

Montevideo, September 2th 2004UPCD Program
Tier 2

To whom it may concern:

The University of the Republic (UdelaR) is the only public and the largest university of Uruguay. In the past, many coastal and marine-related issues faced by our country have been addressed by its various faculties, usually through a sector-specific approach. The recent experiences of the UdelaR participating in several initiatives with an integrative and interdisciplinary approach to coastal and marine management (Ecoplata, Freplata and Probides) has inspired a series of institutional changes which have been welcomed as a means to create new and innovative approaches to education and capacity building.

In this sense, UdelaR is fully supportive of the initiative being developed by the faculties of Sciences, Engineering, Social Sciences, Architecture, Law and Agronomy, and with the cooperation of Dalhousie University, Canada, to develop an interdisciplinary graduate program in Integrated Coastal Management (ICM). This project is the first of its kind in the UdelaR and will set the standards for other future interdisciplinary and interfaculty graduate programs. There is no doubt that its implementation will improve Uruguay's capacity to effectively manage its coastal resources through an academic approach, outreach capacity and strong university-government-community integration and collaboration. Also, the expansion of such a program to other countries in the region will not only increase its applicability, but also strengthen the relationship of UdelaR with other academic institutions.

The UdelaR supports and fully commits to the development of this interdisciplinary graduate program in ICM and understands that both, the experience of Dalhousie University and the financial assistance of CIDA, are crucial to initiate this process.

The UdelaR agrees to embrace this initiative as its own and is committed to ensure the long-term sustainability of the masters program by: 1) promoting national and regional agreements and cooperation; 2) formally accrediting all academic and functioning aspects of the program through regular institutional processes (UdelaR is solely responsible for the accreditation of all graduate programs); and 3) assuring the financial and administrative means to continue its implementation after CIDA funding is concluded.

Sincerely,

Rafael Guarga
Rector

Montevideo, August 27th 2004

Tier II UPCD

To whom it may concern:

The University of the Republic of Uruguay (UdelaR), in cooperation with Dalhousie University, Canada, has been studying the possibility of developing an interdisciplinary graduate program in Integrated Coastal Management (ICM) with the goal of improving the capacity of Uruguayans to effectively manage coastal environments.

With this objective, six Faculties of UdelaR have been working with Dalhousie University in an attempt to break the common sector-specific approach to coastal issues. The faculties of Sciences, Engineering, Social Sciences, Architecture, Law and Agronomy have established a Deans Commission to oversee the proposal and an Interfaculty Working Group which has held meetings, workshops, an ICM course, and contributed to the preparation of the Letter of Intent and final proposal submitted to the UPCD Tier 2 Program of the Canadian International Development Agency.

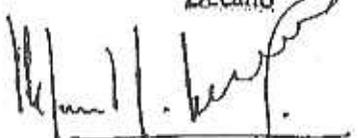
These activities are a clear expression of the interest and commitment of the UdelaR and all the faculties involved to the development of capacity building in ICM. The faculties recognize the importance of Dalhousie's participation and the experience it brings to the proposal, but are also aware of the need for financial assistance from CIDA to get the process started. Therefore, at this point, the Faculties involved identify the need for a more formal commitment to this initiative and the purpose of this letter is to express their full support and commitment to the development and implementation of an interdisciplinary graduate program in ICM.

The undersigned express the full commitment of the Faculties of Sciences, Engineering, Social Sciences, Architecture, Law and Agronomy to an in-kind contribution of 180,000 Canadian dollars during the 6 years of the duration of the project. This contribution will be primarily in personnel time dedication, both in terms of the faculty members of the Interfaculty Working Group and the administrative personnel necessary for logistic and administration of the project.

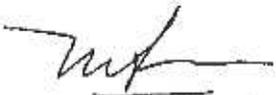
The undersigned also commit to actively searching for new funds to complement CIDA's financial assistance and ensure the sustainability of the program once CIDA funds are terminated.

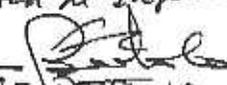
Sincerely,

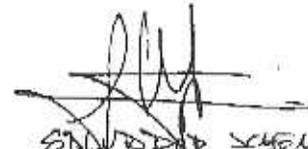

 Prof. Dr. RICARDO ENRIQUELLI
 Decano


 PROF. DR. ALEJANDRO ABAL
 Decano Facultad de Derecho


 Gonzalo Barbin
 Decano Fac. Agronomía


 MARIA SIMON
 Decana Facultad de Ingeniería


 LUIS BERTOLA
 Decano Facultad de Ciencias Sociales


 Decano Facultad de Arquitectura

UPCD Program – Tier 2 – Signature page

2003-2004 COMPETITION

Separate signature pages attesting to the institutional commitments to the project must be provided for at least the lead CI and one eligible DCETO. Additional signature pages may be provided for other members of a consortium, if desired. Signature pages fall outside the maximum page limit for submissions. Copies of faxed signatures or photocopies of original signatures are acceptable. Electronic signatures are not acceptable.

Title of project (max. 40 characters and spaces)

Sustainability of Uruguay's Coastal Zone

INFORMATION ON PARTICIPATING INSTITUTION

Name and address of institution Universidad de la Republica (UdelaR) Montevideo, Uruguay	Name of contact, title, project role (e.g., project director) Dr. Daniel Conde Head, Department of Limnology Faculty of Sciences, Igua 4225 11400 Montevideo, Uruguay Tel. > (+598 2) 525-8618 Fax > (+598 2) 525-8617 E-mail address > vlad@fcien.edu.uy
--	---

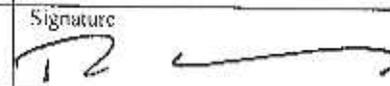
SUMMARY OF FINANCIAL COMMITMENTS

Show amounts in THOUSANDS \$ (000)

Contributors	\$ (000)	Percentage of total Canadian contribution (%)
CI (minimum 30% of total Canadian contribution, cash or in-kind): DAI HOUSIE	443,218	30.9%
CIDA contribution (maximum 70% of total Canadian contribution)	1,000,000	69.1%
Total Canadian contribution (CI & CIDA)	1,443,218	100%
DCETO contribution (cash or in-kind) UNIVERSIDAD DE LA REPUBLICA	353,400	
Other (specify) ACAP & SOUTHERN CONE REGIONAL UNIVERSITIES	34,000	
TOTAL CONTRIBUTIONS	1,830,618	
YOUR INSTITUTION'S COMMITMENT	353,400	

DECLARATION (signatures required)

The undersigned confirm that they support the project described herein and, if approved, will make the required resources available for its implementation. Signatures must appear on the same page as the financial commitments.

Dean or equivalent		President or representative	
Name Dr. Ricardo Ehrlich		Name Dr. Rafael Guarga	
Title/Faculty Dean, Faculty of Sciences		Title/Faculty Rector	
Signature 	Date 9/2/04	Signature 	Date 9/2/04

PROJECT DESCRIPTION		
1. Title of project (max. 40 characters and spaces) Sustainability of Uruguay's Coastal Zone		
2. Country Uruguay	3. ODA area(s) addressed Environment, Good Governance, Rural Development	4. Sector(s) addressed Coastal Zone Management
PARTICIPATING INSTITUTIONS		
5. Names of participating Canadian and developing-country institutions, country in which they are located and identification of lead institutions Dalhousie University, Halifax, Nova Scotia, Canada Universidad de la Republica (UdelaR), Montevideo, Uruguay		
CANADIAN AND DEVELOPING-COUNTRY PROJECT DIRECTORS		
6. Names and institutional affiliations of the Canadian and DCETO project directors (no signatures required)		
Canadian project director name: Dr. Robert Fournier Title: Professor of Oceanography Institution: Dalhousie University Faculty: Faculty of Science	DCETO project director name: Dr. Daniel Conde Title: Head, Department of Limnology Institution: Universidad de la Republica (UdelaR) Faculty: Faculty of Science	
TEAM MEMBERS (from all institutions, no signatures required)		
DALHOUSIE FACULTY:		
Aldo Chircop (Law) Marine Law, Law Policy and International Coastal Zone Management		
Gary Newkirk (Marine Affairs Program) Marine Biology, Ecosystem-based Community Management, Participatory Development		
Peter Tyedmers (School of Resource & Environmental Studies) Ecological Economics, Biophysical Accounting, Sustainable Fisheries		
Richard Apostle (Social Sciences), Maritime Soc. Sci., Quantitative Methodology, Industrial Analysis		
Larry Hildebrand (Adjunct, Marine Affairs Program), Environment Canada, Manager, EC Sustainable Communities Program		
Ann Dwire (Faculty of Management) Community Co-management		
UDELaR FACULTY:		
Denise Gorfinkiel (Social Science) Environmental Economics, Quantitative Methods		
Rodrigo Menafrá (Science) ICZM, Coastal Conservation, Marine Protected Areas (Dal MAP alumnus)		
Luis Sayagues (Agronomy) Agr. Engineering, Environmental Sustainability of Natural Coastal Forests		
Ingrid Roche (Architecture) Territorial and Urban Planning		
Emilio Biasco (Law) Environmental Law, Coastal Protection Policy		
Eugenio Lorenzo (Engineering) Hydraulic and Environmental Engineering		
ATLANTIC COASTAL ACTION PROGRAM:		
Diana Baird , St. John's Harbour ACAP, N.F., Capacity Building, Land Based Contaminants		
Susan Farquharson , Eastern Charlotte Waterways, N.B., Estuarine Health Assessment		
Brenda Penak , Bedeque Bay Environ. Mgmt. Assoc., PEI, Agricult. Runoff & Community Partnerships		
Brooke Cook , Bluenose Coastal Action Foundation, N.S., Pollution, Watershed Management		
SUMMARY OF FINANCIAL COMMITMENTS		
(The figures presented in this table should match exactly the figures presented on the signature pages.)		
Show amounts in THOUSANDS \$ (000)		
Contributors	\$ (000)	Percentage of total Canadian contribution (%)
CI (minimum 30% of total Canadian contribution, cash or in-kind): DALHOUSIE	443,218	30.7%
CIDA contribution (maximum 70% of total Canadian contribution)	1,000,000	69.3%
Total Canadian contribution (CI & CIDA)	1,443,218	100%
DCETO contribution (cash or in-kind): UNIVERSIDAD DE LA REPUBLICA	353,400	
Other (specify): ACAP & SOUTHERN CONE REGIONAL UNIVERSITIES	34,000	
TOTAL CONTRIBUTIONS	1,830,618	

PROJECT DESCRIPTION

Over the past decade, the importance of the coastal zone to the socio-economic well being of Uruguay has grown exponentially. At the same time, the number of sectors using the benefits offered by the coastal zone, and the conflicts which have arisen among those various users, have put pressure on the sustainability of Uruguay's coastal areas and those who have an interest in managing them. The overall goal of this project is to improve the capacity of Uruguayans to more effectively manage the coastal environments upon which their livelihoods and well-being depend through the enhancement of tertiary educational and outreach capacity and strong university-government-community collaboration. This initiative will support CIDA's and the Government of Uruguay's priorities of environment, good governance and rural development by strengthening and mobilizing university capacity to address problems using an approach to coastal management which addresses development and equity concerns, participative approaches, public education and information needs, conflict

avoidance and management, and which encourages coastal governance in an integrated and sustainable manner. The project will increase the capacity of faculty members at the Universidad de la Republica (UdelaR), Uruguay's largest national public university, to prepare local and national government managers, community leaders and private sector personnel to address the range of challenges confronting Uruguay's coastal zone. In doing so, the project will in part target women in coastal rural communities in their existing roles as primary providers, educators and initiators of social change. To extend the reach of the project and broaden community benefits both in Uruguay and Canada, direct working linkages between Uruguayan and Atlantic Canadian coastal communities will be established with the involvement of the Atlantic Coastal Action Program (ACAP), a program working with 14 communities in the four Atlantic provinces of Canada to define common objectives for environmentally appropriate coastal resources and to develop strategies that will help them to achieve those objectives. This community-to-community link will enable the sharing of first-hand experience in community empowerment and participatory development, employing university participation and directed toward government policy delineation.

As the largest national university in the country, UdelaR has the mandate to support the country's efforts to develop in a sustainable fashion. These efforts include serving as an important catalyst in the current national effort to protect and sustain Uruguay's coastal zone. This project will support those efforts by assisting UdelaR to develop the necessary capacity to carry out the role expected of it, through the upgrading of the professional skills and knowledge of its faculty members, through improving institutional and individual linkages with government officials and members of local communities, and through enhancing outreach capacity and experience.

Enhancing Tertiary Educational Capacity

The project will enhance tertiary educational capacity through a partnership between UdelaR and Dalhousie, drawing from and building upon the institutional knowledge and experience which Dalhousie has as a result of almost two decades of professional Integrated Coastal Zone Management (ICZM) education and practice, both nationally and internationally, and collaboratively creating a professional ICZM graduate program at UdelaR which responds to the specific challenges confronting those responsible for managing Uruguay's coastal zone.

This capacity-building will be undertaken in four phases which will extend over five years. The first phase will be a six month inception period during which administrative structures will be established, and a series of baseline studies on the current state of the coastal zone in Uruguay will take place. The baseline studies will a) define the major challenges confronting Uruguay's coastal zone; b) outline the capacity which is in place to address those challenges, c) identify the ways in which such challenges impact on women and the roles which women play in addressing such issues, d) and assess and analyze government-community relations as they pertain to the coastal zone.

Phase Two will take place over the next 24 months and will focus on faculty capacity-building and curriculum development through two-way faculty exchange. A number of curriculum development and interdisciplinary teaching methodology workshops will be held in Uruguay, interspersed with two to three month UdelaR faculty visits to Canada to support further collaborative work on curricula and additional capacity building through selected training activities, exposure to local practitioners, and in-classroom teaching experience.

Curriculum development will result in the creation of entirely new "core" courses and the overlay of marine environmental education on existing courses. Some of the areas that have been identified for curriculum development are: environmental conservation, pollution prevention and control, environmental impact assessment (EIA), remediation, fisheries and habitat management and water quality control. In addition, the UdelaR Program Planning Committee - the committee made up of representatives from each participating UdelaR Faculty which will guide the development of the graduate program - will coordinate faculty and student interaction with three partner communities which will subsequently participate in pilot projects. These will be described in the following sections.

In Phase Three, lasting 24 months, the first intake of Uruguayan students will be admitted and the delivery of the graduate program will commence. Based on the needs expressed by government and other actors involved in coastal zone management issues within the country, it is anticipated that those to enrol in the graduate program will consist of middle managers requiring training and upgrading in specific areas pertaining to ICZM as well as continuing students who plan to pursue careers in these areas. The need to offer the program in a flexible way which responds to the various types of students has been discussed during the design of the project, and program variations, including everything from a two-year Master's Program with thesis to a parallel one-year non-thesis degree and/or short-term training sessions, are being considered. These plans will be finalized during Phase Two of the project.

Phase Four, in the last year of the project, will involve further consolidation of the Uruguayan program while simultaneously opening the program to students from other countries within the Southern Cone region and further developing the program to become a fully regional offering.

The proposed Master's Program will be the first cooperative, multi-faculty, interdisciplinary effort of its kind at UdelaR. At Dalhousie, the process of collaborating on the development of new interdisciplinary programs has led to many changes in institutional capacity, and this is expected to also be the case at UdelaR. At present, several faculties within the university (engineering, law, science, etc.) have resources that independently make substantial disciplinary contributions to specific sectors in coastal zone management. These activities, however, are presently dispersed over many academic units which, because of the considerable independence enjoyed by each unit, remain uncoordinated. The collaboration and coherence required by the Master's initiative will draw together these independent parts and help to forge synergies which otherwise would be unlikely to exist. It will also help to develop the appropriate intellectual framework for future cooperative actions in other interdisciplinary research projects. These new capacities are important since UdelaR, as the country's largest university, is an important national institution that has a significant leadership role to play in the area of environment. Historically, this role has targeted terrestrial settings through its agricultural activities, but the area along the margin between land and water has only become a priority more recently, consistent with the Uruguayan's national priorities in the same area.

The project will also enhance UdelaR's capacity to undertake institutional outreach. Project interactions among UdelaR and community stakeholders, coastal communities, government and other universities in the region will foster enhanced two-way exchanges of knowledge, facilitating new approaches and innovation – all of which will strengthen UdelaR's capacity to better serve its constituent communities. At the same time, it will *de facto* raise the level of coastal zone awareness within the university and encourage greater awareness of state-of-the-art thinking in the field of ICZM as a means of sustainably developing, managing and conserving its coastal marine resources and environment while protecting the health and well being of coastal and guest populations.

Finally, the cooperative linkages with regional universities in Brazil, Chile and Argentina which will be facilitated by the project will also enhance capacity and contribute to the internationalization of UdelaR.

Enhancing University-Government-Community Collaboration

Although informally embraced for a number of years, it was not until 1992, in Rio, that the concept of Integrated Coastal Zone Management (ICZM) received international legitimacy with its endorsement in the Earth Summit document known as "Agenda 21". Today, practitioners of ICZM accept the integrated approach as a fundamental tenet of this form of environmental management.

Consistent with the spirit of the Rio Declaration, this project and the proposed ICZM graduate program will involve regular interaction and collaboration between and among the university, government officials, and the community of non-governmental stakeholders. This participation will take the form of: multi-sector participation on key committees to capture government and other stakeholder input; collaborative research and case study development on issues of common interest; prominent and shared roles in workshop activities; links through student internship placements; and guest lecturing within the program. Perhaps most importantly, the presence of middle managers as students in the new graduate program will broaden intellectual horizons and strengthen interpersonal connections among all elements of the coastal zone community. In Nova Scotia, Dalhousie University, through its Marine Affairs Program, has been responsible for the education of at least 30 individuals who are currently employed by the Department of Fisheries and Oceans in Atlantic Canada. The Regional Director-General of DFO freely admits that this group of alumni has had a profound impact on policy in the Atlantic Region.

Government and other stakeholders will benefit from, and be influenced by this collaborative alliance in a number of ways. The close working relationship will help to break down barriers and facilitate the exchange of ideas, enabling program participants to then join or return to their organizations to serve as a locus for change in practice, attitudes and relationships. Also, participation in the proposed program by government and community stakeholders will improve capacity broadly within the non-university community; it will ensure that any studies undertaken will have greater relevance to non-university practitioners since their selection will be influenced by external input; the government regulatory process will have greater transparency and immediacy due to additional oversight that will accompany closer working relationships; and finally, both governance and policy delineation in coastal zone issues will be influenced by a greater awareness of issues and options within the coastal zone community, and as a result of the influence exerted by upgraded middle managers or newly arrived graduates.

Enhancing Outreach

The project will enhance UdelaR's capacity to undertake outreach as a result of activities which will take place between the ICZM graduate program and coastal communities, between ACAP and the broader Uruguayan community and between the ICZM program and other Southern Cone institutions.

An important element of both this project and the ICZM graduate program is the mutually beneficial outreach activity which will take place in conjunction with three Uruguayan coastal communities. The communities, described more fully in the Partnership section, include Juan Lacaze at the inner end of the Rio de la Plata, Santiago Vasquez on the western side of Montevideo and Roche City on the Atlantic coast. These three communities are three which have been involved in an association that grew out of Uruguay's National Coastal Policy Framework, where a consortium of public institutions and communities reached consensus on 19 different coastal areas that deserved special attention. The three communities face issues such as: a coastal zone threatened by urban and industrial pollution, a large river delta containing wetlands experiencing conflicting uses, and an international protected area that is rich in biodiversity, highly productive and increasingly threatened by urban encroachment and agricultural runoff. Each community is actively attempting to address its individual issues, and each is encountering major challenges in doing so. The university's involvement in these community sites will provide support to the communities as they attempt to address their respective issues, while at the same time providing support for the teaching experience where real issues, the approaches used to address those issues, and the resulting management plans become key elements of the curriculum.

The outreach process will begin with a number of public meetings, workshops and discussion groups which will be held in collaboration with community leaders and interested members of the three communities. Through this participatory process, UdelaR faculty and students, local government officials and community members will help to identify the range of coastal issues to be addressed along with a number of specific pilot project interventions which will be undertaken collaboratively with the support of the project. The work undertaken at these pilot sites will provide a range of benefits to all participants: addressing the specific community problems represented at the site, providing useful input to faculty for curriculum development and case-study development purposes, providing hands-on training experience for students involved in the graduate program, increasing the understanding of local government officials of the nature of the community problems, and increasing the capacity of all groups involved to work collaboratively together to achieve common objectives. Members of the communities will also participate on key program committees, to ensure that their input is incorporated in all aspects of the graduate program.

The Atlantic Coastal Action Program network was initiated by Environment Canada as a way to offer Canadian coastal communities the opportunity to develop their own capacity to identify problems and work together to find solutions to those problems. The ACAP members who will be involved in this project will collaborate with members of the pilot Uruguayan coastal communities, sharing experiences, insights and practical "know how". The pilot Uruguayan coastal communities which will be involved in the project do not have extensive resources but do have a concerned citizenry. Collaboration with UdelaR faculty, government officials, and ACAP representatives will broaden their skills in community participation and action for change. In particular, the ACAP experience will provide helpful lessons as to how Canadian communities, when faced with similar issues, were able to advance their local interests using a systematic, community-based approach. It will also offer a modest form of support network.

Local Uruguayan government officials will also benefit from the ACAP experience as it pertains to the form and function of their relationship with Environment Canada, since no such established relationship between communities and government exists in Uruguay.

The final set of outreach activities will be UdelaR's interactions with neighbouring universities in adjacent Chile, Argentina and Brazil. The project will involve representatives from the Universities of Buenos Aires (Argentina), Federal University of Rio Grande (Brazil), Universidade do Valle de Itajai (Brazil) and the University of Concepcion (Chile) in curriculum development and workshop activity early in the project, with the intent that, in the last year of the project, the Uruguayan ICZM graduate program will be able to be offered regionally, with a curriculum much more broadly reflective of the region's environmental, social and political diversity. There are a number of practical matters, such as the transferability and recognition of credits and other institutional arrangements, which will need to be addressed to make this plan operational. These challenges are already under discussion among the potential university participants, as well as within Mercosur and with UNESCO, where this is seen as an important regional issue. It is not unreasonable to hope that these will be rectified by the final year of the proposed program when it is hoped that regional students would begin to participate.

RESULTS-BASED MANAGEMENT FRAMEWORK

Project Goal: The goal of this project is to improve the ability of Uruguay to more effectively manage its coastal areas.	
Project Purpose: The purpose of this project is to enhance the capacity of the Universidad de la Republica to support Uruguay's efforts to effectively manage its coastal areas through the development of a graduate program in Integrated Coastal Zone Management and through the enhancement of its abilities to work with government, communities, and other stakeholders involved in addressing coastal zone management issues.	
Impact: The impact of this project will be the improved capacity of Uruguayans to effectively manage their coastal environments, upon which their livelihoods and well-being depend.	
EXPECTED RESULTS	PERFORMANCE MEASUREMENT
Outcomes	Performance Indicators
1. The University of the Republic has an effective, integrated, interdisciplinary Masters program to train, educate and support Uruguayans concerned about their coastal zone.	-recognition and accreditation of new ICZM graduate program -level of student participation and demand for new graduate program admission -level of stakeholder support for new graduate training program -increased level of institutional involvement in outreach to stakeholders involved in addressing ICZM issues
2. Targeted communities have greater capacity for coastal zone management with better community organization, more predictive capacity, greater problem responsiveness and improved government participation.	-number of communities using enhanced skills in ICZM -number of communities working collaboratively with other stakeholders to address ICZM issues
3. Government managers and legislators are more skilled and better involved in the integrated coastal zone management process.	-number of government managers and policymakers using enhanced ICZM knowledge in their work -number of government managers and policymakers working collaboratively with other stakeholders to address ICZM issues
4. The recognized U de la R program is expanding to link with other institutions in the Southern Cone.	-evidence of agreements of cooperation, collaborative curriculum development, scholarship availability to support regional participation in Udelar's graduate program
Outputs	Performance Indicators
1a. 12-18 faculty (in six Faculties) who have received professional marine management training in Canada and Uruguay and are able to extend their capacity to teach in an interdisciplinary outreach context;	-number of faculty using new ICZM knowledge and teaching methodologies in the classroom
1b. newly-developed curriculum that includes interdisciplinary core courses and teaching materials, problem-oriented tools, revised optional courses and outreach strategies;	-number of new and revised courses, teaching materials, modules, case studies, etc. being used
1c. a created knowledge base which supports faculty teaching, short-term training, student research and community outreach; and	-number of resources (human and material) available to support faculty teaching, short-term training, student research and outreach
1d. an improved institutional framework which enables six Faculties to work together and deliver a broadly based interdisciplinary program.	-new or changed institutional arrangements which facilitate interdisciplinary and inter-faculty work

Outputs cont'd.	Performance Indicators cont'd.
<p>2a. targeted communities involved on an ongoing basis in the university program;</p> <p>2b. local issues addressed through the creation of community-based pilot projects which employ experience and expertise from U de la R;</p> <p>2c. ACAP and Uruguayan communities with enhanced knowledge of organizational structure, community dynamics and especially community-government strategies as a result of the sharing of experience; and</p> <p>2d. established links between stakeholders and the research capacity and experience of Ecoplata (an IDRC funded research consortium).</p>	<p>-numbers of community members and level of community participation in pilot project and graduate program outreach activities</p> <p>-numbers of issues identified by communities which have been addressed through UdelaR faculty/student outreach activities</p> <p>-ACAP organizations using new knowledge in work within their communities and with government</p> <p>-Uruguayan communities using new knowledge in work within their communities and with government</p> <p>-number of university, government and community stakeholders involved in collaborative activities with Ecoplata</p>
<p>3a. formal linkages between government units and the university through joint participation on curriculum advisory and project management committees;</p> <p>3b. coastal zone managers with improved skills as a result of training received through the project and program; and</p> <p>3c. targeted communities using advice and support of relevant coastal departments (known locally as Intendencias, the departments closely approximate the role of Canada's provinces within a federal system).</p>	<p>-presence of ongoing multi-sectoral committees to support the graduate program</p> <p>-number of coastal zone managers using their new skills in various aspects of ICZM work</p> <p>-evidence of Intendencia involvement and support in addressing issues faced by coastal communities</p>
<p>4a. regional agreement in place among selected institutions in neighbouring countries to engage students and faculty in the program;</p> <p>4b. curriculum in use at U de la R that reflects the problems and experiences of the Southern Cone;</p> <p>4c. scholarship funding from supportive international organizations available to encourage non-Uruguayan participation in the masters program.</p>	<p>-number of agreements regarding accreditation and cooperation in place between UdelaR and other Southern Cone universities in support of graduate program participation</p> <p>-number of courses, modules, teaching materials developed which include content specific to Southern Cone countries</p> <p>-evidence of funding available for non-Uruguayan participation in the program</p>

Specific Activities to Achieve Project Results

- Initial Baseline Studies on the state of ICZM in Uruguay and a National Baseline Workshop on Coastal Zone Management to discuss results of the studies;
- Two curriculum development/training workshops in Uruguay that will focus on: 1) core courses, component modules, reading and teaching materials and thesis requirements; and 2) elective courses to be offered within the program, including both new courses and/or existing courses;
- A third training workshop on interdisciplinary teaching methodologies in Uruguay and a follow-up meeting on curriculum validation to review and assess the curriculum developed thus far;
- Short-term faculty visits (2 months) to Canada to support specialized training and curriculum development;
- Pilot projects identified and supported by collaborating coastal communities which will involve university faculty and students, government officials, and community members from both Uruguay and Canada (ACAP);
- Development of degree program regulations and course evaluation systems for the program;
- Identification and acquisition of library resources and equipment needed to support the graduate program;
- Promotion of the program and recruitment of students and middle managers;
- Delivery of the new ICZM graduate program at UdelaR;
- Evaluation of course offerings;
- Revision/adaptation of curriculum for future offerings and to broaden to regional program involving link with institutions in Chile, Argentina and Brazil;
- Final project evaluation workshop.

Gender Equality

Ensuring that gender equality issues are incorporated within all the work undertaken with the local communities will be a major goal. Research in Ecoplata (an IDRC-funded research consortium) has identified women in coastal rural communities as "primary providers and educators," making their role in this proposed initiative central to its success and the input they can provide crucial to the work of the pilot projects. To broaden community benefits in Uruguay and Canada, direct working linkages between Uruguayan and Atlantic Canadian coastal communities will be established with the involvement of the Atlantic Coastal Action Program (ACAP). This program involves 14 communities in the four Atlantic provinces and aims to define common objectives for environmentally appropriate coastal resources and to develop plans and strategies that will help to achieve them. Linking rural Uruguayan community leaders, who are often women, with their rural coastal counterparts in Atlantic Canada (five of the 14 ACAP community leaders are women and four of those have agreed to participate in this initiative) will provide an extended information and support network of considerable value to these women and their communities.

At the university level, the project will draw upon the expertise of three gender specialists from UdelaR's Faculty of Social Science to ensure curriculum development activities incorporate gender considerations - addressing the ways in which coastal zone management issues play out in Uruguayan women's lives. Breakdown of the UdelaR faculty by gender shows women represent 45% of the total, which is also the approximate percentage for the Uruguayan workforce. It is reasonable to expect that enrolment in the graduate program will initially reflect this lack of gender bias with women accounting for between 40% and 60% of the total. A baseline study which is planned for the inception period, however, will address the role of gender in coastal zone management, and its findings will guide program evolution.

Research

An important part of capacity building will involve a curriculum that is grounded in genuine problems experienced by coastal communities. Pilot projects will be one mechanism to address these but the project will also support the investigation of problems unrelated to the pilot projects which pertain to other coastal environments, university-government collaborative issues, etc. These investigations will help researchers to gain accurate understandings of particular coastal issues which will lead to the definition of appropriate management actions for coastal managers while at the same time feeding into the curriculum to be developed for the graduate program. Research is thus a tool to promote understanding, leading to an improved pedagogical process that in turn will produce better prepared graduates.

Project Sustainability

The project has been designed in every way possible so as to ensure that its results will be sustainable. First, the proposed initiative will be fully integrated into the UdelaR as a community-oriented, outreach-based graduate program that has been strongly encouraged and supported by critical community stakeholders, as well as by the Rector and six Deans; second, the creation of community-based structures within each of the targeted communities, with assistance from ACAP, will provide ongoing capacity at the community level to address coastal issues; third, networks created between targeted communities, relevant government units and the university will enable the various stakeholders to collaborate more easily on issues of mutual concern; fourth, active engagement by coastal Intendencias is highly complementary since the problems of the targeted communities are the problems they are mandated to address (in Uruguay, the Intendencias are important forces for local change within a national context); and fifth, this initiative responds to concerns voiced by the national government through public utterances and public policy declarations.

Canadian Public Engagement

The Canadian public will be engaged through several vehicles. Although the project plan is to directly engage only four ACAP communities due to cost constraints, those four are part of a network, dispersed over Atlantic Canada, that formally communicates at annual and executive meetings and informally among themselves or with like-minded groups throughout Canada and internationally. ACAP's participation will ensure that information about this project will be broadly disseminated to Atlantic Canadian audiences, including the nature of the problems that are being addressed and the solutions that are being sought. In addition, seminars and public presentations will be made at Dalhousie and in the surrounding community,

including active attempts to engage the interest of the local media outlets. Classes taught at Dalhousie will embrace aspects of this initiative in the form of case studies. And, since Environment Canada is the initiator of the ACAP program, it will also disseminate information about the project within that department as well as more broadly.

Language Considerations

Canadian-Uruguayan research activities carried out earlier within the Ecoplata research consortium were reasonably successful despite language differences. Many Uruguayans and some Canadians are sufficiently bilingual to conduct business day-to-day, although formal gatherings such as workshops usually contain simultaneous translation. In addition, most of the ICZM literature is in English. The Uruguayan partners believe that sufficient knowledge of English exists among faculty at UdelaR and that ESL training should not be included within the project. It is thus agreed that those UdelaR faculty coming to Canada will be bilingual. Canadians, on the other hand, are significantly less bilingual and therefore intend to participate in regular language training sessions in Canada over the life of the project. Nonetheless, workshops which will involve Canadians providing lectures and training sessions in Montevideo will use simultaneous translation since language skills will not be uniform and the emphasis must be on accuracy in communication and efficient use of time.

PROJECT BACKGROUND AND RATIONALE

Over the past decade, awareness of the importance of the coastal zone to the socio-economic well being of Uruguay has grown exponentially. Coastal development has accelerated to the point where eighteen million people now live along the shores of the Rio de la Plata. In addition, shipping and industrial activities, often the result of foreign investment, have been poorly regulated; pollution and harmful runoff have increased; and watershed ecosystems are increasingly threatened. The present economic crisis in the region has further exacerbated the problem: displaced workers are rapidly becoming fishers, adding pressure to a rapidly declining resource; regulatory agencies are shedding responsibilities to stay within budget; and government, in order to diversify and maximize economic opportunities, is increasing the pressure by encouraging even greater conflict in coastal usage; tourism, which accounts for 25% of foreign income, is predominantly linked to the coastal zone; public health issues are rapidly escalating (toxic red tides and titres of viruses and bacteria are increasing) due to pollution run-off, eutrophication and river delivered solid waste; and, formerly pristine areas are greatly in need of integrated management with a strong overlay of policy and legislation. There is a real danger of large-scale, economically-driven actions (e.g., port growth) beginning to dominate the coastal development agenda without the presence of a counterbalance from other users, including coastal community interests and needs.

Government Commitment

In May 2001, in response to accumulating evidence of the growing threat to the country's coastal zone, the government of Uruguay created the Integrated Coastal Zone Management Coordinating Commission (ICMCC). The members of this group, representing broad sectoral diversity, were tasked with identifying important issues and defining coastal zone priorities. Also, in the same month, the five departments occupying the coastline of the Rio de la Plata signed a Coastal Declaration to put on record their concern with these issues and their intention to work cooperatively toward their solution. On 15 May 2002, the President of the Republic declared Coastal Management to be a national priority when he proclaimed the National Coastal Policy. Contained within these documents are implicit and explicit calls for action on coastal zone issues through human resource development.

Presently, the government working through the Directorate for Territorial Planning (DINOT), within the Department of the Environment, has taken preliminary steps to try and stem the tide of uncoordinated and unplanned change in the coastal zone. DINOT has led the formulation of a National Coastal Policy Framework that, with public input, has achieved a consensus in choosing 19 coastal areas where attention should be focussed. In addition, three Directorates of the national government have been active members in the planning process for the planned Master's Program and all have agreed to participate in the planned National Advisory Committee.

Another area of government need on coastal zone issues is at the level of Intendencias (an administrative unit somewhere between a Canadian province and a municipality). As mentioned above, the five Intendencias bordering the Rio signed an agreement pledging their support for coastal zone management. Individual Intendencias are the first line of government response to specific coastal zone changes or threats, but they face both financial and personnel constraints because there is a shortage of trained professionals who are capable of studying the issues and who then have the ability to formulate appropriate action plans. Consequently, very little progress has been made in accommodating the goals laid out in the 2001 Coastal Declaration.

The project will respond to the needs of the Intendencias by helping to strengthen the cooperation between the government and the coastal communities. In particular, the involvement of ACAP will expose both communities and the Intendencias to the process of grass roots community empowerment that is closely tied to community-government interactions. The accumulated experience in ACAP regarding this relationship is of considerable interest to Uruguayans, and more importantly the sharing of that wisdom is strongly anticipated.

In the past, three different national governments have variously supported three separate research initiatives, Ecoplata (IDRC), Freplata (GEF), and Probides (GEF), that came into being to study the coastal zone of the Rio, the waters of the Rio and its offshore, and the Banados del Este Biosphere Reserve and its watershed, respectively. These three projects, all of which are still active in coastal zone issues albeit at levels much reduced from their peak periods, represent important repositories of experience and knowledge. In fact, many of the researchers involved in these three projects are UdelaR faculty members who are also involved in this project. Because the choice of research activities pursued by two of these projects was largely self-determined, without government consultation, there has been a "disconnect" between the research undertaken and those policy makers who might best make use of the results, which has created a serious impediment to achieving long term change. All three research consortia thus view the proposed ICZM graduate program as a means to incorporating the knowledge which has been gained through their efforts into an ongoing educational program which will be

complementary to their efforts, helping to extend their work further into the realm of policy while simultaneously building much needed capacity which is sustainable over the long run. Ecoplata has recently agreed to carry out the role of Coordinator for the external planning Committee for this project, which is the precursor of the National Advisory Committee (NAC). All three consortia will be members of the NAC.

Community Need

So despite government's concern and good intentions, despite the presence of individuals in the community with some skills, and despite the research activities of several externally funded consortia, a gap continues to exist between the stakeholder community's desire to create change and the actual implementation of change. Missing are the individuals trained in sectoral specialties with an interdisciplinary approach and especially with integrated management experience. Missing too are key infrastructural elements that are necessary to support such an approach, namely, basic library holdings, an institutionalized program to train individuals, or a broad understanding that appreciates that solutions must be ones that are shared by government, universities, industry and community. This project attempts to provide the means to bridge that gap and to put in place a sustainable program capable of producing individuals and processes capable of bringing about change in rural development, governance and environment through a close working relationship among the affected communities and stakeholders. It is thus a response to the various community calls for action.

CIDA Priorities in Latin America

The project also responds to CIDA priorities for Latin America and Uruguay. CIDA's strategy for Latin America and the Caribbean, entitled "Closing the Gap", includes: strengthening human development, reducing ecological vulnerability, extending the benefits of growth, and reducing economic vulnerability. For Uruguay, CIDA has incorporated these priorities through the targeting of 1) support to social programming, 2) sustainable natural resource and environmental management, and 3) governance and public sector reform. As a result of the integrated nature and broad range of stakeholders involved in coastal zone management, the capacity-building activities to be undertaken by this project support all three of these priorities. The project also supports CIDA's overarching priorities of Good Governance, Environment, and Rural Development.

Previous Canadian Involvement and Related Projects

This project builds on earlier Canadian involvement in Uruguay, specifically the Ecoplata project that addressed research in natural and social sciences in Uruguay's coastal zone. Despite the acquisition of results and insights within Ecoplata, however, there remains neither a mechanism to incorporate them into capacity building nor any way to apply them in a sustainable fashion. The realization emerged that research without trained managers is research without social impact. The Ecoplata Project was not equipped to train government managers, community leaders or private sector personnel since it was designed strictly as a research vehicle. Both Freplata, which is carrying out a diagnostic assessment of the main body of the Rio de la Plata and the receiving waters of the continental shelf, and Probides, which is active in the biodiversity of coastal wetlands, face similar limitations. Both have experienced limited success due to the lack of available management capacity to implement their findings and the absence of any capacity building to train communities and other stakeholders. Because the proposed ICZM graduate program complements all three research projects, albeit in different ways, representatives from all three have been invited to join the National Advisory Committee to ensure that their voices will continue to be heard.

Critical Assumptions/Potential Risks

The goal of this project is to improve Uruguay's capacity to manage its coastal zone through enhanced tertiary educational capacity, improved outreach and strong collaboration between government, university and relevant communities. The proposed project is clearly focussed on the long-term goal while vigorously addressing each of the subordinate goals. The fundamental component of this initiative is the institutionalization of coastal zone awareness, outreach, research and the production of trained individuals. The goal is to create change within the university in order that it will have the capacity to create change in the broader community. The primary agents of that change will be the students educated within the Master's program.

In order to achieve the proposed goal a number of steps must be completed and conditions must be met, including: 1) the proposed Master's degree will require accreditation; 2) it will also require a dedicated faculty commitment; 3) the university will need to maintain this initiative after the expiration of CIDA funding; 4) outreach, between communities and UdelaR, integral to the effectiveness of the teaching program, will need to continue; 5) government priorities on coastal zone issues will need to feel the influence of university program activities; 6) economic stability in the region will need to continue; and, 7) academic accreditation issues between regional institutions will need to be resolved.

Program accreditation in UdelaR is a completely internal process without external government involvement, subject to review first by its Graduate Studies Commission and later by the Central Committee of the university. Released time for faculty and program sustainability after CIDA funding expires have both been assured, in writing, by UdelaR's Rector and six participating Deans. Community involvement is a cornerstone of this initiative and will be supported by the creation of a structure that facilitates regular two-way communication. The components of that structure will include National Advisory Committee participation, ongoing interaction with ACAP members, and faculty and student involvement in community activities including pilot projects, research and implementation. Government will be immediately influenced through the matriculation and training of its present employees, by the later hiring of future graduates and by drawing closer to the Master's Program through participation in teaching, internships, pilot projects and directed research. The economic well being of the region cannot be predicted over the next six years but all signs point to a significant and lasting recovery, especially in Argentina which is a major controlling influence on Uruguay. Regional university representatives will be invited to participate at regular intervals, to provide input into curriculum development and the teaching program while attempting

to remove existing academic impediments. The fact that Mercosur has put resolving these academic issues high on its agenda bodes well for a timely regional solution.

Economic Opportunities

The Uruguayan economy relies on tourism for as much as 25% of its externally earned dollars, and 80% of those come from tourist activity along the coastal zone. The resort city of Punte del Este, a major attraction for non-Uruguayan visitors, is a major economic driver for the country. The conflicting uses which are competing for the ocean coastline of Uruguay threaten to damage the pristine beaches and lush natural beauty which attract such a large tourist population to Uruguay each year. The economic contribution which tourism makes to Uruguay's economy will not be sustainable in the absence of improved capacity within the country to deal with the conflicting uses of the coastal zone in a way which allows for economic development while still protecting the natural beauty of the coastal tourist areas.

In a similar fashion, the absence of effective management of coastal areas can have significant negative effects on the ability of the large percentage of the Uruguayan population (roughly 70%) which live in the growing urbanized areas along the coast to be productive economically. The quality of life, public health and economic viability of the coastal zone in the Rio is directly influenced by a large and growing list of conflicting pressures that result from the growth of population along the coasts. This project will make a substantive contribution to management of the coasts, thus helping to reduce these potential negative economic factors.

PARTNERSHIP

The Ecoplata research project has been the historical platform upon which Canadian and Uruguayan researchers have forged their present strong relationship. Cooperative meetings, workshops, research, mentoring and socializing, plus myriad other activities, have fostered friendships, partnerships and mutual respect. The program proposed here has emerged out of collective experience, thoughtful discussions and a strong desire to move beyond research to a new vantage point where the potential for real sustainable change is possible. A critical element of this project is the partnership between two universities that have a proven relationship and a history of working productively together.

Institutional Partners

Dalhousie University is frequently viewed as an "Ocean" university, partly because of its proximity to the sea but more importantly because of institutional infrastructure and faculty research capability. A recent survey identified more than 120 faculty members with some involvement in marine activities, making it a pre-eminent Canadian institution in the marine areas of Science, Social Science, Management and Law, with much of that experience gained in international settings. Factoring in the presence of the Bedford Institute of Oceanography makes the Halifax-Dartmouth marine community the largest in Canada, and among the five largest in the world, with expertise across all science and social science disciplines, as well as a number of government departments that address regulation, monitoring and policy issues. One recent example of synergy that involved scientists, social scientists, and policy makers was the federal government's declaration of a Marine Protected Area off the coast of Nova Scotia that embraces a unique undersea canyon complex, known locally as the "the Gully".

At Dalhousie, the project will be based within the Marine Affairs Program (MAP). The MAP has offered a Master's of Marine Management degree, upon which the proposed ICZM graduate program will be loosely based, to between 20 – 25 students, most of whom are middle managers working in the field, each year for the past dozen years. Up to half of these students come from the developing world, through support from CIDA's Marine Scholarship Program. The Marine Affairs Program has been involved in a number of CIDA-funded initiatives which have supported the creation of similar academic programs in partner institutions, in the Philippines (early 90s), in Indonesia (mid-90s), and most recently through a Tier II project, due to end this year, which has introduced a Masters of Integrated Coastal Zone Management at three coastal universities in Cuba. The proposed project director, Dr. Robert Fournier, is an instructor in the Marine Affairs Program.

The Universidad de la Republica is Uruguay's largest and most prestigious public university. Professors from six of its faculties are actively engaged in marine-related issues (such as Ecoplata, Freplata, Probides, and others). As is often the case with Canadian universities, however, much of this work and experience has been sector-specific, and little of it has involved an integrated approach or a management focus. This project will involve faculty from the Faculties of Science, Social Science, Agronomy, Architecture, Law, and Engineering, and will help to create a new institutional dynamic that will add considerable additional value through resulting synergies. In addition to the capacity-building which will take place in the area of ICZM at UdelaR, participation in this project, the first multi-faculty, interdisciplinary cooperative project undertaken at UdelaR, will build capacity within the institution to work cooperatively to address interdisciplinary problems and issues.

Coastal Communities

As noted in earlier sections, the three coastal communities will be very real partners in the project. They will bring their real coastal issues to the table, and work with faculty and students from UdelaR and with local government officials to find solutions to address those issues. In the process, all parties will build their capacity to address such issues and to work collaboratively to do so.

Three communities, which have a diverse set of physical characteristics as well as coastal issues to address, will participate as pilot sites in this project:

1. *Juan Lacaze* is an urban and industrial community in the Intendencia of Colonia that is located at the inner end of the Rio de la Plata. It has a large pulp mill discharging untreated effluents, accelerated beach erosion due to commercial

sand mining and agricultural non point source pollution, all of which are in conflict with community health and commercial interests and recreational port and beach activities.

2. *Santiago Vasquez* is on the western border of Montevideo Intendencia alongside the mouth of the Santa Lucia River, an important source of potable water and industrial effluents, which embraces a large system of saline wetlands rich in biodiversity. Although this area is subject to many conflicting usages perhaps the most important issue at the moment is the intended gradual expansion of the city of Montevideo in its direction.

3. *Roche City* is in Roche Intendencia on the Atlantic coast, adjacent to one of the most complex lagoon-sweetwater systems in the Neotropical region. It was internationally recognized as the "Banados del Este" Biosphere Reserve in 1976 and is part of the Uruguayan National System of Protected Areas, although that latter designation is in name only. The major issue is the sustainability of a world-class environmental site relative to conflicting uses of urban development, increasing tourism and artisanal fishing activity.

The three communities will be integrated into the program from the outset by involving them in all project activity and incorporating their unique characteristics into the initial and on-going planning processes. It is anticipated that structures loosely based on those employed in each ACAP community will be developed within the three communities so that identified individuals can assume specific responsibilities on behalf of the communities. The three communities will also share a seat on the National Advisory Committee to the project.

Atlantic Coastal Action Program

ACAP is a community-based program that involves 14 sites across Atlantic Canada. Each site has formed a non-profit organization with its own Board of Directors and a full-time Coordinator. While Environment Canada contributes to project funding, community stakeholders contribute most of its resources through volunteer labour, in-kind contributions, and financial support. ACAP's mission is to help communities define common objectives for environmentally appropriate uses of their resources and to develop plans and strategies that will help achieve them. The fundamental basis for ACAP is the recognition that local communities are the best and most effective proponents for effective action leading to sustainable development.

ACAP has proven to be a surprisingly effective mechanism by which communities have taken control of their coastal zone problems. The 14 communities extend across a matrix from rural to urban and from land-based issues to strictly marine. The demonstrated versatility and adaptability of this approach supports the idea of its portability to South American coastal communities. Just how it should be adapted to a Latin culture will be a subject for discussion during the inception phase and a continuing source of experimentation throughout the life of the project. There is no question that ACAP experience will be valuable targeted directly at communities where the day-to-day activities that have ensured ACAP success to date can be conveyed, discussed and possibly adapted to a Uruguayan setting. And since ACAP will work in cooperation with UdelaR and the government directorates it would be a broad and coordinated approach. Government directorates presently have little experience with community organizations and the university needs to embrace these concepts if it is to assume the role of facilitator, catalyst and mentor within the proposed Master's Program.

The executive directors of four ACAP communities, along with the Environment Canada creator of this program, Larry Hildebrand, have agreed to participate in this initiative and will be invited to participate in the earliest visits to Montevideo, during the Inception Phase. At that time, consideration will be given to the criteria and process that was used to define an ACAP organization in each of the participating communities, and the applicability of that approach to Uruguayan communities. Efforts will be made to meet with community members and to advance this process of definition. Next steps will involve a two-way exchange of information and a better understanding of issues, problems, and impediments to their solution along with approaches that have proven to be successful.

Additional Stakeholders

In addition to the stakeholders mentioned above, others have agreed to participate in the development of the ICZM graduate program. These include: the National Directorate for Territorial Planning (DINOT)); the National Directorate for Environment (DINAMA); the National Directorate for Aquatic Resources (DINARA); the Coast Guard (Prefectura Nacional Naval); the National Port Authority (Administracion Nacional de Puertos); the National Congress of Intendencias (Congreso de Intendentes); Ecoplata; Freplata; Probidés and the Network of Uruguayan NGOs (La Red Uruguay de ONGs Ambientales). Each group will participate in the National Advisory Committee that will meet four times a year and provide advice directly to the overall Program Management Committee. The National Advisory Committee will also hold three workshops, one in each working phase, to explore, assess, and ensure that the content of the graduate program responds appropriately to the needs of the external communities.

DINOT, DINAMA and DINARA are all considered to be integral to the Master's Program because: i) they bring government concerns and issues to the table, ii) they possess considerable experience that will be shared with program participants, iii) they have had a long working relationship with both universities through the Ecoplata project, and, perhaps most importantly, (iv) they represent the government's viewpoint. The program is not being designed strictly around government issues but clearly many issues are common to all parties. Working with government throughout this process, especially in the earliest stages, is critical as a means of building trust and as a means of establishing the relevance of the Master's Program to problems facing government. As mentioned earlier, many formal and informal opportunities for dialogue have been built into the proposed program to enable proper airing of differing positions.

Both the Coast Guard and the National Port Authority have legislated responsibilities regarding the coastal zone. They have been active participants in two early workshops, provided advice to the local planning committee and have been very outspoken in their support for this initiative and their need for better working linkages with coastal managers because of issues related to enforcement and conflict resolution, respectively.

The National Congress of Intendencias is the national coordinating body to which all 19 Uruguayan Intendencias belong. Only six of the 19 are relevant to this proposal (Colonia, San Jose, Montevideo, Canelones, Maldonado and Roche), for the moment, as their shorelines border the Rio and Atlantic. However, five additional Intendencias extend north to south along the shore of the Uruguay River, along the western border of the country, which is also a coastal zone, and which may be included at some future time in the program. The Congress is a vehicle that permits efficient interaction with the initial five Intendencias while simultaneously educating the others to the activities and virtues of this initiative.

Intendencias have generally played an active and concerned role with regard to coastal zone issues, sometimes more so than the national government. Concerns are usually of an immediate nature such as beach erosion after a storm or resulting from some form of development, solid waste entering normally attractive beaches because squatters dump trash into local rivers, the downward pressure exerted by artisanal fisher folk on a local resource or the implied danger from unregulated sewage outfalls. Intendencias actively pursue these issues from day-to-day by trying to understand the causative factors, by trying to engage human resources and by attempting to influence the national government as to legislation, regulation and monitoring. The Intendencias are a level of government with considerable potential to act as important intermediaries between the proposed UdelaR program and the individuals who comprise the coastal communities. Finally, the Intendencias can be important facilitators of community activities because, in addition to other attributes, they can bring financial resources, second only to the national government, to bear on problems of community concern.

The Network of Environmental NGOs unites organizations interested in environmental protection and sustainable development. It was founded in 1990 and has 60 member organizations from throughout Uruguay. It tries to identify and promote environmental issues leading to natural resource conservation, strategies for sustainable development and to raise quality of life. The network actively promotes information exchange between member organizations and is a strong supporter of capacity building. It has contributed to planning to date and will be a member of the National Advisory Committee.

Regional Institutions

The proposed Master's Program was conceived from the outset with the long-term goal of creating a regional program. The attainment of that goal is viewed as a stepped process. The first step would include several activities: defining the curriculum (with input from the regional advisors), advancing the capacity of teaching faculty, improving infrastructure and tools, and, implementing the program with the admission of Uruguayan students. With completion of the first Uruguayan class the program will be extended through faculty and student participation, to neighbouring countries in the Southern Cone.

There are two reasons for this stepped approach: first, it will provide UdelaR the opportunity to properly define and implement this program, the first of its kind in UdelaR, with minimal conflict and fewer of the difficulties that that often accompany a multilateral initiative; second, some time will be required to work out a number of administrative issues that greatly influence the free-flow of students from different jurisdictions. An example of one such issue is accreditation. At the present time a degree awarded in Uruguay will not be accepted in Argentina, and vice versa. Discussions are underway and there is considerable optimism surrounding the eventual resolution of these issues. One measure of the gravity of this problem is that it is high on the agenda of the Southern Cone's Common Market (Mercosur), where it is also seen as an impediment to economic development. The project is hopeful that the Mercosur discussions, as well as our own among the regional universities, will resolve this issue by 2009 when it is planned to accept the first regional class.

Discussions on cooperation are well advanced with the Universities of Buenos Aires (Argentina), Federal University of Rio Grande (Brazil), Universidade do Valle de Itajai (Brazil) and the University of Concepcion (Chile). General agreement has been reached with the University of Buenos Aires resulting in a formal exchange of documents. Discussions continue with all three, although it is anticipated that only one Brazilian institution will participate. It is anticipated that this participation will be confirmed within the next few months. A four-institution Southern Cone program will offer a much broader exposure to various coastal environments, social milieus, lessons learned and policy regimes, thereby broadening the educational experience and significantly increasing its relevancy, and adding a strong international component to this initiative. The long-term goal is to make this program the pride of the Southern Cone.

Representatives from each of the regional institutions will be invited to join UdelaR's planning advisory committee (University of Buenos Aires is already present) as advisors once some formal agreement is reached. The distinction is made here between partners and advisors as the ICZM graduate program is viewed as a Uruguayan initiative that will eventually broaden its scope and participation. Nonetheless, regional advice from the outset is viewed as very important since it will ensure that regional instructors are kept fully apprised of the evolution of the program, and more importantly, that their input will be incorporated into the curriculum development.

Networking

To date, the Uruguayan planning process has greatly benefited from the existence of an advisory committee composed of two sub-groups. A Project Planning Committee, which has been responsible for guiding the development of this initiative, is made up of one representative from each participating faculty (Science, Social Science, Law, Engineering, Architecture and Agronomy). The second group, made up entirely of external stakeholders (the Directorates for Planning and Environment, the Coast Guard, the Port Authority, the Congress of Intendencias, the Network of NGOs, Ecoplata, Freplata, and Provides) has regularly contributed advice to the Project Proposal Team. The university committee met bi-monthly for over 18 months while the full committee, with both university and external components, has been underway for 4-6 months.

During the inception period, a National Advisory Committee (**NAC**) will be formally constituted. It will be composed of the external members listed above along with the Directorate of Aquatic Resources, one seat for the coastal communities, and for continuity another for the UdelaR Project Coordinator. It will meet quarterly. Following its formal creation, NAC advice

will be directed to the Project Management Committee where all strategic and policy decisions regarding the program will be addressed. In addition, the NAC will conduct a workshop once every two years (i.e., once during each of the project's three operational phases) where the full range of issues relevant to the external community can be reviewed and considered, for example, curriculum relevancy, progress in the Pilot Areas, outreach activities and regional issues. Invitations will be extended, as well, to other interested parties not directly involved in the program, such as the government's Office of Policy and Planning or members of the private sector.

Project Management

Following project approval UdelaR and Dalhousie will each formally establish institutional Program Coordinating Committees (UdelaR PCC and Dal PCC, respectively) that will consist of one representative from each participating faculty. These committees will meet at their respective institutions bi-monthly, and their primary task will be to guide the development of the academic program. One representative from each participating regional institution will join the UdelaR PCC, and ACAP will also be represented on the Dal PCC. The chair of the UdelaR PCC, Dr. Daniel Conde, Head, Department of Limnology, will be the UdelaR Project Director and will sit on the National Advisory Committee. The chair of the Dal PCC, Dr. Robert Fournier, Professor of Oceanography, will also serve as overall Project Director.

The group responsible for coordinating and guiding the overall program will be the Program Management Committee (PMC) comprised of the entire UdelaR PCC plus the Canadian Project Director. The PMC will be chaired by the Canadian Project Director, meet every six months in Montevideo, and have ultimate responsibility for all academic and financial matters pertaining to the project. Decisions will be made by consensus.

The committees identified above create a structure that includes all partners plus external stakeholders and ensures that a free flow of information and constructive dialogue will occur at regular intervals. This is a form of networking that should provide access to information, a sense of participation and allow input into the evolution of this program.

Project Phases and Planned Activities

The project will be divided into four distinct phases.

Phase I, Inception

This period will last up to six months and will contain the following activities:

- Establish the Program Management Committee (PMC) which will meet twice during this period;
- Establish Institutional Program Coordinating Committees (UdelaR PCC and Dal PCC, respectively) for each institution and begin bi-monthly meeting schedule;
- Establish National Advisory Committee (NAC) and begin quarterly meeting schedule;
- Put in place appropriate financial, communication and administrative procedures;
- Initiate short-term intensive Spanish instruction for participating Canadians;
- Engage ACAP and coastal communities in initial dialogues;
- Conclude bi-lateral agreements between the Universidad de la Republica and Dalhousie;
- Conduct National Baseline Workshop on Coastal Zone Management as the concluding activity for the inception phase. The workshop will be centered on research papers commissioned from government agencies and Uruguayan academics on the topics relating to the state of ICZM in Uruguay. Topics may include: coastal and ocean policy in Uruguay, integrated coastal and sea use planning, communities and co-management, ecosystem based management, conflict management, the role of gender in coastal management, an assessment of community-government relations and a global review of major academic programs. The overall purpose of this workshop will be to clearly define the starting point for this project so as to measure project results as they are achieved.

Phase II, Capacity Building

This period will last up to 24 months, will involve program design and curriculum development and will include:

- Continuation of semi-annual PMC meetings to guide program development and management plus bi-monthly meetings of UdelaR PCC and Dal PCC to address specific academic, curriculum and program issues;
- Planning and execution of two curriculum development/training workshops that will focus on: 1) core courses, component modules, reading and teaching materials and thesis requirements; 2) elective courses that would include new courses or adjustment to existing courses;
- Planning and execution of a third workshop on interdisciplinary teaching methodologies and a follow-up meeting on curriculum validation to review and assess the curriculum developed thus far;
- Reviewing and planning for Pilot Projects in collaborating coastal communities, involving ACAP and government officials in addition to university personnel;
- Identification of degree program faculty at UdelaR and development of degree program regulations and course evaluation systems;
- Library needs assessment to identify required core materials and commence the process of materials acquisition;
- Acquisition of teaching technologies and equipment for the teaching of core courses;
- Mutual faculty exchanges for the purpose of curriculum development and teaching methodology training;
- First of three NAC workshops;
- Promotion of the existence of the Master's Degree in Coastal Zone Management and recruitment of Uruguayan students, including employees from appropriate government agencies, coastal communities and the private sector.

Phase III, Program Implementation in Uruguay

Implementation of the ICZM Master's Degree Program will occur over a 24 month period with the initial class drawn only from Uruguay. Specific activities will include:

- Finalization of teaching and course materials with translation into Spanish, by UdelaR, of all necessary documents;
- Admission of Uruguayan ICZM graduate degree students;
- Full pilot project implementation;

- Delivery of core courses in Spanish and English over a two-year period by Uruguayan and Canadian instructors, including detailed evaluation by students and faculty;
- Elective course offerings in Spanish by Uruguayan instructors;
- Initiation of a mid-term evaluation of the project;
- Continuation of PMC, UdelaR PCC, Dal PCC and NAC meetings according to accepted schedule plus second NAC workshop;
- Graduation of the first class of ICZM graduate students.

Phase IV, Regional Implementation

The project's final 12-month phase will move to include a regional student body. Specific activities will include:

- Admission of students from Chile, Argentina and Brazil;
- Continuation of PMC, UdelaR PCC and Dal PCC meetings according to their individual schedules;
- Quarterly NAC meetings and the convening of a third workshop;
- Completion of all library materials and equipment purchases;
- Final project evaluation workshop.

UPCD Program – Tier 2 – Full proposal: Budget by project components (entire project period)

Lead CI: Dalhousie University			Developing country: Uruguay				
Project title: Sustainability of Uruguay's Coastal Zone							
EXPENSES	CIDA		CI		DCETO	OTHER	TOTAL
	\$ (000)	%	\$ (000)	%	\$ (000)	\$ (000)	\$ (000)
Administration:							
Personnel	88,820	9%	86,220	19%	84,000		259,040
Other Admin Costs	8,750	1%	33,600	8%	0		42,350
Graduate Program Design/Definition	121,850	12%	66,750	15%	37,600		226,200
Curriculum Development / Training/ Team Teaching in Uruguay & Canada	320,476	32%	178,948	40%	157,800	30,000	687,224
Canadian Public Engagement	5,000	1%	25,000	6%	5,000		35,000
Resource Identification / Acquisition	150,000	15%	2,500	1%	0		152,500
Community Outreach / Pilot Projects	208,350	21%	34,650	8%	54,000	4,000	301,000
Evaluation	30,000	3%	4,000	1%	1,000		35,000
Policy Development	21,850	2%	11,550	3%	10,000		67,400
Research	20,000	2%	0	0%	4,000		
SUBTOTAL	975,096	98%	443,218	100%	353,400	34,000	1,805,714
CONTINGENCY	24,904	2%					24,904
TOTAL	1,000,000	100%	443,218	100%	353,400	34,000	1,830,618

Notes to Budget by Program Component

Administration: The project budget includes support for a half-time project coordinator for the first three years of the project, and reduced support for this function for the final two years. Also included is a portion of salary recovery for the time the Project Director commits to administrative responsibilities, 2 days/month budgeted at \$400/day and cost-shared on a 75%/25% basis between Dalhousie and CIDA (CIDA's share being \$100/day). Included as well within this budget line are the travel costs associated with two Program Management Committee meetings per year, plus support for office materials, supplies, and communications needed for the project. Finally, funds have been included in the first year to enable the two project directors to attend the AUCC Project Directors' meetings in Ottawa.

Graduate Program Design and Definition: The inception phase of the project will be used to undertake preliminary work needed to begin the project and properly design and define the parameters of the graduate program. Funds are included in the budget to support the non-administrative faculty involvement in an inception mission which will begin the program definition process, identify baseline studies which need to be undertaken, and introduce all Canadian, UdelaR, government participants, and external stakeholders within coastal communities to each other. Also included are funds to support a workshop in Uruguay at the end of the six-month period at which the baseline studies will be reviewed and plans for curriculum development will begin.

Curriculum Development/Training/Team Teaching in Canada and in Uruguay: Included within this budget line are the costs of two curriculum development workshops which will be held in Uruguay in the first and second full years of the project, respectively, and one workshop on interdisciplinary teaching methodologies (the latter two workshops will be held back-to-back to reduce travel costs). The first curriculum development workshop will be used to identify needed core course curricula to be developed, and formulate plans for that development. The second, held in conjunction with the teaching methodology workshop, will share progress and evaluate the core curricula, and assess the elective courses which will be offered through the graduate program. The teaching methodology workshop will expose all faculty to interdisciplinary teaching methods, such as simulations, interdisciplinary field exercises, and case study analysis. During years two, three and four, partner faculty will travel to Halifax to engage in individual capacity building and follow up on curriculum development plans identified during the workshops. The budget allows for six faculty members to come in each of the three years (18 total), for an average period of two months each. The majority of those coming will be UdelaR faculty members, but some of the visits will involve advisors from the regional universities in Chile, Argentina and Brazil to ensure the regional applicability of the graduate program over the longer term (personnel time contributed by these institutions is reflected in the "Other" column). Included here, as well, is some funding to allow Uruguayans to travel to Argentina, Brazil and Chile to pursue additional curriculum input. Workshops will be conducted and a strategy developed to pursue external scholarships for students from organizations such as Mercosur, UNESCO, IADB, IDRC, etc. Finally, this budget line includes the costs of Canadians traveling to Uruguay to team teach with UdelaR faculty during the initial offerings of the ICZM graduate program. The budget allows for 5 Canadians to travel to Uruguay in each of the final three years of the project. These trips have been budgeted for two weeks, and are cost-shared with the Community Outreach/Pilot Projects (see below), as both capacity-building activities will be undertaken during these trips.

Canadian Public Engagement: A small amount of funds has been included in this budget line to support some of the public engagement activity which will take place within the 14 ACAP communities (public presentations, workshops, newsletters, and reports) and public presentations offered by Dalhousie through the DAL Outreach program and other venues.

Resource Identification/Acquisition: The planned program will require upgrading of library capacity in Coastal Management at UdelaR in two areas: holdings and access to current journals. Funds have been set aside for the former and an arrangement has been struck with Dalhousie's University Librarian to allow access via the Internet to selected current journals received by Dalhousie. A similar sort of access may also be available through Ecoplata, which is supported by IDRC. In addition to library resources, the budget allows for the purchase of some equipment which will be dedicated to the new graduate program, such as computers and printers for student and faculty use, copiers and or scanners, etc. Also included is the discounted (due to tax-free status of the university) price of a 12 passenger van which will be essential in ensuring student and faculty, both during the project and after, are able to work with coastal communities. The pilot project areas, for example, are up to 200 km from Montevideo.

Community Outreach/Pilot Projects: These projects will be the cornerstone of the proposed teaching program. Outreach will commence immediately upon project approval in order to ensure that community issues and concerns become integrated into the planned program and become an ongoing component of the project. Funding will be used to conduct workshops, run public meetings, deliver short-term training sessions for local personnel, create newsletters and initiate cooperative activities that test ideas and planning concepts, in addition to addressing local coastal zone management issues. Funding is also included to support ACAP participation in these projects, budgeted at two trips for two people over the course of the project (ACAP personnel contributions are noted in the "Other" column).

Evaluation: This line will cover the costs of the mid-term evaluation.

Policy Development: Policy delineation will occur in many informal ways such as an outgrowth of dialogues, studies, pilot projects, workshops and other forms of consultation and reflection. One formal approach will be the holding of a regional workshop planned for the final year of the program which will engage government, university, coastal community and other stakeholders to draw on program experiences and lessons to provide input into the policy process.

Research: The proposed program is not about research but applied research does have a small but vital role to play in addressing specific coastal zone issues relevant to the pilot project communities and to ensure such issues are properly addressed within the curriculum of the ICZM graduate program. It is anticipated that some of this research will involve links with Ecoplata, Freplata and other research projects.

UPCD Program – Tier 2 – Full proposal: Budget by expense categories (entire project period)

Lead CI: Dalhousie University			Developing country: Uruguay					
Project title: Sustainability of Uruguay's Coastal Zone								
EXPENSES	CIDA		CI			DCETO	OTHER	TOTAL
	\$ (000)	%	\$ (000)	%		\$ (000)	\$ (000)	\$ (000)
PERSONNEL COSTS (including overhead, 54% on-campus and 35% off-campus)	228,406	Max 50% 38%	375,618	Min 50% 62%	Total 100%	318,400	34,000	956,424
PROJECT DIRECT EXPENSES								
Travel (transportation, accommodation, per diem)	288,253		0			8,000	0	296,253
Capital expenditures (15% CIDA funding, recommended maximum)	150,000		2,500			0	0	152,500
Consultants	82,000		4,000			1,000	0	87,000
Training Allowances in Canada	74,520		0			0	0	74,520
Consumables, Materials, Supplies & Communications	91,583		2,500			9,000	0	103,083
Other: Misc. Meeting, Workshop, & Pilot Project costs, and Public Engagement costs	60,333		58,600			17,000	0	135,933
SUB TOTAL DIRECT EXPENSES	746,690		67,600			35,000	0	849,290
CONTINGENCY (5% CIDA funding)	24,904							24,904
TOTAL (Percentages based on CI and CIDA contributions only)	1,000,000	Max 70% 69.3%	443,218	Min 30% 30.7%	Total 100%	353,400	34,000	1,830,618

Notes to the Budget by Expense Category:

Personnel Costs: The UPCD portion of personnel costs include administrative personnel costs as well as costs for Dalhousie faculty directly related to program activity and implementation. Administrative personnel include a portion of the time of the Canadian Project Director (budgeted at 2 days/month at \$400/day, cost-shared 75/25 Dalhousie and CIDA, with the CIDA portion equal to \$100/day) and support for a part-time Project Coordinator for the first three years of the project, followed by some additional funding to support the financial administration of the project in its final years. Where Canadian faculty personnel recovery costs have been charged directly to CIDA, they have been cost-shared a \$300/\$100 basis using an average daily rate of \$400/day (\$100/day recovery charged to CIDA). In many cases, 100% of the Canadian personnel costs have been budgeted as in-kind contributions. Overhead charges of 54% have also been included under personnel costs, in part as CIDA direct expenses and in part as in-kind contributions. The contributions of UdelaR faculty have been calculated at a rate of C\$200/day, as have the contributions which both the ACAP personnel and the Regional Advisors will make to the project (in the "Other" column).

Travel: Travel Costs include the costs of Uruguayan participants traveling to Canada for training and curriculum development; the costs of Canadians traveling to Uruguay to participate in workshops, team teaching, project management and pilot project activities; the costs of the Regional Advisors coming to Uruguay to participate in workshop and other activities; and some of the local travel costs associated with the pilot project activity. Project activities will be organized in such a way as to minimize frequency of travel, e.g., project management meetings and community outreach activities will be organized in conjunction with other training and workshop activities.

Capital Expenditures: The project budget provides support for the acquisition of library resources, both through direct purchase and through internet access to a select number of journals subscribed to by Dalhousie; some computer and related equipment for the dedicated use of the new graduate program; and for the purchase of a 12 passenger van to support the outreach work with coastal communities, some of which are quite distant from Montevideo.

Consultants: The project provides financial support for a) translators to be used in formal workshop, community meetings, and some other settings in Uruguay, b) a Halifax-based Spanish teacher who will tutor participating Canadian faculty in Spanish, and c) the mid-term evaluation.

Trainee allowances in Canada: This line includes the living and other allowances which will be provided to Uruguayan or regional participants who will be undertaking short-term training in Canada.

Consumable materials, supplies, communications: The project budget provides support for materials and supplies which will be used in the pilot project and research activities, in the development of teaching materials, in the training and curriculum development workshops held in Uruguay, and for administrative purposes at both institutions.

Other: As indicated, this line includes support for some meeting, workshop and pilot project expenses (venues, equipment) not covered under other lines above (in Canada and in Uruguay), and the direct costs of public engagement activities.