

## **FINAL REPORT**

# **Institutional Support for Sustainable Environmental Management of the Panama Canal Watershed**

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## LIST OF ACRONYMS

ACP	Panama Canal Authority
AED	Academy for Educational Development-Environmental Education and Communication (IQC of USAID's Global Environment Center -- G/ENV)
ANAM	National Environmental Authority
ARI	Authority for Inter-Oceanic Region
CICH	Inter-Institutional Commission for the Panama Canal Watershed
GOP	Government of Panama
IDAAN	National Institute of Sewers and Aqueducts
MIDA	Ministry of Agricultural Development
MIVI	Ministry of Housing
NATURA	Foundation for the Conservation of Natural Resources
NGO	Non-Government Organization
PCW	Panama Canal Watershed
PTC	Permanent Technical Committee
SO	Strategic Objective
USAID	United States Agency for International Development

## **INTRODUCTORY STATEMENT**

Under an EPIQ IQC Task Order that began in August 1999 and ended in September 2002, IRG provided technical assistance in support of the sustainable management of the Panama Canal Watershed (PCW). This assistance was aimed at strengthening the Panamanian organizations that make up the Inter-Institutional Canal Watershed Commission (CICH). The CICH was created by Panamanian law and given the responsibility of coordinating all activity in the PCW to assure that the Watershed is managed in a sustainable manner. It is made up of the Panama Canal Authority (ACP), the Ministry of Housing (MIVI), the Ministry of Agriculture (MIDA), the Ministry of Justice and Governance (MINGOV), the National Environmental Authority (ANAM), the Authority for Inter-oceanic Region (ARI) and two not-for profit organizations—Fundación Natura and Cáritas Arquidiocesana.

To achieve this objective, we organized our work along five related Activity Tracks— (1) policy formulation, (2) planning, (3) capacity building, (4) information systems development, and (5) design of inter-institutional coordinating mechanisms (areas of activity essential to the strengthening of the Panamanian organizations charged with managing the PCW).

In designing the Activity Tracks, and in carrying out the discrete interventions under the Tracks, we constantly sought to generate synergies and maximize impact for the sustainable development of the Watershed. We also were careful to assure that each discrete activity contributed, in a direct way, to the achievement of Task Order objectives. In executing each intervention, we assigned appropriate blends of short-term technical assistance sustained counseling and technology transfer from our long-term staff, to realize the desired results. Finally, we gave a special emphasis to collaboration among public, private and NGO sectors and to the active participation of stakeholders at all levels, in designing and implementing our interventions.

The wide majority of tasks were completed during the period of the EPIQ Task Order. However, absorptive capacity limitations of counterpart organizations and the delays inherent in the process of building-building and participatory problem solving on delicate topics (e.g. Law 21 Implementing Regulations, Participatory Sub-watershed Management Plans) extended the time needed to carry out all contract activities.

As was the case with the EPIQ Task Order, all of activities under this bridge contract were conducted in close consultation with cognizant counterpart institutions.

## **RELATIONSHIP OF THIS BRIDGE CONTRACT PROGRAM TO THE STRATEGIC OBJECTIVES OF USAID/PANAMA**

IRG continued working under the USAID/Panama *Strategic Objective No. 1: (SO1) Panama Sustainably Manages the Canal Watershed and Buffer Areas* proposed under the Strategic Plan for FY 2000 - 2006. The Bridge Contract activities fell under the following intermediate results (IRs):

IR#1: Institutional Arrangements for Effective PCW Management Functioning;

IR#4: Local Government and Private Sector Capacity for Environmental Management in the PCW and Buffer Areas Increased.

## **OBJECTIVE**

The objective of this Bridge Contract was to continue institutional strengthening and support, including policy formulation assistance, to those entities and agencies of the GOP responsible for the management of the environment in the PCW.

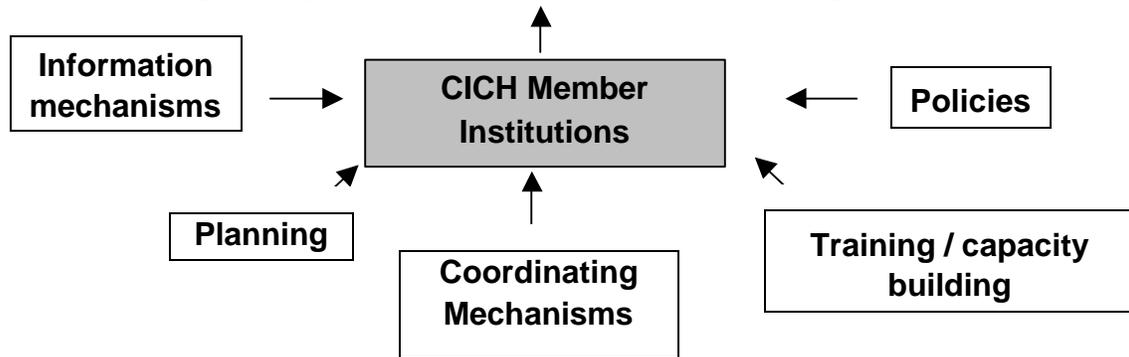
As was the case under the EPIQ Task Order our technical assistance during this four-month period was directed at the CICH's Executive Secretariat and member institutions:

- The Panama Canal Authority (ACP)
- The Authority for Inter-Oceanic Region (ARI)
- The National Environmental Authority (ANAM)
- The Ministry of Housing (MIVI)
- The Ministry of Agriculture (MIDA)
- The Ministry of Government and Justice (MINGOB)
- Caritas Arquidiocesan
- Fundación Natura

IRG also supported the creation and strengthening of the Local Commission, representatives of local stakeholders from the sub watersheds Los Hules-Tinajones and Caño Quebrado, that have become key elements not only for the elaboration and execution of the sub watershed action plan but also as an example of capacity building and institutional strengthening at all levels for a successful transference and sharing of technology and knowledge. Through the strengthening of the Local Commission the project is being internalized and adopted by all parties involved as their own, consequently, what is expected is that at the end of the project, the process will continue its course effectively as a local initiative supported by government agencies such as CICH.

During the Bridge contract we continued channeling our assistance along the five *Critical Activity Tracks* mentioned in the EPIQ final Report:

## Institutional Strengthening for Sustainable Environmental Management of the Watershed



### KEY INTERVENTIONS

USAID/Panama extended some EPIQ activities, via IRG from October 1, 2002 through January 31, 2003. The purpose of the Bridge Contract was to accommodate for delays in implementation attributable to absorptive capacity limitations among certain counterpart institutions. To a significant degree, the implementation delays were also attributable to the uncertainties that are part and parcel of consensus-building and participatory development processes. This is especially the case in “start-up” situations (such as the CICH) in which new sets of institutional roles; responsibilities and relationships must be established and formalized. The activities continued under the Bridge Contract are the following:

- Continuation of the participatory process of drafting the implementing regulations of Law 21 with the active involvement of cognizant CICH member organizations;
- Facilitation of the sub watershed action plan development process for Los Hules – Tinajones and Caño Quebrado, with active stakeholder involvement;
- Finalization of the consultation/review process by MIVI, other CICH member institutions and local governments of the draft document of the norms and standards for rural and urban micro zoning;
- Revision of the watershed management curriculum module to be incorporated into an in-service ACP corporate training program;
- Final revision of the Carbon Sequestration Estimates for the Land Use Aspects of the Panama Climate Initiative; and
- Final revision by ANAM and the Clean Production Inter Institutional Committee of the *Cost Benefit Study to Support a Draft Bill on Fiscal Incentives to Promote Clean Production*.

The principal accomplishments of the Task Order, desegregated by activity tracks, are presented below.

### POLICY FORMULATION ACTIVITY TRACKS

### *IMPLEMENTATION OF LAW 21 REGULATION (ARI/CICH)*

During EPIQ/IRG Task Order IRG guided the drafting implementing regulations for Law 21. In carrying out this task we used a participatory methodology. We organized a series of seminars and workshops in which managers and technicians of key CICH entities (e.g. MIVI, ANAM, ARI, MIDA and the ACP) carried out a dialogue on the critical points (mainly institutional responsibilities) and provided inputs for the document. We subsequently, drafted the regulations and facilitated a second series of workshops to entertain further debate and make revisions. During the process, ARI voiced disagreement with the format given to the document and suggested an alternative. Again, we facilitated a series of actions that addressed ARI's concerns and allowed the initiative to move forward, (The dissent by ARI precipitated another delay in the process, but again such occurrences are not unusual in institutional development initiatives). If properly handled, as we believe this one was, they can serve to strengthen the relationships among the institutions thereby enhancing realization of the objective—viz. “Strengthened CICH Institutions”. CICH members have reached a consensus on the draft implementing regulations. Follow up actions for the future include approval by the CICH commissioners and a public vetting of the document before it is presented to the Legislative Assembly for action.

During this period, CICH Secretariat asked IRG to facilitate a series of meetings among CICH member institutions to consider three new draft Bills, developed by three different Legislators, related to Law 21. CICH wishes to incorporate the essence of these draft bills into the Regulation of Law 21 to consolidate all four (the draft implementing regulations and the three draft bills) documents into one article of legislation. We provided technical assistance, in the form of legal council and we orchestrated workshops on the issue. Finalization of this activity will have to await USAID's follow-on contracting vehicle.

### *URBAN AND RURAL MICRO ZONING NORMS AND STANDARDS (MIVI)*

As part of EPIQ/IRG Task Order and of the implementation of Regulation of Law 21, IRG supported MIVI in the revision and elaboration of new urban and rural micro zoning norms and standards related to MIVI's activities in the Eastern Region of the Panama Canal Watershed. Our work also included a capacity building implementation. Through “on-the job” training by international and national IRG consultants and through a two-day workshop, we trained MIVI personnel on the development of norms and standards.

The Ministerial Decree resulting from the urban micro zoning norms and standard elaborated between IRG and MIVI during EPIQ/IRG Task Order in the counties of Chilibre and Las Cumbres was consulted with MIVI's personnel, the PTC and local governments. Once all of the comments have been incorporated and the document finalized, this Decree will become an important compliment to the Implementing Regulations of Law 21 as well as an important process of institutional strengthening and of coordinating efforts between MIVI and other government institutions such as MIDA, ANAM, IDAAN and Local governments.

### *COST-BENEFIT STUDY TO SUPPORT A DRAFT BILL ON FISCAL INCENTIVES TO PROMOTE CLEAN PRODUCTION (ANAM)*

During the EPIQ Task Order, IRG technicians, working closely with ANAM staff and private sector representatives carried out a *Feasibility Study of Fiscal Incentives to Promote Clean Production Initiatives*. The study recommended that private firms that satisfy newly developed norms and standards for wastewater, prior to the formal approval date, be eligible for financial incentives in the form of corporate tax reductions. While there was general agreement with the sense of this recommendation, ANAM and the Ministry of Finance raised concern about the impact this measure might have on the GOP's revenue base. Accordingly, ANAM requested that IRG conduct a companion—A Cost/Benefit Analysis of the wastewater clean technology fiscal incentive. A working draft was developed during EPIQ/IRG Task Order. During the Bridge Contract period this document was reviewed by ANAM personnel and the members of the Clean Production Technical Committee and subsequently revised by IRG. The final version was presented to ANAM administrator and his staff. It is expected that it will assist ANAM in the formulation of such law.

## **TRAINING /CAPACITY BUILDING ACTIVITY TRACKS**

### *WATERSHED MANAGEMENT MODULE DESIGN FOR THE DIVISION OF TRAINING AND DEVELOPMENT (ACP)*

As part of a focused effort to alter its corporate culture and operate in a more entrepreneurial fashion, the ACP is offering a series of courses that provide in-service training to Canal Authority staff on a range of topics relevant to the ACP's enhanced mission (viz. management of the Canal watershed in addition to management of the Canal proper). In discussions with USAID and IRG representatives, senior ACP officials noted their interest in natural resource management/watershed management-training modules that would be a part of their in-service, corporate training program.

In response to this request, IRG developed two training modules that examine the social, environmental, economic and political aspects of watershed management, as well as negotiation and conflict resolution concepts, and team building skills. The didactic materials for the module emphasize practical applications and field based experiences. They were designed for two audiences: technicians and supervisors/professional staffers. They will be adopted by the Canal Authority and will become a part of the curriculum of the ACP's Integrated Management Training Module.

It was expected, through the Bridge Contract, to finish revisions of these modules; however, they were left as draft documents due to the lack of feedback from the counterpart. It is expected that the revision will be carried out through another funding mechanism due to the interest from the Division of Training and Development from the ACP to initiate training on this subject.

### *WATERSHED MANAGEMENT WRAP UP MEETING*

As noted previously, participatory sub watershed planning in Panama was launched, by IRG in the Watershed Management course (Coronado 201) carried out with CICH PTC representatives and representatives from other government institutions. As request of USAID/Panama and the counterparts, we offered a final session with the course participants. This wrap up meeting

allowed all of the actors involved to validate the efficacy of participatory watershed management planning, and to consider “lessons learned” from the process. The advances made and encountered challenges on the five proposals developed during the Watershed Management course and presented to the CICH Secretariat were also presented and commented, and CICH’s strategic objectives revised by the group. This activity provided all participants a space to evaluate CICH’s advances during the last year as well as the work carried out by the PTC. The end product was a series of recommendations for adjusting the methodology so it can be replicated, in other PCW sub watersheds.

## **PLANNING ACTIVITY TRACK**

### *SUB WATERSHED MANAGEMENT PLANNING (CICH)*

An item in our initial Work Plan under EPIQ/IRG Task Order called for development of a comprehensive strategy for the management of the entire PCW (over 1 million acres). In discussions with counterparts IRG suggested that perhaps a more effective approach would be to develop strategies, with subsequent actions plans, for discrete sub-watersheds. We advocated that through a very participatory process, with active local stakeholder involvement, the focus should be on developing local watershed management solutions to local watershed problems. Concentrating on sub-watersheds would direct the energies of local residents to issues that were meaningful to them in very immediate ways—the issues would be relevant and the solutions would not only protect the resources in the sub-watersheds but would also direct improvements to local standards of living and quality of life. In a phase, focusing on sub-watersheds, and generating local solutions for local problems made watershed management meaning and relevant to residents of the PCW. The counterparts, especially the CICH, and the client (USAID) agreed with this approach. Accordingly, IRG pioneered this participatory approach to watershed management in Panama. We introduced it as a part of the multi-module Watershed Management Course for managers of CICH member institutions, local government representatives and other governmental institutions. In close consultation with the counterparts, we subsequently, took the participatory “bottom-up” methodology to the field and applied it in the sub-watersheds of Los Hules-Tinajones, and Caño Quebrado.

EPIQ/IRG assisted with the bottom-up, sub-watershed planning process. In collaboration with the CICH’s Permanent Technical Committee, we selected two sub-watersheds, Los Hules-Tinajones and Caño Quebrado that were under stress and in need of remediation and that have relatively simple socio-economic structure. EPIQ consultants developed two diagnoses, a participatory (with the communities of both sub watersheds) and a technical one (with secondary information and water quality samples of key sites within the watersheds). Information such as that gathered by the PMCC and the PAM (Planes Ambientales Municipales) and other information generated with USAID report provided the foundation for the identification of critical issues within the sub-watershed.

EPIQ/IRG facilitated the conformation of a Local Commission made up of local stakeholders (business leaders, residents and small producers), and a Local Technical Committee (local governmental officials, field representatives of CICH and non-CICH organizations). A series of meetings with the Local Commission and field visits to the communities were held for the development of the participatory diagnosis. As a result of these meetings, local residents

identified the most important problems related to water quality.

During this Bridge Contract, the technical and the participatory diagnoses were consolidated into one assessment of the sub-watersheds. This single assessment was a dynamic document subject to period updates as conditions change over time. It was prepared in close collaboration with the local stakeholders and key technical staff from local government agencies. This consolidated diagnosis was formally delivered to the CICHs Executive Secretariat by the Local Commission. Subsequently, we identified with local commission (i.e., local government officials, business leaders, residents, and field representatives of CICH and non-CICH organizations) the most critical issues threatening the health of the sub-watershed. The exercise included the development of an action plan to address the issues identified that included a series of project profiles as solutions to the problems identified by the Local Commission. A centerpiece of this activity was a series of meetings and with local stakeholders and change agents (CICH and non-CICH member field representatives) that included training on watershed management / applied sub-watershed planning. PTC representatives participated at different instances of this activity as a learning process.

This bottom-up approach to planning is allowing CICH to complement broad-based macro-watershed planning with discrete mini-plans that are financially and practically feasible to implement. Once they are completed, they will provide the CICH Commissioners, the CICH Secretariat and the CICH Permanent Technical Committee an opportunity to learn participatory planning methods at the local and municipal levels to replicate/adjust in other sub watersheds within the PCW.

Given time constraints and adjustments to the initial chronogram due to particularities related to any bottom-up participatory process and institutional participation, IRG is expecting that the monitoring program for the action plan gets developed between the Local Commission, the Local Technical Committee and CICH through another funding USAID mechanism. The implementation of the action plan will be carried out with CICH assistance.

## **LESSONS LEARNED**

At the outset we noted the critical events (viz. transferred of the Canal, national elections) taking place in the country as we launched the Task Order. These events clearly impacted the start up of our work as well as its flow over the three-year Task Order period. These events represent, in part, the socio-cultural context in which this technical assistance effort was designed and carried out. Understanding and accommodating to this cultural setting (e.g. the inter-institutional dynamics of international and national political events in which the country was absorbed, the institutional dynamics of the Panamanian entities involved with the PCW management and the culturally defined idiosyncrasies of Panamanian society) are important ingredients of success. With this in mind, we believe there were a series of lessons learned during this project, all relative to one fundamental principle-- people and their active participation in the decision-making are critical to success of development efforts. These lessons may benefit the design and implementation of future developmental initiatives:

- **Sensitivity to sovereignty**
- **Institutional behavioral changes**
- **Timing**

## *SENSITIVITY TO SOVEREIGNTY*

By **sensitivity to sovereignty** we mean an understanding of the processes of “nationhood” taking place in the host country. In the context of Panama this means awareness of the heightened sense of independence that accompanied the transfer of the Canal to Panama after of 90 years of ownership by the United States. The transfer of the Canal represented a reduction in Panamanian dependence on the U.S. and a very important step toward mature statehood. Panamanian sensitivities about independence were at the surface as we initiated this Task Order, and there was clear attitude among counterparts that “management of the PCW was their challenge and that they knew how to address it.”

As we undertook our work we had to be extremely aware of this reality. We had to tailor our approach and our technical recommendations to take advantage of the energy it created and avoid being at cross-purposes with it. To illustrate, our Task Order emphasized, inter alia, the formulation of a proposed structure, functions and operating procedures for the CICH. Prior to our arrival in country, ACP staffers had carried out some preliminary work on these issues and they demonstrated a clear sense of ownership of the process.

To have developed alternative proposals without regard to work done by the counterparts and to have ignored their “sense of mission” regarding the CICH would have frustrated our technical assistance efforts. Accordingly, we adopted a policy of close collaboration and complete disclosure. We submitted drafts of organizational schemas and associated recommendations to counterparts for review and discussion. Subsequently, we included their observations and inputs into final documents that we submitted to both USAID and the counterparts. The process worked. Many of our suggestions were adopted, and we added value to an effort marked by clear counterpart ownership.

## *INSTITUTIONAL BEHAVIORAL CHANGE*

**Institutional behavioral change** is **generally a slow process** achieved normally with time and persistent effort. In bringing about such change, long-standing vested interests must recede, new visions must be formulated, new targets developed and new mission and new relationships formed. The rate and degree of such change is dependent upon variety of factors including interpretation of formally assigned roles and responsibilities, pursuit of “bureaucratic turf”, tradition or inertia, inter-personal and inter-institutional inter-action and recognition, by counterparts, that change is desired and/or necessary.

Our contract emphasized institutional strengthening (read formulation and start up) of the CICH. This could not have done without institutional behavioral change within and among the institutions that make up the Commission. Our approach here was to focus on the Permanent Technical Committee (CTP—Spanish acronym) of the CICH. This body provided representation of all CICH member institutions at a relatively high administrative level. With this group we carried out seminars on the development of a vision and a strategy for the CICH Executive Secretariat and on internal working procedures for the CICH. In addition to sharing our work on CICH structure and function with ACP counterparts, as noted above, we consulted with CTP members on the same topics. We designed and carried out a multi-module training course on

Watershed Management for CTP representatives and included the CTP in all of our activities related to sub-watershed planning.

Every one of these activities, plus the set of actions related to formulating the implementing regulations for Law 21, provided the CICH member institutions the opportunity to understand the new institutional reality for management of the PCW created by the series of laws issued from 1997 through 2000. New roles and responsibilities were a constant topic as CTP members grappled with the assignment of new tasks and the cessation of modification of traditional ones.

The activities that we facilitated, especially the Watershed Management course and the seminars on micro-zoning norms, were for representatives from institutions that had no history of collaboration to form working relationships address and solve common problems. These personal working relationships are evolving, albeit slowly and in a hesitating manner into formal institutional arrangements.

The sub-watershed planning exercise addressed another dimension of institutional behavioral change. In working through this participatory planning initiative, CICH members not only were engaged in working with each but they were obliged to interact with local residents (beneficiaries) in a collegial fashion. This was a new experience for the CTP members and the institution they represent. Most found it productive (some found it gratifying) and seem receptive to adopting it as a standard approach.

Progress has been uneven and the process is not complete. There have been setbacks. For example, the ACP and ANAM backed away for a formal inter-institutional agreement on the handling of Environmental Impact Assessments for proposed PCW investments and ARI has yet to fully embrace the institutional roles developed by CICH members for implementing Law 21. The ACP continues to adapt to its new mandate (e.g. watershed management) and the cooperation with other CICH members required by this mandate. However, on balance progress is visible. The keys to this progress are understanding the dynamics of institutions that makes adaptation difficult and providing concrete activities (e.g. planning exercises, training courses) in which they can interact to solve common problems. The concrete activities provide the basis for courses considering the value of institutional change and the forum of interaction working out concrete measure for change.

### *TIMING*

Timing is critical to successes of development investments. As noted above, this Task Order began as (1) the Canal transition was in full force and (2) and new government had just been democratically elected and was in the process of taking office. Counterpart energy we focused on these two critical events. Counterpart time and availability to concentrate on details of this Task Order siphoned of to address other priorities. For the first few months, access to counterparts was limited. The result was a slower than expected start up and an initial with a concomitant impact on the efficiency of donor resource use in the early stages of implementation.

The lesson here is patience and selection of proper moment to launch project. If the Task Order launch had been postponed by three months (post transfer of Canal) some of early implementation delays, attributable to counterpart concentration on other priorities, might have

been avoided.

## RECOMMENDATIONS

1. Watershed Management Methodology - It is strongly recommended that USAID and the counterparts continue using the participatory sub watershed planning methodology (vice. global watershed planning) that has been field tested successfully in Los Hules - Tinajones and Caño Quebrado sub watershed. A “bottom up” approach that puts a premium on active local community involvement on in addressing watershed management issues is proving to be in country’s around the world more successful than large scale, comprehensive efforts. The value of the bottom up approach lies in: (1) they deal with problems that are meaningful and readily identifiable to local residents; (2) via active participation in identification of problems and the design of solutions local residents become empowered to solve their own issues—this empowerment leads to ownership; and (3) implementation activities are of manageable size and they can be carried out in relatively short time frames. Comprehensive efforts, with lengthy periods of preparation and large scale-solutions have proven to be cumbersome. Local support tends to be minimal and the efforts tend to “lose steam” before realizing their objectives. Large integrated watershed management projects have undergone an experience similar to that of the comprehensive, integrated rural development initiatives of the 1970s and 1980s. They were conceptually superb. However, they had too many components and too many institutions were involved in too many activities. Implementation was routinely sluggish, and the decisions regarding they’re content was too far removed from local residents. With rare exceptions these conceptually sound, but extremely complex projects did not fulfill their promise. Implementations rate were slow, and progress difficult to measure.

It is recommended that funding for the projects identified in Los Hules - Tinajones—Caño Quebrado pilot be brought on line and that the projects be implemented as soon as possible. It is also recommended that the participatory approach pioneered by IRG in Los Hules – Tinajones and Caño Quebrado be carried out in the other key (approximately 12-15) sub watersheds in the PCW. Finally, if the decision is made to change methodologies, that decision should be communicated directly and clearly to the local residents who participated in Los Hules –Tinajones and Caño Quebrado pilot.

2. Law 21 - As noted in the “Lesson Learned” section of the EPIQ Task Order final, institutional change, while frequently necessary to achieve the desired results is frequently a tedious process. Vested interests, issues of “bureaucratic turf”, and inertia influence the both the rate and degree of change. The implementing regulations for Law 21 are essential for the success of this important land use legislation, and they define (redefine) institutional roles and responsibilities. While it has been a difficult process, significant progress has been made in reaching a consensus among the cognizant institutions regarding discrete responsibilities. As this bridge contract come to a close the process of vetting the regulations internally (among the participating entities) was in its final stages. It is important that the second stage (public discussion) of the vetting process be carried out. Although this could prove to be a difficult undertaking, it is nonetheless critical to achieving the support of the general public to this important policy instrument. A tactic that could be applied, in order to sustain the momentum that has been generated on this activity would be to emit the regulations on a trail basis (one year)

while the public vetting is carried out. It would also provide time for civil society to provide feedback on the regulations to the institutions responsible for implementation. After the one-year trial period, revisions could be made and the regulations could be issued in final.

3. Throughout the period of the EPIQ Task Order, as well as during the Bridge Contract, emphasis has been placed on the natural resource management activities of institutions and communities within the PCW. As has been noted elsewhere, these efforts have yielded significant progress and a solid foundation has been laid for sustainably managing the Panama Canal Watershed. However, the resources in the watershed are under pressure from human activity from areas that border on the PCW. Hence, there is a need to address natural resource management issues in the buffer communities (Arraijan, La Chorrera, Capira, etc) of the PCW.
4. At the expressed request of Senior Mission Management and the senior management of the ACP, under the EPIQ Task Order we developed a Watershed Management Training Module for the ACP's Corporate University. We recommend that the Mission, and successor contractors, follow up with the Panama Canal Authority to assure that the module is adopted and used.

## WHAT'S NEXT

### *THE BIG PICTURE*

- Inter institutional voids and overlaps in their function
  - Coordinating mechanisms
  - Conflict resolution among CICH member institutions and with civil society
- Inter-institutional agreements, vetting of Law 21 regulation
- Institutional strengthening
  - Executive secretariat of CICH
  - Strategic planning
  - Strengthening of CICH's Permanent Technical Committee
- Execution of the PCW action plan proposed by the Local stakeholders at Los Hules-Tinajones and Caño Quebrado
- Replication of the watershed management methodology used by IRG after revision and modification
- Replication of micro zoning norms and standards in other sub watersheds and buffer areas
- Inter-institutional coordination related to Rural Planning in the watershed

## DELIVERABLES

### INSTITUTIONAL SUPPORT PROGRAM COMPLETION PLAN

Tasks	Activities / Deliverable	Status
<b>Watershed Management Module Design for the Division of Training and Development (ACP)</b>	<ul style="list-style-type: none"> <li>Two modules (one 4-hour module for labor, technicians, and support personnel and one 8-hour module to middle level management, professional and supervisors) on Watershed Management for their use by the Division of Training and Development of the Panama Canal Watershed in their course related to the operation of the Canal and its new functions addressed to all ACP personnel.</li> </ul>	Working draft sent to ACP for revision on September 2002. Given lack of response on their behalf, no advances were made on this task.
<b>Carbon Sequestration Estimates (ACP)</b>	<ul style="list-style-type: none"> <li>Project Land Cover Change and Carbon Emissions for the Eastern Region of the Panama Canal Watershed.</li> </ul>	Final documents were distributed to counterparts and the Mission.
<b>Law 21 Regulations (CICH)</b>	<ul style="list-style-type: none"> <li>This is an ongoing task that has been divided into two phases, Phase I, the elaboration of a draft document consolidated through a series of interinstitutional consultation meetings and Phase II consultation with the civil society.</li> </ul>	Final draft was revised by all five parties involved and will be presented to CICH commissioners by the CICH Executive Secretariat to continue possible consultation with the civil society and later presented to the Legislators.
<b>Cost / Benefit analysis of fiscal incentives to industries for early compliance of</b>	<ul style="list-style-type: none"> <li>A document for ANAM on Cost / Benefit analysis of fiscal incentives to industries for early compliance of</li> </ul>	Completed. The final document was

<b>Tasks</b>	<b>Activities / Deliverable</b>	<b>Status</b>
<b>industrial waste water influence (ANAM)</b>	industrial wastewater influence for them to elaborate a law for these incentives.	presented to ANAM Directors and General Administrator.
<b>Micro zoning Norms and Standards (MIVI)</b>	<ul style="list-style-type: none"> <li>• Elaboration and revision of the Ministerial Decree on Norms and Standards for the Sub watersheds of Chilibre and Chilibrillo</li> <li>• Consultation with MIVI personnel, CTP, local government entities</li> <li>• Socialization of the Ministerial Decree with Governmental and Non Governmental institutions and the civil society.</li> </ul>	All activities completed.
<b>Sub-watershed Management Planning / Two Sub-watersheds (CICH)</b>	<ul style="list-style-type: none"> <li>• Finish Technical, participatory and consolidated diagnoses</li> <li>• Elaboration of an action plan for the management of two watersheds, a bottom-up approach</li> <li>• Coronado Wrap-up meeting with CICH member institutions</li> </ul>	Activity one (1) completed. Activity two (2) will be presented as a working document to be finished by the Local Commission through a subsequent funding mechanism. Activity three (3) completed.

**INSTITUTIONAL SUPPORT PROGRAM PUBLICATIONS LIST**

<b>AUTHOR</b>	<b>REPORT</b>
<b>Alicia Pitty</b>	6 project profiles for the Sub watersheds of Los Hules-Tinajones and Caño Quebrado Action Plan – Included in the document presented by J. A. Espino.
<b>Ana Matilde Gómez and Estrella Endara</b>	Final draft of the Regulation of Law 21.
<b>Humberto Mena</b>	Report on the micro zoning norms and standards consultation process.
<b>William McDowell</b>	Working drafts of the two modules on watershed management.
<b>José Agustín Espino, Diana Cajar and Maritza Jaén</b>	For the sub watersheds of Los Hules-Tinajones and Caño Quebrado: Technical diagnosis Participatory diagnosis Consolidated diagnosis Action Plan A guide on sub watershed bottom-up participatory process used.
<b>Andrés Navarro</b>	Revision of the micro zoning Ministerial Decree.

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