

Under Threat

The Over Exploitation of Sea Turtles in South Eastern Liberia

Liberia Sea Turtle Project

Save My Future Foundation

P. O. Box 6829

Airfield New Road (Opposite Good Shepherd)

1000 Monrovia 10, Liberia

Tel: + 377 47 516364/ 552617

Fax: +231 226235/ 226193

Email: samfu1@yahoo.com

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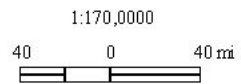
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Priority Map for Sea Turtle
Conservation in Liberia



LEGEND

- key areas of abundance and diversity of sea turtles
- Counties



1.0 INTRODUCTION

The Liberia Sea Turtle Project (LSTP) of the Save My Future Foundation (SAMFU) began a baseline survey on sea turtles in coastal communities along the Liberian coast in 2000. The survey aimed to gather scientific and baseline data on sea turtles found in Liberia's territorial waters and the coastal communities with which they interact. The gathered information would then be used to facilitate the development of a national strategy for sea turtle conservation in Liberia.

The Liberian coast was divided into two sectors (*Sector I* and *Sector II*) for easy and comprehensive coverage of all coastal communities while ensuring accuracy of the gathered information. Sector I covered coastal communities from Grand Cape Mount County to Rivercess County and Sector II covered Sinoe to Maryland County. The Rufford Foundation (UK) through its Rufford Small Grant for Nature Conservation funded the Phase I of the survey in Sector I.

The LSTP secured a second grant totaling US\$6,500 from the Critical Ecosystem Partnership Fund (CEPF) to complete the survey in Sector II.

This report covers the Liberia Sea Turtle Project baseline survey conducted in Sinoe, Grand Kru and Maryland counties (Sector II) in southeastern Liberia from September 2002 to March 2003.

1.1 Project goal and objectives

The goal of the LSTP is to promote the long-term survival of sea turtles, including the sustained recover of depleted stocks, taking into consideration the integrated well-being of residents of coastal communities with which they interact. The objectives of the survey include:

- Collect and collate basic data about sea turtles, including species identification, level of occurrence, diversity, etc.;
- Profile coastal communities in the sector including socio-economic activities, population, agricultural activities, etc.;
- Profile beaches (ecological characteristics);
- Gather information about other protected (endangered) marine species that occur in the sector including Manatees, Dolphins, Sharks, etc.
- To identify threats facing sea turtles nesting in coastal communities and those active in the coastal waters; and
- Identify priority coastal communities to initiate community-based conservation program.

The expected outputs include:

- Available scientific data about sea turtles including types of species occurring in the sector;
- Available scientific data about other protected marine species occurring in the sector;
- Available information about threats and prospects for conservation of the species;
- Improved local understanding and knowledge about the different protected and endangered species occurring in the sector including conservation needs;
- Detailed socio-economic profile of communities in the sector focusing on their priorities and needs; and
- Available scientific data for the development of a national strategy for the conservation of sea turtles and other endangered marine species.

1.2 Project location

Liberia is located in West Africa, bounded by Guinea in the north, Sierra Leone in the west, Cote d'Ivoire in the east and the Atlantic Ocean in the south, and lies between 4°39' and 8°30' north of the equator. Sandy beaches interspersed with rocky sections and mangrove swamps dominate the coast. The sandy beaches are often fringed by coconut plantations and in some areas by thorny thick shrubs.

The country has a tropical climate. Hot and humid dry winters with hot days and cool to cold nights during wet and cloudy summers¹. The constant mean temperature is 80° Fahrenheit.

Liberia's population is approximately three million, a total area of 111,370 km² and inhabits a coastline covering some 579km stretching across nine of the fifteen counties.

The country can be divided into three distinct topographical areas - a flat coastal plain of some 16-80km width; an area of broken, forested hills with altitude 180-370m, and an area of mountains in the northern highlands, with elevations reaching 1380-1384km.

2.0 SURVEY METHODOLOGY

The survey in Sector II covered coastal communities in Sinoe, Grand Kru and Maryland Counties - from Bafu Bay in Sinoe to Karblaken in Maryland County. The sector was further divided into three sub-sectors.

¹*World Fact book 2000-Liberia*

Sub-sector I: Bafu Bay to Greenville City (Sinoe County);
Sub-sector II: Greenville to Picnicess (Grand Kru County);
Sub-sector III: Picnicess to Karblaken (Maryland County).

The survey teams walked the entire coast from Bafu Bay to Karblaken and conducted interviews with residents of coastal communities. Available carapaces were examined and sampled for future genetic analysis. A standard interview questionnaire was used throughout the survey. Nests identified, including poached nests, were recorded.

Upon arrival in villages the teams met first with the chief or highest ranking local authority to request a meeting with community residents in a central location to brief them about our mission. During the communal meetings, the survey team explained the aims of the survey, which was always to gather information about sea turtles activities in the area, and answered questions from the residents of the community. In almost every community, residents received the information about our intention with cautious enthusiasm. Sea turtle posters, depicting photographs of the different species of sea turtles, and fact sheet were then distributed to residents and thereafter randomly selected residents were interviewed individually.

During the individual interviews, residents were asked whether sea turtles visit their beaches and if the interviewee was a fisherman, he was asked whether sea turtles were found in the waters off the coast. If the answers were yes, they were asked to identify the species from the poster. S/he was then asked for proof to support their claim that sea turtles were found in their area. In some instances the interviewee displayed either a carapace or s/he directed the team to a house or quarter where a carapace could be found or where poached eggs were on sale. Carapaces found were measured and sampled (*See Appendix for full questionnaire*)

3.0 INSPECTING SPECIES

For all available carapace, the following measurements were recorded:

1. Curved Carapace Length (CCL)
2. Curved Carapace Width (CCW)
3. Number of marginal, coastal and vertebral Scutes

3.1 Species occurrence and nesting activities

Villagers and travelers' accounts and our personal observation based on carapaces found in this sector suggest that at least four species of sea turtles are active in the area. These include Olive Ridley, Leatherbacks, Hawksbill and Greens.

Sea turtles nest on the entire coast from Sinoe to Maryland County, except in the few areas broken by rocky sections. However, abundance was most noticeable in few areas between Picnicess and Welabo Beach, Karblaken and Cavalla, and Bafu Bay. This was evident by the number of nests recorded and anecdotal accounts.

From Bafu Bay to Greenville (*zone 1*) fifty-seven of the fifty-eight nests identified were poached and only one was not poached. The area from Greenville to Picnicess (*zone 2*) recorded seventy-two nests with seventy of them being poached and from Picnicess to Karblaken (*zone 3*) ninety-three nests were counted with eighty-six of them recorded as poached. This area recorded the highest in Sector II. More than 95% of the total number of nests recorded was poached indicating an alarmingly high rate of poaching activities. This appears to be influenced by the fact that human traffic on the beaches is extremely high as most people walk the distance since most motor roads are virtually impassible for most of the year.

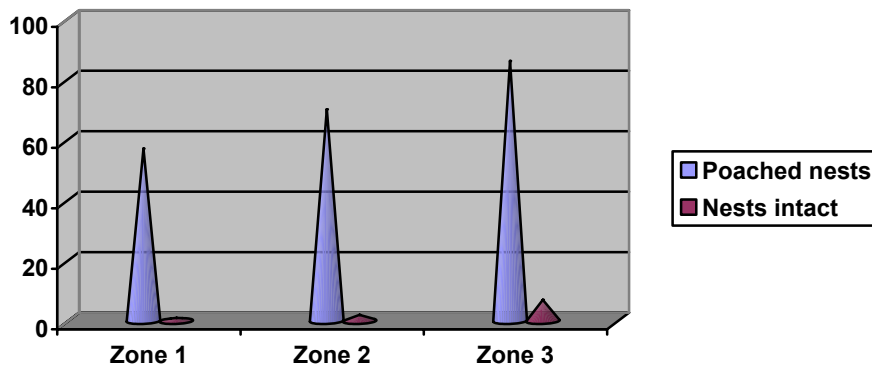


Figure 1: Comparative analysis of nests recorded in Sector II

Poaching activities are carried out mostly during the day unlike in Sector I where specialized hunters go out at night to hunt for nesting turtles. For most of the recorded nests the emerging and return tracks were still clearly visible. This suggests that a greater percentage of nesting turtles do go back to sea safely.

The peak of the nesting period appears to be climatically influenced. In all the communities visited, residents suggested that the nesting season falls between late September and March with November and December serving as the peak of the nesting season. This time falls within the dry season in Liberia.

Due to the lack of rainfall during the dry season, there were more definite indicators of nesting activities such as tracks, nests, poached nests with broken egg shells, poached nests with the nesting turtles being killed evidenced by

decayed parts and at times blood on the slaughter platform usually made of coconut thatch.

Of the species found to be nesting in the sector, Olive Ridley and Leatherbacks appear to be the most common. This was evident by the frequencies of nest recorded.

3.2 Sea turtle consumption and utilization

Residents of coastal communities throughout the sector eat sea turtle meat. However, it is not as widespread as was recorded in Sector I where specialized sea turtle hunting was being done on a wider scale. In Sector II egg gathering or poaching is much more practiced and is carried out mostly by travelers. The majority of travelers from coastal towns and villages in Grand Kru to Harper city travel by way of the coast trekking along the beach or travel in dugout canoes on the sea. This is primarily due to the fact that for most of the year the motor roads are virtually impassable while for some residents, transportation fares are too high. Therefore, only those traveling from one village to the other or from Harper heading home frequently come across nests, which they often poach.

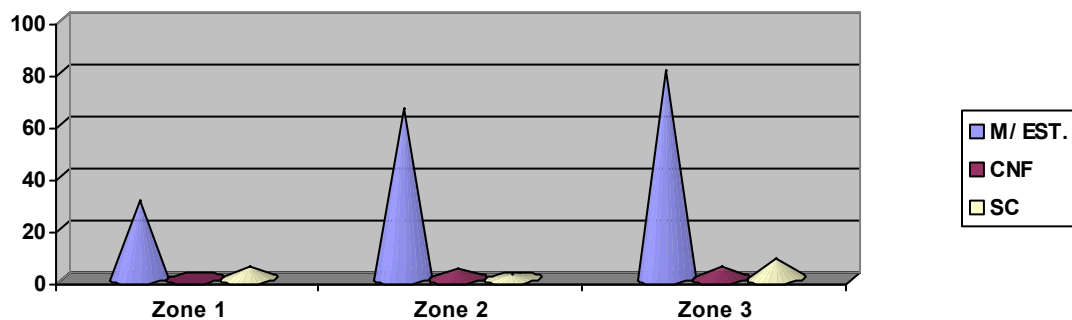
In a few towns and villages some residents go out in daytime to poach nests and sometimes come across nesting turtles. In these instances Leatherbacks are usually killed by the nest apparently due to their size while Olive Ridley and Hawksbill when caught are turned-over and pulled to town. Very few fishermen reported catching turtles at sea.

Sea turtles are killed primarily for their meat. In most of the smaller towns and villages residents share the meat amongst the various households and rarely sell any. In bigger towns, the fortunate resident butchers his/ her find along with a few close friends and/ or relatives, shares portion with them and sells the rest. A full-grown Leatherback when butchered sell for between L\$750 – L\$1000 an equivalent of U\$12.50 to US\$16.67. Olive Ridley and hawksbill fetch far less than the leatherbacks and are mostly consumed by the household. The turtle eggs are boiled, dried and stored for gradual consumption in some households while others sell them fresh or boiled. Four eggs are sold for L\$5 (U\$0.08); hence, as many as one hundred eggs are sold for about U\$2.08 maximum.

When the turtle is butchered the blood is collected, boiled and baked into a mulch product that tastes like liver. For leatherbacks, the soft backs are also boiled and the oil collected to be either used as body ointment or wax for lamps the locals refer to as *Jofia*. Most of the carapaces of the Olive Ridelys are split into pieces, boiled and the tiny bits of flesh extracted. Consequently, only few carapaces are available in most towns and villages including those that reported significant nesting and capture of nesting females.

Unlike in cities such as Harper and Greenville there is no thriving market for sea turtle meat and their products in rural coastal communities.

From Bafu Bay to Greenville (*zone 1*), no captured nesting female was physically recorded, however, five old carapaces were sampled. This may be due to the fact that this area was covered in early September when nesting activities was just beginning. In the area between Greenville and Picnicess (*zone 2*), four killed nesting females were physically recorded with two of them being sampled while in the region between Picnicess and Karblaken (*zone 3*) five killed nesting females were recorded and eight carapaces sampled including three old ones.



M/ EST: Monthly estimates of sea turtles killed in the zone
CNF: Captured nesting turtles physically identified during survey
CS: Carapaces sampled

Figure 2: Estimates of turtles killed during the peak of the nesting season

3.3 Occurrence of other endangered marine species

Fishermen in all the coastal communities surveyed, in sector II, confirmed the occurrence of Sharks and Dolphins in their areas. They could not confirm the existence of Manatees.

Fishermen and residents were shown the protected bush meat poster and asked to identify any sea animal, other than turtles, that they had seen in their area. None of those interview pointed out the Manatee. The team would then describe the Manatee and ask them whether anyone had killed any sea animal resembling the Manatee. Again they all responded in the negative.

However, fishermen confirmed that they usually killed Sharks and Dolphins at sea but were quick to point out that it was because the sharks destroyed their fishing nests. On further questioning, the teams gathered that the sale of shark fins is a very lucrative business for fishermen in the area. The greater percentage of fishermen interviewed put the price of a kilo of shark fins at 10,000franc CFA

or about US\$20 when sold in border towns in Ivory Coast while it sold for between U\$30 – 40 in Tabou and San Pedro.

It should be noted that most of the fishermen appeared to be aware that killing sharks is illegal. When asked directly whether they fished for sharks the quick response was always in the negative. However, when questioned about the different types of fish, especially bigger ones, occurring in their area they quickly responded that sharks, dolphins and occasionally whale occurred in their area. Although, the fishermen argument that they hunted sharks because the sharks destroyed their fishing nests have some elements of truth, it appears to be primarily in defense of their illegal actions.

4.0 SOCIO-ECONOMIC PROFILE OF COASTAL COMMUNITIES

The Kru and Grebo are the predominant ethnic groups that inhabit the coastal communities in Sinoe, Grand Kru and Maryland counties. Two other sub-tribes, who refer to themselves as Welabo and Garraway, are found between Grand Cess (Grand Kru County) and Fish Town (Maryland County). Their dialects are somewhat different from those of the Grebos and Krus as very few Grebos and Krus can understand them. The origin of this dialect is not clear, but it appears that the dialect is a mix of the local dialects and another vernacular we were unable to establish. However, they and the Krus and Grebos appear to be interrelated, given the fact that their cultural and spiritual beliefs and practices are practically the same. A vast number of the inhabitants of the sector are Roman Catholic.

4.1 Education

All the major towns in the sector have a Catholic School and a church. Some have public schools, which are being run mostly on self-help basis. Elementary schools are predominant in the sector and are the most populated while junior and senior high schools are few and the attendance for higher classes is usually small.

4.2 Health

Health centers are found mainly in major towns. Most of these clinics are miles away from the coastal communities and patients in critical conditions have to be carried in hammocks, as vehicle movement is limited due to the bad state of roads in the region. This lack of transportation is a major contributing factor to the high death rate amongst patients. Additionally, many unprofessional drug peddlers or *black-baggers*, as they are called locally, roam the region.

4.3 Water and sanitation

The sanitary conditions in all the coastal communities visited are poor. The major towns have hand-pumps but many of them are damaged while those that are functioning in most instances are treated infrequently. Residents of the other smaller coastal towns fetch drinking water from nearby streams and shallow rivers that are often polluted from many sources. The beaches and nearby bushes are used primarily for latrines by residents.

4.4 Income

Fishing and coconut appear to be the dominant source of income for a smaller percentage of the population in this sector, while most of the residents rely on barter system. Salt and other basic provisions are exchanged for cassava, plantain, fish, etc. In other areas poached turtle eggs provide minimum source of income for egg gatherers. Although these coastal inhabitants make farms for rice, vegetables and other crops cassava and plantains dominate their diet.

5.0 CONSTRAINTS

During the survey some constraints were encountered. These included:

1. Transportation

- a. **Roads:** the roads in southeastern Liberia were in very bad state during entire survey. In some areas, especially in Grand Kru, which was still receiving heavy rainfalls during the months of October and November, the teams had to spend two to three days getting from Plebo to Grandcess. Considerable amount of energy were spent digging through bad spots. Considering that the teams then had to travel long distances on foot, along the coast, this made the survey much more strenuous than anticipated.
- b. **Rivers:** In this sector there are more large streams that can easily be described as rivers, which were not indicated on the available maps. This made canoes an additional form of transportation that team members had to personally pay for. Also, at times there was no one at crossing points when the teams arrived. This was expensive and at times delayed our movements, disrupting travel schedules and duration of field trips.

2. **Communication** (field): the lack of radios (high frequency) prevented communication between central office and survey teams out in the field. This was not only hazardous, but also caused delays as coordinating team movements became difficult. In one particular instance, a team heading to Greenville from Picnicess faced very serious difficulties. Having traveled for half of the way towards Greenville, where they were to meet with the driver, they came across a river without canoes and were delayed for three days trying to find an alternative route as they could not return to Grandcass where the vehicle had dropped them off.
3. **Carapaces**: Villagers and fishermen appeared to be aware that the law protects sea turtles. Thus they were at times reluctant to admit that sea turtles occur in their areas or to present carapaces - where they were available. Also some people do not value carapaces and throw them away after extracting the meat, while others would split them into pieces for cooking thereby rendering them useless for our purpose.

6.0 CONCLUSIONS AND RECOMMENDATIONS

The findings of the survey in sector I and II suggest that Olive Ridley and Leatherbacks are the abundant species in the coastal waters of Liberia followed by Hawksbill and Green, which seems to nest here occasionally.

Since it is mostly female turtles that come out primarily to nest, the killing of nesting females and poaching of eggs will have a long-term effect on sea turtle population in the region. However, to develop a realistic or practical strategy for sea turtle conservation in Liberia, the interests and well-being of the coastal communities where abundance and diversity were recorded needs to be taken into consideration. In order to generate local interest and participation, coastal dwellers must be consulted at all levels, from the bottom to the top, to ensure that they are given the opportunity to fully participate in the planning exercise. This can be achieved by:

1. Conducting one communal meeting/ workshop in each of the three priority areas identified during the survey to gather suggestions for the development of a national strategy for sea turtle conservation; and
2. Conducting one national workshop bringing together selected representatives from the three priority areas, INGOs and NGOs working on conservation issues specifically the bush meat campaign, students of the University of Liberia and the Cuttington University College, and at least one international

expert to harmonize the proposals emanating from the communal meetings/ workshops.

The communal meetings/ workshops will serve as a forum for residents of the target communities to express their concerns, hopes and fears, which will be documented and presented at the national workshop. The workshops will also provide an opportunity for the LSTP team to clearly spell out the benefits to be accrued from conservation of sea turtles to local communities. (*See: Appendix 1 for Expanded Summary of Recommendation*)

Appendix I: Abstract of Proposed Follow up Activities

Project Title: Liberia Sea Turtle Project (LSTP)

Overview: The LSTP proposes to conduct three communal workshops/ meetings, in three key communities that recorded significant abundance and diversity of sea turtles in southeastern Liberia, to gather suggestions for the development of a national strategy for sea turtle conservation. Each communal workshop/ meeting will last for two days. These three workshops/ meetings will be immediately followed by a national workshop to synchronize the suggestions and feed them into the national strategy to be developed by experts and representatives of the three communities.

The project aims to develop a national strategy plan for sea turtle conservation in Liberia. The national strategy will provide a framework for participatory community-based sea turtle conservation, to promote the long-term survival of the species including the sustained recovery of depleted stock, taking into consideration the integrated well-being of residents of the coastal communities with which they interact.

Short-term goal: A national strategy for community-based sea turtle conservation in Liberia developed and adopted.

Long-term goal: Implementation of the national strategy for sea turtle conservation to promote the long-term survival of the species including the sustained recovery of depleted stock, taking into consideration the integrated well-being of residents of the coastal communities with which they interact.

Key Activities and Expected Outcomes:

| Key Activities | Expected Outcomes |
|---|---|
| Two-day communal workshop/ meeting in Bafu Bay to introduce the concept of sea turtle conservation and gather suggestions for a community sea turtle conservation project in the area | <ul style="list-style-type: none"> ➤ Increased local knowledge about the species especially the need for conservation of the species; ➤ Available suggestions for the development of a community sea turtle conservation in the area. ➤ Available suggestions for alternatives to sea turtle consumption and trade in sea turtle products |
| Two-day communal workshop/ meeting in Grandcress to introduce the concept of sea turtle conservation and gather suggestions for a community sea turtle conservation project in the area | <ul style="list-style-type: none"> ➤ Increased local knowledge about the species especially the need for conservation of the species; ➤ Available suggestions for the development of a community sea turtle conservation in the area; ➤ Available suggestions for alternatives to sea turtle consumption and trade in sea turtle products. |
| Two-day communal workshop/ meeting in Karblaken to introduce the concept of sea turtle conservation and gather suggestions for a community sea turtle conservation project in the area | <ul style="list-style-type: none"> ➤ Increased local knowledge about the species especially the need for conservation of the species; ➤ Available suggestions for the development of a community sea turtle conservation in the area; ➤ Available suggestions for alternatives to sea turtle consumption and trade in sea turtle products |
| Two-day national workshop | <ul style="list-style-type: none"> ➤ Harmonized proposal from the three communal workshops; ➤ A national strategy for community-based sea turtle conservation in Liberia; ➤ Increased national awareness of national efforts for the conservation of the species. |

Appendix II: Coastal towns and villages in Sector II

Sub-sector I

Bame Town
Tournita
Bafu Bay

Coordinates

GPS not available for this trip
GPS not available for this trip
GPS not available for this trip

Sub-sector II

Greenville
Setra-Kru
Krogba Town
Noepon
Dugbe Bridge
Nana-Kru
King Williams Town
Nearer
Soubo
Botra
Neegba
Baetu
Sasstown
Suegbagbo
Turpaklee

Coordinates

5⁰00.848⁰N - 9⁰ 02.406⁰W
4⁰52.757⁰N - 8⁰ 48.569⁰W
4⁰51.872⁰N - 8⁰ 47.585⁰W
4⁰51.725⁰N - 8⁰ 47.669⁰W
4⁰49.883⁰N - 8⁰ 43.651⁰W
4⁰48.844⁰N - 8⁰ 42.809⁰W
4⁰48.097⁰N - 8⁰ 40.512⁰W
4⁰46.892⁰N - 8⁰ 37.390⁰W
4⁰45.508⁰N - 8⁰ 34.209⁰W
4⁰44.603⁰N - 8⁰ 32.189⁰W
4⁰42.370⁰N - 8⁰ 28.613⁰W
4⁰40.066⁰N - 8⁰ 25.605⁰W
4⁰38.984⁰N - 8⁰ 23.335⁰W
4⁰37.748⁰N - 8⁰ 19.268⁰W

Sub-sector III

Picnicess
Grandcess
Mattea
Wealaboo
Welabbo Beach
Po-River Town
Po-River Middle Town
Garraway
Nemaih
Fish Town
Middle Town
Rock town
Harper
Cavalla
Karblaken

Coordinates

4⁰36.691⁰N - 8⁰ 17.799⁰W
4⁰33.942⁰N - 8⁰ 13.079⁰W
4⁰33.032⁰N - 8⁰ 7.320⁰W
4⁰32.307⁰N - 8⁰ 03.890⁰W
4⁰31.539⁰N - 8⁰ 00.301⁰W
4⁰29.791⁰N - 7⁰ 56.239⁰W
4⁰28.638⁰N - 7⁰ 52.770⁰W
4⁰25.168⁰N - 7⁰ 48.756⁰W
4⁰24.858⁰N - 7⁰ 48.075⁰W
4⁰24.353⁰N - 7⁰ 46.990⁰W
4⁰22.442⁰N - 7⁰ 43.169⁰W
4⁰21.676⁰N - 7⁰ 34.969⁰W
4⁰21.842⁰N - 7⁰ 32.019⁰W

Appendix III: Survey Questionnaire

**LIBERIA SEA TURTLE PROJECT BASELINE SURVEY
OUTLINE FOR SEMI-STRUCTURE INTERVIEWS**

1. Date (s) Visited _____
Names of surveyors _____
2. Community Location
- a. County _____ e. Village _____
b. District _____ f. Tribe _____
c. Compound _____ g. Name of Beach _____
d. Town/Area _____
h. Length of Beach in kg (Specify whether estimated or actually measured) _____
i. Description of Beach _____
-

3. Community Activities

A. Primary Activity (Specify season of this activity)

- (1) Fishing [] (5) Gardening []
(2) Hunting [] (6) Commerce []
(3) Agriculture [] (7) Others (specify) []
(4) Turtle Hunting []

B. Secondary Activities (List in order of priority and specify season of activity)

- (1) Fishing [] (5) Gardening []
(2) Hunting [] (6) Commerce []
(3) Agriculture [] (7) Other (specify) []
(4) Turtle Hunting []

4. If your primary activity is fishing, then : Liberia _____ Others: _____
(1) How many times do you go fishing in a week? _____
(2) Does this number change by season? _____
(3) Is your catch often abundant? _____

What do you frequently catch besides fish?

- (1) Manatees (3) Sharks
(2) Dolphins (4) Others _____

1. How do you catch / hunt for them?

1. Manatees: _____
2. Dolphins: _____
3. Sharks/Others: _____

6. How frequently do you catch them?

- (1) Number _____
(2) Month _____

(3) When do you get the best catch? Month (s) _____

Time of day _____

7. Observations, occurrences, and seasonality

i. Do you know that sea turtles come to your coast? _____

ii. Why do they come to your coast? Is it for:

a. Laying eggs _____

b. Feeding themselves _____

c. Resting _____

d. You're not sure _____

iii. What evidence do you have that sea turtle come to your coast?

a. Tracks _____

d. New born _____

b. Nests _____

e. Adult female _____

c. Eggs _____

f. Adult restrained on the beach _____

iv. Where are they found (Specific location)? _____

v. During which periods (Months, Time of day) do you often catch/hunt/see sea turtles? _____

vi. What are the kinds of turtles you find? Show the photographs

English Name _____; Local Name _____

English Name _____; Local Name _____

English Name _____; Local Name _____

English Name _____; Local Name _____

vii. With what frequency do you find them?

Yearly _____; Monthly _____; Weekly _____; Daily _____

viii. When was your last successful catch of turtles? _____

ix. Does the turtle population seem to be:

Increasing _____ Decreasing _____ Stable _____ Don't Know _____

x. Do you or anyone of you have any turtle shells? Yes [] No []

8. Hunting for eggs

a. Do you hunt for eggs? _____

b. If yes, rate how often _____

c. How do you hunt for the eggs _____

d. How many eggs do you collect per gathering session? _____

- e. What do you do with the eggs you find? _____
9. Is the capture of females (coming to lay eggs) practiced? _____
- a. Are adults capture at sea? _____
- b. If no, where are they captured? _____
- c. How many turtles did you sell last year? _____ and over this year _____
10. Utilization
- a. What are the captured turtles used for?
- Sale of the meat on the market []
- The consumption of the meat (by tradition) []
- Use of the grease/oil for local consumption []
- For traditional country medicine []
- The shells for tourism []
- The scales for _____
- b. How much can sea turtle be sold for, according to you? _____
- c. How much can you sell the sea turtles/ eggs for? _____
- d. Who do you sell the sea turtles/ eggs to? _____
11. Uses of the beach areas
- a. What are the major activities on the beaches in your area? _____
- b. Are the any restaurants on the beaches in your area (specify)? _____
12. Presence of associations
- a. Is there a fishermen's association in your area? _____
- b. Date of creation _____
- c. Contact Person _____
- If no, are there any fishermen's association in areas nearby (specify)? _____
- d. Are there any other associations or clubs managing the beaches in your areas? _____
13. Interviewer's Comment: 14. Map of Area