datasets in their possession and any new spatial datasets created. This is in conformance with the Component 3 (inventory of coastal resources and uses) schematic where metadata are required to accompany all spatial datasets that become a part of the Coastal Resource Information System (CRIS).

For Saint Lucia, it appeared that the person responsible for metadata creation was no longer available, as such I was contracted to train persons from various agencies, ministries and companies in the preparation of metadata. This was achieved in the form of a workshop, the objectives of which were:

- To assist agencies/organizations document their spatial datasets using the Federal Geographic Data Committee (FGDC) metadata standard. This would lead to the following benefits:
 - Tell others what datasets are available – this would also reduce duplication of efforts (in creating new datasets that already exist) by sharing/purchasing
 - Advertise and market spatial datasets
 - Provide some legal protection if datasets are misused
- To continue the metadata effort started by the Caribbean Planning for the Adaptation to global Climate Change (CPACC) project especially in supporting the National CRIS (Coastal Resource Information System) database. As outlined by CPACC’s “Component 3: Implementation of Coastal resources and Uses” schematic, metadata is expected to accompany all datasets that become a part of CRIS.
- To introduce sound data management practices
- To build in-country capacity in preparing metadata

The Workshop

The workshop was conducted during November 15 –17, 2000 at the Cable and Wireless Training Centre in Castries, St. Lucia. Fourteen (14) participants from various ministries, agencies and companies attended the workshop. Please see Appendix 1 for the workshop schedule and Appendix 2 for a list of participants.

The workshop ran smoothly during the 3 days, however, there were a few inconveniences and these were:

1. Slow computers, some of which occasionally crashed
2. Slow internet connection; this produced varying results while participants were searching the Clearinghouse Mechanism (CHM)

However, the successes, by far, out numbered the constraints. At the end of the workshop the participants were given an evaluation form, which they completed and submitted. A copy of this form can be found in Appendix 3. The following summarises the responses from the evaluation exercise:

- ❑ Participants felt that the workshop was useful to them and that the lecture and tutorial sessions, knowledge level of instructor and quality of instructions were on average good.
- ❑ Participants felt that in terms of the outputs they were capable of doing the following to varying degrees:
 - Search the Clearinghouse Mechanism for metadata
 - Install metadata tools (PC MetaLite 1.7.5 and the isite software)
 - Create metadata for a spatial dataset using PC MetaLite 1.7.5
 - Process the metadata record using the isite software
- ❑ In terms of the resources and facilities, participants felt that the schedule, audio-visual materials, course binder and printed materials and training facility were generally good
- ❑ In terms of the instructor, there was an almost 50/50 split as it relates to the instructor's knowledge of subject matter, ability to convey the knowledge and ability to stimulate class interest. About one half rated the instructor between good and very good on the above criteria and the other half between average and good.
- ❑ Everyone agreed that the course materials were used effectively in the classroom and that they will serve as a useful reference in the future.
- ❑ Some participants see metadata as a means of marketing their organisation's datasets, while others see it as a means of finding datasets they are interested in and sharing datasets among organizations and other bodies.
- ❑ Most participants agreed that their interests, prior skills and job responsibilities were compatible with the course material and training objectives.
- ❑ In terms of follow up activities, participants would like to see the following:
 - Integration of metadata with GIS datasets.
 - Establishment of a metadata node for St. Lucia with one Ministry coordinating and facilitating this activity and other agencies/bodies contributing to this effort.
 - More workshops/training on various aspects of GIS.
 - Creation and use of metadata by all relevant agencies. This should be agreed at the top and become a policy.

At the end of the workshop I was surprised that the participants grasped the material so quickly, especially as it relates to using the isite software – participants were searching each other's computer on the network for metadata very comfortably. In my view the 14 participants are very capable, technically, to create metadata. However, this training would go to waste if they are not given the opportunity to continue practicing what they gained during the workshop. I think this can be achieved, to some degree, by integrating the creation of metadata into other activities these individuals are involved with. The availability of resources (like computers, time to create metadata, the metadata node for Saint Lucia, etc.) and encouragement would also go a long way. In my view the main objective of the workshop, "to build capacity within St. Lucia to create metadata", has been achieved – to a point. This is also parallel to one of the main objectives of the CPACC project, to build capacity within the Caribbean to deal with climate change. Note that the CPACC project helped support this workshop. The fact that I was trained under

the CPACC project in this regard (to create metadata) is proof that the CPACC project is realising its objective of capacity building. A proposal that was discussed at the end of the workshop is outlined below.

In addition to learning about metadata and how to create and process them the participants also learnt some data management skills. These were integrated into the metadata training but the concept can nevertheless be extended to other aspects of their job. Some of these skills include file organization, troubleshooting and file backup considerations.

One point I stressed during the workshop is that metadata in the context in which it was taught was for geospatial datasets. These would include such things as:

1. Any GIS dataset (shapefiles, arcinfo coverages, digital elevation models (DEMs), scanned maps, geodatabases, satellite images, computer aided design (CAD) drawings, etc.)
2. Aerial photographs
3. Any geo-referenced map
4. Field measurements in log books containing such things as benchmarks, locational description of any object (eg. wells, weather stations, sampling points, discharge points, etc.)
5. Spreadsheets containing the data described in (4) above.

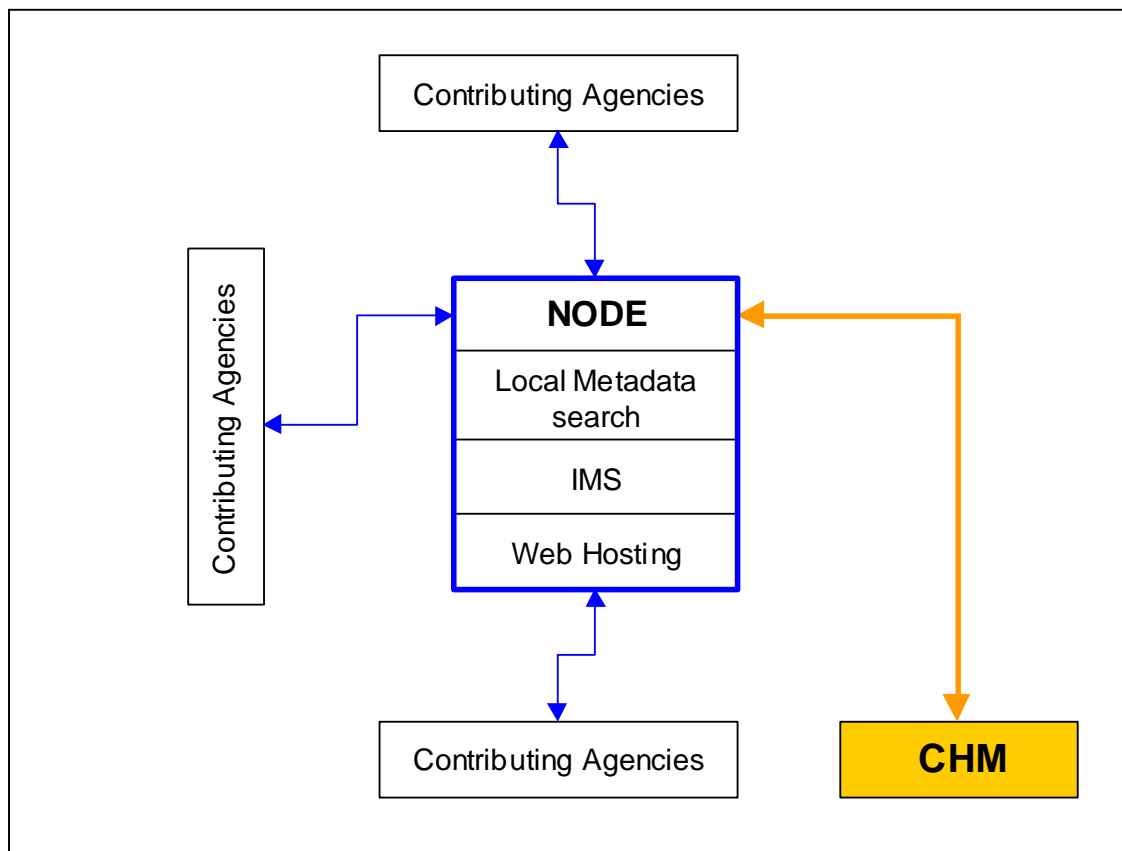
Metadata, therefore, should not be created for such things as reports, books, journal articles, and similar publications – unless they contain maps that cannot be found elsewhere or they are log books mentioned above. The full metadata standard uses about 334 fields to document a dataset; PC MetaLite 1.7.5 uses a sub-set of this, nevertheless, this is still much more than what is required to describe any one of the type of publications mentioned above. These publications thus belong in a digital catalogue system, something normally found in libraries. This idea can be extended and the creation of a digital catalogue system for the Caribbean can result.

After the Workshop

To provide support, technical and otherwise, I created a web site to assist with this. The URL of the main page is http://members.fortunecity.com/xzard11/metadata_docs.htm. This site contains a list of the important documents used in the workshop and other related documents. As any one of the documents becomes updated, they will be posted here and available for download. A list of email addresses of participants were collected and emails will be sent informing them of any updates to any documents or any new metadata development. However, this support will not last forever and thus the best place to stay updated would be to visit the web site described above. To provide additional support a forum was also created specifically for metadata, the link to which is available from the web site above or directly using the URL <http://pub24.bravenet.com/forum/show.asp?usernum=2056393405&cpv=1>. This would encourage a community approach to metadata problem solving where anyone who has solved a similar problem can offer a solution – that person does not necessarily have to be

me. However, I would manage the forum and give my inputs or provide alternative solutions where possible.

In terms of the way forward for Saint Lucia, with respect to metadata, and from the responses from the participants it seems that a central body for coordinating and facilitating metadata development is needed. The participants agreed that the most suitable body is the Ministry of Planning. However, before significant metadata is created, the major spatial datasets holders should get together and decide who is responsible for updating/maintaining what. This would clearly reduce or eliminate any duplication of efforts (on two levels – creation of metadata and updating/maintaining datasets) and responsibilities would be clear so in time of conflicts no one would be accused wrongfully. In terms of what the central coordinating and facilitating body for metadata development should do, how they should do it, where it should be hosted, how many persons it should comprise and everything else along this line is up for policy makers to decide. However, from a technical point of view the system may look (schematically) like the following:



Such a system does not require much to have it working smoothly. The hardest part is setting it up initially and having clear policies to guide it. Instead of just having a node on a single server, other services can be added. This node would link to the Clearinghouse Mechanism (CHM) but the server itself could provide a local metadata search engine for

St. Lucia. Besides providing information on metadata as it relates to St. Lucia, via a web site, the server can provide web site hosting to agencies that do not currently have web sites. This of course would depend on the capacity of the server. The server could also support an Internet Map Server (IMS) so that visitors get an idea what certain datasets look like, and this should be integrated with the metadata. Also through this service certain datasets can be made available as a free download while others can be bought online or offline, whichever is appropriate. This would help with cost recovery and financial sustainability of the services. On the point of financial sustainability, the web site can also cater for companies wanting to advertise their products and can even become an e-commerce site in this respect – selling geospatial data. These are only some ideas which can be developed further.

Acknowledgements

I wish to acknowledge the following people without whose help this workshop would not have been possible or successful or run as smoothly as it did:

- ✓ Ms. Anita James for coordinating the entire workshop and making everything run as smoothly as possible.
- ✓ Mr. Ian King of CPACC for making travel arrangements and for providing other support.
- ✓ Mr. Sylvester Chastanet, short-term assistant attached to the workshop, for taking me around St. Lucia so that I could get some of the logistic things sorted out.
- ✓ Mr. Marcathian Alexander for making copies of the CD that was distributed to the participants.
- ✓ Mr. Devon Barrow for assisting Mr. Chastanet with some of the logistics and also helping with the preparation of the CDs that were distributed to the participants.
- ✓ Dr. Jacob Opadeyi for his support and doing his bit as usual.
- ✓ The participants for their cooperation and enthusiasm throughout the workshop and thus, making it a success.
- ✓ The CPACC project for assisting in making this workshop a reality.
- ✓ Mr. Bishnu Tulsie, Chief Sustainable and Environment Officer, Ministry of Planning, Development, Environment and Housing, for his opening remarks and support to the workshop.
- ✓ Mr. Crispin d'Auvergne, CPACC focal point, for his support in making this workshop successful.

Appendix 1

Workshop Schedule

The following is the outline of the workshop. Note that no specific time is given since the length of each activity may vary depending upon the experience of the audience. It is anticipated that all activities will be completed at the end of the three (3) days.

General time breakdown:

9:00 am Workshop Starts
 10:30 – 10:45 Break
 12:00 – 1:00 Lunch
 3:00 – 3:15 Break
 4:30 pm Workshop Ends

November 15	<ul style="list-style-type: none"> <input type="checkbox"/> Opening Remarks <input type="checkbox"/> Introduction <input type="checkbox"/> What is metadata <input type="checkbox"/> Metadata standard <input type="checkbox"/> The Clearinghouse Mechanism (CHM) <input type="checkbox"/> Searching the CHM <input type="checkbox"/> Developing Metadata <ul style="list-style-type: none"> ▪ Choosing metadata tools <ul style="list-style-type: none"> - Metadata creation - Metadata validation - Search and retrieval <input type="checkbox"/> Creating metadata using tool <ul style="list-style-type: none"> ▪ Using template ▪ Using PC MetaLite ▪ Installing PC MetaLite ▪ PC MetaLite walk through
November 16	<ul style="list-style-type: none"> <input type="checkbox"/> Creating metadata and entering records into PC MetaLite – EXERCISE <input type="checkbox"/> Error checking/Quality control <input type="checkbox"/> Exporting metadata records <input type="checkbox"/> Metadata validation <ul style="list-style-type: none"> ▪ Install isite software ▪ Using isite software
November 17	<ul style="list-style-type: none"> <input type="checkbox"/> Metadata validation continues ... <ul style="list-style-type: none"> ▪ Index metadata records ▪ Test indexed records – local, zserver ▪ Dealing with errors <input type="checkbox"/> PC MetaLite Utilities <ul style="list-style-type: none"> ▪ Mass export ▪ Merging databases

Appendix 2

List of Participants

Contact details of participants

Name	Institution	Physical Address Telephone Number	Email Address(es)
Lawrence Pologne	St. Lucia Meteorological Services	Hewanorra Internatinal Airport Vieux Fort, St. Lucia (758) 454-6550	law_pologne@hotmail.com
Glenda Charles	Ministry of Planning Survey and Mapping Unit	PO Box 709 Government Building Block C, Waterfront (758) 468-5021	dtage@hotmail.com
Rebecca Rock	Ministry of Planning Physical Planning	PO Box 709 Government Building Block C (758) 453-1276 (758) 468-4454	gisunit@hotmail.com
Portia St. Catherine	Ministry of Planning Physical Planning	PO Box 709 Government Building Block C (758) 453-1276 (758) 468-4453	gisunit@hotmail.com
Andrina Abraham	Ministry of Agriculture Forestry Department	Forestry Department Ministry of Agriculture (758) 450-2375 ext 311 (758) 450-2078	andrins@yahoo.com
Lyndon John	Ministry of Agriculture Forestry Department	Forestry Department Union, Castries (758) 450-2078	lynjohn1@yahoo.com
Susanna Scott	Department of Fisheries	Point Seraphine Castries, St. Lucia (758) 452-6172 (758) 468-4138	deptfish@slumaffe.org
Darrell Theobalds	Statistical Department	Chreiki Building Micond Street (758) 452-3716	theobad@usa.net
Devon Barrow	Sustainable Development and Environment Unit	Graham Louisy Building Waterfront, Castries (758) 468-4461 (758) 451-8746	devon_sde@candw.lc congo_1@hotmail.com
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Sylvester Chastanet		Union (758) 450-2484	sli_21@hotmail.com
Avery Trim	St. Lucia National Trust	Vigie PO Box 595 Castries (758) 452-5005 (758) 453-1495	natrust@candw.lc

Appendix 3

Evaluation Form



Caribbean Planning for Adaptation to
Global Climate Change

Organization of American
States (OAS)

Metadata Training Workshop
Nov. 15-17, 2000
St. Lucia

WORKSHOP EVALUATION FORM

This workshop was designed to expose participants to the process of preparing metadata, using the FGDC metadata standard, in support of the Coastal Resource Information System (CRIS). At the end of the training programme the participants would be able to:

- Search the Clearinghouse Mechanism (for metadata records)
- Install metadata tools (PC MetaLite 1.7.5 and isite software)
- Create metadata for a spatial dataset using PC MetaLite 1.7.5
- Process the metadata record using the isite software

1. The Course

Please indicate your response using the following rating scale by circling the appropriate number: 1, 2, 3, 4, 5. [1 = very poor (or not very well); 5 = very good (or very well)]

	Poor				Good
How valuable was the workshop to you?	1	2	3	4	5
The lecture sessions were:	1	2	3	4	5
The tutorial sessions were:	1	2	3	4	5
The knowledge level of instructors was:	1	2	3	4	5
The quality of instruction was:	1	2	3	4	5

2. Results

Do you feel capable of:	Not capable			Very capable	
▪ Searching the Clearinghouse Mechanism	1	2	3	4	5
▪ Installing metadata tools (PC Metalite, isite)	1	2	3	4	5
▪ Creating metadata	1	2	3	4	5
▪ Processing metadata records using isite software	1	2	3	4	5

3. Resources and Facilities

Rate the adequacy of the following:	Poor			Good	
The schedule was:	1	2	3	4	5
The audio-visual materials were:	1	2	3	4	5
The course binder and printed materials were:	1	2	3	4	5
The training facility was:	1	2	3	4	5

4. Course Instructors

Evaluate the instructors on the following criteria	Poor			Good	
Knowledge of subject matter	1	2	3	4	5
Ability to convey the knowledge	1	2	3	4	5
Ability to stimulate class interest	1	2	3	4	5

5. Course Material

5a. Were the course materials used effectively in the classroom?

YES

NO

5b. Will the course material serve as a useful reference?

YES

NO

5c. Specify, how will material learnt on this Course be of benefit to you in your daily operation?

6a. Were your interests, prior skills, and job responsibilities compatible with the course material and training objectives?

6b. If NOT what do you think were the major deficiencies and what are your suggestions for improvement?

7. What activity would you like to see as a follow-up to this Course?

8. In general, do you think that the atmosphere of the course allowed participants to relate well to each other?

YES

NO

9. Please comment on any specific problems you experienced during this workshop.

NAME OF PARTICIPANT: _____

OFFICIAL POSITION: _____

PLACE OF EMPLOYMENT: _____