

## **Environmental Education Program in Southern Belize**

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The organization TASTE in 2002-2003 / 2004-2005 carried out an environmental education project in Toledo District, Belize, that we believe models an appropriate and utilitarian introduction to reef ecology for standard five and six elementary and forms 1 through 4 high school. The program is straightforward and easy to deliver. It is delivered in two methods.

Classroom (Taste publication-“Our Reef Lets Protect It”) and Field trip

TASTE was able to impact 1,500 young people of Toledo District during the time frame.. Focus group questions elicited these kinds of responses:“It was discovered that the majority of teachers and students rated the program as being very educational and interesting. They thought the field trip should be extended to an overnight. They will be able to engaged in various activities such as astrology, turtle watching, night snorkeling etc.

In general, the consensus feeling was that this program should continue in the Toledo District and that all incoming students should receive this benefit in the years to come. Each participant spoke glowingly of the field trip and its direct influence on each individual. The teachers also said that they believe this program should be implemented in all Primary schools in Belize.” The objective here was not to make great academic inroads but rather to enhance a 1<sup>st</sup> time experience (the field trip) with enough information to leave a strong positive image. In 8-10 years when these young folk are more profoundly developed they will remember this positive image if

- a) Asked to participate in co-management
- b) Participated as community member in monitoring.
- c) Asked for an opinion concerning MPAs’.

KEYWORDS: Environmental education, southern Belize

### **Programa de Educación Ambiental en Belice del Sur**

La organizacion TASTE en los anos 2002-2003 / 2004-2005 implementaron un proyecto de educacion ambiental en el Distrito de Toledo, Belice, que crearon modela un systema apropiada y util como introduction a la ecologia del arrecife para estander 5 y 6 de Elementario y Forms 1-4 High school. El programa es facil entregar. La entrega en dos formas:

Sala de Clase (publicacion de TASTE “Nuestro Arrecife, Protejemosla”) y Viaje al Arrecife.

TASTE alcanzo a 1,500 jovenes del Distrito de Toledo mientras el tiempo dado. Respuestas de un Grupo de Enfoque session fueran asi: “Descubrieron que la mayoría de los maestros presente clasificaron este programa como muy educacional y interesante. Pensaron que el viaje pudiera estar extendida por una noche en los cayos. Los estudiantes pudieran estar estudiando astrologia, mirando a las Tortugas, snorkeleando por la noche etc.

En general, el consenso era que el programa debe continuar en el Distrito y de que todos estudiantes entrantes recibiran el beneficio de este proyecto en adelante. Cada participante hablo iluminadamente sobre el viaje al arrecife y a su influencia sobre cada individuo.. Los maestros creeron que este programa debe estar implementada en cada escuela en Belice.” El objective no era hacer mayor impacto aceedemica pero crear un experiencia ‘primer momento’ (viaje al arrecife) con suficiente informacion mantener un imagen fuerte en las mentes de participantes. En 8-10 anos , cuando estes jovenes esten mucho mas desarrollado, recordaran este imagen. Si:

- a. Invitado participar en el co manejo.
- b. Participar en el monitereo.
- c. Invitado opinar sobre APM’s.

PALBRAS CLAVES: Educación ambiental, el sur de Belice

### **INTRODUCTION**

The Toledo Association for Sustainable Tourism and Empowerment (TASTE) is a small NGO from Toledo District, Southern Belize. TASTE has a formalized co-management agreement with the Department of Fisheries and Government of Belize for the co-management of the Sapodilla Cayes Marine Reserve (SCMR). The organization has been in business for six years and focuses primar-

ily to this co management. As things are arranged through a collaborative level with the Department of Fisheries, TASTE has concentrated much of its efforts to Outreach and Science while the Department manages the day to day needs of the Reserve including Enforcement.

In the early years the TASTE team observed a relatively low level of interaction between schools and the Marine reserves in the country. In general, outreach was not a

highly valued aspect of management regimes. In the years that TASTE has been working, this has changed and outreach is more highly valued today and most co management regimes have an outreach department.

Since all our co management is community driven, the design of a schools program became very much of a challenge to us. In practice the communities of Belize are not very participatory. They see NGO's as bodies similar to Governments and not to be trusted. Experiences tend to bear out the perceived truths and so it is difficult to gather interest and participation. (From talking to co managers from all around the globe, this seems to be a common state).

A shortcoming in stakeholder participation is interest. We thought that if we could stimulate a young mind now with a great experience, an "AHA!" experience, we would be doing well in the long term. When these young folk are citizens in ten years or so and they are asked if they would participate in MPA co management, they would remember with pleasure this earlier experience and it would influence their decision positively.

With that in mind the team began to create a project proposal for a COMPACT grant with the assistance of UNDP GEF/SGP. The TASTE team consisted of Seleem Chan, Education Officer, Christina Garcia and Jack Nightingale. This was for the period June 2003 to May 2004. The design of the program is simple. There are two components; 1. An eight hourly sessions in the classroom were given where all the basic information concerning the reef and its protection are delivered. 2. A day trip to the SCMR for a hand on snorkeling experience, boating and a trip through the world heritage site.

To carry this out a curriculum guide was prepared and printed. This document is titled 'Our Reef, Let's protect it'. There are six chapters for the eight sessions in the classroom (two of them take two hours each) and they are the following:

What are Corals?

Biology of Corals.

Coral Reef zones.

Animal adaptations of life on the Reef.

Marine Protected Areas.

What can you do? –Linking threats to the Reef and Human activities (Impacts)

Then with all this information at hand they are taken on the field trip to the Barrier Reef and the SCMR. The boat trip takes an hour and one half to get from Punta Gorda to the SCMR. It is a trans-boundary reserve being directly influenced by Guatemala and Honduras. These influences are both positive and negative and are explained in some detail to the students on arrival. The students are likely to meet a tourist party from either country and might have questions. A visit to the Ranger station and visitor center to meet with SCMR officers gives the students opportunity to see management first hand. A walk around Hunting Caye where the visitor center is built then allows

the students to see birds, crabs, shells, dead corals, the action of the sea, garbage issues and coral sands. After this everyone is taken to Nicholas Caye where we begin to prepare to enter the water for snorkeling. Fortunately this Caye has many opportunities even for those who do not swim. There are shallows with plenty of fish and growth of sea creatures.

"A little girl who could not swim by herself but wished to try with all her heart to have an experience put on a life vest and held the hand of an adult who walked her through the water. After a few minutes the little girl exploded out of the water with eyes wide with excitement not believing her eyes. After looking to see what had caused this AHA! It turns out she came face to face with a school of bone fish with each fish more than 16 inches long."

This first year program benefited 580 youth and adults.

During this first year of COMPACT activities TASTE experimented with the formation of Science clubs in a few schools. These Science clubs were offered a three-day excursion to the reef with special activities to learn basic monitoring skills. In all we were able to take fifty youth on these science club outings. We also developed a 'science box' that included equipment like microscopes and plankton nets. The students were schooled in the uses of the instruments and when put to practical use were able to see how they became junior scientists.

TASTE sought a second COMPACT for the years 2004-2005

The new program included two other components, an adult educational program and a continuation of science club activities in five coastal schools. This time the schools chosen included the villages of Toledo District. In all we were able to service 425 students, eighty adults from the District and 97 science club members

Science club activities included a great program for Benthic Macro Invertebrate studies in the freshwater streams around the schools included

With the official evaluation of the first COMPACT by an outside evaluator, TASTE could see that this program would fulfill the local needs for marine environmental education. Recommendations were strong for the adoption by TASTE and the local Educational authorities of this program as a permanent methodology. TASTE qualified the program with the second implementation and is determined to have this program included in future core funding for the NGO.

This system is very replicable and TASTE is very willing to share all information to those whose interest includes building a basic environmental education in upper primary and secondary schools.