## **Final Activities Report**

## Project 2010

From turtle's hunters to Conservation Allies: A first step in community based conservation in the Magdalena area, Colombian Caribbean. Colombia-South America.









Bogota, January 2011

## **Final Activities Report**

## Project 2010

From turtle's hunters to Conservation Allies: A first step in community based conservation in the Magdalena area, Colombian Caribbean. Colombia-South America.

Prepared by:



With the financial support of:



#### **ACKNOWLEDGMENTS**

The Colombia Marina Foundation wants to thank in particular the financial support provided by Rufford Small Grants Foundation. Its support from the start of this research in 2007, permit us to do something new in the conservation road in Colombia.

Likewise, we want to thank the Mendihuaca Fishermen Committee and the San Rafael Community, without whom this project would not have been possible and who have gave us the reasons for continuing.



Monterrosa, M.C. & M. Palomino, 2010. From turtle's hunters to Conservation Allies: A first step in community based conservation in the Magdalena area, Colombian Caribbean. Colombia-South America. Colombia Marina Foundation. 52 p. Final report Rufford Small Grants Foundation.

## **CONTENTS**

ABSTRACT5
INTRODUCTION6
STUDY AREA8
METHODOLOGY9
Involving the Fishermen9
Environmental Education9
Identifying Alternatives Activities <b>10</b>
RESULTS11
Involving the Fishermen11
Environmental Education13
Identifying Alternatives Activities <b>14</b>
DISCUSSION15
Involving the Fishermen16
Environmental Education18
Identifying Alternatives Activities <b>21</b>
"Projecto Help Colombia" in Images: Some Conclusions24
Involving the Fishermen24
Environmental Education31
Identifying Alternatives Activities39
DIDI IOCDADUV 52

#### **ABSTRACT**

After three years working in nesting assessment inside Tayrona National Park, Colombia Marina Foundation realize the critical relation between sea turtles populations and the social conditions of neighbouring communities. These results were the beginning of "Proyecto Help Colombia", the first Sea Turtles Community based conservation program in the Colombian Caribbean. Developing three work lines, each one addressing an important component of the scheme, we obtained important results in this first step. A strengthened model for fishing activity with Mendihuaca Fishermen Committee, the recycling program launched in the Foundation's influence area, the environmental program involving most of the children in the villages implicated and two alternatives activities identified like possible income sources are the principal's results of this project.

#### RESUMEN

Después de tres años trabajando en el monitoreo de las temporadas reproductivas en el Parque Nacional Tayrona, la Fundación Colombia Marina entendió la estrecha relación entre las poblaciones de tortugas marinas y las condiciones de vida de las comunidades vecinas al área protegida. Estos resultados fueron el comienzo del "Proyecto Help Colombia", el primer Programa de Conservación de tortugas marinas basado en la Comunidad en el Caribe Colombiano.

Con el desarrollo de tres líneas de trabajo, cada una dedicada a un componente importante del esquema propuesto, los resultados obtenidos son importantes en este primer año. Un modelo fortalecido para apoyar la actividad pesquera del Comité de Pescadores de Mendihuaca, la puesta en marcha del programa de reciclaje en el área de influencia de la Fundación, el programa de educación ambiental con la mayoría de los niños de las veredas vecinas y dos actividades alternativas identificadas como posibles generadoras de ingresos, son los principales resultados de este proyecto.

#### INTRODUCTION

During the development of sea turtles nesting assessments between 2007 and 2009 seasons inside Tayrona National Park (Monterrosa *et al.*, 2009), Colombia Marina Foundation established true relationships with the fishermen community in the neighbouring area, realizing the great necessity for them to become active participants in the conservation process.

The Mendihuaca's Fishermen Community has shared with the Foundation's team their socioeconomic situation, their reasons for sea turtles exploitation and their expectative of a conservation program. Within this scenery, was evident the need of a model which integrate the animal protection and the people wellbeing, looking for long-term results and realistic solutions.

All over the world (Osborn *et al.*, 1995; Marcovaldi, Patiri & Thome, 2005; Panda & Sridhar, 2008); the community based conservation programs (CBC) has obtained important results, showing how with the right orientation, people who is starving a resource can turn into active actors in a management model. Realistic conservation practices must be integrated with, and supported by, the communities that interact with the sea turtles and their habitats. It is fundamental to appreciate that the condition of the environment is intimately related to the status of human communities, and in many cases CBC is considered part of community development.

Following the track of "Projeto Tamar", the Brazilian Sea Turtle Conservation Program (Marcovaldi & Marcovaldi, 1991), Colombia Marina Foundation began in 2010 the first Community Based Conservation Project in the Colombian Caribbean. Looking for a strategy that integrate better incomes for the fishermen, alternative activities for community members and a strong education program that allows to create a new concept of environmental responsibility, "Proyecto Help Colombia" began to work in the Magdalena area since July 2010.

Better commercialization conditions for the fishermen, a recycling program established in the community where the team is living, and two alternatives activities work-shops developed with great people participation and realistic possibilities of continuation are the principals' results for each one of the actions lines This is an optimistic panorama, to continue the work for the next years and be able to protect the nests and turtles in the 2011 season and coming years, in order to release the first hatchlings protected by their ancient predators like part of a new life style.

This report aims to show the beginning of "Proyecto Help Colombia", with the development of each one of the action lines, and to present the identified priorities for the upcoming years.

#### **STUDY AREA**

All the project activities were developed in Tayrona National Park buffer zone defined along the coast of the Magdalena Department (11° 16' N - 73° 51' W and 11° 15' N - 73° 39' W). The impact area of the Mendihuaca Fishermen Committee is situated between the mouths of the rivers Mendihuaca and Guachaca (3 Km), 35 km east of Santa Marta on the Colombian Caribbean. The environmental education campaign and the recycling program were launched in the major villages inside the buffer zone and near the fishermen 's community.

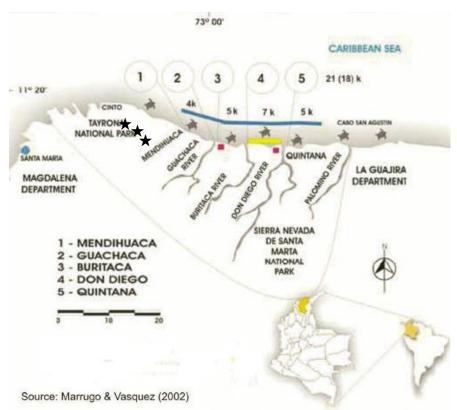


Figure 1. Map of Study Area. Source: Marrugo & Vasquez (2002). Modified by Monterrosa (2010) ★Places where was launched the environmental education and recycling program.

#### **METHODOLOGY**

**Involving the Fishermen**: Mendihuaca Beach was monitored from March to October by one or two fishermen, once between 23:00-00:00 hours and once between 04:30-05:30 hours. Since the beginning of the project, last days of June, the research team arrived at the beach between 5:30-6:00 each day in order to assist the fishermen in the reburial if they have found a nest at risk. The main objective of the night patrols was to protect the nests from external poachers, and began the conservation management maintaining the nests in conditions as closely as possible to the naturals.

Looking for better incomes, the research team shared with the fishermen enough time each day, in order to understand how works the fish commercialization process and what could be done in that matter. In friendly talks, the team looks answers about how would be possible to improve their life conditions in order to diminish pressure on the turtles and eggs. Also, the research team participated in committee meetings and community celebrations, knowing their culture and sharing with them, strengthening ties that allow us to know the situation from the inside.

**Environmental education:** The program was launched with three working lines in mind.

- 1. Pre-scholar and Middle Schools: Every fifteen days, the kids assisted a "turtle class", in which a team member reads a part of a "turtle book" created especially for the project by us: "Lalita: The Sea Turtle". This book has short stories about biology, ecology, conservation and actual threats for sea turtles. After each reading the children developed a colouring activity in which they express what they understood of the story, making a feedback of the content.
- 2. High School: One each fifteen days, the teenagers assisted a "turtle class". Their readings are much more elaborated but address the same issues: biology, ecology, conservation and actual threats. The texts were developed based upon the content of the principal books and magazines for sea turtles biology and conservation.
  - Both groups received information about the turtles in the area, the reasons for the actual situation and how they can help to protect them if they know them. Besides sea turtles, the talks made reference to others animals which are frequently killed, like iguanas and birds.
- 3. Turtle Afternoons: Tuesdays and Thursdays of every week, the Foundation station was the meeting place for kids and teenagers, in order to spend some time in a different way. Play time, educational activities and socialization time was the structure of these afternoons that allow the team to be part of the community and reach the children that are not assisting to the selected schools. The activities subjects always were environmental protection and social participation, making emphasis in sea turtles aspects. Using plasticine, colours, tempera, watercolours and many others materials the children made many souvenirs that remember the content of the talk.

**Identifying alternative activities:** In order to involve the adult community with alternative activities, that allow continuation and replication within an economy and a feasibility way, we began a recycling program that would provide the raw materials and will have a real and important environmental impact.

1. Recycled Paper Handicrafts: With the paper collected during two months working together with the community, during September was developed the first "Recycled

Paper Work-shop" directed to single mothers and young girls. With a plastic artist, they have eight hours sessions during fifteen days, making diverse articles and souvenirs that were sold by them with the Foundation help, generating new and unexpected incomes for most of them.

2. Plastic Bottles Construction: From the first days of July until October, all the community, children and adults, participated recycling all the plastic bottles which before they throw away in the street and rivers, in order to build a contention wall for an ancient tree and a sea turtle sculpture in the middle of the school's backyard. With the advice of a construction company working in environmental development and a lot of community members, both structures were made and their construction was the opportunity to learn this technique, used like a living solution or improvement strategy.

#### **RESULTS**

The results obtained in each one of the action lines are below. All the pictures were taken by Colombia Marina team.

**Involving the Fishermen:** During the 2010 nesting season at Mendihuaca's Beach, the fishermen registered only eight nests of *Dermochelys coriacea*. All the nests were found from March to May, before the beginning of the project and the information was obtained from the fishermen committee at that moment. From those nests, they protected four and four were stolen. No more nesting activity was registered in the beach and in the nearby beaches the number of events was very low, no more than three nest of *Eretmochelys imbricata* during September.

The low nesting activity was an opportunity to show to the fishermen, that the project is interested in turtle protection and the community development. In this way, Colombia Marina worked with the committee looking for alternatives that generate better incomes, trying to show how without turtle exploitation we can develop different ways to beneficiate them. Our objective was to strength the relationship without turtles, in order to have their compromise by conviction with the obtained results for coming seasons.

We found three principals channels of interaction:

1. Improvement of fishing gear: Helping the fishermen to obtain the gear needed for their principal activity is a way to reduce the costs they have to assume and have some more money available.





Figure 1. Fishermen making their fishing gear (long-line) with the materials bought by Colombia Marina.

2. Improvement campsite: Improving the conditions of the place some of them use to live and others use to rest and get ready for their fishing activities, was more significant than we thought.





Figure 2. Campsite improvement day.

3. Improvement of commercialisation conditions: This was the aspect that allows us to show them, how they can obtain better life conditions if they participate in conservation. We found two new buyers for their capture, who pay them the fair price that they did not had in the past, if they participate seriously in the project.

**Environmental Education**: An average of 150 children from primary school, 200 teenagers in high school and 50 children per day, between 4 and 16 years old in the "turtle afternoons" was the numeric result of the program. A change in the attitude about the environment and animals, a life style with a social and environmental responsibility, more socialization among the community, better relationships between the children of different ages, active participation in common projects improving the respect and tolerance among them and with the world, were some of the aspects developed during the project. The knowledge obtained about sea turtles and their participation in the conservation, let us identified the families exploiting the resource, so we began working from the children to the parents.







Figure 3. Turtle afternoon, it is time to play and learn.

**Alternative Activities:** An average of 40 people participated in the recycled paper workshop. Many objects and souvenirs were made and some of them sold in the Foundation's house, generating incomes for the people who made them. In the bottled-construction workshop, the participation was lower than expected but the few men who assisted enjoyed and have the desire of build their houses with these technique. Some of the men who assisted this work-shop are the youngest fishermen from the Mendihuaca Committee, being a direct and different message to their colleagues in nearby beaches.



Figure 4. Recycled paper and bottle-construction work-shops.





#### **DISCUSSION**

Begin a community based conservation program has many challenges, to change behaviours that have been rooted in a community by tradition or necessity it is a complex way that needs to bring together social, economical and environmental tools. The Brazilian experience of "Projeto Tamar" has showed the importance of team's integration with the community in the daily life. This interaction let the Foundation's staff to realize and understand the people's perceptions about algid points in the upcoming panorama. Their necessities, expectations and limitations were shared in a way that allows creating appropriate strategies to obtain our objectives, avoiding the non-acceptance of the program.

Having this in mind, Colombia Marina's team began to live fulltime inside the project's area since the beginning of it. San Rafael is a little village 15 minutes away from Mendihuaca beach, where the primary, high-school, and the communitarian house are located. Besides, it is placed 500 m far from the entrance of Tayrona National Park, a privileged position by the constant presence of foreign and national tourists.

The project area is part of a region that has been involved in economical, social and political processes. Difficult most of the time and in which, consequences have determinate the social structure and community behaviour. Many people living in the area is displaced from other country's departments and its economical and social situation is difficult and with few alternatives to change.

To enter in the community to propose alternative sources of income intimately linked with the environment conservation, looking for long-term results implies a change in their life concept and attitude about nature care. For the history of the area, people is used to receive without do anything and effortless, and that is something that we need to change in a community based conservation program. These were the most imminent challenges we identify with the people living in the village.

Our other target group, the Mendihuaca fishermen community has been in the area for more than 50 years, their livelihood has been always dependent of their principal activity, and some alternatives source of incomes like turtles and iguanas. However, the project counts with the fishermen desire to become conservationist after many years of predation. For this reason, the challenge with them was to identify with accuracy the proposals to improve their incomes, with the objective in mind to avoid disappointments with the model.

**Involving the Fishermen:** Contrary to what many people may think, the low nesting activity since the beginning of the project was an incredible opportunity to strength the relation with the fishermen. This unexpected, but always possible situation with wildlife participation projects changed our original idea of hire the key fishermen to protect the nests and instead, we worked improving the fishing gear for all the committee members.

To be able to demonstrate them how our conservation model is interested in community development besides protection of sea turtles, allows us to strength their commitment of conservation and solidified the ties of trust originated three years ago. It was possible to show them how their activity can be more productive and how the Foundation can help them in many ways to improve their incomes.

During the project, we realize that support the fishermen getting the fishing gear, was a good way of improve the capture. So, we bought nylon, hooks, plastic elements and lamps. Besides, aiming to support their activity when the capture was very low, the Foundation assists them with a percentage of the money they spend in fuel and oil, paying directly to the fuel station.

With this model, we didn't give cash to the fishermen committee but certainly supported it, showing how they can be beneficiated by the turtles without receive money for their exploitation.

But support the fishing, would not be long term sustainable if they don't receive better pay conditions for their capture. Mendihuaca beach, is one hour away from Santa Marta city, place where is commercialized the fish captured in this area. The transportation between the beach and the city with the capture is not easy, and more than difficult it implies more work for the fishermen after 24 hours offshore. For this reason, they have been accustomed to sell the capture to a man who goes to the beach and pick it up. The problem is that the payment conditions are unfair in price and time terms. Nevertheless, to propose them to change this scheme after 50 years was not an easy aspect and we need to be sure the income was going to improve.

After some talks about the community based conservation project and our interest in sea turtle protection with some regional companies, we agree with two of them. "Aviatur" and "Restaurante El Chef del Mar" offered better prices and payment conditions for the fishermen like a form to support the program. Aviatur is a major national tourism company, administering most of the hotel facilities in the National Parks and buffer areas. They have a 5 stars accommodation inside Tayrona National Park, and to buy the fish for their restaurants to local fishermen makes part of their compromise with the regional development. The distance to the beach is short, so they pick up the fish when the fishermen arrive to shore.

The other place involve is "Restaurante El Chef del Mar", which is located in Santa Marta and it's a growing business. They used to buy the fish in Riohacha, a major city 3 hours away from Santa Marta, so the distance implies to buy big quantities. Instead, buying the fish to the Mendihuaca Committee allow them to acquire fresher fish and help to the conservation issue.

With this restaurant was interesting to see the fishermen attitude, the owner of the place paid a really good price and paid them the same day, but they have to bring the fish to the city. We didn't know if they were going to be interested, but to our surprise they were, and actually love to make business with Leonardo "El Chef del Mar".

In our daily talks, we tried to make them understand how they can make money all year round maintaining these new alliances instead of make fewer money during six months by predating the turtles. They expressed to us how much this deal beneficiated them and their serious intention to protect the turtle's nests and females the coming season. They realized these agreements are the beginning of a social recognition for their participation in the conservation program and they began to understand the phrase that says that "a turtle is worth more alive than dead", which is one of the most important idea developed by "Projeto Tamar".

During our daily visit to the fishermen campsite, we could identify the necessity of improve the tents conditions and we asked them if they would like. They loved the idea and we bought for them the materials they needed to do so. One Sunday, their families came to the beach and joining the Foundation team, we destroyed and we build the new tents, in a fun day that allowed sharing other aspects of the daily life.

With these three aspects we have drawn the fishermen committee in the community based conservation. They realize how if they accept our proposal, they can improve their living conditions, their daily incomes and be an example for the neighbouring beaches.

To obtain the support of these two local companies, it is the beginning of what we think can be done regionally and, with time, national support for the program can be achieve. It is too important the participation of private actors thinking about the consolidation and expansion of the project in the other beaches. In fact, these year some fishermen from other beaches who observed and knew about the model we were using in Mendihuaca beach, approached to us and expressed their willingness to participate the next season.

We knew by the Tamar's experience, that our work with one community was going to call the attention of others and this will beneficiate the project. This year one of the experiences was a call we received from some fishermen in Palomino, 2 hours away from San Rafael, a place where the turtle predation is as ancient as in Mendihuaca. They talked to us because they had a turtle and they wanted to sell it, we went and meet with them about their petition and told to them that we were not going to pay for the turtle. We agree with them to help with food and elements for their fishing activity if they release it. After some time explaining to them why was important to do so they agree and the turtle was released.

This experience and the response of Mendihuaca Fishermen Committee during this first year, made us think that the model has good chances to success in the area and give us energy and hope for the upcoming season.

**Environmental Education**: Living our daily life with San Rafael Community, let us share with the youngest most of their time. The school day is short, so they have a lot of free time, which many times they don't know how to use and it is the opportunity to do some bad things, like kill iguanas, birds and snakes. The girls spend most of their time in their houses and the integration among them was restricted to the school. In the village there is an average of 40 kids between 4 and 16 years and don't have a common place where to get together to play and socialize.

When we arrived, the communitarian house was abandoned and nobody was in charge. So, after talking with the community and show them our proposal of community development and environmental education, they agree to give us the house like our field station. The location is wonderful because is in the middle of the village, so all the children can arrive and each one feel it like its own, so the integration and the socialization process was easier.

Since the beginning was established that the activity days were Tuesday and Thursday in the afternoon. The idea was to share two hours, play in group, and learn about sea turtles and socialize. The attitude of the children had several aspects to improve before obtain the expected results of the integration. They have been living in a community exposed to violence, poverty, displacement and necessities, aspects that have made them aggressive, individualistic, selfish and conflicting.

For these reasons, the playtime was really important in the process. They have to learn to stay together in a same activity, to accept that there is always a looser and a winner, that is easier to obtain a common objective among many people than alone, to respect each other regardless gender or age, and some other things that will improve their coexistence and will allow us to talk about environment respect.

The activities began during middle of July with a turtle design and soon children from neighbour villages began to participate. They knew about the activities in the school and decided assist in groups. They were welcome by the others kids and soon the average number in an afternoon activity were 60.

The activities were planned so that children of different ages, genders and villages have to work together and with kids different that their friends. The final product of each activity was always exposed in the house and when they don't work in group during the activity, the individual creation made part of a common result.

Soon, the house was full of children not only during the activity days. Every day, some of them arrived to the house and play with some stuff we have bought for them, like balls, cars, dolls and board games. They began spend the afternoon together and become easy to us working in environmental education.

In the first talks, we told them about the big problem the turtles are facing with the plastic in the ocean. During the feedback, we began looking for solutions they propose, and soon the recycling program was suggested. We began talking about recycling and discovered the reason they don't like it. The few times they have tried, they have observed how the trash car put everything together and their effort ends.

From this conversation, we propose them to begin recycling and told them we were going to do amazing things with the recycled materials. To learn to do paper and a big turtle sculpture in the middle of the school to play, was the beginning of one of the most important results of this year project: A recycling culture accepted by the kids and parents.

The work was not easy; we need a lot of bottles to be able to make the turtle and a wall for a tree that was falling. But the kids surprised us and in three months they gathered more than 700 bottles. The most surprising thing was their active participation in the filling of the bottles with sand. This was not an easy activity but they always do it like a game. In October, when we did the bottle-construction work-shop, we made the turtle and they see the result of their effort. It was an amazing experience for them and expressed their satisfaction.

All the activities had something to tell about it, but we would not finish. One of the activities let us realize the educational program had effect, was the Children's day party in October. All the time, we told to the kids that in life, they have to do something if they want to receive something back. Nothing is free and what is free is not always valued, and they know it is true from their reality. So they began making different accessories for the party during the activities without knowing.

The final days of October we gave them a big surprise, with a nice party. That day, many things have been done by them, like the masks and surprise bags; they were playing together with the team's members present but not guiding the games.

After an afternoon playing and eating, the house stays clean, without papers on the floor and the waste in their respective cans. This was an impressive result, which makes us to think, the kids are the example for the attitude change we want to obtain in the community.

Many mothers came to the house to express their satisfaction regarding their children behaviours in the house and among them. Also, they told us about their surprise, when their children expressed they don't want to eat more iguana meat because the iguanas are in danger and they want to conserve them. Other parents went to the house to tell us their children didn't use anymore their slingshot to kill birds.

About sea turtle learning, the children surprised us with all the information they interiorized. Certainly they like the turtles and soon began to talk about them with knowledge. One day, some tourists arrived to the house because of the number of children and the poster of the project, and they began asking the children what they have learned. We were the most

surprised with all the answers and that day we realize they are waiting for the 2011 season in order to see sea turtles hatchlings and talk with the tourist about it.

**Alternative Activities:** The work-shops were done in September and October, when the community already has seen our work with the kids and the parents were touched by their children activities. During the first months of the project, we get close to the mothers, trying to see what they would be interested in. They loved the recycling program, so was an opportunity to integrate it with the "recycled paper" work-shop. It was developed during September and the acceptance in the community was interesting.

The women organized their home duties in order to be able to assist the course and they were very constant and active. There were two groups during the month. In the beginning only the girls over 15 years were going to be accepted, but soon, the younger girls told us they wanted to assist and we accepted. At first, they were impatient because they didn't see the results quickly, but they liked a lot the teacher, and they were very excited when the products began to be finished.

All the products were exposed in the closing reunion and it was an opportunity to know that they were interested in the continuation of the recycled paper products. That day, they organized the products to be sold in the field station and agree to keep making things in order to improve the technique. Many products were sold. The tourists who visited the field station were interested and many of them buy. A local hotel called "Los Angeles" knew about the project from the villagers, and talked to us in order to make their "Golden Book" for the visitors and some key chains for the rooms.

Before finish the project, people who seen the photos in the Foundation's website or in the albums sent to Colombia Marina's friends, make an order of some Christmas gifts. These were made by the youngest girls who assisted the work-shop (14-15 years old) and we know they really want to continue with the activity. They don't have previously employment alternatives or income possibilities. This strategy has three important advantages: the raw material is free, doing the appropriate recycling process; the price can be really good thanks to the characteristics of the product and the activity can be done in their houses, while they attend their school or home duties.

The other work-shop was the plastic-bottle construction. The attendance to this one was lower than we expected. In fact, there were more assistants from the fishermen committee than from the village and again the children surprised us assisting to this activity and helping a lot. During the construction of a retaining wall to a tree that was falling, we were able to show the assistants the basics structures needed to build houses with this technique. The boys who assisted told to their fathers and some of them went to see the construction.

The wall was finished with some days of delay because of the rain. Many people from the neighbour villages come to the place to see the results. Some of them expressed their will to learn the technique and so, began recycling.

The construction of the turtle in the school's backyard was a big challenge. We never have seen something similar and the person who knew the technique didn't know clearly how to do it. But it was a compromise with the children so we began. It was a fantastic experience. Many parents come to the school to help us and one of them, resolve all the mystery.

After some days of work, attempt after attempt, many people reviewing and helping and the kids telling us they don't see the turtle in that thing, the sculpture was finished. We were the most amazed with the result, the turtle is just beautiful, it is the first turtle made of plastic

bottles and the kids love it. They enjoy a lot playing above of it and it is a new thing to show in the village.

After these results, the community expressed their desire to build, during the project in 2011, two structures the village needs: A communitarian dining room for the primary school and the ring seating for a "soccer field". In order to reach these objectives, they were going to recycle these two months before the project re-starts, in order to have the bottles we need for the construction.

Both work-shops had really good acceptance among the community members and we believe, the next steps are: to improve the techniques, to involve more people and to organize the commercialization of the products, in order to obtain more incomes for the families.

With time, the recycled paper products are going to be one of the auto-sustainable activities for the community based conservation program. The construction technique is going to be divulged during this year, looking for the possibility of new jobs for the men in the area.

## "Projecto Help Colombia" in Images: Some Conclusions

# **Involving the Fishermen**





Improving the fishing gear it is a great option of support their activity without giving money in cash







Sharing with the fishermen their daily activities, strength the relation and improve the understanding of the process.









Support the fishermen in basic aspects, like the improvement of their base camp, is something valuable for them.





















Better commercialization conditions with the active participation of the fishermen, looks like a good strategy of income improvement.

# The turtle released in Palomino











It was a really nice experience for everyone.





## **Environmental Education**







The group work makes them see the importance of community to achieve common goals.





Working among different ages, reinforces tolerance and respect among children.

















Play together strengths relationship between children and Foundation's team. They feel us like part of their community and that make easier the awareness.









The manual activities are a marvellous feedback of the environmental talks.



Involve the children in the preparation of the things we gave to them, make them feel part of a process.









## Children's Day Celebration



















They enjoyed a lot. They never had had a party like this one!

The presence of research team in the school is an important interaction that allows increment awareness of environmental protection in a daily life situation.













## **Alternative Activities**







Make the recycling program the origin of the material for new incomes; give sustainability and viability to the alternative activities.





# Recycled Paper Work shop





















Stimulate new sources of income is the beginning of a self sufficiency, that will alleviate pressure in natural resources.















The social inclusion is one of the most important achievements, and one determinant factor in the community participation.









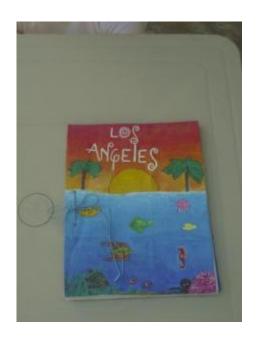
# It was a great beginning!!











The divulgation of the activity and orders from third persons, are an incredible incentive.











PET -Bottles Construction Workshop

















Columns and walls are the basic structures to build with this technique







## Sea Turtle Sculpture











Make the children participants of all the activities, involves them and generates expectative from the project.





































Have the credibility of the community depends on meeting each goal.

#### **BIBLIOGRAPHY**

Marcovaldi and Marcovaldi, 1999. Marine turtles of Brazil: The history and structure of Projeto TAMAR-IBAMA. Biological Conservation 91 (1999) 35-41.

M.Â. Marcovaldi, V. Patiri and J.C. Thomé, 2005. Projeto Tamar-Ibama: Twenty-Five Years Protecting Brazilian Sea Turtles Through a Community-Based Conservation Programme. *Mast* 2005, 3(2) and 4(1): 39–62.

Monterrosa M.C; Pavia, A and M. Palomino, 2009. Understanding the relationship between abiotic factors and hatching success of *Dermochelys coriacea* in Tayrona National Park, Colombian Caribbean: Implications for conservation. Season 2009. Colombia Marina Foundation. Bogota. 38 p.

Osborn, J; Pankratz, S and Preece, M.1995. Involving Communities in Sea Turtle Research: Education makes a difference. <a href="Mailto:IN\_23th">IN\_23th</a> International Symposium of Sea Turtle Biology and Conservation. Kuala Lumpur, Malaysia, 1995.

Panda and Sridhar, 2008. A project to support and promote conservation oriented coastal livelihoods through community action in Orissa, India. <u>IN</u> Indian Ocean Turtle Newsletter No. 7, 2008.