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COASTAL RESOURCES CENTER  
*University of Rhode Island*

# MANAGING FRESHWATER INFLOWS TO ESTUARIES

## Workshop Summary: The Influence of the Yuna Watershed on Samana Bay.

Patricia Lamelas



Lamelas, P. (2004). *Workshop summary*. Proceedings from: The Influence of the Yuna Watershed on the Estuary of Samana Bay - CEBSE Workshop with Local Stakeholders (October 2, 2004), Santo Barbara de Samana, Dominican Republic.

Workshop summary

*The Influence of the Yuna Watershed on the Estuary of Samaná Bay*

**Workshop with Local Stakeholders  
Santa Bárbara de Samaná, Samaná, October 2, 2004**

With the following objectives:

- Introduce the project, its activities and their objectives to the government employees, scientists and other interested parties
- Review and validate the results of the project outline and to provide additional insight into the conclusions.
- Gain a better understanding on principal values of the affected ones and the decisions makers, their opinions, and their worries associated to the river basin and the estuary.
- Identify and give priority to those subjects of importance in relation to the water amount, quality and flows.
- Identify the 3 or 4 most important ecological interactions in the estuary
- Identify scenarios of possible changes to fresh water contributions, such as proposed development projects.
- Discuss priorities for other field work or research in this project and key partners
- Identify opportunities to integrate the knowledge that emerges from the analysis of the impacts created by changes in the flow of the fresh water in the estuaries into the planning processes and in decisions making.
- Determine the potential to create a council or a commission of river basin to advance in the integrated management of river basins

The Nature Conservancy programmed the realization of a workshop in Samaná with locals involved in the Fresh Water inflow to the Estuaries: Yuna River basin - Samaná Bay Project, at first planned for the end of September 2004 and rescheduled for Saturday, October 2, 2004 due to the hurricane Jeanne that affected Hispaniola.

Although it was programmed to start at 9:00 a.m., the workshop initiated at 10:00a.m. because the participants from communities of Cristal and Sabana de la Mar didn't arrive on time.

A folder was given to each of the participants, containing notepad, pen and the Spanish summary of the document: "Characterization of the Yuna River basin and the Samaná Bay", created within the Fresh Water inflow to the Estuaries project, implemented by The Nature Conservancy with the collaboration of The Coastal Resources Center of the

University of Rhode Island and with the auspices of the United States Agency for International Development, USAID.

At the beginning of the activity, Mr. Néstor Sanchez, TNC Conservation Projects Director in the Dominican Republic welcomed the participants and presented a brief introduction about the objectives of the project and the purpose of the workshop within the project's contextual framework.

The defined program was implemented as expected, with Néstor Sanchez, TNC Conservation Projects Director; Antonio Ortiz, TNC consultant and representative of the National Institute of Hydrologic Resources (INDRHI); Patricia Lamelas, Executive Director of CEBSE and Isidro Bone, CEBSE Associated Facilitator and member of the Guariquen Project, in charge of presentations and facilitation of the event.

At the end of presentations, the participants were divided in four groups, as stated below, to work with subjects contemplated in the summary of the characterization of the Yuna river basin:

**Group I. Contamination and Pollution**

**Group II. Decrease of the Fresh Water during the Dry Station**

**Group III. Floods**

**Group IV. Over fishing**

The following results were obtained from the groups:

**Group I. Contamination and Pollution**

Integrated by:

- Jesús Galán,
- Esteban Polanco ,
- Freddy Bausi,
- Araceli Gabaldón
- Héctor Rustand
- Emiliana Hernández

**Identified causes. -**

- ~ Non-degradable materials  
(Rockash?), plastic bags, recipients for agrochemicals, batteries, pieces of fishing nets, in the whole river basin
- ~ Agrochemicals  
Insecticides, herbicides and others, mainly in the area of Tireo and the rice fields
- ~ Spill of fuels and lubricants  
Electrical plants, washing of vehicles, electrical pumps in channels, other
- ~ Mining Operations  
Falconbridge (Bonaio), Rosario (Cotuí), sand mining, Higo (Bonaio is a threat).
- ~ Sewage Water Spills  
From the different cities, sewers, others

**Possible solutions.-**

- Revision and compliance with the norms related to dumping of residual waste
- Reduce the use of not biodegradable (plastic, isothermal glasses, etc.) utensils in the protected areas and especially vulnerable zones (while there is no existing normative nor garbage dumps for No-biodegradable waste)

- Regulate the use of fertilizers, pesticides and insecticides in agriculture. Contamination in situ and distant contamination.
- Do not permit the use of compounds (like the DDT) not allowed by the WHO, FAO.
- Information and education. Address conflicts in the use of soil.
- Efficient agriculture, better use of the resources (water, soil)
- Promote the incorporation of soil potential into land use zoning and planning, which will permit guide local producers to more efficient use of the resources and optimal production.
- Promote campaigns from the public administration, education, - NO FISHING OF FISH SMALLER THAN MINIMUM ALLOWED SIZE–
- It is very important that the people feel identified with the natural resources with need to be protected, so they consider those as their property and get involved in the protection programs.

### **Group II "Defenders of the Yuna" - Decrease of the Fresh Water During the Dry Station "**

Integrated by:

- |                  |                      |
|------------------|----------------------|
| • Giulio Marín   | • Daniel Linares     |
| • Manuel Jhonson | • José Marte Rosario |
| • Leoncia Javier | • Minky Rodríguez    |

#### **Identified causes.-**

- ~ Water flow volume depends on rainfall regime (natural)
- ~ High agricultural production in the river basin of the river (greater demand of water)
- ~ More evaporation of the water in the dry season
- ~ Deforestation and burning
- ~ Urban zones have greater consumption of water in the dry station
- ~ Extraction of sand and aggregates

#### **Proposed management measures -**

- Become more aware about rational use of water (education)
- Promote and implement the reforestation
- Improve canalization system
- Construction of deposits for water storage (reservoirs)
- Improve the agricultural production system (irrigation by dripping, greenhouses)

### **Group III. Floods -**

Integrated by:

- |                         |                           |
|-------------------------|---------------------------|
| • Bienvenido Díaz       | • Marino Domínguez        |
| • Alejandro García      | • Otasia Mejía            |
| • Miguel de Jesús Mateo | • Juan A. Rodríguez Voigt |

#### **Identified causes. –**

- Construction of small and medium dams

- Deforestation of the influence area
- Contamination by the solid waste produced by human settlements in the margins of the river
- Bad soil management on agricultural lands
- Is the dam the real solution?

### **Proposed solutions**

- Construction of sedimentation dikes in the exits from irrigation channels to the river
- Development of an integrate management program the watersheds of Yuna River and it's tributaries
- Establish species conservation program and their habitats within the mentioned areas.

### **Group IV. Over-fishing**

Integrated by:

- |                    |                      |
|--------------------|----------------------|
| • Ángela Espino    | • José Marte Rosario |
| • Félix de la Rosa | • Alex Valdivia      |
| • Eriberta Acosta  |                      |

### **Identified causes.-**

- Overexploitation and use of sophisticated fishing methods that allow the fisherman to fish on a greater scale.
- Increase of the prices on the fish market makes the activity more attractive and motivates the fishermen to fish as much as possible to earn more money.
- System of indiscriminate fishing. For example, hiring of divers brought from other areas by private companies for nocturnal fishing with sophisticate equipment without respecting the reproductive and other closed seasons

### **Proposed solutions**

- Educate the fishermen on the consequences of over-fishing
- Promote the hook-and-line fishing
- Law enforcement equal for everyone and not influenced by political protectionism
- Create job expectations for families, specially for women and children, to help in their household economy
- Create alternatives (ex. agriculture, turkey or rabbit farms)
- Respect the closed seasons and establish a recovery plan for the Bay
- Educate the children in the schools
- Prohibit fishing for a period of two years inside of the Bay. Permit to fish only out from the exit of the bay towards the open sea, taking advantage of the time available to develop and implement new regulations.

After the group results were presented we proceeded to give thanks to the participants for their presence and their contributions.

## List of Participants

	<b>NAME</b>	<b>ORGANIZACIÓN</b>	<b>E.Mail</b>
1.	Esteban Polanco	Federación de Campesinos Hacia el Progreso (Blanco, Bonao)	
2.	Daniel Linares	Federación de Campesinos Hacia el Progreso (Blanco, Bonao)	
3.	Antonio Ortiz Mena	The Nature Conservancy (TNC)	
4.	Odalis Pérez	USAID	<a href="mailto:operez@usaid.gov">operez@usaid.gov</a>
5.	Freddy Bausi	Asociación San Benedito del Puerto, Las Galeras, Samaná.	<a href="mailto:freddysoul@hotmail.com">freddysoul@hotmail.com</a>
6.	Alex Valdivia	Asociación San Benedito del Puerto, Las Galeras, Samaná.	<a href="mailto:alexvaldiviag@hotmail.com">alexvaldiviag@hotmail.com</a>
7.	Isidro Bone	Proyecto Guariquén	
8.	Otasia Mejía de W.	Comité Comunitario Sanchero (COMUSA)	omw.156.edoc
9.	Angela Espino	Sol Latino, Revista Cultural	
10.	Giulio Marin Erausquin	Centro de Entrenamiento Pesquero (CEDEP) Subsecretaría de Recursos Costero – Marinos	<a href="mailto:giuliomarin@hotmail.com">giuliomarin@hotmail.com</a>
11.	Araceli Gabaldón	FAO (NNUU)	<a href="mailto:araceli.gabaldón@fao.org.do">araceli.gabaldón@fao.org.do</a>
12.	Eriberta Acosta	Junta de Asociaciones Campesinas de Samaná (JACASA)	
13.	Tomás Bienvenido Díaz R.	Comité Comunitario Sanchero (COMUSA)	
14.	José Marte Rosario	Asociación Nuevo Despertar de Loma Atravesada	
15.	Leoncia Javier	Coordinadora Ecoturismo Laguna Cristal	
16.	Lorenzo Cruz Hidalgo	Asociación de Parceleros de Cristal	
17.	Emiliana Hernández	Junta de Vecinos de Cristal	
18.	Alejandro García	Asesor de Ecoturismo de Cristal	
19.	Marino Domínguez	Asociación Unidad y Amor, Cristal	
20.	Manuel Jhonson B.	Comité Comunitario Sanchero (COMUSA)	
21.	Jesús Galán José	Centro de Entrenamiento y Desarrollo Pesquero (CEDEP)	
22.	Félix de la Rosa	Sociedad Pro-Rescate Ecológico de Sabana de la Mar (SOPROECO)	
23.	Mirky Rodríguez	HISAMBI	
24.	Héctor Antonio Rustand	Supervisor Parque Nacional Los Haitises, Subsecretaría de Áreas Protegidas.	
25.	Miguel de Jesús Mateo Feliz	SAVAMACA	
26.	Erica Guzmán	Prensa Samaná	
27.	José Isidro Baret A.	Encargado de Unidad de Gestión Ambiental Municipal de Samaná.	Cel. 4911402
28.	Eduardo Sosa	Prensa Samaná	
29.	Fausto Forchue Millor	Gobernador Provincial de Samaná	
30.	Juan A. Rodríguez Voigt	sub.-Gerente Regional Forestal	
31.	Francisco Reyes	Fama FM. 89.5 / Gobernación)	Cel. 787-2077 / 538-2636
32.	Moraima Ramón	Encargada de la Defensa Civil	Cel. 901-8025

## **Workshop Agenda**

**October 02, 2004**

### **Session 1: Introduction and description of the project**

8:30-9:00 Registration of participants

9:00-9:10 Welcome and opening words

9:10-9:30 Objectives and methodology of the workshop

9:30-9:45 Presentation of the participants

### **Session 2: Description of the project, profile of the river basin and the estuary**

9:45-10:00 Basic concepts and foundations of the project

10:00-10:15 Questions

10:15-10:30 Break

10:30-10:45 Outline of the Yuna River basin

10:45-11:00 Description of the estuary in the Samaná Bay

11:00-11:15 Socioeconomic characteristics of the Estuary

11:15-11:45 Discussion and general comments of the participants

### **Session 3: Analysis of sources of information, needs for research and participation of actors involved in the River – Estuary interaction**

11:45-13:00 Group work to determine principal problems associated with water inflows from the Yuna River to the estuary: volume and quality of the water, present and future development projects that can impact the estuary.

13:00-14:00 Lunch

4:00-14:30 Presentation and discussion of the group work results

14:30-15:45 Group work to evaluate availability of information related to the project and necessities for additional information. Opportunities for integration of the project into initiatives of integrated management at local, regional and/or national level.

15:45-16:00 Break

16:00-16:30 Presentation and discussion of the group work results

16:30- 17:00 Evaluation the disposition of the participants and institutions to become part of a work group for integrated management and conservation of the estuary

Pictures