

**PART 1**

**PROJECT IDENTIFICATION**

**Subproject I.1**

**A Vision for the Amazon River Basin**

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

**Link to umbrella project:**

In Subproject I.1, a consensus-based document “Vision for the Future of the Amazon River Basin” (Vision Process) will be developed that will identify the challenges and issues confronting Amazon Basin stakeholders with respect to the sustainable utilization and management of transboundary water resources in the Amazon Basin. This subproject will serve as a basis for Subproject II.3.1: Transboundary Diagnostic Analysis (TDA), Subproject III.5.1: Strategic Action Program (SAP) and will provide inputs to Subproject III.4: Communication, Outreach, and Finance.

**Geographical scope:** Amazon River Basin

**Executing Agency/entity:**

Specialized research institution or project execution team (to be identified and selected by a request for proposals), working in close coordination with the Project Coordination Unit (PCU) and ACTO and in collaboration with National Project Units, under the oversight of the Executing Agency (EA) and Implementing Agency (IA).

**Duration:** 2.5 years

**Focal area(s):** International Waters

**GEF grant:** US\$ 850,000

**Co-financing:** US\$ 1,830,468

**Total funding:** US\$ 2,680,468

**Associated financing:**

**Contact:**

OTCA- PCU/GEFAM  
SHIS - QI 05, Conjunto 16, Casa 21  
Lago Sul - Brasilia DF - Brazil  
Telephone (55-61) 3248 4119 / 4132  
Fax (55-61) 3248 4238  
[www.otca.org.br](http://www.otca.org.br)

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

**TABLE OF CONTENTS**

<u>PROJECT IDENTIFICATION</u> .....	1
<u>Project Summary</u> .....	4
<u>PROJECT DESIGN</u> .....	6
<u>Background and Context</u> .....	7
<u>Objectives</u> .....	8
<u>Environmental Benefits</u> .....	8
<u>Overall Outcome</u> .....	9
<u>Consistency with National/Regional Priorities and Plans</u> .....	9
<u>Consistency with GEF Strategies and Programs</u> .....	9
<u>Coordination and Linkages to the Umbrella Project</u> .....	9
<u>Activities, Outputs, Outcomes</u> .....	10
<u>Activity I.1.1 Preparation and Exploration</u> .....	10
<u>Activity I.1.2. Scenario Development</u> .....	13
<u>Activity I.1.3. Scenario Publication and Dissemination</u> .....	15
<u>Activity I.1. 4. Vision Formulation Phase</u> .....	17
<u>Indicators, Baseline, Targets</u> .....	17
<u>Activity I.1.1</u> .....	17
<u>Activity I.1.2</u> .....	18
<u>Activity I.1.3</u> .....	19
<u>Activity I.1.4</u> .....	20
<u>Budget</u> .....	20
<u>Co-financing</u> .....	20
<u>Consultants Working for Technical Assistance Components</u> .....	21
<u>Consultants to be Hired for the Project</u> .....	21
<u>Incremental Cost Analysis</u> .....	21
<u>Baseline</u> .....	21
<u>Increment</u> .....	22
<u>Alternative</u> .....	22
<u>Incremental Reasoning</u> .....	23
<u>Timetable</u> .....	24
<u>Cost Effectiveness</u> .....	26
<u>Risk Analysis</u> .....	26
<u>Sustainability</u> .....	26
<u>Replicability</u> .....	26
<u>Execution Arrangement</u> .....	27
<u>Public Participation Mechanisms</u> .....	28
<u>Monitoring and Evaluation (M&amp;E)</u> .....	28
<u>PROJECT ANNEXES</u> .....	29
<u>The M&amp;E Matrix</u> .....	31
<u>Logical Framework Matrix</u> .....	33
<u>Terms of Reference</u> .....	36
<u>Methodology of Scenario Development</u> .....	40
<u>Maps</u> .....	Erreur ! Signet non défini.

## **Integrated and Sustainable Management of Transboundary Water Resources in the Amazon River Basin Considering Climate Variability and Climate Change**

### **Project Summary**

Confronting the Amazon Basin region are numerous challenges to the sustainable utilization of land and water resources as the region experiences exponential socio-economic growth and internal migratory flows and immigration. The complexity of the issues, coupled with a rapid rate of change in an environment requires the implementation of a process that will help minimize risks associated with deforestation, climate variability and change, and conflicts regarding the use of water and natural resources, while creating a strong foundation upon which to build a Strategic Action Program that will address transboundary water resources management concerns shared by Basin countries. Developing a solid, shared “Vision for the Future of the Amazon River Basin” will assist governments, the private sector, and society in general to reach a degree of consensus with respect to IWRM concerns and challenges within the overall development process of the Amazon Basin, facilitating national and regional strategy formulation and policy planning. The development of such consensus is consistent with the mandate given to the Amazon Cooperation Treaty Organization (ACTO) by Basin countries.

The systematic assessment of the concerns and challenges for IWRM in the Basin calls for the application of a methodology appealing and efficient at the local, national, regional, and global levels. This subproject proposes the use of an innovative sociological research methodology known as “scenario planning methodology.”<sup>1</sup> The scenario methodology is particularly useful for developing consensus in multi-country/multi-stakeholder applications. In the context of this project, this methodology will (i) allow for the understanding of the problems, needs, and goals of Basin stakeholders in relation to integrated water resources management, (ii) identify key forces and build future development scenarios for the Amazon Basin, and (iii) formulate a shared vision for the water resources of the Amazon Basin, as a basis for Subproject II.3.1: Transboundary Diagnostic Analysis (TDA), Subproject III.5.1: Strategic Action Program (SAP), and as inputs to Subproject III.4: Communication, Outreach and Finance. Execution of this subproject will help actively engage governments, the private sector, and civil society in the formulation of a Strategic Action Program for the Amazon River Basin, promoting comprehensive buy-in for the proposed SAP measures.

---

<sup>1</sup> Scenarios are plausible alternative ‘stories’ of how the wider environment may develop in the future that enable communities to explore various future states. These scenarios are not predictions of what will happen, *per se*, but credible, robust, relevant and challenging forecasts that enable communities to simultaneously explore a number of hypothetical futures (e.g., to ask “what if...?” questions as a basis for developing consensus). The purpose of these scenarios is not to pinpoint future events, but to highlight large-scale forces that push the future in different directions. A set of scenarios provides a learning environment or framework in which policy- and decision-makers can explore the various forces and influences that lead to expected outcomes. This process enables a better understanding of the dynamics that shape the future, and, thereby facilitate the assessment of strategic options. The scenarios provide a “common language” - a basis for communicating complex and sometimes paradoxical options and conditions - that can overcome old stereotypes and facilitate “ownership” by their creators. Once a set of scenarios is available, it is possible to move towards an explicit “shared vision” or strategy that helps communities not only prepare for alternative futures, but also contribute to the application and implementation of the necessary legal, institutional, financial, entrepreneurial, informational, and educational structures necessary to support and achieve the agreed future condition.

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

<b>Subproject I.1 A Vision for the Amazon River Basin</b>		
<b>Activity</b>	<b>Output</b>	<b>Outcomes</b>
1. Preparation and Exploration	A set of quantitative and qualitative interviews; An assessment that reflects the Basin stakeholders aggregate perspective on IWRM challenges and issues	Increased understanding of the stakeholder problems, needs, and objectives with respect to IWRM, including those of relevant opinion leaders and major political and economic actors
2. Scenario Development	A documented set of adaptive IWRM development scenarios for the Amazon Basin	Increased understanding by Basin constituency on the key forces and range of possible alternative IWRM development scenarios and adaptation measures for the Amazon Basin as input for response strategies to be developed under Component III
3. Scenario Publication and Dissemination	A set of possible future adaptive IWRM scenarios in the Amazon Basin published and disseminated basin-wide; A series of reports of national meetings to evaluate the draft scenarios with local stakeholders; Documented inputs for the IWRM Vision formulation process and Subproject III.4	Basin-wide informed stakeholders; An increased understanding about possible development scenarios for the Amazon Basin
4. Vision Formulation Phase	A basin-wide Vision for IWRM based on a sound documented set of analyzed and shared development scenarios for the region	Greater environmental awareness and engagement of Basin stakeholders Increased commitment to sustainable development planning New and increased economic opportunities and sources of financing

<b>Subproject I.1 A Vision for the Amazon River Basin</b>					
Activity	Sources of funding				Total Cost (US\$)
	GEF funding (US\$)		Co-financing/ Counterpart (US\$)		
1. Preparation and Exploration	280,000		738,468		1,018,468
2. Scenario Development	271,000		105,000		376,000
3. Scenario Publication and Dissemination	222,000		957,000		1,179,000
4. Vision Formulation	43,000		30,000		73,000
Monitoring & Evaluation <sup>2</sup>	34,000		0		34,000
<b>TOTAL</b>	<b>850,000</b>	<b>32%</b>	<b>1,830,468</b>	<b>68%</b>	<b>2,680,468</b>

<sup>2</sup> 4% of Subproject I.1 budget.

**PART 2**

**PROJECT DESIGN**

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

**Background and Context**

The population of the Amazon Basin is estimated at approximately 28 million inhabitants, concentrated in a few urban areas, with a majority living in the Brazilian area of the Basin. The urban centers are located primarily along the main river and its tributaries. In the upper, Andean part of the Basin, indigenous communities that are considered to be historically disadvantaged groups constitute a large percentage of the population.

When compared with the population of the non-Amazon Basin areas of the Basin countries, the population of the Amazon Basin is low. However, the rates of population growth in the Basin are high. Table 1 summarizes the population characteristics of the Amazon Basin: of the Basin's population about 72% are Brazilians, 14% are Peruvians, and the balance is nationals of the other six countries. The Amazonian population represents nearly 100% of the populations of Guyana and Suriname, about 15% of Peru, 12% of Brazil, and 10% of Bolivia.

Country	Total Population in the Basin	Annual Average Population Increase (%) in the Basin	Annual Average Population Increase (%) in the Country	Population Density in the Basin (hab/km <sup>2</sup> )	Population Density in the Country (hab/km <sup>2</sup> )
Bolivia	805,101	3.06	2.74	2.00	8.00
Brazil	20,129,685	2.94	1.93	4.00	19.90
Colombia	1,130,295	2.50	1.61	2.40	38.50
Ecuador	548,419	3.20	2.10	4.70	47.30
Guyana	742,041	0.23	0.23	3.40	3.40
Peru	3,872,120	3.70	2.00	5.10	21.40
Surinam	481,146	1.50	1.50	2.90	2.90
Venezuela	113,722	2.10	2.20	0.60	27.20
<b>Total</b>	<b>27,979,742</b>	<b>-</b>	<b>-</b>	<b>3.80</b>	<b>21.10</b>

Source: Luis Aragon, *Populações da Pan-Amazônia*, NAEA – UFPA, ISBN 8571430446

Settlement patterns intensified during the early- and mid-1970s, when the Basin governments first attempted to promote economic development in the region through construction of roads and provision of fiscal incentives for new settlers. These government actions triggered a massive migration of landless people into the region. During the last two decades, the population of the Amazon Basin has increased dramatically as a result of high levels of immigration into the Basin and the extensive transboundary migrations. In addition to the trend of immigration, there also is a trend toward urbanization within the Basin. In particular, women and young people continue to move into the urban areas in search of better living conditions. These immigration pressures have led to an exponential growth in the urban population that highlights the importance of urban centers, some with more than 1 million inhabitants, as points of concentration for people with complex backgrounds and different ethnicities, creating a unique cultural “identity” among the urban population.

As a hydrographic unit, the Amazon Basin does not correspond to any one cultural or social unit; each country has its' own legal and political system, culture, and socio-economic form

## **Integrated and Sustainable Management of Transboundary Water Resources in the Amazon River Basin Considering Climate Variability and Climate Change**

of organization. Within each country, the various stakeholders represent as varied interests and points of view of the region as there are people of different social and economic backgrounds. These interests and points of view are often contradictory and can generate social conflicts - declared or not - that contribute to environmental degradation and conflicts of interests.

When compared to the non-Amazonian regions of the eight Basin countries, in socio-economic terms, the Amazon Basin region appears to be marginalized. The livelihoods of the population are based mostly on primary activities, such as natural resource exploitation, subsistence level agriculture and the raising of cattle. Industrial production is concentrated in the larger urban centers, such as Manaus and Belém (Brazil), and in the northwestern Amazon Basin cities in Colombia. Commerce and public administration are the two main income-generating services in these cities. The economic activities in the region provide limited value-added, which is reflected in the Basin's low family income levels. In turn, low income levels are associated with lower levels of education and less access to health and sanitation services than those found in the non-Amazonian regions of the Basin countries, and result in higher child mortality and incidences of disease. This type of poverty contributes to the migratory population flows in the region.

### **Objectives**

The overall objective of Subproject I.1 is to define IWRM development priorities by engaging the Basin's constituency in a visioning process in order to (i) understand the common problems, needs and goals of the stakeholders of the Amazon Basin with respect to the land and water resources and climate change issues in the region, (ii) define the key forces shaping future development scenarios for the Amazon Basin, and (iii) formulate a vision for IWRM of the Amazon Basin. The results of this subproject will provide the basis for the preparation of Subproject II.3.1 Transboundary Diagnostic Analysis (TDA) and Subproject III.5.1: Strategic Action Program (SAP), as well as inputs to Subproject III.4: Communication, Outreach and Finance.

### **Environmental Benefits**

Since present population densities are relatively low, with the concentrations in urban centers, opportunities remain to minimize the environmental impacts of human activities on the Basin's water resources, while providing sustainable economic development opportunities. By identifying the stakeholder concerns and priorities through the proposed innovative methodology, as part of the SAP, the project seeks to identify potential IWRM development activities that the Amazon Basin could sustain considering likely climate variability and change. At present, ongoing deforestation and the focus on primary, extractive industries in much of the Basin contribute to the (localized) degradation of the Basin's resources, a process that is not sustainable.

Through the visioning process, greater environmental awareness and engagement of Basin stakeholders, increased commitment to environmental and sustainable development planning, increased environmental innovation, as well as new and increased economic opportunities and sources of financing can be anticipated. These actions will enhance the environmental sustainability of the Amazon Basin and the management of its land and water resources.

## **Integrated and Sustainable Management of Transboundary Water Resources in the Amazon River Basin Considering Climate Variability and Climate Change**

### **Overall Outcome**

The overall outcome of this subproject will be the adequate societal environment required to engage stakeholders in a sustainable utilization of the Basin's shared water resources and support the implementation of an integrated management of transboundary water resources in the Basin. The knowledge and understanding gained through this subproject will contribute to the development of effective plans, practices, and policies for the maintenance of the natural resource base of the Amazon Basin.

### **Consistency with National/Regional Priorities and Plans**

Each of the member states of the Amazon Cooperation Treaty Organization (ACTO) has specific governmental agencies for the management and development of the Amazon Basin. Many of these agencies and institutions are sector-focused, and tasked with promoting the exploitation of the natural resource base. However, in recognition of the environmentally sensitive nature of the Amazon Basin, each of the states maintains state-administered national parks and reserves within the Basin. In fulfilling their administrative and governance mandates, these entities focus on specific aspects of the Basin limited by their jurisdictional boundaries, and by national and local laws and ordinances. Subproject I.2 will examine the linkages between and harmonization of these governance instruments and together with the integrated information system to be developed under Subproject III.3 will contribute to better integration of these governance structures, plans and policies. In this process, the commitments of governmental stakeholders, as expressed through the Amazon Cooperation Treaty (ACT), suggest strong support for the sustainable development of the Amazon Basin. Consequently, knowledge of the stakeholders and their Vision for water resources management in the Basin will provide proper guidance to address common transboundary issues of concern.

### **Consistency with GEF Strategies and Programs**

The convergence of two conditions, the importance of the water resources of the Amazon Basin as a high-value global environmental and economic resource, and the importance of the Basin as an area critical to human economic and social development in Latin America, provides an opportunity to develop an ideal case study for the conduct of innovative demonstration projects to reduce contamination, reconcile competing uses between a variety of stakeholders, and respond to climate-related variations in water flows and availability, all strategic priorities identified under GEF-4. An essential element supporting this response is the awareness and knowledge of specific forces and concerns that confront Basin and its stakeholders, which will form the basis for developing strategies to be used in reconciling competing uses and formulating, agreed actions by the Basin governments. This subproject seeks to help the Amazon Basin countries understand the human dimension of the transboundary water resource management problems, and to sustain management interventions to conserve and utilize the Basin's water and natural resources.

### **Coordination and Linkages to the Umbrella Project**

This subproject provides the essential understanding of the stakeholders' needs and objectives within and outside of the Amazon Basin, focusing on the use of shared water resources. Understanding the priorities and concerns of the Basin constituencies, including governments, civil society, nongovernmental organizations, and the private sector, will help identify current

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

and potential conflicts as well as gaps in understanding that contribute to unsustainable use of the Basin's natural resources, and will provide the social perspective in support of the TDA formulation. The outcome of this subproject's activities will indicate the likely direction of future human activities in the Basin, will provide an understanding of how stakeholders can attain their goals in keeping with the ability of the natural resource base. Information derived from this process will be used to develop the SAP.

**Activities, Outputs, Outcomes**

***Activity I.1.1 Preparation and Exploration***

Activity I.1.1 includes three elements related to stakeholder analysis and the scenario management preparation: (i) prepare for quantitative and the qualitative opinion research including identification of stakeholders and societal divisions, preparation of opinion research campaigns (design of questionnaires, preparation of logistics, etc.), and training of researchers; (ii) conduct quantitative interviews (information from general population), and (iii) conduct qualitative research (information about Amazon society from the region's leaders and key stakeholders)<sup>3</sup>. The interviews and research processes will use opinion polls, marketing, and quality research methods and will encompass a wide and diverse range of sectors, regions, communities, NGOs, private entities, etc. The interviews and surveys will take place throughout the Amazon Basin countries, in specific states, districts, and departments selected as statistically representative of the Basin.

**The outputs** of Activity I.1.1 will be (i) a set of quantitative and qualitative interviews and (ii) an assessment reflecting the basin stakeholders aggregated perspectives on IWRM challenges and issues in the Basin.

**The outcome** of Activity I.1.1 will be increased understanding of the needs, problems and objectives with respect to IWRM of Basin stakeholders, including relevant opinion leaders and major political and economic actors.

**Total Cost: US\$ 1,018,468 - GEF: US\$ 280,000 - Co-financing/Counterpart: US\$ 738,468**

***Activity I.1.1 Element 1***

**Selection of the executing institution and preparation phase.** The activities of this subproject will start with the selection of a specialized opinion and market research institution, responsible for the execution of Activity I.1.1, through a call for proposals based on specific terms as presented in the Terms of Reference Annex included below in this document. The selection process will be realized under Element 1 of Activity I.1.1 and will be coordinated by the PCU and the EA.

The selected institution will execute the following tasks: (i) define the targeted audience; (ii) identify specific groups of stakeholders to be included in the process, and (iii) design the

---

<sup>3</sup> As proposed in the document "Developing a Vision for the Amazon" by consultant Américo Canto Lopes developed during the PDF-B

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

research campaigns including formulating questionnaires, documenting the interview methodology and training of field researchers, provided by the executing entity.

**The outputs** will be (i) a detailed work-plan and budget for undertaking Element 1; (ii) a list of key stakeholders that reflect the target audience, (iii) a documented methodology for the conduct of the interview campaign including *inter alia* a detailed work plan for the opinion research campaign, a list of agreed upon questions for the interview process and related reporting templates and training principles for the researchers.

**The outcome** will be a well-prepared project constituency, a well-organized interview campaign including well-defined quantitative and qualitative interview methodology and trained researcher in support of Element 2 and Activity I.1.2 through Activity I.1.4.

**Activity I.1.1 Element 2**

**Quantitative interviews.** Quantitative interviews use contemporary polling methods to access the different levels of the Amazonian society. The survey data and information will be collected via structured questionnaires, with personal interviews containing open-ended, closed-ended, or mixed questions on (i) socio-economic issues, (ii) water resources and related issues, (iii) climate change and other environmental concerns, and (iv) transboundary concerns. The task team will test the interview process with a view to validate the questionnaires. The quantitative phase of the survey has been suggested during the PDF-B preparation process and will be based on the post-2000 population census reports of the Basin countries, as well as other sources, such as the UN database, and information from the Pan-Amazonian Populations Book<sup>4</sup>. The survey will cover a range of 66 municipalities in the eight countries. The municipalities were selected according to location and average regional population per municipality. The survey will include 4,440 interviews prorated to the Amazonian population in each country, as shown in the table below. The error margin for the general results is of  $\pm 2\%$ .

Quantitative data mining			
Countries	8 countries	Bolivia, Brazil, Colombia, Ecuador, Venezuela, Guyana, Peru, Suriname.	
Cities	66 cities	Bolivia Brazil Colombia Ecuador Venezuela Guyana Peru Suriname	7 cities 28 cities 8 cities 6 cities 1 city 3 cities 10 cities 3 cities
Number of interviews	4,440 interviews – proportional for each city		
Sampling plan	Proportioned per quotas to be determined		
Stratification	Country, region, municipality, sex, age, professional activity		
Checking	20% of the applied questionnaires		
Confidence Level	95%		
Error Margin	$\pm 2\%$ for the general results		

<sup>4</sup> Luis Aragon, *Populações da Pan-Amazônia*, NAEA – UFPA, ISBN 8571430446

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

**The output** will be a database and documented analysis of the opinion and information gathered from the general population concerning water resources challenges and issues in the Amazon Basin.

**The outcome** will be an increased understanding of water resources concerns within the context of current societal reality in the Amazon Basin.

**Activity I.1.1 Element 3**

**Qualitative research.** Qualitative polls are based on opinion research focused on key sectors of the society. The qualitative phase of the study will be conducted parallel with the quantitative phase, which is summarized in Element 2 above. The method to be used in Element 3 consists of a series of small-scale meetings with opinion shapers and key stakeholders who will participate in a debate led by a trained moderator. This debate will be recorded and later analyzed by a group of experts. Opinion leaders and key stakeholders will be chosen from among the business sector, politics, religious communities, academia, trade unions, media, and civic society. In each of the chosen cities, 20 opinion leaders will participate in the process, with a total 200 people from the Basin region, as summarized in the following table.

<b>Qualitative data mining</b>			
Countries	8 countries	Bolivia, Brazil, Colombia, Ecuador, Venezuela, Guyana Peru, Suriname.	
Cities	10 cities	Bolivia Brazil  Colômbia Ecuador Venezuela Guiana Peru Suriname	Trinidad Belém, Manaus, Porto Velho Florecia Lago Agrio Ature Linden Iquitos Blauwgrond
Number of meetings	10 meetings (1 meeting and 20 invited opinion leader/key stakeholders per city)		
Characteristics of people interviewed	Opinion leader		
Categories	Representatives from the business sector, politics, religious communities, academia, trade unions, media, and civic leaders		

**The output** will be a set of debates recorded on DVDs and documented analyses that reveal the perception of important opinion leaders and major political and economic actors in the Amazon Basin with respect to the future development of the region.

**The outcome** will be increased understanding of the needs and goals of key Basin stakeholders, an understanding that will complement the results of the quantitative research. The outcome of this element will support the development of scenarios under Activities 2 and 4. These results will serve as input for Subproject III.4: Communication Outreach and Finance.

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

<b>Activity I.1.1 - Preparation and Exploration</b>							
<b>Budget Item</b>	<b>Total GEF Funding</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Co-financing/ Contepart</b>	<b>Total</b>
<b>Element 1 - Establishment of Task Team</b>	77.400	77.400	-	-	-	157.868	235.268
Research Coordinator	30.000	30.000	-	-	-		30.000
Statistical Analyst	10.000	10.000	-	-	-		10.000
Workshops - Field research training	8.000	8.000	-	-	-	32.000	40.000
Office material and equipment	6.600	6.600	-	-	-	40.000	46.600
Consultant Travel	21.600	21.600	-	-	-	80.000	101.600
Project Communication	1.200	1.200	-	-	-	5.868	7.068
<b>Element 2 - Quantitative Interviews</b>	32.600	32.600	-	-	-	510.000	542.600
Field Research	30.000	30.000	-	-	-	500.000	530.000
Statistics software	2.600	2.600	-	-	-	10.000	12.600
<b>Element 3 - Qualitative Research</b>	170.000	170.000	-	-	-	70.600	240.600
Moderator	9.600	9.600	-	-	-	9.600	19.200
Observers	26.000	26.000	-	-	-	26.000	52.000
Opinion Shapers/Stakeholder Meetings	128.800	128.800	-	-	-	30.000	158.800
Multimedia services	5.600	5.600	-	-	-	5.000	10.600
<b>Total</b>	<b>280.000</b>	<b>280.000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>738.468</b>	<b>1.018.468</b>

### *Activity I.1.2 Scenario Development*

The development of the scenarios expands on the results of Activity I.1.1 and seeks to design a documented set of possible future development scenarios relevant to the integrated water resources management and the possible impacts of climate change in the Amazon Basin. Activity I.1.2 comprises three elements: (i) creation of a task team responsible for the scenario building activities; (ii) the scenario dynamics - analysis of country agendas and definition of draft scenarios, (iii) scenario agreement and revision.

**The output** will be a documented set of possible future development scenarios relevant to the integrated water resources management and the possible impacts of climate change in the Amazon Basin.

**The outcome** will be an increased understanding of possible future development scenarios for the Amazon region. This knowledge will inform response strategies to be developed under Subproject III.4: Communication, Outreach and Finance, as well as the SAP formulation under Subproject III.5.

**Total Cost: US \$ 376,000 – GEF Grant: US \$ 271,000 – Co-financing/Counterpart: US \$ 105,000**

### *Activity I.1.2 Element 1*

**Establish a task team.** Similar to Activity I.1.1, the project will require the establish a task team, to include a Team Manager (TM) and a Team Assistant, who are experienced with scenario-building. The TM will coordinate the activities and the TA will be responsible for

## **Integrated and Sustainable Management of Transboundary Water Resources in the Amazon River Basin Considering Climate Variability and Climate Change**

the participant logistics and communication. The PCU and the task team will identify and invite a group of experts with recognized know-how on the political, economic and social realities of the Amazon Basin region to participate in the scenario exercise. The task team will be responsible for research required to prepare information packets for the meetings and workshops and for the establishment communication between actors. To complete this element successfully, the involvement of the eight National Coordinators, one from each country, is essential, in particular, the support of the task team and PCU.

**The outputs** of this element will be a fully staffed task team, established channels of communication, logistic arrangements for the scenario meetings and workshops, and a documented list of identified and invited Amazon experts.

**The outcome** will be the improved environment for the conduct of the scenario exercise and efficient working relationship between the PCU, National Coordinators, experts and stakeholders.

### ***Activity I.1.2 Element 2***

**Analyze country agendas and define draft scenarios: scenario emergence phase.** Based upon the validated results of the interview analyses as per Activity I.1.1, the task team together with the PCU, the National Coordinators and the experts group acting as facilitators will conduct the first workshop to (i) analyze the eight national development agendas, with a focus on current strategies, policies, and ongoing and planned investments with respect to the Amazon Basin with a view to identifying the specific interests that will shape scenario development; (ii) based on this analysis of the forces likely to shape the future of IWRM in the Amazon Basin, the workshop will prepare draft scenarios for the Basin; (iii) define the key stakeholders to be invited to the next workshop to review the draft scenarios, which will take place under Element 3 of this activity. The invited key stakeholders would need to represent the eight member countries of the ACTO and the group should not exceed 20 persons; (iv) identify the needs for the development of the Financial, Communications, Multi-stakeholder Participation, and Education strategies under Subproject III.4.

**The outputs** of this element will be (i) a documented analysis comparing the riparian development agendas with emphasis on IWRM; (ii) a set of draft development scenarios for the Amazon Basin; (iii) a list of selected national stakeholders in support of Element 3 below; (iv) a workshop report, and (v) input to the Financial, Communication, MSP, and Education strategies to be formulated in Subproject III.4.

**The outcome** will be knowledge of the desired future state of the Basin, as envisioned by the Basin stakeholders. The information gathered also will assist in the development of the Financial, Communication, MSP, and Education strategies to be formulated in Component III.

### ***Activity I.1.2 Element 3***

**Review draft scenarios.** The task team together with the experts group and the national coordinators will (i) design and conduct a second workshop to review the set of draft scenarios with a group of invited key stakeholders (identified under Element 2). The task

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

team and the experts will (ii) moderate the workshop, challenging the logics of the draft scenarios, incorporate the thoughts and perceptions of the stakeholders and carry out the necessary changes in the final drafts.

**The output** will be an agreed set of documented scenarios.

**The outcome** will be an enriched understanding of future development scenarios for the Amazon Basin, incorporating key stakeholder contributions. Through their participation in the workshop, enhanced relationship among stakeholders will create an environment conducive for the future implementation of the SAP.

Activity I.1.2 - Scenario Development							
Budget Item	Total GEF Funding	Year 1	Year 2	Year 3	Year 4	Co-financing/Counterpart	Total
<b>Element 1</b>	228,000	91,200	91,200	45,600	-	45,000	273,000
Subproject Coordinator	120,000	48,000	48,000	24,000	-	-	120,000
Subproject Assistant Coordinator	75,000	30,000	30,000	15,000	-	-	75,000
Subproject Coordination Travel	28,800	11,520	11,520	5,760	-	40,000	68,800
Subproject Communication	4,200	1,680	1,680	840	-	5,000	9,200
<b>Element 2</b>	21,500	-	21,500	-	-	30,000	51,500
Country Agendas Analysis Meeting	21,500	-	21,500	-	-	30,000	51,500
<b>Element 3</b>	21,500	-	21,500	-	-	30,000	51,500
Draft Scenarios Meeting	21,500	-	21,500	-	-	30,000	51,500
<b>Total</b>	<b>271,000</b>	<b>91,200</b>	<b>134,200</b>	<b>45,600</b>	<b>-</b>	<b>105,000</b>	<b>376,000</b>

**Activity I.1.3 Scenario Publication and Dissemination**

Activity I.1.3 is intended to foster public debate around the scenarios, including the publication of the scenarios, and communication of the scenarios to a broad audience of stakeholders. This activity is composed of two elements: (i) creation and dissemination of a basin-wide edition of the scenarios developed under Activity I.1.2, and (ii) in-country meetings at a national level with regional and local stakeholders (i.e. intermediate Amazonian governments and local communities) to present and discuss the scenarios.

The task team will review and edit the scenarios, and define a dissemination strategy, using all available methods of communication including newspaper inserts, radio transcripts, television programs, and Internet websites. The National Coordinators and the key stakeholders participating in the scenario exercise should work closely with constituencies in their home countries to facilitate the dissemination process of the scenarios and the understanding of the Project within their area of influence. The National Coordinators will organize meetings with local stakeholders to discuss the scenarios and to collect necessary feedback, which will be used as important input in Activity I.1.4 of this subproject and to Subproject III.4: Communication Outreach and Finance. The national meetings will create a receptive environment for the future implementation of the SAP at the local level.

**The outputs** of this activity will be (i) a documented set of scenario publications, newspaper inserts, radio show transcripts, (ii) documented interactive workshops reports, and (iii) important inputs for the IWRM Vision formulation process and Subproject III.4.

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

**The outcomes** of this activity are basin-wide informed stakeholders, an increased understanding about possible development scenarios for the Amazon Basin, and relevant feedback from stakeholders feeding into the formulation of the Vision.

**Total Cost: US\$ 1,179,000; GEF Grant: US\$ 222,000; Co-financing/Counterpart: US\$957,000**

**Activity I.1.3 Element 1**

**Basin-wide scenario dissemination.** The task team will review and edit the scenarios developed under Activity I.1.2, and will define a dissemination strategy.

**The outputs** are scenarios disseminated basin-wide using all methods of communication.

**The outcome** will be a better-informed Amazonian society and a receptive societal environment for the implementation of the SAP.

**Activity I.1.3 Element 2**

**National meetings.** The National Coordinators will organize meetings at the local level involving broad groups of regional and local stakeholders to discuss the scenarios and to collect feedback. These meetings will support and facilitate the dissemination process of the scenarios and the understanding of the Project. They will create a receptive environment for the future implementation of the IWRM SAP.

**The output** is a set of meeting reports and documented recommendations of the different stakeholders concerning the scenarios discussed in the national meetings.

**The outcome** is a better-informed and active Amazonian society at the local level and a receptive environment for the future implementation of the SAP.

Activity I.1.3 - Scenario Dissemination							
Budget Item	Total GEF Funding	Year 1	Year 2	Year 3	Year 4	Co-financing/Contepart	Total
<b>Element 1 - Basin-wide scenario dissemination</b>	180.000	-	180.000	-	-	757.000	937.000
Edition	10.000	-	10.000	-	-	27.000	37.000
Translation	16.000	-	16.000	-	-	30.000	46.000
Publication (folders and books)	44.000	-	44.000	-	-	300.000	344.000
Dissemination (newspapers, TV, radio, etc.)	110.000	-	110.000	-	-	400.000	510.000
<b>Element 2 - Execution of National Meetings</b>	42.000	-	-	42.000	-	200.000	242.000
National scenario meetings	42.000	-	-	42.000	-	200.000	242.000
<b>Total</b>	<b>222.000</b>	<b>-</b>	<b>180.000</b>	<b>42.000</b>	<b>-</b>	<b>957.000</b>	<b>1.179.000</b>

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

***Activity I.1.4 Vision Formulation Phase***

Building on the societal context developed throughout Activities I.1.3, the purpose of Activity I.1.4 is to formulate a shared vision that will guide the development of the SAP.

The Vision Formulation Phase is composed of one element involving the task team, the experts group and the National Coordinators in the conduct of a final workshop to formulate a shared vision for the IWRM of the Amazon Basin that will consider the development scenarios for the region, including the possible impacts of climate change, and considering the needs and goals of stakeholders as assessed in Activity I.1.1 and throughout the scenario exercise. The shared vision will inform the strategies to be developed during SAP formulation.

**The output** of this activity is the shared vision for IWRM of the Amazon Basin based on a sound documented set of analyzed and shared development scenarios for the region, considering the needs and goals of stakeholders.

**The outcome** will be greater environmental awareness and engagement of stakeholders; increased commitment to sustainable development planning; and new and increased economic opportunities and sources of financing

**Total Cost: US \$ 107,000 – GEF Grant: US \$ 77,000 – Co-financing/Counterpart: US \$ 30,000**

Activity I.1.4 - Vision Formulation							
Budget Item	Total GEF Funding	Year 1	Year 2	Year 3	Year 4	Co-financing/Counterpart	Total
<b>Element 1</b>	43,000	-	-	43,000	-	30,000	73,000
Vision Workshop	43,000	-	-	43,000	-	30,000	73,000
<b>SubTotal</b>	<b>43,000</b>	<b>-</b>	<b>-</b>	<b>43,000</b>	<b>-</b>	<b>30,000</b>	<b>73,000</b>
Subproject M&E							
<b>M&amp;E</b>	<b>34,000</b>	<b>5,000</b>	<b>8,000</b>	<b>10,000</b>	<b>11,000</b>	<b>-</b>	<b>34,000</b>
<b>Total</b>	<b>77,000</b>	<b>5,000</b>	<b>8,000</b>	<b>53,000</b>	<b>11,000</b>	<b>30,000</b>	<b>107,000</b>

**Indicators, Baseline, Targets**

***Activity I.1.1***

Project Objective and Outcomes	Description of Indicator	Baseline Level	Mid-term Target	End-of-project Target
--------------------------------	--------------------------	----------------	-----------------	-----------------------

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

<b>Project Objective and Outcomes</b>	<b>Description of Indicator</b>	<b>Baseline Level</b>	<b>Mid-term Target</b>	<b>End-of-project Target</b>
<b>Objective I.1.1</b> Establish the basis for the conduct of the visioning process through targeted surveys and establishment of the project task team	task team is in place to conduct the visioning process	Basin countries administer national and local level development in isolation	Visioning process is initiated as a tool to develop a comprehensive vision for IWRM in the Amazon Basin	A shared vision is articulated and available for use in the SAP; strategies are identified and agreed to achieve the shared vision within the SAP
<b>Outcome 1:</b> Study design prepared and documented	Work plan prepared and published	--	Study design is published and being executed	Work plan fully executed in accordance with the study design

<b>Project Outputs</b>	<b>Description of Indicator</b>	<b>Baseline Level</b>	<b>Mid-term Target</b>	<b>End-of-project Target</b>
<b>Output 1:</b> Visioning project team established	Team is established; meetings are held in accordance with the work plan	--	Task team has held initial meeting and has agreed on work plan	Work plan fully executed in accordance with study design
<b>Output 2:</b> Quantitative surveys undertaken	Survey instruments prepared	--	Survey administered	Results of survey documented and published
<b>Output 3:</b> Qualitative surveys undertaken	Survey instruments prepared	--	Survey administered	Results of survey documented and published

**Activity I.1.2**

<b>Project Objective and Outcomes</b>	<b>Description of Indicator</b>	<b>Baseline Level</b>	<b>Mid-term Target</b>	<b>End-of-project Target</b>
<b>Objective I.1.2</b> Implement the visioning process and develop various scenarios to be examined	Workshops held	--	Scenarios are developed for use in the visioning process	Workshops are held and shared vision prepared based upon the outputs of the workshops; shared vision is ready for dissemination
<b>Outcome 1:</b> Scenarios are prepared, validated and documented	Scenarios are available for publication	--	Project team initiates the visioning process	Elements of shared vision identified and documented

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

<b>Project Outputs</b>	<b>Description of Indicator</b>	<b>Baseline Level</b>	<b>Mid-term Target</b>	<b>End-of-project Target</b>
<b>Output 1:</b> Creation of the task team	task team established; communication, logistics arrangements for the scenario meetings and workshops prepared, list of identified and invited Amazon experts documented	--	First workshop held; report prepared	--
<b>Output 2:</b> Scenario Convergence	Second workshop held; elements of second scenario are documented	--	Second workshop being planned; documents disseminated	Second workshop held; report prepared
<b>Output 3:</b> Scenario Affirmation	Third workshop held; elements of third scenario are documents	--	--	Third workshop held; report prepared

**Activity I.1.3**

<b>Project Objective and Outcomes</b>	<b>Description of Indicator</b>	<b>Baseline Level</b>	<b>Mid-term Target</b>	<b>End-of-project Target</b>
<b>Objective I.1.3</b> Dissemination of the scenarios and fostering of public debate around the scenarios	Scenarios are published	--	Scenarios are developed for use	Scenarios are published and disseminated amongst stakeholders for comment
<b>Outcome 1:</b> Scenarios are published and available for dissemination	Scenarios are published	--	Scenarios are compiled, edited and agreed by Task Team	Scenarios are accepted as a basis for consideration by governments and other stakeholders

<b>Project Outputs</b>	<b>Description of Indicator</b>	<b>Baseline Level</b>	<b>Mid-term Target</b>	<b>End-of-project Target</b>
<b>Output 1:</b> Editing and Publication Stage	Scenarios are documents, edited, and agreed by stakeholders	--	Scenarios are compiled and edited,	Scenarios are published
<b>Output 2:</b> Communication and Debate Stage	Scenarios are published and distributed to stakeholders	--	--	Stakeholders are informed

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

**Activity I.1.4**

<b>Project Objective and Outcomes</b>	<b>Description of Indicator</b>	<b>Baseline Level</b>	<b>Mid-term Target</b>	<b>End-of-project Target</b>
<b>Objective I.1.4</b> Visioning process generates a consensus-based document “Vision for the Future of the Amazon River Basin”	Basin shared vision is agreed upon and published	--	Scenarios form a basis for discussion amongst stakeholders; stakeholders begin to provide reactions to the scenarios	Consensus leads to agreement on a desired future state for the Amazon Basin; agreed future state is transformed into a vision for the Basin which, in turn, informs the SAP formulation process in Component III
<b>Outcome 1:</b> Shared vision is created, validated, and published	Shared vision is published; stakeholders utilize the as a basis for debate and policy formulation	--	Scenarios are published and disseminated	Stakeholders utilize the scenarios to develop a consensus vision for the Amazon Basin

<b>Project Outputs</b>	<b>Description of Indicator</b>	<b>Baseline Level</b>	<b>Mid-term Target</b>	<b>End-of-project Target</b>
<b>Output 1:</b> Statement for IWRM of the Amazon Basin region	Governmental stakeholders analyze scenarios for conformity with policies, programs, laws, and plans	--	Governments receive the agreed scenarios and initiate a review process to assess conformity with current plans, policies and programs	Governments participate in the SAP formulation process, consider initiating any necessary refinements in plans, policies, and programs

**Budget**

**Co-financing**

<b>Sources of Co-financing</b>	<b>Type of Co-financing</b>	<b>Amount</b>
Project Government Counterpart Contribution	In kind	140,469
Others	Grants	1,689,900
<b>Total co-financing (US\$)</b>		<b>1,830,369</b>

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

*Consultants working for technical assistance components*

Component	Estimated person weeks	GEF(\$)	Other sources (\$)	Project total (\$)
Local consultants	500	270,600	35,600	306,200
International consultants	0	0	0	0
<b>Total (US\$)</b>	<b>500</b>	<b>270,600</b>	<b>35,600</b>	<b>306,200</b>

*Consultants to be hired for the project*

Position Titles	US\$/person week	Estimated person weeks	Total US\$	Tasks to be performed
<b>For Technical Assistance</b>				
<i>Local</i>				
Task Team Coordinator	1,000	120	120,000	Coordinating communication and interaction among experts, stakeholders and National Coordinators; participating in the identification of key stakeholders; conducting and moderating workshops and providing assistance to national meetings as necessary; participation on the scenario building process and analyzing results; coordinating media relations.
Task Team Assistant	1,000	120	75,000	Supporting communication and interaction among experts, stakeholders and National Coordinators; ensuring timely preparation of materials; assisting Subproject actors in conduct of activities; disseminating outputs; overseeing local arrangements and logistics for the undertaking of meetings/workshops, and create workshop reports and technical reports to the PCU.
Research Coordinator	625	48	30,000	Coordinating the quantitative and qualitative research polls: selecting and training field researchers; designing questionnaires; defining interview process/stakeholders meetings strategies; undertaking trial interviews; coordinating logistics of field work; preparing technical reports to PCU.
Statistical Data Analyst	500	20	10,000	Organizing and treating data coming from field research and performing descriptive as well as qualitative analyses of the data.
Qualitative Research Moderator	600	32	19,200	To moderate the discussion process during the qualitative research process (Activity 2) and provide analysis done with meetings observers for all the 8 meetings held (one per country).
Qualitative Research Observers	325	160	52,000	To observe and register in full detail the discussion process during the qualitative research process (Activity 2) and provide analysis done with meetings moderators for all the 8 meetings held (one per country).
<b>Total US\$</b>			<b>306,200.0</b>	

**Incremental Cost Analysis**

*Baseline*

The eight participating countries currently implement plans and programs in the Amazon Basin that reflect national and sub-regional priorities as articulated in national and local level development plans and programs. Such plans, policies and programs reflect national and local

## **Integrated and Sustainable Management of Transboundary Water Resources in the Amazon River Basin Considering Climate Variability and Climate Change**

needs within their jurisdictional areas and are frequently completed without substantial reference to the connected nature of the Amazon Basin. In recognition of the need for correspondence between plans, programs and policies within this hydrographic basin, the eight Basin countries signed the Amazon Cooperation Treaty (ACT) in 1978 for the purpose of fostering integrated and sustainable development of the Amazon Basin through bilateral or joint activities among the countries involved. While the treaty has contributed to an enhanced dialogue between Basin countries, the countries continue to move toward fully achieving the treaty's objectives of joint action and exchanges of information to promote harmonious development in the Amazon territories to ensure better environmental protection and the rational use of water resources (Articles V and XV of the ACT). In this regard, the Basin countries have endorsed the concept of the formulation of a Shared vision for the Basin as a basis for furthering their joint efforts. The creation of ACTO in 1998 was a milestone in the process of enhancing the political, economic and social integration of the Amazon Basin.

### ***Increment***

The need for coordinated action by governments at the Basin, national, and local levels is fundamental to the optimization of opportunities for integrated management of the land and water resources of the Basin, and for integrated management of the natural resources of the Amazon Basin. While most of the Basin governments have stated policies and many have active programs of development being executed in the Amazon Basin, there are few such documented plans governing the actions of other stakeholders within the Basin. Consequently, scientific data on the basin continue to show an unsustainable use of the natural resources. This type of activity limits future potential uses of the land and water resources of the Amazon Basin, and leads to less than optimal use of the economic resources directed into the Basin. This disconnection between policies and actions suggests that there may be differences of approach to development and conservation within the Basin, which should be reconciled as a matter of priority. The activities involved in preparing various future scenarios for the Basin and in validating these as a Shared vision would bridge this gap, and assist in developing and directing resources, economic activities, and conservation efforts in such a way as to maximize the investments, and contribute to the sustainable utilization of the basin's resources.

### ***Alternative***

Under the alternative scenario, the Basin stakeholders present, analyze, discuss and agree a desired future state for the Amazon Basin. This desired future state forms the basis for strategic interventions that are designed to harmonize the legal framework and institutional exchanges within the Basin, appropriately focus development, and conserve essential elements of the Basin's natural resource base such that the desired future state is achieved. A key aspect of this process of maximizing the value of the Basin's resource base is the development of a consensus shared vision of the Basin, derived from agreed scenarios that accommodate the human activities in a sustainable manner. Based upon these scenarios, and the resulting shared vision for the Amazon Basin, the stakeholders can agree a program of strategic actions necessary to implement IWRM in the Amazon Basin, important parts of which include informational and educational programming, knowledge dissemination, and application of appropriate and adequate funding, staffing and institutional support.

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

***Incremental Reasoning***

Joint and/or coordinated actions by countries and other stakeholders are critical for the integrated management of water resources in multinational basins. These actions should be based upon a sound technical and scientific foundation that support agreed management strategies. In the case of the Amazon Basin, the Basin countries have tasked the ACTO with the development of appropriate measures to manage the land and water resources of the Amazon Basin in a coordinated and sustainable manner. While each country continues to administer their national laws, regulations, plans, programs and policies, their joint actions, under the auspices of the ACT and other agreements, can facilitate the coordinated application of resources in such a way as to maximize the benefits of their individual actions within the context of the Basin. In some cases, these actions may result in limited national benefit. The value of these benefits to individual stakeholders generally exceeds the commitment of national funds, especially in the case of the Amazon Basin where such benefits include global benefits that extend well beyond the boundaries of the Basin. Consequently, the application of GEF resources represents an appropriate application of incremental funding in the determination of strategies necessary to implement the principles of IWRM in this Basin of global importance. The contributions by the countries to this project reflect the national and local benefits to be gained as a result of improved and coordinated management of the Basin resources.

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

**Timetable**

Subproject I.1: Vision for the Amazon River Basin	YEAR 01				YEAR 02				YEAR 03				YEAR 04			
	1 <sup>st</sup>	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter	Quarter
<b>Activity I.1.1 Preparation and Exploration</b>																
Selection of the executing institution and preparation phase																
Qualitative interviews																
Qualitative research																
Publishing and dissemination of results																
Reports to the PCU																
<b>Activity I.1.2 Scenario Development</b>																
Establishment of Subproject Coordination Team																
Analysis of country																

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

agendas and definition of draft scenarios – scenario emergence phase																	
Draft scenarios review																	
Reports to the PCU																	
<b>Activity I.1.3 Scenario Publication and Dissemination</b>																	
Basin-wide scenario edition, translation, and dissemination																	
National scenario meetings																	
<b>Activity I.1.4 - Vision Formulation Phase</b>																	
Vision formulation workshop																	
Reports to the PCU																	

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

**Cost Effectiveness**

This subproject is consistent with, and builds upon, the mandate given ACTO by its member states to promote the rational use of water resources, taking into account the role that Amazonian rivers play in the social and economic development of the region (ACT, Article V). By creating a common regional agenda, and focusing on shared transboundary priorities, this subproject, and the resultant SAP to be formulated under Component III, will catalyze and complement the actions of the Basin countries.

**Risk Analysis**

Risk	Rating (L/M/H)	Risk Mitigation Measures
Stakeholders fail to participate in the qualitative research	Moderate	Adequate information campaigns, personal contacts and participation of ACTO and governments
Stakeholders fail to participate in the scenario workshops	Moderate	Adequate information campaigns, personal contacts and participation of ACTO and governments

**Sustainability**

The development by consensus and validation by Basin stakeholders of a shared vision for the Amazon Basin will focus resources and resource uses in a manner that can be sustained by the natural resources base. Supported by the integrated information system to be developed under Subproject III.3, the availability of knowledge and the active and responsible participation of all stakeholders in both the creation and implementation of the SAP, will contribute to ensuring that sustainable actions and activities are implemented within the Basin. By coordinating this participation, the designated basin management agency (ACTO) will promote integrated land and water resources management programs, plans, and decision-making practices, and their application throughout the Basin.

**Replicability**

The Amazon Basin represents a unique opportunity for the creation and implementation of a comprehensive water resources management framework within which communities, countries, and the world can achieve varying measures of benefit, while, at the same time, achieving such benefits in a manner that fully recognizes and appreciates the aspects of national sovereignty, community-level economic and social development, and regional cooperation inherent in this project. As such, the development of a shared vision for the Amazon Basin will provide a

## **Integrated and Sustainable Management of Transboundary Water Resources in the Amazon River Basin Considering Climate Variability and Climate Change**

roadmap for other countries and stakeholder groups. The priority given to informational programming and dissemination within the process leading to the formulation of the SAP, as proposed under Component III, will ensure that not only stakeholders within the Amazon Basin have access to the process of strategy formulation, but also other interested parties who may wish to replicate this experience elsewhere in the world.

### **Execution Arrangement**

The task team will guide the execution of the scenario building process and work to validate the intermediary outputs of the scenario process. The task team member selection should be guided by the needed expertise, which should include scenario development expertise; regional Amazon Basin expertise; water resource management expertise; private sector and enterprise development expertise; finance and financial instruments expertise, and outreach and dissemination expertise. This task team should have skills in the areas of project management, meeting facilitation, writing/editing, program coordination, financial management, and communications. In addition, the scenario development and visioning process will require logistics coordinator and a rapporteur for the workshops.

With respect to the workshops, the task team should select a private sector representative from each country to participate in the scenarios development and shared vision formulation workshops. Similarly, the task team should select one governmental representative and one civil society/NGO representative from each country to participate in the same workshops.

The Project Coordination Unit (PCU) will coordinate execution of the visioning process under the oversight of the Executing Agency (EA), and liaise directly with the task team in the execution of this Subproject. The PCU will be responsible for the day-to-day execution of the project activities, including project quality assurance and quality control (QA/QC). The task team will work directly with the Project Coordinator and PCU staff to ensure that the output of this subproject is prepared in such a way as to be compatible with, and able to be subsumed into, the SAP formulation process being executed by the PCU under Component III of the project. Subject to the recommendation of the PCU, the EA will be responsible for the contracting of appropriate personnel and the disbursement and accounting of funds. With input from the PCU, the EA will compile and submit periodic financial reports and supporting documentation to UNEP, as the GEF Implementing Agency (IA).

## **Integrated and Sustainable Management of Transboundary Water Resources in the Amazon River Basin Considering Climate Variability and Climate Change**

### **Public Participation Mechanisms**

The scenario methodology is particularly suitable for multi-country/multi-stakeholder level applications such as the Amazon Basin where uncertainty is a strong element in the shared vision development process. The characteristics that make this methodology powerful are:

- The process is inclusive and holistic - the scenarios encompass all aspects of the context in which the SAP will be implemented. The outcomes of the scenario exercise will depend upon the quality of the interviews and of the in-depth study of the stakeholders.
- The process identifies and analyzes the key forces that will shape the future of the Amazon Basin.
- The process is based on openness and informality - participants discuss all subjects and issues, with a focus on the future instead of the past and present. The process focuses on the “possible” and on the “best possible”.
- The process elicits choices - the future is not predetermined and there is an opportunity for people to make choices that influence what happens. Communication of the scenarios, dissemination of the messages, and conduct of an open debate - including an analysis of the implications of each possible future scenario for current strategies, policies, pipelines, investments and actions will affect or be affected by these alternative futures - will lead to the determination of a desired future that maximizes the potential of all stakeholders to achieve their expectations.
- The process is constructive - it will build a shared vision of the Basin that will be the guide for the development of appropriate and viable strategies within the SAP.

### **Monitoring and Evaluation (M&E)**

Monitoring of project activities will be conducted by the PCU, which will be responsible for technical oversight, QA/QC, and reporting in accordance with the requirements as set forth in the umbrella project. IA staff, in coordination with the EA and PCU staff, will conduct semi-annual monitoring missions to ensure that project activities and reporting are executed in a timely and professional manner. These monitoring missions will be timed to coincide with Steering Committee meetings to allow for dynamic and adaptive management of the project. A mid-term evaluation will be conducted under the auspices of the IA, with the evaluation report utilizing the mid-term targets identified in the Logical Framework Matrix to ensure that the execution of the project is proceeding in accordance with the project design. The results of this evaluation will be communicated to the PCU at the Steering Committee meeting immediately following the evaluation mission. This evaluation will include recommendations for changes to the project, based upon the outputs and outcomes achieved through the period of the mid-term evaluation. Upon completion of the project activities, the IA will complete a final evaluation.<sup>5</sup>

---

<sup>5</sup> 4% of this Subproject’s budget – US\$ 34,000 – will be dedicated to the M&E activities listed above.

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

**PART 3**

**PROJECT ANNEXES**

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

**The M&E Matrix**

Project Objective Outcomes & Outputs	Description of Indicators	Baseline Level	Mid-term Target	End-of-project Target
<b>Subproject I.1 Vision for the Amazon River Basin</b>	<b>Description of Indicators</b>	<b>Baseline Level</b>	<b>Mid-term Target</b>	<b>End-of-project Target</b>
<b>Preparation and Exploration</b>				
<b>Objective I.1.1:</b>  Establish the basis for the visioning process through targeted surveys and establishment of the PCU	<ul style="list-style-type: none"> <li>(P) Task Team is in place to conduct the visioning process</li> </ul>	<ul style="list-style-type: none"> <li>Basin countries administer national and local level development in isolation</li> </ul>	<ul style="list-style-type: none"> <li>Visioning process is initiated as a tool to develop a comprehensive vision for the Amazon River Basin</li> </ul>	<ul style="list-style-type: none"> <li>Basin-wide vision is articulated and available for use in the SAP; strategies are identified and agreed to achieve the shared vision within the SAP</li> </ul>
<b>Outcome I.1.1:</b> Raised awareness on key environmental forces in the Amazon River Basin	<ul style="list-style-type: none"> <li>(S) Methodology and work plan executed and findings published</li> </ul>	<ul style="list-style-type: none"> <li>International accepted interview and sampling techniques</li> </ul>	<ul style="list-style-type: none"> <li>Work plan is executed and published</li> </ul>	<ul style="list-style-type: none"> <li>Work plan fully executed in accordance with the study design</li> </ul>
<b>Output 1.1.1:</b> Documented study of Amazonian society	<ul style="list-style-type: none"> <li>(S) Work plan identifies criteria for stakeholder selection and interview methodology defined</li> </ul>	<ul style="list-style-type: none"> <li>0 Work plan</li> <li>International accepted interview and sampling techniques</li> </ul>	<ul style="list-style-type: none"> <li>Work plan completed</li> <li>Stakeholder identified methodology defined</li> </ul>	<ul style="list-style-type: none"> <li>Work plan completed</li> <li>Stakeholder identified methodology defined</li> </ul>
	<ul style="list-style-type: none"> <li>(M) Compilation of stakeholder opinions through quantitative interviews with stakeholders (NGO, rural, urban, private-sector, decision makers) conducted in select cities</li> </ul>	<ul style="list-style-type: none"> <li>Completed work plan</li> <li>0 stakeholders identified</li> <li>31 cities identified</li> <li>0 Compilation report of stakeholder opinions</li> </ul>	<ul style="list-style-type: none"> <li>4,400 stakeholders interviewed</li> <li>31 cities participate</li> <li>1 Compilation report of stakeholder opinions</li> </ul>	<ul style="list-style-type: none"> <li>4,400 stakeholders interviewed</li> <li>31 cities participate</li> <li>1 Compilation of stakeholder opinions completed and published</li> </ul>
	<ul style="list-style-type: none"> <li>(M) Through recorded debates, qualitative interviews completed with key stakeholders in select cities</li> </ul>	<ul style="list-style-type: none"> <li>0 key stakeholders identified</li> <li>10 cities identified</li> <li>0 recorded debates</li> <li>0 qualitative analysis</li> </ul>	<ul style="list-style-type: none"> <li>200 key stakeholders</li> <li>10 cities</li> <li>10 recorded debates</li> <li>1 qualitative analysis</li> </ul>	<ul style="list-style-type: none"> <li>200 key stakeholders</li> <li>10 cities</li> <li>10 recorded debates</li> <li>1 qualitative analysis completed and published</li> </ul>

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

Project Objective Outcomes & Outputs	Description of Indicators	Baseline Level	Mid-term Target	End-of-project Target
<b>Scenario Development</b>				
<b>Objective 1.1.2:</b> Implement the visioning process and develop various scenarios to be examined	<ul style="list-style-type: none"> <li>▪ (T) Workshops held</li> </ul>	<ul style="list-style-type: none"> <li>▪ No uniform or comprehensive vision of the Basin is available or articulated</li> </ul>	<ul style="list-style-type: none"> <li>▪ National workshops for scenarios are developed for use in the visioning process</li> </ul>	<ul style="list-style-type: none"> <li>▪ Workshops are held and the vision is prepared based upon the outputs of the workshops;</li> <li>▪ Basin Vision is ready for dissemination</li> </ul>
<b>Outcome 1.1.2:</b> Increased understanding by Amazon River Basin constituency for the range of possible development scenarios	<ul style="list-style-type: none"> <li>▪ (A) Scenarios are available for publication</li> </ul>	<ul style="list-style-type: none"> <li>▪ No uniform or comprehensive Vision of the Basin is available or articulated</li> </ul>	<ul style="list-style-type: none"> <li>▪ The PCU initiates the visioning process</li> </ul>	<ul style="list-style-type: none"> <li>▪ Elements of the Basin Vision have been identified and documented</li> </ul>
<b>Output 1.1.2:</b> Documented set of scenarios	<ul style="list-style-type: none"> <li>▪ (M) The PCU and experts group criteria</li> </ul>	<ul style="list-style-type: none"> <li>▪ Project Manager</li> <li>▪ Team Assistant</li> <li>▪ 0 Panel of experts</li> </ul>	<ul style="list-style-type: none"> <li>▪ Project Manager</li> <li>▪ Team Assistant</li> <li>▪ Panel of experts</li> </ul>	<ul style="list-style-type: none"> <li>▪ Project Manager</li> <li>▪ Team Assistant</li> <li>▪ Panel of experts</li> </ul>
	<ul style="list-style-type: none"> <li>▪ (M) Draft scenario dynamics formulated from national development agenda at first workshop</li> </ul>	<ul style="list-style-type: none"> <li>▪ 8 National development agendas</li> <li>▪ 0 draft scenarios</li> <li>▪ 0 Workshop</li> </ul>	<ul style="list-style-type: none"> <li>▪ 8 National development agendas</li> <li>▪ Draft scenarios</li> <li>▪ Workshop 1</li> </ul>	<ul style="list-style-type: none"> <li>▪ 8 National development agendas</li> <li>▪ Draft scenarios</li> <li>▪ Workshop 1 completed</li> </ul>
	<ul style="list-style-type: none"> <li>▪ (S) Scenario agreement and revision completed</li> </ul>	<ul style="list-style-type: none"> <li>▪ Draft scenarios</li> <li>▪ Workshop 2</li> </ul>	<ul style="list-style-type: none"> <li>▪ Draft scenarios analyzed and agreed upon at Workshop 2</li> </ul>	<ul style="list-style-type: none"> <li>▪ Draft scenarios analyzed and agreed upon at Workshop 2 completed</li> </ul>
<b>Scenario Publication and Preparation</b>				
<b>Objective 1.1.3</b> Dissemination of the scenarios and fostering of public debate around the scenarios	<ul style="list-style-type: none"> <li>▪ (S) Scenarios are published</li> </ul>	<ul style="list-style-type: none"> <li>▪ Agreed upon scenarios</li> </ul>	<ul style="list-style-type: none"> <li>▪ Scenarios are published</li> </ul>	<ul style="list-style-type: none"> <li>▪ Scenarios are published and disseminated amongst stakeholders for comment</li> </ul>
<b>Outcome 1.1.3</b> As an element of the communication strategy, the "Vision for the Amazon River Basin" informs the basin constituency about priority IWRM issues	<ul style="list-style-type: none"> <li>▪ (A) Agreed upon scenarios</li> </ul>	<ul style="list-style-type: none"> <li>▪ Scenarios are published</li> </ul>	<ul style="list-style-type: none"> <li>▪ Scenarios are compiled, edited and agreed by Task Team</li> </ul>	<ul style="list-style-type: none"> <li>▪ Scenarios are accepted as a basis for consideration by governments and other stakeholders</li> </ul>
<b>Output 1.1.3:</b> Dissemination plan of stakeholder scenarios for the Amazon River	<ul style="list-style-type: none"> <li>▪ (A) Finalized scenarios, translated and disseminated by</li> </ul>	<ul style="list-style-type: none"> <li>▪ Finalized scenarios</li> <li>▪ Individual national media</li> </ul>	<ul style="list-style-type: none"> <li>▪ Translated scenarios reformulated and disseminated for</li> </ul>	<ul style="list-style-type: none"> <li>▪ Translated scenarios reformulated and disseminated for</li> </ul>

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

Project Objective Outcomes & Outputs	Description of Indicators	Baseline Level	Mid-term Target	End-of-project Target
Basin	various media basin-wide	sources (newspaper, radio, television Internet) ▪ Translation capacity	various national media	various national media
	▪ (A) Scenarios communicated to audience of stakeholders at national meetings	▪ Finalized scenarios ▪ National stakeholders ▪ 0 national meetings ▪ 0 national meeting reports ▪	▪ 8 National meetings ▪ 8 National reports	▪ Final Report of National Debate on Scenarios
<b>Vision Formulation Phase</b>				
<b>Objective 1.1.4:</b> Visioning process generates a consensus-based Vision for the Amazon River Basin	▪ (S) Basin Vision is agreed upon and published	▪ Translated scenarios reformulated and disseminated for various national media ▪ 8 National reports	▪ Scenarios form a basis for discussion amongst stakeholders; stakeholders begin to provide reactions to the scenarios	▪ Consensus leads to agreement on a desired future state for the Amazon Basin; agreed future state is transformed into a Vision for the Basin which, in turn, informs the SAP formulation process in Component III
<b>Outcome 1.1.4 :</b> Consensus reached on the IWRM vision for the Amazon River Basin	▪ (S) Vision is published; stakeholders utilize the shared vision as a basis for debate and policy formulation	▪ 8 National meetings ▪ 8 National reports	▪ Scenarios are published and disseminated	▪ Stakeholders utilize the scenarios to develop a consensus Vision for the Amazon River Basin
<b>Output 1.1.4:</b> Documented stakeholder “Vision for the Amazon River Basin”	▪ (T) Task Team, expert group and National Coordinators complete Vision-building process	▪ Task Team ▪ Expert group ▪ National Coordinators ▪ Final Report of National Debate on Scenarios ▪ 0 Vision Workshop	▪ 1 Basin Vision workshop report ▪ A vision for IWRM of the Amazon Basin	▪ A vision for IWRM of the Amazon Basin

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

**International Waters Results Template for Foundational/Capacity Building  
Projects**

**PROCESS OUTCOMES AND INDICATORS**

Process INDICATORS	Process INDICATORS (report vs. baseline if possible)	
Project Element	Catalytic	Project
Stakeholders provide information necessary for the compilation of the shared vision; the shared vision is validated and implemented by the stakeholders	Stakeholders integrate practices consistent with the shared vision into their individual activities	shared vision is compiled, endorsed, and validated by stakeholders

**STRESS REDUCTION OUTCOMES AND INDICATORS**

Stress Reduction OUTCOMES	Stress Reduction INDICATORS (report vs. baseline if possible)	
Project Element	Catalytic	Project
--	--	--

**ENVIRONMENTAL/WATER RESOURCES STATUS OUTCOMES AND INDICATORS**

Environmental/Water Resources (& Socioeconomic) Status OUTCOMES	Environmental/Water Resources (& Socioeconomic) Status INDICATORS	
Project	Catalytic	Project
Priority threats to sustainable utilization of the natural resource base of the Amazon Basin are identified and responses agreed by stakeholders	Stakeholder decisions informed by and consistent with the shared vision for the Amazon Basin	shared vision for the Amazon Basin is developed by stakeholders to sustain multiple uses of the natural resources base, including ecosystem uses

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

Subproject I.1 Outcome A Vision for the Amazon River Basin	Outcome Indicator	Means of Verification	Assumptions/Risks
<p>Stakeholders engaged in the sustainable utilization and integrated management of the Basin’s shared water resources, through a Basin constituency visioning process</p>	<ul style="list-style-type: none"> <li>▪ Raised awareness on key IWRM challenges and issues in the Amazon River Basin</li> <li>▪ Increased understanding by Amazon River Basin constituency for the range of possible development scenarios</li> <li>▪ As an element of the communication strategy, the “Vision for the Amazon River Basin” informs the Basin constituency about priority IWRM issues</li> <li>▪ Consensus reached on the IWRM vision for the Amazon River Basin</li> </ul>	<ul style="list-style-type: none"> <li>▪ Documented results of interviews, analyses, scenarios, and reports designed to articulate a shared vision</li> <li>▪ Records of workshops and public meetings carried throughout the four years</li> <li>▪ Rate of representation of the various groups of society and stakeholders of the region in public events carried out during the project’s activities</li> <li>▪ Reports of the number of hits on the project website</li> <li>▪ Records from commitment, endorsement to ratification of basin-level policies and reforms implemented by countries</li> </ul>	<ul style="list-style-type: none"> <li>▪ Project stakeholders and local communities are committed to the project, participating actively in its activities</li> </ul>

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

Activities & Outputs	Achievement Indicator	Means of Verification	Assumptions/Risks
<p>Subproject I.1:</p> <p>Activity 1: Preparation and Exploration</p> <p>Output 1: Documented study of Amazon River Basin society</p>	<p>1) Stakeholders identified</p> <p>2) Qualitative interviews conducted</p> <p>3) Quantitative interviews conducted</p>	<ul style="list-style-type: none"> <li>▪ Interviews and surveys records and workshops minutes available with the PCU, ACTO and on the Internet</li> <li>▪ Publication/document on the In-depth Study of the Amazon Society available with the PCU, ACTO and on the Internet</li> </ul>	<ul style="list-style-type: none"> <li>▪ All stakeholders are committed to the activity and will collaborate and participate actively in it</li> <li>▪ Stakeholder are open and willing to discuss their needs and expectations</li> </ul>

**Log  
ical  
Fra  
me  
wor  
k  
Mat  
rix**

**Terms of Reference**

Subproject I.1 will require the selection of a specialized opinion and market research institution, responsible for the execution of Activity I.1.1, through an RFP based on specific TORs. The execution of the activities related to the scenario and shared vision development (Activities I.1.2 to I.1.4) requires a task team (or institution) with experience in scenario processes. The selection process will be coordinated by the PCU.

1 - Terms of Reference for opinion and market research institution (Activity I.1.1)

Prepare, coordinate and execute the quantitative and qualitative research polls: selection and training of the field researchers; designing questionnaires; defining interview process/stakeholders meetings strategies; undertaking trial interviews; coordinating logistics of field work; preparing technical reports to PCU.

Organizing and treating data coming from field research and performing descriptive as well as qualitative analyses of the data. Moderate the discussion process during the qualitative research process and provide analysis done with meetings observers for all the 8 meetings held (one per country). To observe and register in full detail the discussion process during the qualitative

## **Integrated and Sustainable Management of Transboundary Water Resources in the Amazon River Basin Considering Climate Variability and Climate Change**

research process and provide analysis done with meetings moderators for all the 8 meetings held (one per country).

2 - Terms of Reference for Scenario and shared vision development task group (Activities I.1.2 to I.1.4)

The selection of the task group will be based on certain types of required expertise that must include scenario development expertise; regional amazonian basin expertise; water resource management expertise; private sector expertise; enterprise development expertise; financing instruments expertise, outreach and dissemination expertise.

The task group will be responsible for (i) designing and conducting the workshops according to the scenario methodology, (ii) coordinating the entire scenario process, (iii) analyze the results, (iv) produce the final reports and inputs for the SAP and Subproject III.4: Communication, Outreach, and Finance.

### ***Project Background***

Conducting the visioning process provides an understanding of stakeholders within and outside of the Amazon Basin, focusing on their use of the shared water resources of the Amazon River system during a period of global climatic change. Understanding the needs and objectives and forces motivating these stakeholders, including governments, civil society, nongovernmental organizations, and commercial enterprises, will identify the gaps in understanding that contribute to unsustainable utilization of the Basin's natural resources. These gaps in understanding will form the basis for strategic interventions with respect to the management of the transboundary water resources of the Basin to be determined during the formulation of a Strategic Action Program (SAP) for the Amazon Basin. In addition, the outcome of this subproject's activities will indicate the likely direction in which human activities in the Basin will move, as summarized in a series of scenarios outlining possible future conditions of the Basin. This knowledge will provide an understanding of where stakeholders should invest their resources to achieve their goals in a manner consistent with the ability of the natural resource base to support human endeavors. Ultimately, strategies derived from the shared vision through the scenario process will be developed for and in support of the TDA/SAP.

### ***Rationale***

The Amazon Basin is facing many interconnected and transboundary challenges to the sustainable utilization of its land and water resources, while simultaneously witnessing exponential socio-economic growth and migratory flows from various points of origin. This level of complexity, coupled with a rapid rate of change in an environment facing a high degree of uncertainty, requires a formal process that can work to minimize risk while simultaneously creating a strong foundation on which to base a Strategic Action Program to address transboundary water resources management concerns shared by the Basin countries. Developing a solid, shared "shared vision of the Basin" will help the regional governments, the private sector, and society in general, to reach consensus with respect to the future development of the Basin. This, in turn, will facilitate national and regional strategy formulation and policy planning, and improve development management. The development of such consensus is wholly

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

consistent with the mandate given to the Amazon Cooperation Treaty Organization (ACTO) by the Basin countries.

***Objective***

The overall objective of Subproject I.1 is to define IWRM development priorities by engaging the Basin’s constituency through a visioning process, helping to (i) understand the common problems, needs and goals of the stakeholders of the Amazon Basin with respect to the land and water resources and climate change issues of in the region, (ii) define the key forces shaping the future development scenarios for the Amazon Basin, and (iii) formulate a shared vision for the water resources of the Amazon Basin. The results of this subproject will provide the basis for the preparation of Subproject II.3.1: Transboundary Diagnostic Analysis (TDA), Subproject III.5.1: Strategic Action Program (SAP), and as inputs to Subproject III.4: Communication, Outreach and Finance.

***TOR Activities***

Positions	Tasks
Task Team Manager	Coordinating communication and interaction among experts, stakeholders and National Coordinators; participating in the identification of key stakeholders; conducting and moderating workshops and providing assistance to national meetings as necessary; participation on the scenario building process and analyzing results; coordinating media relations.
Task Team Assistant	Supporting communication and interaction among experts, stakeholders and National Coordinators; ensuring timely preparation of materials; assisting Subproject actors in conduct of activities; disseminating outputs; overseeing local arrangements and logistics for the undertaking of meetings/workshops, and create workshop reports and technical reports to the PCU.
Research Coordinator	Coordinating the quantitative and qualitative research polls: selecting and training field researchers; designing questionnaires; defining interview process/stakeholders meetings strategies; undertaking trial interviews; coordinating logistics of field work; preparing technical reports to PCU.
Statistical Data Analyst	Organizing and treating data coming from field research and performing descriptive as well as qualitative analyses of the data.
Qualitative Research Moderator	To moderate the discussion process during the qualitative research process (Activity 2) and provide analysis done with meetings observers for all the 8 meetings held (one per country).
Qualitative Research	To observe and register in full detail the discussion process during the

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

Observers	qualitative research process (Activity I.1. 2) and provide analysis done with meetings moderators for all the eight meetings held (one per country).
-----------	--

***Outputs/Products***

- Completed survey instruments for both quantitative and qualitative surveys to be conducted throughout the Basin;
- Documented analysis of the survey results;
- Reports, with an analysis, of quantitative and qualitative opinion research;
- Consented scenarios for the development of the Amazon Basin;
- Disseminated scenarios (via the available media);
- Documented and disseminated shared vision for the IWRM of the Amazon Basin;
- Report(s) of validation meeting(s) provided to the PCU by governments through the NPCUs.

***Duration and Site***

Subproject I.1 is expected to occur over a period of 2.5 years. It will be executed from the ACTO offices in Brasilia (Brazil) with activities occurring throughout the Basin.

## **Integrated and Sustainable Management of Transboundary Water Resources in the Amazon River Basin Considering Climate Variability and Climate Change**

### **Methodology of Scenario Development**

#### a) The scenario tool

Scenarios are alternative, plausible stories of how the wider environment may develop in the future. They are not predictions of what will happen, but credible, robust, relevant, and challenging possible stories that enable to explore hypotheses. The purpose of scenarios is not to pinpoint future events, but to highlight large-scale forces that push the future in different directions.

A set of scenarios provides an environment, in which policy and decision makers can explore these forces, better understand the dynamics shaping the future and can then assess strategic options and prepare to make strategic decisions. Scenarios provide a common language and basis for communicating complex and sometimes paradoxical options and conditions. Scenarios can break old stereotypes because their creators can assume ownership. Once such a set of scenarios is available, it is possible to move towards an explicit vision and strategy that helps not only preparing for alternative futures, but also influence the environment, as well as putting in place the necessary legal, institutional, financial, entrepreneurial, learning and educational structures. Scenarios are a tool to help create a common culture and language through which the future can be imagined and discussed.

#### b) The scenario process

The scenario development stage is necessary to develop the shared vision because in situations of true ambiguity, they allow to identify the key forces shaping the future that are both critical and uncertain, enabling actors and stakeholders to look at alternative developments and respond to these uncertainties. While the scenario process will be based on solid scientific and technical knowledge, the scenario is a story about the common future of the Amazon Basin that needs to be communicated.

The scenario methodology is particularly fit for multi-country/multi-stakeholder level applications, providing a strong grassroots aspect in a context where uncertainty is a strong element. It includes a comprehensive study of the Amazon society, encompassing an extensive stakeholder identification, interviews and analysis, and current scientific knowledge, data and projections, so as to evaluate trends and projections in the Amazon Basin in terms of social, environmental, economic and politico-institutional aspects. The purpose is to understand and document the problems, needs, and interests of stakeholders in relation to water resources, as a crucial basis for developing the scenarios. The project will specifically target the participation of the private sector in the development of the scenario stories, so that private sector interests and governance issues - at local, national, regional and global levels – are explored and integrated into the SAP formulation process. Equally important will be the participation of civil society, especially at the community levels, so that their views are efficiently included into the process. The careful and targeted selection of the workshop participants will be a key factor in reaching the successful formulation of a Basin shared vision.

**Integrated and Sustainable Management of Transboundary Water Resources  
in the Amazon River Basin Considering Climate Variability and Climate Change**

**Fig.1 The hydrographic Amazon River Basin (Revenga, 1998)**

