

COINAtlantic NGO Capacity Building Strategy



Presented to

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By the

Southern Gulf of St. Lawrence Coalition on Sustainability



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1.0 Introduction

The services of the Southern Gulf of St. Lawrence Coalition (as an umbrella non-government organization) were engaged to help identify recommendations to build the capacity of non-governmental organizations in Atlantic Canada for participation in COINAtlantic. Initially the contract was to be completed by June 30th; however due to the limited timeline and the addition of extra contacts to be interviewed, the contract deadline was extended to July 17th.

2.0 Methodology

In order to gain a better understanding of the geospatial challenges, contributions and requirements of the environmental non-government agencies (NGO) in Atlantic Canada it was decided the best data gathering medium was to conduct telephone interviews. The list of interview questions can be reviewed in Appendix A. There were 22 questions under three separate categories: General Organization Info, Organization's Capacity and COINAtlantic.

Because some of the interview participants identified had no prior knowledge of COINAtlantic, it was necessary to organize a conference call in order to explain and describe COINAtlantic, its concept, objectives and potential users. The conference call took place on Monday, June 23rd. Three NGO groups participated in the call as follows Vicky Hammond of Eastport Marine Protected Area, Phillip Greyson of the Nature Conservancy of Canada and Peggy Thomson of Eastern Charlotte Waterway.

Twenty-one community organizations from across Atlantic Canada representing a broad spectrum of mandates and activities were identified via email letter to participate in an interview (refer to attached List of Organizations contacted and Letter of Invitation in Appendices B and C respectively). Of those contacted, twelve individuals representing various NGO groups actually participated in a telephone interview. Ten interviews were conducted during the period of June 24-27, and two other interviews were conducted on July 11th, and July 15th.

3.0 Interview Results

The answers to the interview questions from the 12 respondents were inserted on MSAccess database. Below are the highlights of the interview results.

- Finances: The operating budgets of all groups ranged from \$100,000 - \$450,000. Several groups claimed having experienced severe funding cuts over the past few years.
- Staffing: The number of full-time employees per NGO ranged from 1-13. All but one group (which had no summer students) had between 1-5 summer students. Five NGOs claimed having full-time GIS staff: one group had one part-time GIS staff person, one organization had two; the three remaining each had one GIS techie on staff. Generally, an NGO's knowledge and capacity of GIS is quite limited with the organization having to rely on outside intervention to perform

any GIS related tasks. This is either through the form of an independent GIS consultant at a cost, or to rely on a partner such as DFO.

- Geospatial level of training and frequency: Of the five NGOs that reported having GIS staff above, only two had staff with accredited GIS formal training, one being a graduate of COGS. The remaining seven NGOs had little or no formal training on geospatial capacity. The professionally trained GIS staff received upgrade training mostly through on-line courses, website and the occasional seminar or workshop. Those with limited capacity just learned as they went with whatever software package their organization had. One particular NGO had incorporated geospatial training in with previous funding proposals and was able to send staff for a training session with these funds. However she also reported that the staff sent on training is no longer employed with the organization.
- GIS software used: Four of the NGOs use MapInfo, five use ESRI products (three use ArcGIS, one uses ArcView and one uses ArcInfo). Of the remaining groups, one has a partnership with Dalhousie University (and they do their geospatial work), one has a similar partnership with DFO and the third group uses an on-line application (fGIS).
- Length of time using geospatial data for projects: The length of time groups have been using geospatial data for projects ranges from two to fourteen years, with most of them having over more than five years experience.
- Financial investment in GIS hardware, software and datasets: These values ranges extensively: with the Clean Annapolis River project having invested no monies by using an on-line application to Bedeque Bay Environmental Management Committee having initially invested over \$7,000 to procure the necessary hardware and software to be able to do geospatial activities.
- Kinds of geospatial data created: The data created by the respondents includes a broad range of ecological information as follows: watershed planning, elevation and public display maps, tree planting, composting plans, fish habitat, river monitoring, water quality monitoring, endangered species, sensitive areas: clear cutting areas, illegal dumpsites, map grids of lobster- plotting catches per unit stations, surficial geology, forest cover, forestry restoration, sensitive habitat, bathymetry, and flora and fauna. A common thread across four groups is water quality.
- Geospatial data created format and storage manner: The format of the data created by the NGOs was in the format specified by their software program (ie. ESRI shapfiles or MapInfo tabs), or some stored mapping coordinates or monitoring info in simply databases, such as Excel. Four groups were actually unsure of what format their data was in. These were groups who had partnerships with other organizations to conduct their geospatial activities. All of the groups stored their information on their hard-drive with only four of the groups reporting storing data onto cds as a back-up technique.
- Variety of geospatial data presently used: 10/12 groups use shoreline data; 8/12 groups use hydrographic network data; 10/12 groups use roads, infrastructure data; 11/12 use habitat data (1 focuses on forest habitat and 2 focus on marine habitat); and 10 /12 use species distribution data (1 focuses on plants, 2 focus on

shellfish and migratory fish). In addition, one group uses resource mapping often and another group regularly makes use of in-shore data.

- Source of base data: Eight groups tap into their provincial government's base data; four groups access GeoGratis for their base data; four groups access DFO base data; four groups download base data from the internet, two groups access other federal agency base data from both Environment Canada and Parks Canada.
- Types of data would like to have access to: 10/12 groups would like access to shoreline data; 9/12 would like access to hydrographic network data (with one stressing particular interest in drainage patterns); 10/12 would like access to human activities data (with one stressing the need for more up-to-date PID info); all but one group would like access to habitat info; all but one group would like access to species distribution information (with one having particular interest in marine species and one in fish and shorebirds); all but one group would like access to marine and bathymetry data (with one expressing a big interest on ocean bottom maps); all but one groups would like access to surficial geology, shoreline classification data (with one group having a keen interest in shoreline classification); only 6/12 had an interest to have access to groundfish trawl results; all but one group would like access to oceanographic models (with one having particular interest in sea-level rise models and another wanting currents and sedimentation models); only two groups expressed an interest in wanting access to other information: one wanted climate change information and the other wanted more detailed in-shore fishing information.
- How COINAtlantic can contribute to organization: Groups responded with an array of ways COINAtlantic can contribute to their specific organizations. Four groups suggested access to centralized info and base maps would be beneficial to their organizations. Others suggested that COINAtlantic would render their work more efficiently as all employees could access relevant data fairly easy, and it would serve to reduce time searching information (avoiding a duplication of efforts). Four groups suggested unique ways COINAtlantic could contribute to their organization as follows: updated property owner data; fishing effort data to determine conservation levels; info (images, research results and maps) that could be used to education schoolchildren; and simply providing some standardization for collected data.
- COINAtlantic barriers: Five groups responded that they did not foresee any barriers. Others responded that barriers to using COINAtlantic included having limited time to even train on how to use COINAtlantic; a changeover in trained staff (to use COINAtlantic), limited capacity in geospatial understanding; associated costs – if any; and not having access to high-speed internet.
- Ways organization's data can advance COINAtlantic: Essentially, groups agreed that their own collected monitoring data could add value to COINAtlantic by way of having it available to be shared with others, ie. researchers, etc. Data varieties they can provide include: water quality monitoring results, flora, fishing effort, traditional ecological knowledge on local fishery, unprotected lands, seabed classification, and lobster research results.

- Requirements to facilitate accessing COINAtlantic: 9/12 groups offered ideas on how to facilitate accessing COINAtlantic by simply making the web address known and available, to more specific ideas such as being provided with training, tutorials, including a help line so questions can be answered quickly, data needs to be provided in usable formats, provide high speed access, and ensuring that it is FREE to use.
- Recommendations to improve COINAtlantic: 8/12 groups offered ideas on how COINAtlantic could be improved ranging on the need to first have a better understanding of COINAtlantic to making it easy to use; inexpensive, incorporating rare species sightings from ACCDC (Atl. Can Conservation Data Center) and bird sightings from the Maritime Breeding Bird Atlas; important to cross reference data from same area to ensure quality; develop and offer tutorials; and ensure continued data is available (and not discontinued).
- Interest to participate in a COINAtlantic Working Group: 8/12 groups said they would be interested in participating in a COINAtlantic Working Group but were also concerned about the time requirements. Three groups responded that they preferred to simply be kept up to date on COINAtlantic news through a list-serve and one group said they were not interested at all.

4.0 Recommendations for capacity building tools within COINAtlantic

Below are recommendations on specific capacity building tools and approaches with learning how to use COINAtlantic:

Printed instructional documents – Because the NGO sector targeted for this project is mainly of the environmental component, printed documents is not recommended and may even be frowned upon as an environmentally unfriendly approach.

Online materials – formatted in pdf, this may be of value. Users will have the option to print on recycled or re-used paper, or simply have on-screen to refer to.

Telephone support lines – this was recommended by only one of the interview respondents. It would be costly to staff. It could be a consideration for a specific start-up period only – during the launch and promotional period of COINAtlantic.

Workshops – a set of regional workshops for the launch of COINAtlantic should be considered if it also includes components of not just how to use COINAtlantic but also offers teachings on why to use it (ie. ecosystem management, land-use planning, etc). In-person forums are sometimes more useful as it serves to build trust, to increase participation and to forge ties with a given sector, ie. NGOs. It would be a valuable promotional tool for COINAtlantic. It would need to include follow-up, ie. Workshop recommendations report, and a workshop evaluation component.

Conference calls – a series of brief conference calls with targeted subject matter is both cost effective, carbon neutral and convenient to most (no travel required). It should be brief and targeted at a specific COINAtlantic usage solution or explanation. However, these forums are very impersonal and un-engaging, so not useful to inspire or motivate people not yet convinced of COINAtlantic's value.

Webinars – this method is bit more technically-savvy than conference calls and like conference calls has its niche and usefulness. It should only be considered when those coordinating the webinar are fairly adept at doing so.

Travel for outreach and engagement – hiring a staff person to travel to the various groups to offer assistance and instruction on how to use COINAtlantic could be considered as a follow-up to the regional workshops. It would allow for individual groups to become comfortable using COINAtlantic in their respective work environments, and to ask specific questions relative to their own geospatial goals and objectives.

5.0 Overall recommendations on a strategy to building the NGO capacity

In 2006 the Coalition had conducted a technical capacity survey with over 50 member organizations. The goal was to gain a better understanding of what kinds of data the NGO groups gathered, how they stored it and to determine their geospatial capacity levels. The groups were provided an opportunity to add additional comments (refer to Appendix D) on the present (2006) state of data-sharing and procurement.

These comments, along with the interview results above, will be used to identify the key recommendations to building the NGO capacity for COINAtlantic. The recommendations are as follows:

Recommendation #1 – COINAtlantic needs to be packaged and sold to the NGO sector as a value-added tool that will enhance and strengthen their ability to realize their respective goals.

Explanation: Many groups do not fully comprehend the many advantages of procuring datasets and having these visually represented on a map. COINAtlantic must first and foremost convince and teach groups how it can be used as a strategic ecosystem management tool to develop conservation, restoration and educational programs. In addition, COINAtlantic can add value to sourcing financial support through its save feature. For example, with a series of clicks, a NGO group can insert a map into a funding proposal to add visual appeal, professionalism and credibility to their efforts.

Recommendation #2 – COINAtlantic needs to be developed and promoted as a common tool that anyone can use, like Outlook Express or Internet Explorer.

Explanation: Perception is that geospatial tasks can only be undertaken by a professional or someone properly trained in GIS. Buy-in from the NGO sector to use or contribute to COINAtlantic will be easier to obtain if they understand that hiring extra staff to use it is unnecessary.

Recommendation #3 – COINAtlantic needs to be easy to access, easy to use and include up-to-date and relevant information to the NGO sector. It must also be either free to the user or accessible at a minimal cost.

Explanation: There are concerns that it will cost the NGO sector to use COINAtlantic. This sector is faced with financial constraints and requires affirmation there is no or little financial burden to using COINAtlantic. In addition, watershed emphasized data would be extremely relevant to watershed groups.

Recommendation #4 – COINAtlantic needs to continuously engage the NGO sector either by establishing a Working Group, providing regular updates (through an email

listserv) or incorporating a feedback loop on the COINAtlantic website that enables users to provide comment, ie an on-line poll that's update regularly.

Explanation: From the surveys conducted, many responded being kept informed on COINAtlantic's progress. This should be done tactfully, so as not to overwhelm an already overburdened sector. Very brief (point form paragraphs) monthly email notices indicating new data available, new features, and with a short success story on how a user is making great use of COINAtlantic would maintain interest. A financial incentive or prize to success story contributor could be fun.

Recommendation #5 – Providing specifically-tailored training to the NGO sector is integral to their participation. Hands-on training either through a regional workshop or site visits would be extremely beneficial to securing long-term commitment and usage of COINAtlantic by the NGO sector.

Explanation: The NGO sector is a busy and often fragmented sector (dependent on funding sources, etc.). It is imperative that training sessions be developed with consideration to their respective capacities, field season, project timelines, and financial limitations. Providing travel subsidies for groups to participate in regional workshops, would ensure participation.

6.0 Conclusion

Considering the time of year (summer vacation) and short time-lime to carry out this project, a 57% participation rate with the interviews was quite reasonable and acceptable. In general, the 12 interview participants were enthusiastic to learn more about COINAtlantic and to discover its ability to potentially offset their current geospatial challenges. In the past 2-3 years, the NGO sector has faced many challenges, mostly with remaining financially viable. Therefore, any type of tool that is cost-effective, will facilitate their work and reduce their workload is WELCOME and GREAT news!

In order to build COINAtlantic in a manner that includes the NGO sector as users and contributors, it needs to consider the five key recommendations above and to especially consider the uniqueness and fragility of the NGO sector in present day society.

Appendix A
Interview questions



COINAtlantic Geospatial Interview Questionnaire

General Organization Info:

1. Organization name:
2. Contact person, phone number, email and website:
3. Year founded:
4. Last fiscal year's approximate operating budget
5. Number of employees working at present:
6. GIS staff
 - how many and are they working full-time?
 - are any summer students?
 - longer-term position?
 - the level of GIS training (eg. formal level, on-the-job, etc)?

Organization's Capacity:

7. Is your organization equipped with GIS software? Please specify which software.
8. How long has your organization been using geospatial data or GIS for projects, organization operations, etc?

9. How often does your organization receive geospatial training or re-training?

10. Approximately what has been the cost to your organization with accessing, manipulating and using geospatial hardware, software and data?

Hardware costs:

Software costs:

Procuring datasets costs:

11. What kind of geospatial has your organization created (ie. water quality, wetland areas, sensitive habitat, flora, fauna, endangered species, stream restoration, etc)?

List geospatial data

-
-
-
-
-
-
-
-

12. What format(s) is it in?

13. Where is your data stored (CD, on various regional atlases and/or electronically available published documents)?

14. What geospatial data do you presently use?

- Shoreline
- Hydrographic network (rivers, lakes, marshes, etc.)
- Human activities (PID, roads, infrastructure)
- Habitat
- Species distribution
- Other

15. Where does your organization typically retrieve its base data from?

(eg. GIS Data Depot, GeoGratis, download from web, provincial government, etc.)

16. If you had access to the following info, which would you be able to make use of?

- Shoreline
- Hydrographic network (rivers, lakes, marshes, etc.)
- Human activities (PID, roads, infrastructure)
- Habitat
- Species distribution
- Coastal and marine bathymetry
- Surficial geology/shoreline classification
- Groundfish trawl results
- Coastal oceanographic models
- <http://www.marinebiodiversity.ca/COINAtlantic/Other>

COINAtlantic:

17. Upon learning more about COINAtlantic, how do you feel it can contribute to your organization? What are the opportunities for you?

18. What are the barriers to you with using COINAtlantic?

19. How do you think your data can be used to advance COINAtlantic?

20. What would you need to facilitate accessing and using COINAtlantic?

21. Do you have any recommendations to help improve COINAtlantic?

22. Would you be interested in participating in a COINAtlantic Working Group to move the project forward?

Thank you for your time and contribution.

Appendix B

List of organizations

Organization name	Contact person	Email address	website	Phone number	webinar
Protected Areas Association of Newfoundland and Labrador	Jennifer Morgan	paa@nf.aibn.com jennifer.morgan@nf.aibn.com	http://www.paanl.org/	709.726.2603	
Humber Arm Environmental Association	Sheldon Peddle	speddle@acaphumberarm.com	http://www.acaphumberarm.com/	(709) 637-2883	
Miramichi River Environment Assessment Committee	Harry Collins	mreac@nbnet.nb.ca	http://www.mreac.org/	(506) 778-8591	
Eastern Charlotte Waterway	Peggy Thomson	ecwinc@nbnet.nb.ca	http://www.ecwinc.org/	(506) 456-6001	
Bedeque Bay Environmental Management Association	Brenda Penack	brenda@bbema.ca	http://www.bbema.ca/	(902) 886-3211	
Southeast Environmental Association	Sarah Jane Bell	sjbell@seapei.ca	http://www.seapei.ca/	(902) 838-3351 or 0635	
Trout River Environmental Cttee	Robert Sharkey	troutriverec@gmail.com	http://www.troutriverec.org/pages/welcome.php	902) 886-3390	
Clean Annapolis River Project	Andy Sharpe	andysharpe@annapolisriver.ca	http://www.annapolisriver.ca/	(902) 532-7533	
Mabou Harbour Coastal Mngt Cttee	Shauna Barrington	sbarring@dal.ca		(902) 945-2771	
Fishermen and Scientists Research Society	Patricia King	pattyfsrs@auracom.com	http://www.fsrs.ns.ca/	(902) 876-1160	
Nature Conservancy of Canada	Philip Greyson	philip.greyson@natureconservancy.ca		(506) 450-6010	
Nova Scotia Coastal Communities Network	Ishbel Munro	coastalnet@ns.sympatico.ca	http://www.coastalcommunities.ns.ca/	(902) 485-4754	

Great Northern Peninsula Integrated Coastal Zone Mngt Area	Vachon Noel	vachonnoel@hotmail.com	http://www.coastalplanning.gnp.ca/index.htm	(709) 861-4240	
Eastport Marine Protected Area	Vicky Hammond	nfmpas@yahoo.ca	http://www.eastportmpa.com/	(709) 677-2486	
Bluenose Coastal Action Foundation	Brooke Nodding	brooke@coastalaction.org	http://www.coastalaction.org/index_home.html	902-624-9888	
Sackville Rivers Association	Walter N. Regan	wregan@accesscable.net	http://www.sackvillerivers.ns.ca/	(902) 865-9238	
World Wildlife Fund-Atlantic	Jennifer Smith	jsmith@wwfcanada.org	http://wwf.ca/AboutWWF/WhoWeAre/Contact.asp	902-482-1105	
Collaborative Environmental Planning Initiative(CEPI) for the Bras d'or Lakes	Bruce Hatcher	bruce_hatcher@cbu.ca	??	902-563-1988	
CPAWS	Ashley Sprague	marine@cpawsns.org	http://www.cpawsns.org/about/board.php	(902) 446-4155	

Appendix C

Letter of invitation



Dear Colleagues,

As the leader of a community organization, your participation and input is being sought to help shape an exciting new on-line geomatics tool that promises to be of important value with your planning and ecosystem management efforts.

As you are aware, [COINAtlantic - the Coastal and Ocean Information Network for Atlantic Canada](#) - is moving forward with the support of GeoConnections, and numerous Federal and Provincial agencies, to develop a sustainable network of data providers, users of information and applications for decision-making in Atlantic Canada. Potential functions and use cases are being considered for development to address high priority needs and issues in integrated coastal and ocean management.

COINAtlantic is an initiative of the Atlantic Coastal Zone Information Steering Committee (ACZISC) which has engaged the services of the Southern Gulf of St. Lawrence Coalition on Sustainability to assist them with identifying the user-needs of community organizations. To ensure the COINAtlantic strategy meets the requirements of users in the non-profit sector, it's important to gain a better understanding of the opportunities and obstacles faced by community organizations.

To this end, I'd like to schedule a 20-minute phone interview with you to learn more about your organization's geospatial challenges, needs and experiences. Please confirm if you agree to be interviewed by phone. If so, please let me know what your availabilities are for this week or next. From there, I will schedule the interview and will confirm this time with you asap.

If you have any questions, feel free to contact either Paul Boudreau, Project Manager for COINAtlantic at 902-494-7452 or myself at 506-858-4495.

Best regards,

Nadine Gauvin
Executive Director
Southern Gulf of St. Lawrence Coalition on Sustainability

Appendix D

2006 Coalition technical capacity survey

Table11

Organization	Additional comments
Acadia Centre for Estuarine Research	
ACZISC Secretariat Project Officer	
Association des Bassins Versants de la Grande et Petite Rivière Tracadie	Would like to have a location where we can give our results and studies, and get valuable interpretation and uses on them
Bathurst Sustainable Development	
Bedeque Bay Environmental Management Association	
Belledune Regional Environmental Association	
Cape Jourimain Nature Centre	I would love to have a central depository for all data, for NB, where people can enter their information they collected
Cardigan Communities Development Association	
Central Queens Wildlife Federation	
Chaleur Bay Watershed Group	
Coalition des bassins versants de Kent	Financial support, access to equipment
Coastal Communities Network	
Comité de gestion environnementale de la rivière Pokemouche Inc.	
Comité Sauvons Nos Rivières Nequac Inc.	
Attention Fragiles	
Comité ZIP - Baie des Chaleurs	
Comité ZIP des Iles-de-la-Madeleine	
Conseil de bassin versant de la Rivière Rimouski	
Conservation Council of New Brunswick	
CREGIM	
Ecology Action Centre	
Fresh Air Society	
Friends of the Pugwash Estuary	
Gordon's Pond Environmental Group	
Groupe de développement durable du Pays de Cocagne	Financial support, access to equipment
Groupe du bassin versant de la région de Cap Pelé	
Island Nature Trust	
La coalition pour la viabilité de l'enviro. de Shippagan et des Îles Lamèque et Miscou	
Lake Ainslie Development Association	
Le Comité de Protection de la santé et de l'environnement	
Les ami(e)s de la Kouchibouguacis	Groups are presently trying to offer a way to store and share data collected. Could be interesting.
Les plus belles baies du monde	
Mabou Harbour Coastal Management Planning Committee	We need access to scientific expertise to help us properly interpret and analyze our data
Mill River Watershed Improvement	
Mill River Wildlife Association	

Table11

Miramichi River Environmental Assessment Committee	
Nature Conservancy of Canada - Atlantic Region	
New Brunswick Federation of Naturalists	
North Shore Community Development Association	
Nova Forest Alliance	
Nova Scotia Nature Trust	
Partenariat pour la gestion intégrée du bassin versant de la baie de Caraquet inc.	
Pesca Environnement	
Pictou County Rivers Association	
Pictou Harbour Environmental Protection Project	
Shediac Bay Watershed Association	
Souris and Area Branch PEI Wildlife Federation	
Souris River Watershed Management Committee	Will have a Watershed Plan scheduled for launch early Fall 2006
Souris Wildlife Federation	
Southeast Wildlife Association	
Southeast Environmental Association	
Southeastern Anglers Association	Need resources to manage and analyze data.
Table de concertation du littoral de Bonaventure	
Tabusintac Watershed Association	
Trout River Environmental Committee	Securing ongoing funding for sampling regimes is problematic.
Wheatley River Improvement Group	
WWF Canada - Atlantic Regional Office	