

## COMMUNITY-BASED ENVIRONMENTAL MANAGEMENT IN ATLANTIC CANADA: THE IMPACTS AND SPHERES OF INFLUENCE OF THE ATLANTIC COASTAL ACTION PROGRAM

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**Abstract.** The Atlantic Coastal Action Program (ACAP) is a unique, community-based program initiated by Environment Canada in 1991 to help Atlantic Canadians restore and sustain watersheds and adjacent coastal areas. ACAP is the eastern-most Environment Canada Ecosystem Initiative. The ACAP family is currently made up of 14 ecosystem-based organizations in the four Atlantic provinces. Each one of these non-profit organizations operates independently, but is formally linked under the umbrella of ACAP to represent a force stronger than the individual parts. In Environment Canada's experience, the program consistently demonstrates the value of a community-based approach and produces results on an ecosystem basis. This paper will examine some of the impacts of ACAP in terms of economics, credible community science, and environmental results which most often align with Environment Canada's objectives. It will explore the influences of the community-based approach to environmental management on multiple scales (local, regional, etc.). Through examples, the paper will demonstrate the effectiveness of ACAP in influencing some of the policies, programs and attitudes of various levels of government and industry in the region, as well as describe how the community-based model has been exported internationally. The paper will conclude with a discussion on a planned path forward for ACAP.

**Keywords:** capacity building, community-based approach, comprehensive environmental management plan (CEMP), environmental management, partnerships, stakeholder, sustainability

### 1. The Growing Importance of Community-Based Approaches to Environmental Management

There has been much discussion in the past decade or so about whether we should be pursuing 'top-down' or 'bottom-up' approaches to environmental management. This question is being asked increasingly as national programs and government-led environmental management initiatives are complemented by integrated and multi-stakeholder efforts at the community level. Experience is building around the world in community-based environmental management, wherein the people who live and work in coastal areas and depend on the resources it provides, are enabled to take an active role, and increasingly share planning and decision-making responsibilities with government. Proponents of both approaches are lining up on either side of this apparent dichotomy in the complex and still evolving field of environmental management.

But we have to ask – is this an either/or scenario? It would be prudent to continue to develop and support national and regional approaches to environmental

management, as these have resulted in many of the effective programs in existence today. At the same time, there is growing recognition of the value and benefits of working at the community level as well. It is at the local level that much of the innovation and real action is taking place. Clearly, community-based environmental management represents a new form of partnership between government and community-based organizations. In essence, it is about 'power sharing' in the integrated planning and management of the environment. There is growing evidence of the desire, if not demand, by local stakeholders to be more actively and meaningfully involved in what have traditionally been government decisions.

The Atlantic Coastal Action Program (ACAP) is a Canadian-based program that challenges the status quo of traditional environmental management and has put into practice a community-centered approach.

## **2. The Atlantic Coastal Action Program**

The Atlantic Coastal Action Program (ACAP) is a community-based program centered on local involvement and action. It was launched by Environment Canada in 1991 in response to both the increasing concern about the condition of coastal ecosystems and a growing demand for the public to be involved in decision making related to their environments. Initially intended to last six years, the program is now in its 14th year and third phase of operation. The main objective of the program at its inception was to get communities involved with governments in developing restoration and maintenance plans and actions for harbours and estuaries in Atlantic Canada. The process has involved the development and implementation of comprehensive environmental management plans, partnership building, local action and awareness projects, and the advancement of science, all with the goal to enhance and maintain the environmental integrity of coastal communities. The program originally focused on water quality issues, but has subsequently evolved to focus on wider sustainability issues, including economic and social issues.

The ACAP 'family' is currently made up of 14 community-based organizations in the four Atlantic Provinces, with a fifteenth organization soon to be added in Labrador (Figure 1). Most of the coastal communities involved in ACAP were identified at the outset of the program as "hot spots", or areas where there was evidence of significant ecological degradation. Each one of these non-profit organizations operates independently with its own Board of Directors and full-time paid Executive Director, but is formally linked under the umbrella of ACAP. The character of these communities is varied, ranging from urban settings with heavy pollution of harbours (e.g. St. John's and Saint John), to areas with traditional industries associated with pollution (e.g. Sydney, Pictou and Humber Arm), to areas with runoff from heavily fertilized and chemically treated farmland (e.g. Annapolis

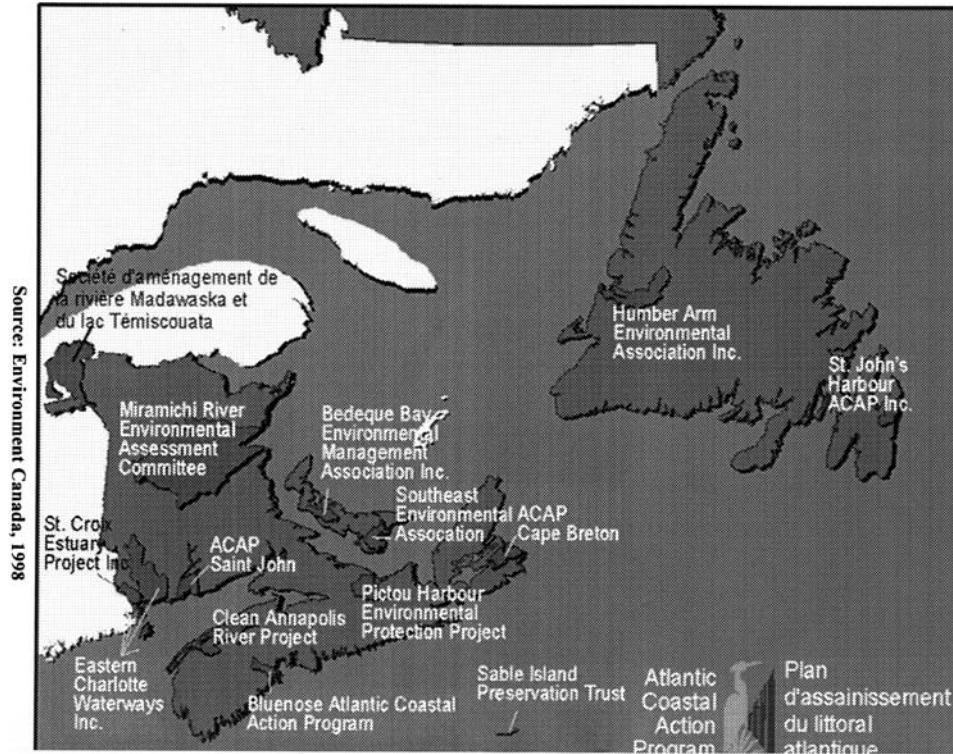


Figure 1. ACAP sites (Source: Environment Canada, 1998).

River, Bedeque Bay, Cardigan Bay). The diversity of character is reflected in the priority issues of concern of each ACAP group. In most cases, Environment Canada and ACAP organizations share the same goals and vision for the environment.

### 2.1. THE COMMUNITY-BASED MODEL

When ACAP was designed in the early 1990's, the community-based model offered a different approach to environmental management in Canada. The traditional, top-down form of governance, where programs are developed by various levels of government and organized along sectoral lines with minimal citizen input to the design and delivery, had not been effective in addressing complex ecological, social and economic issues in the Atlantic region. The community-based approach provided a new framework of governance which allowed the public to have more meaningful involvement in decision making. It would involve all sectors (governments, industry, communities) working together towards a common vision of sustainability (McNeil, 1997). This approach would address issues in a holistic manner, involving interested stakeholders from the very beginning of the process to identify priority

issues and agree on common solutions. Although there had previously been many examples of community-based action in other parts of the world from which to learn, this approach was a bold new step for the federal government in Canada. It required a change from a corporate culture of hierarchical, linear program delivery, to one of horizontal, or team delivery; shifting from the command-and control model to one of enabler and facilitator; and re-directing existing programs and resources to support community-identified priorities (Ellsworth *et al.*, 1997). In other words, the government had to give up much of its control.

## 2.2. PHASE I (1992–1997)

The primary focus of the ACAP sites for the first phase of the program was the development of a comprehensive environmental management plan (CEMP) for each watershed. Environment Canada provided ‘core funding’ to the sites to hire an Executive Director, set up an office and to complete this planning document. Involving the interested stakeholders throughout the process, the CEMP led to a thorough investigation of the critical issues affecting local resources, an assessment of the remedial options available to the community, and a choice of options which best served the primary environmental, and in some cases, socio-economic objectives of the community. The CEMPs were intended to help guide the communities in the future management of the ecosystem, outlining expected time frames for implementation of plans and responsible stakeholders. ACAP sites continue to use these documents as a roadmap to guide their work, and most re-visit and update their plans on a regular basis. In some cases, ACAP groups were resistant to spend such a long period of time (up to five years) in the planning process and wanted to see some more immediate results for their efforts. This was accomplished through a variety of demonstration projects carried out throughout the planning process. These projects, such as beach sweeps, home energy conservation, and paint swaps, provided an ‘action’ component to this phase of ACAP which made the groups more visible in their communities.

## 2.3. PHASES II AND III (1997–2008)

In Phases II and III, the emphasis shifted from the gathering of baseline data and the development of the CEMP to its implementation. The annual funds provided by Environment Canada were used for the delivery of projects in the areas of knowledge generation, capacity building, direct action, and the advancement of science. The rationale for providing this type of funding was that it would help to prepare communities to make informed decisions by increasing their knowledge and capacity to tackle complex issues related to the environment. This support helps to build the foundation of local capacity and knowledge required for communities to make informed decisions. It also includes the formation of a variety of partnerships between communities, governments, non-government organizations, academia and

industry required to develop and implement common solutions. These partnerships and capacity building consistently demonstrate the value of a community-based approach and produce results on an ecosystem basis.

### **3. The Results of ACAP**

The results of ACAP are widespread. Early on in the program, the focus was on producing results related to the environment, largely pertaining to improving water quality. As the program evolved, it became evident that the organizations were most often addressing broader issues of sustainability and that the co-management approach of ACAP had become increasingly recognized as an accepted model to address complex social, economic and environmental issues. In this respect, the results of the program are much broader than environmental. However, most of the evaluation of ACAP to date has focused on environmental results, economic impact and return on investment, and the impact of community/government science, and not on socio-economic impacts in the community. The equally important socio-economic areas present an opportunity for future evaluation work. The following section demonstrates some of the tangible results of ACAP that have been evaluated to date.

#### **3.1. ENVIRONMENTAL RESULTS**

As a partner with each of the independent ACAP organizations, Environment Canada, along with many other stakeholders, is involved in helping set its direction, identifying its priority issues and establishing its action plans. This arrangement has worked well, as the visions and goals for the environment held by the ACAP organizations have rarely been inconsistent with those of Environment Canada. Evidence of their generally compatible views is provided by ACAP's work (over 800 community projects since the program's inception), most of which has contributed directly to the priorities, or 'business lines', of the department. In an analysis done in 2002, it was estimated that from 1992 to 2002, 44% of the ACAP projects contributed to the Nature business line; 33% contributed to the Clean Environment business line; 12% contributed to the Management and Administration business line; and 11% contributed to the Weather and Environmental Prediction business line (Trites-Tolson, 2002). As a result of this alignment of priorities, ACAP has effectively and efficiently assisted with moving Environment Canada's mandates forward. Table I summarizes some of the environmental results of the program.

#### **3.2. ECONOMIC IMPACT**

A study conducted for Environment Canada (Gardner Pinfold, 2002) underlined the profitability of using the community-based model. According to the study, if

TABLE I  
ACAP environmental results

Environment Canada priority	ACAP results
<p>Climate Change and Air Quality: ACAP groups have worked on many projects to reduce greenhouse gas emissions, such as household energy audits, vehicle emissions clinics, and working with the business and industry sectors on energy conservation programs.</p>	<p>In total, ACAP groups have:</p> <ul style="list-style-type: none"> <li>● performed 461 energy audits</li> <li>● reduced greenhouse gas emissions by 30,000 tonnes</li> <li>● tested 1,232 cars at vehicle emissions clinics</li> <li>● conserved 42,466 kwh of energy</li> </ul>
<p>Clean Environment: Most ACAP groups have programs in place to monitor water quality in their watersheds. In addition, many ACAP groups have been successful in cleaning up contaminated areas. addressing sewage treatment issues, and undertaking water conservation programs in homes and businesses.</p>	<p>In total, ACAP groups have:</p> <ul style="list-style-type: none"> <li>● been successful in opening up 22km<sup>2</sup> of shellfish harvesting areas that had been previously closed.</li> <li>● installed 3 pump-out stations for boat sewage, eliminating 82,740 litres of raw sewage from the coastal environment</li> <li>● been instrumental in securing of funding to develop four municipal sewage treatment plants (St. John's, Lunenburg, two in Miramichi)</li> <li>● diverted 538 tonnes of garbage from landfill</li> <li>● installed 677 water saving devices</li> <li>● conserved 33, 404, 810 litres of water</li> <li>● eliminated 121, 818 litres of paint from the waste stream</li> <li>● eliminated 33,000 mg of mercury from the waste stream</li> <li>● cleaned up 65 illegal dumpsites</li> </ul>
<p>Nature With much ACAP focus on water quality and protection, a lot of work has been done to enhance wildlife and riparian habitat, as well as create and restore freshwater ecosystems. This work includes installing in-stream structures to improve habitat, riparian zone revegetation, creating artificial wetlands, and protecting environmentally sensitive areas.</p>	<p>In total, the ACAP groups have:</p> <ul style="list-style-type: none"> <li>● protected 182 km<sup>2</sup> of riparian habitat</li> <li>● enhanced 5 km<sup>2</sup> of wildlife habitat</li> <li>● installed 261 in-stream habitat structures</li> <li>● planted 60,547 native plants, trees and shrubs</li> </ul>

Environment Canada had delivered the ACAP program using a traditional approach, with government offices and employees rather than a community-led approach, it would have had to spend 12 times as much money to derive similar benefits. ACAP's economic impact (GDP) was, in total, about 22 million dollars in direct and spin-off economic activity from 1997 to 2001, which far exceeds Environment Canada's six million dollar investment.

What accounts for ACAP's success in delivering such a commendable financial impact is "leveraging". The ACAP organizations have become experts, by necessity, at obtaining both cash and 'in-kind' (or volunteer) contributions from local partners, industry and other government departments. On average, they are able to leverage anywhere from four to six times the money invested by Environment Canada. The money is invested in local communities and benefits those same communities. The dedication of volunteers among the ACAP communities is a major reason for achieving this result and deserves recognition. The in-kind contribution is estimated to be up to double the Environment Canada financial investment in ACAP work. Projects that would not have been possible in the past have been made possible through volunteerism and in-kind contribution associated with the community-based approach.

### 3.3. COMMUNITY/GOVERNMENT SCIENCE

In Phase II of ACAP the Science Linkages initiative was developed as a component of program to enable program organizations to conduct science in partnership with Environment Canada scientists. Through this initiative the sites combine their 'hands-on' science skills and volunteer capacity with those of government scientists to fill information gaps with credible science. Together the partners annually develop proposals, conduct scientific work of mutual interest, and report on results. Over 75 Environment Canada scientists have transferred their knowledge of scientific methods and practices to the ACAP organizations, while the organizations in turn have provided valuable knowledge about local science needs and ecosystems (Dech, 2003). With access to the local community, Environment Canada builds support for its science priorities and interests as well as the delivery of its programs. As part of the community, ACAP organizations are able to communicate research results to community members much more effectively than Environment Canada could on its own.

The initiatives we have undertaken through the Science Linkages program has given us and our partners a much clearer picture of our local marine environment and the impact level of current discharges of municipal wastewater. This data has been the driving force in the recent positive steps forward towards sewage treatment for the city of Corner Brook (Peddle, as cited in Dech, 2003).

To cite an example, in 1999 the Miramichi River Environmental Assessment Committee (MREAC), along with an Environment Canada atmospheric scientist

delivered a project on one of the Department's air quality programs. Environment Canada had established a pilot *Smog Prediction Program* in 1997 in southwestern New Brunswick in response to local studies linking declining human health to deteriorating air quality. This program released daily forecasts of smog (ground-level ozone) concentrations along with public health messages. The primary objective of this program was to increase public awareness on the health effects attributed to smog, and for the public to take expected pollution levels into account in day-to-day planning. MREAC linked with Environment Canada in 1999 to expand the program to include the Miramichi area. Through the program, MREAC was able to move towards its goal of working on airshed issues with interested partners and linked the program with an *Air Resource Management Area* report that they completed with the province of New Brunswick. Through this project, Environment Canada was able to work with a local ACAP group to deliver and expand its program, while the ACAP group benefited by furthering its interests. Together they were successfully able to take the existing program, localize it and deliver it in the community.

#### 4. Spheres of Influence

As well as having broad, social, economic and environmental impacts, ACAP has been influential on a number of other levels. Within Environment Canada, the program has, over time, developed numerous partnerships and garnered a real respect among many staff in terms of the value of community-based environmental management. The ACAP influence in communities is also very real. From local examples of behaviour change, to the exporting of the ACAP model across the world, the community-based model has not gone unnoticed. The following provides some examples of the program's spheres of influence.

##### 4.1. WITHIN ENVIRONMENT CANADA

Environment Canada has a small staff which administers the ACAP program and maintains regular contact with the sites. In addition, a formal link to each ACAP site is maintained via the presence of an Environment Canada "window" (staff member) who sits on each community Board of Directors. The windows provide a link between the groups and Environment Canada staff, as well as with other government departments. Most of the windows have had a long relationship with their ACAP sites which has led to a high level of understanding and co-operative working relationships. Many of the staff serving as windows have been recognized by the ACAP communities as being truly committed to the community-based concept. The windows themselves, by the same token, claim that being connected to a community group helps them to 'ground' their work and maintain a connection with the communities that they serve (McNeil, 1997). In the words of a long-standing ACAP window:



Being an ACAP window has been one of the highlights of my career. The St. John's Harbour ACAP is a group with a clear purpose and direction; it has been a pleasure working with them to help them achieve their goals (Power, as cited in Environment Canada, 2003).

It is clear that many Environment Canada staff, through both their role as windows and as scientists involved with the Science Linkages program, have broadened their perspectives on the value of community-based management, often through working with unconventional partners.

One example of a lasting partnership that evolved out of ACAP is between the Environment Canada Shellfish Division and Eastern Charlotte Waterways (ECW) in southwestern New Brunswick. Environment Canada has had a long interest in shellfish management and has the responsibility for monitoring bacterial water quality in shellfish growing areas. Water surveys are used to determine the classification of coastal waters as to their suitability for the harvesting of shellfish. ECW is located in the heart of an historically rich soft-shell clam industry in L'Etang Harbour, on the Bay of Fundy, and has a vision for assessing, monitoring and addressing environmental issues in the watershed. As a result of a variety of industrial sources of contamination, the area had been closed to harvesting since the late 1960's. Early in the ACAP process, the staff of the Environment Canada Shellfish Division learned the value of working with a local group 'on the ground' to address the complex contamination issues in the area. With support from Environment Canada Shellfish, ECW spearheaded a multi-faceted approach which included biological assessments, extensive public education, and most importantly, the formation of a committee to address the contamination issue which was comprised of the three levels of government, the clam harvesting industry, and local citizens. Through these efforts, the contamination issue was reduced and 174 acres of mudflat area in the L'Etang harbour was re-opened for soft-shell clam harvesting in 2001, injecting up to \$300,000 to the local economy. In 2002 ECW won a New Brunswick Environmental Leadership Award for its efforts.

By working with a community group, Environment Canada Shellfish Division was able to accomplish its goal in a way that it never could have done alone. ECW had generated enough trust in the community that it was able to bring a wide variety of stakeholders to the table to address the sources of contamination in a non-threatening, non-regulatory way. Environment Canada recognized this and let ECW take the lead. The mutual respect, trust and long-standing partnership has led to a Memorandum of Agreement (MOA) (2004/05) between ECW and Environment Canada Shellfish to cooperatively deliver the shellfish Division water quality monitoring program in the watershed. This MOA allows Environment Canada to support ECW so that the group can provide the facilities, staff, and lab analysis to deliver local water quality and sanitary information to support Environment Canada's shellfish program, using Environment Canada sampling protocols. Environment Canada is now delivering part of its mandate via a nonprofit organization.

#### 4.2. OTHER GOVERNMENT DEPARTMENTS

ACAP groups have been successful at involving other government departments in their work. The nature of the community-based approach is that it brings together people who represent a wide variety of interests on a particular issue. This multi-stakeholder process has demonstrated that even those who are on opposite sides of the table can work together on common interests (McNeil, 1997). Most of the ACAP organizations have various levels of government sitting at the table as ex-officio members of their Boards of Directors and many have formed strong relationships with municipalities by the very nature of the work they do in local communities.

In most cases, representatives of the respective provincial environment departments participate on the ACAP Boards and some provide funding and other levels of support to ACAP groups. For example, in New Brunswick most of the ACAP groups receive funding from the provincial *Environmental Trust Fund* for various projects. In Nova Scotia, one ACAP group has developed a Memorandum of Understanding with the provincial environment department which allows both to work together in a mutually beneficial way. In PEI, the provincial government has contributed funding to both ACAP groups for a number of years. Many ACAP groups have good working relationships with the provinces at the project level as well, with provincial staff from various departments providing advice and technical support to various initiatives.

One example of a strong ACAP linkage formed with a federal department other than Environment Canada is the relationship that ACAP Humber Arm has forged with Fisheries and Oceans Canada (DFO). DFO has participated on ACAP Humber Arm's Board of Directors since the early 1990's, but more important is the partnership that has developed in the delivery of Canada's Oceans Act. ACAP Humber Arm has been working on integrated management (IM) of the Humber Arm and Bay of Islands area since its inception. DFO recognized this linkage with their mandate and has supported ACAP Humber Arm since 1997 on various IM issues. This has included the development of an integrated management plan for the area, a required element of the Oceans Act. The partnership has worked so well that DFO regards ACAP Humber Arm as an expert in the field of IM and often asks the group to serve as a mentor to other organizations dealing with coastal issues. In the words of the Integrated Management Coordinator at DFO.

Partnering with ACAP Humber Arm has provided an opportunity for Fisheries and Oceans Canada to become involved in the development and implementation of many community-led initiatives and projects related to coastal resource management – for the benefit of all involved (O'Brien, Environment Canada, 2003).

#### 4.3. INDUSTRY

Several ACAP groups are located in some of the most heavily industrialized areas of the region. For these ACAP groups to operate within the community-based model,

they need to work with local industries to solve pollution problems, rather than rally against them. In many ways, this is a departure for environmental groups, who most often work at odds with industry in an “us versus them” adversarial approach. ACAP takes a different tack by bringing industry to the table and attempting to reach consensus on how to address issues together. Many ACAP groups, in fact, have representatives from local industries sitting on their Boards of Directors. These members represent many sectors including farming, aquaculture, pulp and paper, and manufacturing.

The Pictou Harbour Environmental Protection Project (PHEPP) is located in an area of heavy industry in Nova Scotia, and was originally formed in response to a public outcry against the degradation being caused by effluent from a local pulp and paper operation. Over the years, many of the problems have been addressed and PHEPP has been very successful in developing a relationship of mutual respect with Neenah Paper (formerly Kimberly-Clark Nova Scotia). In fact, the President of PHEPP is an employee of the mill who is involved in managing the mill’s environmental performance. In working together, PHEPP and Neenah signed a stewardship agreement that outlines the expected environmental performance of the mill. PHEPP’s President claims that this agreement and overall relationship with PHEPP has greatly influenced how the mill does business.

Certainly the relationship with ACAP has had a significant influence on how we have approached our environmental responsibilities. The day we signed our Stewardship Agreement with PHEPP we became more concerned about meeting their expectations than with simply meeting environmental regulations. Because of the level of trust we have developed with PHEPP we have been able to risk being more open with information on company environmental performance than might be the norm and we have supported projects that could have had negative consequences for our mill’s public image. But we took those risks because we knew PHEPP would be there to help us deal with any potential negative consequences. PHEPP has made us feel part of the community, not a target for community environmental criticism and there is a huge difference. (Kyte, 2003)

As a result of this relationship and improved operations, Neenah Paper is now operating a state-of-the-art wastewater treatment system that exceeds all federal environmental effluent regulations.

#### 4.4. LOCAL

Much of the work that the ACAPs do is at the local level; educating and influencing the behaviour of citizens in communities with local levels of support. From projects with homeowners on energy and water conservation, to educational programs in schools that show children how to take water samples, all of the ACAP groups are intricately involved with their local communities. ACAP groups rely heavily on the support of local stakeholders to complete their work successfully. Academic institutions, municipalities, and local citizens often have the skills, resources and

will necessary to make projects successful. Local colleges and universities often provide invaluable advice, student researchers/volunteers, information, and critical thinking to ACAP initiatives. Municipalities are most closely connected to the community, and often are willing partners in initiatives that will influence their citizens. As well, local citizens often volunteer their skills and time in the implementation of ACAP projects. The role of these key players in ACAP helps to build the capacity of all the ACAP groups in their local communities.

An example of a community project which highlights local citizen involvement is an initiative of the Bedeque Bay Environmental Management Association (BBEMA). BBEMA is located in an agriculturally rich area of Prince Edward Island and spends a good deal of its time working with local farmers to guide them in the use of sustainable agricultural practices. One of BBEMA's key initiatives is a partnership with a local farmer who has signed a 15-year stewardship agreement to sustainably develop and co-manage his potato farm with BBEMA. This 174 acre site is known as the Maple Plains Agro-Environmental Demonstration site and shows the public how farming can be practiced in harmony with the environment. It incorporates sustainable agriculture practices, including research into types of filter strips for nutrient and soil runoff, wetland ponds, and various hedgerows to help protect fields from erosion. Producers are becoming pro-active, co-operating on agri-environmental research (with groups such as BBEMA) which will ultimately contribute information to help reduce the impacts of their operations on the environment. Demonstration projects provide practical means for farmers to learn about new techniques in sustainable agriculture.

The site's owner, George Webster, who is also the current Vice President of BBEMA, was one of the first people on PEI to implement an Environmental Farm Plan (EFP) on his farm; an EFP helps farmers to reduce environmental risks in their operations. Many of the sustainable agriculture practices he employs on his farm are all part of the EFP, and therefore the Demonstration site also serves as a promotional tool for EFPs. As well, Nutrient Management planning is one demonstration at Maple Plains being used by a number of farmers on PEI to help farmers prevent leaching of nutrients into groundwater and to minimize greenhouse gasses.

Farmers are working hard to determine how to get the best yield from their farms, yet reduce the amount of inputs by having the right nutrient balance. It will take years for everyone to get there, but we have already made major strides (Webster, as cited in *Canadian Groundwater Association*, 2004).

In addition to being used as an educational tool for existing farmers, the site also provides a method to bridge the gap between the farming and non-farming communities. Many school and other community groups tour the site annually to learn about sustainable farming which is often at the heart of their rural communities (Penak, pers. comm. 2004).

Another focus for BBEMA is Agri-tourism. This concept combines the agricultural industry with the tourism industry to provide farmers with an alternative or

added source of income to their crop production. Recently, BBEMA spearheaded an agri-tour which brought citizens and groups to visit local farms to learn about 'where their food comes from. As well, they hosted a conference which brought together several agricultural producers from across the country to look into the potential of the agri-tourism industry as a means of economic diversification of the farming industry on PEI. Both the tour and conference were a success and resulted in the formation of an Agri-Tourism Club among producers on the Island. Along with input from government and community, the objective of this new group is to develop and promote agri-tourism on PEI. Thanks to BBEMA's efforts, two separate industrial sectors are now coming together as partners with government and industry to establish a new industry. This alliance may help supplement farm income, bring consumers closer to their food source and increase peoples understanding of the challenges that farmers face (Penak, pers. comm. 2004).

#### 4.5. REGIONAL AND NATIONAL

Municipal sewage treatment is one issue for which the profile is often regional or even national. The fact that many Atlantic communities are still without proper treatment is well known across the country. Several ACAP groups have brought attention to the issue and, in so doing, have been successful in moving closer to getting the public support and national funding required to clean up their harbours. St. John's Harbour ACAP was initiated to do just that: to define the most appropriate treatment approaches to cleaning up the Harbour. The group spent close to a decade developing the case for sewage treatment, largely through monitoring water quality to demonstrate the extent of contamination, a significant public education campaign, and communicating with governments in order to get sewage treatment on the political agenda.

By 1999, the results of monitoring and investigations into treatment options convinced the three local municipalities and the provincial government to commit to the cause, but the federal government was still not prepared to provide funding. Through a Science Linkages project, ACAP monitored various fish and shellfish, with the help of Environment Canada's Moncton lab and DFO, to determine if fish in the harbour were sufficiently contaminated to require legal enforcement action. The results led to the closing of the harbour to shellfish harvesting. Never before had DFO accepted community monitoring results as the basis for harvesting closures and they declared that the sewage discharge was having an impact on human health (Rousseau *et al.*, 2004). This was the final piece of the package needed to convince the federal government and full funding (93 million dollars divided among the three levels of government) for the sewage treatment plant was announced in 2002. It was widely recognised that the success in gaining funding was due to the hard work and perseverance of St. John's Harbour ACAP, and the group was acknowledged by both the Prime Minister and the provincial Environment Minister in the funding announcement.

The ACAP organization has had an influence that government could not accomplish in raising the profile of this issue. By focusing on the community-led monitoring data, the negative results could be distributed to the media and promoted to the public. Government officials often do not want to approach the media with negative results, whereas community groups do (Baird, as cited in Rousseau *et al.*, 2004). The public will more often trust the results of an independent community group, and so this has become an effective means to both provide credible information, and to get the public on-side to draw local and national attention to the issue.

#### 4.6. INTERNATIONAL

The innovative approaches and dedication of the ACAP participants has garnered international attention. Their unique knowledge and perspective is increasingly looked to as others try to implement 'bottom-up' approaches to environmental management. The ACAP organizations have widely shared their knowledge and experiences with people and groups from China, Indonesia, Russia, Chile and Sri Lanka, among others. ACAP participants have been part of Team Canada missions, sit on international committees, and participate in projects sponsored by the Canadian International Development Agency (CIDA). ACAP organizations attract visitors from all over the world who meet with them on a regular basis to learn about the community-based process at work.

One example of a solid, long-distance partnership is between the Miramichi River Environmental Assessment Committee (MREAC), in New Brunswick, and the Izvatas committee in the Komi Republic in northern Russia. This CIDA and Jacques Whitford sponsored 'twinning' initiative allows for the sharing of information on the community-based watershed management approaches of two northern watersheds.

The twinning has involved the exchange of staff and information between the two organizations. First, a representative of the Izvatas committee spent some time in the Miramichi area. This was followed by two separate visits of MREAC representatives to the Komi Republic. The MREAC participants learned that many of the environmental issues faced in the Komi are related to larger social and economic problems due to an unstable economy - issues much broader than we experience in Canada. However, the groups found a common interest in the status of Atlantic salmon stocks in their rivers (MREAC, 2003). Poaching is a real problem on the Izhma river and enforcement is both sparse and inadequate. MREAC's experience and connections with organizations with expertise on the status of the world salmon stocks and knowledge of salmon rearing activities may prove valuable to the Izvatas committee. MREAC will explore the possibility of a knowledge exchange and support from Canada (MREAC, 2003). In the words of the President of MREAC.

We expect a long-standing partnership to follow. It is an experience that has thus far enriched both parties and we hope we can support each other with information, technology and personnel exchange in the future (Corcoran, as cited in MREAC, 2003)

## **5. The Path Forward**

ACAP has been in operation for well over a decade; something that is extremely rare for a government supported and funded program. The longevity of the program speaks to its success which has been proven with demonstrated results of successful community-based environmental management in ecosystems around the Atlantic region. The current phase of the program has focused on growth and expansion of existing groups, as well as the development of a fifteenth ACAP site, and potentially more in the future. With this phase of ACAP almost halfway through, now is a good time to think to the future of the program and look for opportunities for further growth and expansion.

### **5.1. ACAP EXPANSION: LABRADOR**

Early in the third phase of ACAP, it was recognized by participants that there was a desire to expand the model beyond the existing 14 sites. Many of the ACAPs had already expanded beyond their original watershed boundaries, extended the focus of their efforts beyond their original mandates, and had been mentoring other groups on key issues of interest. In addition, those involved in the program unanimously agreed that a new ACAP site was needed and a logical location for a new site was Labrador, as there is currently no ACAP representation there. A comprehensive process was initiated late in 2003 to identify a location in Labrador which had the appropriate mix of environmental concerns, key partners, and enough community interest to support an ACAP site. A series of interviews and workshops with residents and community groups took place and a comprehensive evaluation of social and environmental issues across Labrador was completed. As a result, three potential options for location were recommended. The decision on location will be made in the coming months, with a new site slated to be launched in Labrador in early 2006.

### **5.2. CHALLENGES AND OPPORTUNITIES FOR THE FUTURE**

A major strength of ACAP lies in the ownership of the process by each community. Each site has identified its own priority objectives based on the sustainability issues of concern specific to each area, and established plans and actions to address these. The benefit of this diversification is that many different issues are being addressed throughout the region, and they often have common themes throughout (e.g.: water quality, habitat protection etc). There are hundreds of examples of individual projects and initiatives undertaken throughout the program which demonstrate its

success, a number of which have been described in this paper. However, there has yet to be a comprehensive examination of the combined results of ACAP organizations. There have been some issue specific reports written, such as one on ACAP water quality programs (Sharpe and Sullivan, 2003), and publications on the success of the program (Environment Canada, 2003), but it would be very useful to develop a state of the ACAP environment' report which examines the collective results of the program. Such an undertaking would provide a 'big picture' look at the value of ACAP and provide a needed evaluation of the beneficial environmental, as well as socio-economic impacts of the program on a regional scale. This type of regional evaluation could help to position ACAP for support far into the future.

The opportunity for expansion and influence of ACAP on a national scale may soon present itself as Environment Canada undergoes a shift in focus through the development and implementation of a Competitiveness and Environmental Sustainability Framework (CESF). As part of this new direction, Environment Canada will be working closely with many partners to deliver a new National Policy that builds sustainable development systematically into decision making across the country. The aim of the CESF is to protect the human health and safety of Canadians, preserve the natural environment, and develop a stronger, sustainable economy. This will require an integrated approach, involving many stakeholders in its delivery. The community-based model of ACAP is founded on bringing key interests to the table and ACAP groups have become the 'experts' in this area. Environment Canada would do well to take advantage of this wealth of knowledge, capacity and experience held within the program. At this early stage in the CESF development, it has been recognized in the region that ACAP groups are well positioned to be key partners in its delivery.

## 6. Conclusions

One of the broad goals of ACAP is to develop more sustainable communities. This paper has illustrated that by partnering with communities in developing the vision, planning, and actions to address complex issues, widespread positive results are evident on an ecosystem scale. As well, the community-based model of environmental management employed in ACAP has provided a shift in the way Environment Canada does business with communities. The department has moved from a traditional 'top down' approach in the delivery of its programs and policies towards more of a 'co-management' form of governance, whereby goals and priorities are established together and solutions are developed with the involvement and buy-in of the key interests. Although others are following suit (ie: other government departments, industry), there is work yet to be done. The approach is not new, as ACAP is now enjoying its fourteenth year of existence. However, the value of a co-management approach is becoming increasingly recognized and emulated as an accepted model to address environmental issues. As we look to the future of ACAP,



there is much optimism that the program will continue its success as a leader in community-based environmental management, and that the model will be applied on an even wider scale.

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