

Socio-economic monitoring by Caribbean Challenge MPA Managers

Report No. 4

Socio-economic Monitoring of the Pointe Sable Environmental Protection Area by the Saint Lucia National Trust

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1 INTRODUCTION

1.1 Socio-economic Monitoring by Caribbean Challenge MPA Managers

Socio-economic monitoring for coastal management in the Caribbean (SocMon Caribbean) is a globally networked, regionally adapted, practical methodology of socio-economic monitoring for coastal management (Bunce et al. 2000, Bunce and Pomeroy 2003). Consultation with representatives of the MPA community associated with the Caribbean Challenge Initiative¹ indicated the need for capacity building in socio-economic monitoring for the development of an effective regional system of MPAs. This need for MPA capacity building in socio-economic assessment and monitoring has also been identified in various training needs and capacity assessments (Parsram 2007 and Gombos et al. 2011). The Caribbean Challenge Initiative and regional training in SocMon provide a major opportunity for uptake of SocMon for achieving improved MPA management capacity and therefore conservation of coastal resources. With strengthened capacity for management through socio-economic monitoring, MPA managers, authorities and field staffs will also increase their capacity for adaptive management through learning-by-doing.

The Centre for Resource Management and Environmental Studies (CERMES) at the University of the West Indies, Cave Hill Campus was awarded a grant of just over USD 63,000 by The National Fish and Wildlife Foundation (NFWF) to support Socio-economic monitoring by Caribbean Challenge MPA managers. The project's long-term conservation outcome is increased capacity for effective MPA management among Caribbean Challenge (CC) countries through the use of social and economic monitoring data in MPA decision-making.

The goal of this project is to build capacity for improved and effective MPA management among Caribbean Challenge countries by promoting the use of social and economic data in MPA management by:

- Training approximately 40 MPA managers/staff, from three Caribbean Challenge countries, in the practical use of SocMon Caribbean methods via three country-specific workshops
- Initiation of eight site assessment and monitoring programs for coastal management in each of the countries receiving the training via a small grant of USD 2,500
- Documentation of training and monitoring initiation processes, to make them available to a worldwide audience and CERMES communications for replication, with improvement, in future rounds of SocMon activity
- Submission of compatible data to the Reef Base Socio-Economic global database and CaMPAM database

The project involves eight MPAs across three CC countries - Grenada, St. Vincent and the Grenadines, and St. Lucia. Participating MPAs in Saint Lucia include the Pointe Sable Environmental Protection Area (PSEPA), the Soufriere Marine Management Area (SMMA) and the Pitons Management Area (PMA). This report presents project activities and results of socio-economic monitoring conducted at the PSEPA.

¹ (<http://www.nature.org/ourinitiatives/regions/caribbean/caribbean-challenge.xml>)

1.2 Situation overview

The Pointe Sable Environmental Protection Area (PSEPA) is located along Saint Lucia's southeast coast, occupying approximately 2.5 km² in area (Espeut 2006). According to the Gazette Notice, dated August 27, 2007, the PSEPA is "located from Pointe De Caille to Moule a Chique including Savannes and Pointe Sable in the quarter of Vieux Fort". The designated area consists of a narrow coastal strip (the Quen's Chain), the Savannes Bay Mangroves and Mankote Mangroves (RAMSAR sites), and adjacent cays which comprise the Scorpion Island and Maria Islands wildlife reserve (Gardner 2009). Most of the terrain is low and undulating, the highest point being at Moule a Chique (223m) at the southern tip of the island. A detailed map of the PSEPA is shown in Figure 1.

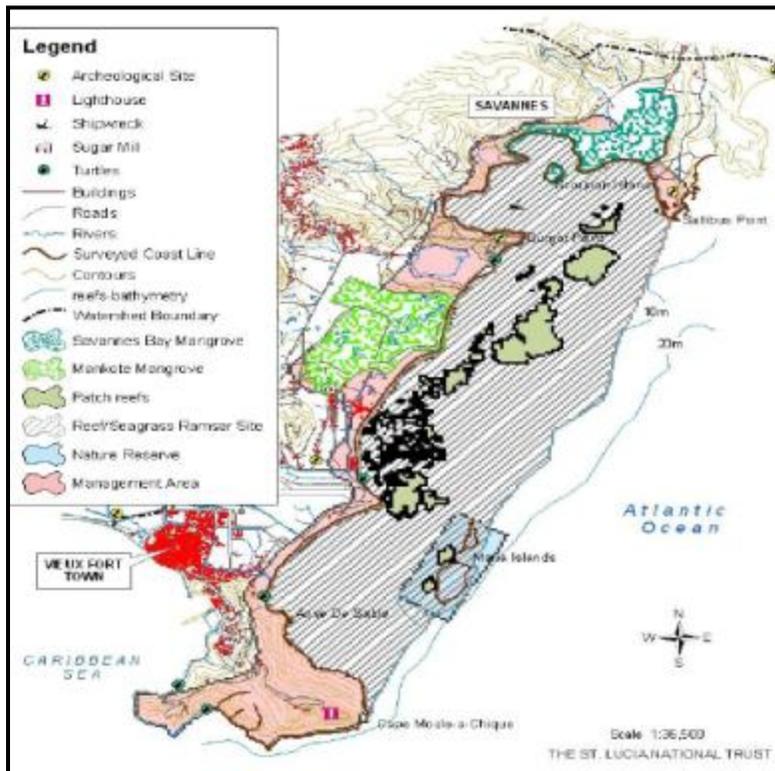


Figure 1 Map showing the Pointe Sable Environmental Management Area

1.2.1 Natural resources

Within the PSEPA is an abundance of natural resources which can be described as critical resources due to their biodiversity value, their contribution to the local economy, and their potential contribution to the national development process. According to Clauzel (1997), "the Pointe Sable Environmental Protection Area contains natural resources that support the local and national economy and development process, and some ecosystems are nationally and internationally significant". A few of these essential resources include:

- Maria Islands Major and Minor
- Mankote Mangrove

- Savannes Bay Mangrove and Scorpion Island
- Coral Reefs
- Sea grass beds
- Fishery Resources
- Dry Forests
- Beaches

A diversity of flora and fauna can be found within the PSEPA. Espeut(2006) posits that five endemic species of herpetofauna are found in the PSEPA, the most noteworthy of which are two species found exclusively on the Maria Islands: the Saint Lucia Racer Snake (*Llophisornatus*) and the Maria Islands Whiptail Lizard (*Cnemidophorusvanzoi*). Satney and Chase (2008) also purport that there are 56 families of plants and 166 species of birds, six of which are endemic species.

1.2.2 Historical resources

Resources within the PSEPA are not only limited to those of biological significance. The PSEPA also boasts sites of historical importance including the Moule a Chique Lighthouse, Amerindian sites at Pointe de Caille and Anse de Sable, ruins of factories and buildings associated with sugar cultivation and roads and structures remaining from the US military base established during the World War II.

1.2.3 Community profile

Permanent habitation within the Pointe Sable Environmental Protection Area is negligible; however most dwellings are found around the inland and coastal communities of the eastern and southern areas of the town of Vieux-Fort, including the communities of Belle Vue, Aupicon, Savannes, Beausejour, Moule-a-Chique, Retraite, Pierrot, Cacao/Vigé, Bruceville, La Tourney and La Ressource. It is also important to note however that there are areas in the surrounding districts of Micoud and Laborie that are closer to the PSEPA than the north-western portions of the District of Vieux Fort.

1.2.4 Demographic profile

The Vieux Fort District comprises 94 electoral divisions of which only 13 divisions contain populations with more than 100 households. According to the 2010 Population and Housing Census Preliminary Report, the total population of Vieux Fort is 16,284 distributed as 5,740 households, with a population density of 964 and an average household size of 2.8. This shows a 10.4% increase in total population from 2001 (14,754 in 2001) and a 38.5% increase in the number of households (4,144 in 2001). The Preliminary Report also indicated that there are 8,166 males and 8,118 females who permanently reside in Vieux Fort, resulting in a sex ratio (number of females to 100 males) of 99.4.

1.2.5 Socio-economic profile

The Government of Saint Lucia, through the Statistics Department, calculated the 2001 poverty profile for the 282 communities within the island state. This study resulted in the classification of communities into 5 categories: Poor, Low Class, Average, Middle Class, and Upper Class. This study indicated that the PSEPA is “Average” to “Middle Class” with one small “Low Class” area and one small “Poor” area. Moule-a-Chique is categorized as “Middle Class” because the few homes on the

slopes (outside the proposed boundary) are upscale. Vieux Fort is “Middle Class” except for Bruceville which is “Low Class”. Most of Savannes Bay is classed “Average” except for a small part which is classed “Poor” (Espeut, 2006). This confirms that the PSEPA falls somewhat in the middle of the scale; not too rich but not too poor.

According to an unemployment study conducted for the districts of Saint Lucia in 2004, the district of Vieux Fort has the highest rate of unemployment on the island ranging from 25% -32%. This is an alarming increase from the averaged 16.1% recorded in the 2001 Population and Household Census with different rates for males (15.1%) and females (17.4%). However, despite the relatively high unemployment levels, the standard of living in Vieux Fort is high, due to supplemental income received by overseas relatives. It is believed that without this additional income however, many persons living within the PSEPA would fall below the poverty line.

1.2.6 Activity/livelihood profile

The main economic activities undertaken within and near the PSEPA are fishing, tourism, charcoal production and agriculture. Fishery resources harvested within the PSEPA include sardine, lobster, sea urchin, conch, crab, ballahoo, jacks, a variety of reef fish, and turtle eggs. Sardines, ballahoo, and jacks are seasonal. Touristic activities include wind surfing, parasailing, snorkelling, beach parties, horse-back riding, eco-tourism tours, swimming, sea-bathing and sun bathing. A number of fishermen also supplement their livelihoods by maintaining small farms. Seamoss farming takes place to a lesser extent at the northern end of the Bois Chadon Beach.

Table 1 below with its corresponding map (Error! Reference source not found.) highlights some of the main resource uses by location within the PSEPA.

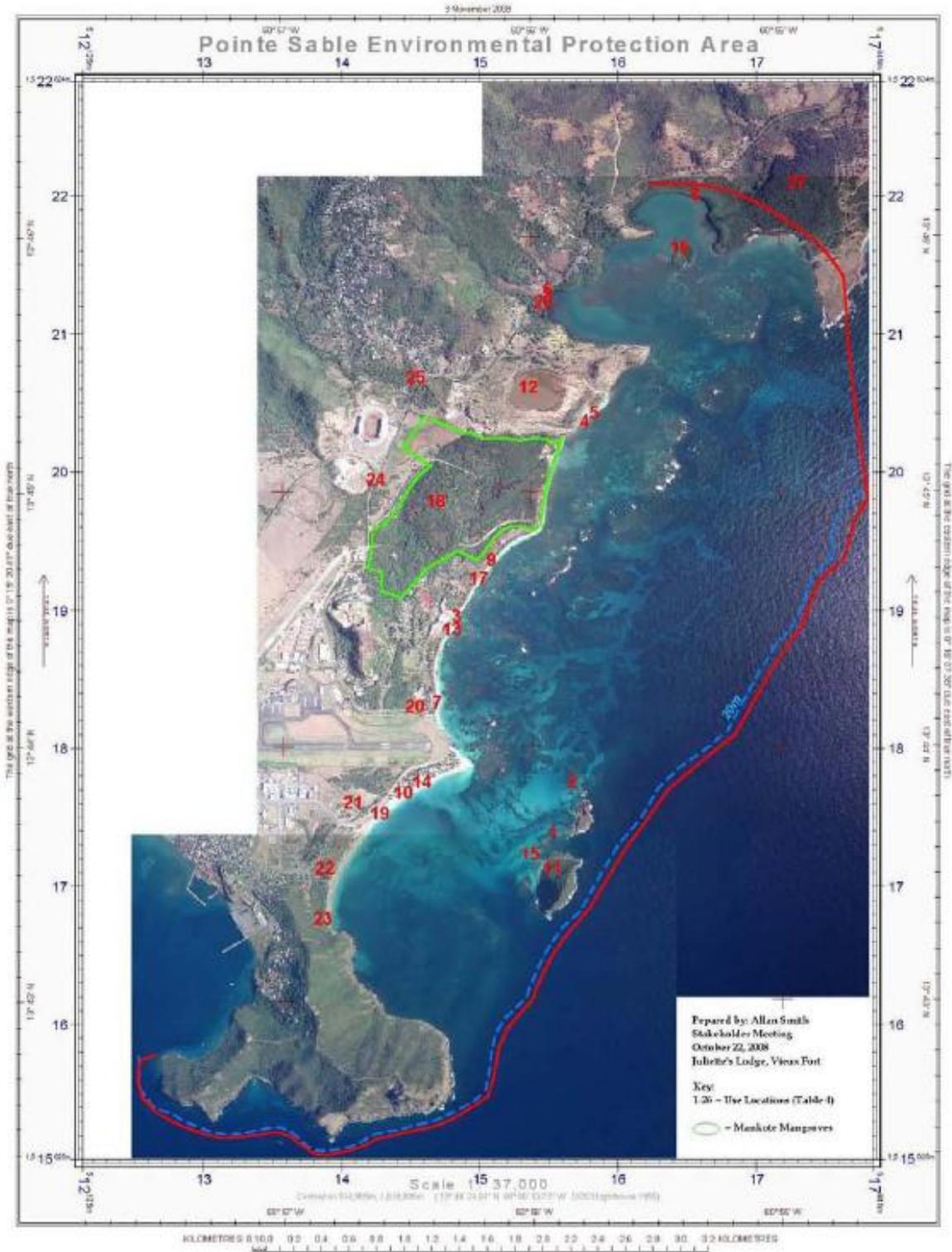


Figure 2

Table 1 Resource use by location within the PSEPA

Location # (see Figure 2)	Resource use
1	Elkhorn coral reef – supports pot fishing
2	Islet north – pot fishing and spear fishing throughout area, northward to hotel
3	Coconut Bay Hotel
4	Northern end of Bois Chadon – location of seamoss farms
5	Cast net fishing (mostly for sardines)
6	Savannes Bay fish landing site
7	Fish landing site (Lobster Pot/Beach Café)
8	North corner of Savannes Bay – tie-up area for some fishing boats. Access pathway to the bay.
9	Bois Chadon Beach – windsurfing, horseback riding, seine net fishing
10	Anse de Sable Beach
11	Maria Islands. Important biodiversity site. Used by fishers for net casting. Undesirable use impacts include littering and lighting of fires.
12	Boreil Pond
13	Bois Chadon Beach – confirmed (active) turtle nesting area
14	Anse de Sable – reported case of leatherback turtle nesting
15	Area adjacent to Maria Island – fishers use nets to catch ballahoo, sardine, and jack (August –November). Small mesh size producing by-catch of very small fish.
16	Scorpion Island – kayak tours launched from Savannes Bay fish landing site. Users are mainly Saint Lucians.
17	Bois Chadon – horseback tours along beach, into mangroves, and up to the ridge.
18	Mankote Mangroves – white and buttonwood mangroves harvested for charcoal production and construction materials. Coconut Bay Hotel had an agreement with the Aupicon Charcoal Producers Association to conduct tours in the mangroves. Status currently uncertain.
19	Anse de Sable Beach – very heavily used for recreational activities
20	Lobster Pot Restaurant/Beach Café – discharge point for storm drain/stream from the northern-eastern part of the airport and industrial zone.
21	Anse de Sable – discharge point for storm drain from Vieux Fort
22	Bruceville – storm drain
23	Bruceville – storm drain
24	Drain from landfill into herbaceous wetland bordering Mankote Mangroves
25	Drain south of aggregate storage facility (in front of Payless Tyre Service)
26	Drain/stream at Palmis (close to fish landing site at Savannes Bay)

Source: Gardner (2009)

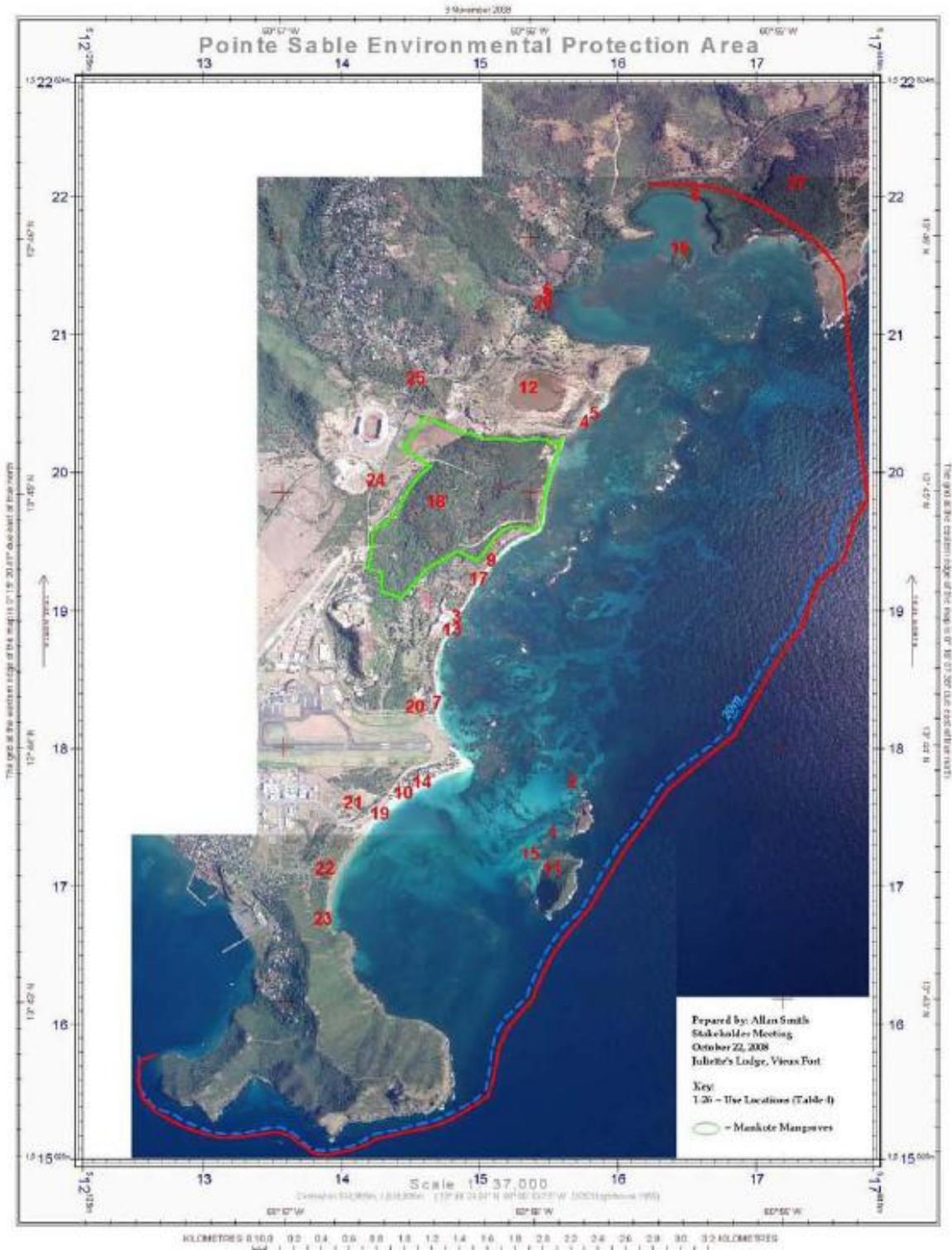


Figure 2 Resource use locations in the PSEPA
Source: Gardner(2009)

1.2.7 Present threats

In 2002, The Nature Conservancy (TNC) conducted a Threat Analysis for three protected areas in Saint Lucia. The PSEPA was one of these protected areas under investigation. The report highlighted critical threats identified by stakeholders as:

- Inappropriate agricultural practices
- Feral livestock
- Pollution (solid waste, effluents, non-point source pollution)
- Deforestation (mangroves)
- Inappropriate fishing practices
- Inappropriate development practices
- Inadequate enforcement
- Inappropriate extractive practices
- Invasive species

1.3 Goals and objectives

The goals and objectives of the PSEPA SocMon are outlined below. Through working sessions subsequent to SocMon training conducted in January 2012 to develop a site monitoring plan for socio-economic monitoring at the site, the following goals and objectives were developed and refined:

Goal: To determine the extent to which the people in the Vieux-Fort Community are aware of (a) the Pointe Sable Environmental Protection Area (PSEPA) as a protected area, and (b) the various current and potential livelihood opportunities which exist in the area.

Objectives:

- To determine the level of awareness of the existence of the PSEPA.
- To determine the level of awareness of current and potential livelihoods opportunities which exist within the PSEPA.
- To determine the number of households currently benefiting (economically) from the PSEPA.

1.4 Organization of report

This report adopts the following format:

Section	Description
1. Introduction	This section provides an overview of the SocMon process in Pointe Sable Environmental Protection Area in Saint Lucia. It comprises the introduction in which a background to the project including a situation overview as well as the goals and objectives.
2. Method	A detailed description of the methodology used to execute the project is provided. An account of the SocMon training workshop, the preparation activities and the makeup of the SocMon team is included. Secondary data used to augment the primary data collected

Section	Description
	is highlighted. The surveying methodology of households is also presented in this section. A description of the observations and other materials used to supplement the data collected is provided. A narrative of data entry and analysis is presented in this section along with the means of communication of the data collected. A map of the sample area is also provided.
3. Results	In this section the site location is defined. A description of the various profiles of the site location is provided including the ecological, community, demographic, socio-economic and livelihood. The results of the site assessment are provided accompanied by relevant data charts.
4. Discussion and conclusion	A general discussion of results and conclusions with examination of specific aspects of the study is provided. Comparisons of the results are made and possible reasons for the differences are stated.
5. Recommendations for monitoring and adaptive management	A list of recommendations for the continued monitoring and management of the Pointe Sable Environmental Protection Area is provided.

2 METHOD

2.1 SocMonTraining

The Socio-economic monitoring by Caribbean Challenge MPA Managers (Caribbean Challenge SocMon) training workshop was held at the Juliette’s Lodge Hotel, Vieux Fort, Saint Lucia, from 16 – 20 January 2012. This workshop was facilitated by Ms. Maria Pena (Project Manager) and Ms. Katherine Blackman (Assistant SocMon Trainer), both from the Centre for Resource Management and Environmental Studies (CERMES) at the University of the West Indies (UWI), Barbados. Dr Patrick McConney (CERMES Senior Lecturer and Technical Advisor to the Caribbean Challenge SocMon project) was also present to provide technical support due to his wealth of knowledge on and experience with SocMon. The main objectives of the workshop were to introduce participants to the SocMon methodology in an effort to build capacity in socio-economic monitoring and to develop feasible site monitoring plans and timelines for study sites for implementation (Pena and Blackman 2012).

Twelve coastal managers from various governmental ministries, departments and organizations throughout Saint Lucia, received training in socio-economic monitoring. Among the trainees were representatives from the Fisheries Division, the Saint Lucia National Trust (SLNT), the Soufriere Marine Management Area (SMMA), the Pitons Management Area (PMA) and the Sustainable Development and Environment Division (SDED). The PSEPA was the demonstration site for the duration of the training workshop (Pena and Blackman 2012).

2.2 Preparatory activities

Preparatory activities officially began at the SocMon Workshop. In order to ascertain the success of this study, key decisions had to be undertaken. Following initial brainstorming activities, these decisions were refined to reflect the main objectives of the PSEPA socio-economic monitoring plan.

The steps used to develop the SocMon Study for the PSEPA included:

- Defining goal and objectives that would guide the socio-economic monitoring plan
- Defining the study area
- Stakeholder (including key informants) identification and location
- Selection of SocMon team members
- Development of a work plan schedule
- Determination of critical resources required
- Budget development
- Identification of key variables to be monitored
- Designing household and key stakeholder questionnaires. This step included the pre-testing of questionnaires.
- Identification of secondary sources of data.

The team recognized that this was an iterative process that needed to be revised and updated when the need arose. The need for flexibility was also noted as an actual socio-economic monitoring programme may not always follow the steps in the monitoring plan. In some instances, certain steps may have to be repeated.

2.2 SocMonTeam

During the training workshop the SocMonteam that would conduct the site monitoring was established. The selection of the team was based on: (1) skills required to accomplish the specialized tasks, (2) skills possessed by individual members, and (3) in some cases, the organizational affiliations of team members. During the SocMon workshop, preliminary or reconnaissance site visits were undertaken by the team.

Role on team	Specific tasks	Name and organizational affiliation
Manager	Coordinator	Cyril Saltibus, Saint Lucia National Trust (Southern Office)
Community development officer	Advice on communities	Faustinus Faisal
Interviewers	Undertake all interviews	A-level students
Sustainability/Statistical support	Guidance on sustainable development issues; data analysis; interpretation of data	Bethia Daniel, Sustainable Development and Environment Division
Report write-up	Write up final report	Bethia Daniel, Sustainable Development and Environment Division
Support	Overall guidance and support	Shirlene Simmons, Saint Lucia National Trust (Northern Office)

2.3 Secondary data

Secondary data refers to data that have been collected, analyzed and published in various forms (Bunce and Pomeroy 2003). A thorough review of documents containing information about the variables under consideration was undertaken. These documents included, but were not limited to:

- Opportunities for Sustainable Livelihoods in One Protected Area in Each of the Six Independent OECS Territories, for the OECS Protected Areas and Sustainable Livelihoods (OPAAL) Project (Espeut, 2006)
- Pointe Sable Environmental Protection Area Management Plan 2009-2014 (Government of Saint Lucia, 2009)
- OECS Protected Areas and Associated Livelihoods Project (Saint Lucia National Trust, 2010).
- Tourist Board documents
- Census data

These documents provided the SocMon team with useful information on the physical description of the PSEPA, natural and historical resources within the area, livelihood activities (traditional and modern) within the PSEPA, and data on population demographics.

Most of the secondary data was recent allowing for useful inferences to be made about present socio-economic conditions. This information was also used in combination with data obtained from the surveys to create a more holistic and representative picture of the PSEPA.

2.3 Key Informants

Since the PSEPA was used as the workshop demonstration site, the SocMonteam was able to identify possible key informants for site monitoring during training. According to the Socio-economic Manual for Coral Reef Management (Bunceet *al.* 2000) key informants are “people with rank, experience or knowledge who can provide extensive insight on socio-economic conditions”. Thus these persons can provide interviewers with common, shared and specialized knowledge. These key informants were chosen primarily because of their involvement in activities (livelihood-related or otherwise) within the PSEPA. In addition, team members recognized that it was both illogical and impractical to interview all community members within the study area, thus these key persons were specifically selected based on their knowledge of the area, length of time they resided in the area and the employment and recreation activities they participate in within the area (**Error! Reference source not found.**). In some instances, all the key stakeholders were not interviewed either because they were not available or because the information received was becoming repetitive as the data saturation point had been reached. See Section 4.

Table 2 List of key informants

STAKEHOLDER (1° and 2°)	LOCATION OF STAKEHOLDER	KEY INFORMANTS FOR STAKEHOLDERS
Fishers	Savannes Bay Vieux-Fort Fisheries Complex Good Will Fishermen’s Cooperative	Mr. James Daniel, Other fishers Mr. Lambert Vitalis Fishers at Complex and Lobster Pot Mrs.Charlery
Charcoal producer	Mankote Mangrove	Magdaline Nelson and potential tour guides
Seamoss producer	Pierrot	Lina Francis

STAKEHOLDER (1° and 2°)	LOCATION OF STAKEHOLDER	KEY INFORMANTS FOR STAKEHOLDERS
Horseback riders	Vieux-Fort	Vincent Clarke, Lucius Clovis, Ron Stephens, Horse- back riders on beach
Wind surfer	Anse du Sable	Jolien Harmsen, Wind/Kite surfers
Kayaking	Vieux-Fort	Kayakers in Vieux-Fort
Arts and crafts	Vieux-Fort	Mrs. Nethelia James Craft vendors on beach Painters
Vieux-Fort household residents	Vieux-Fort town, La-ressource, Belle Vue, Pierrot, Grace	Residents

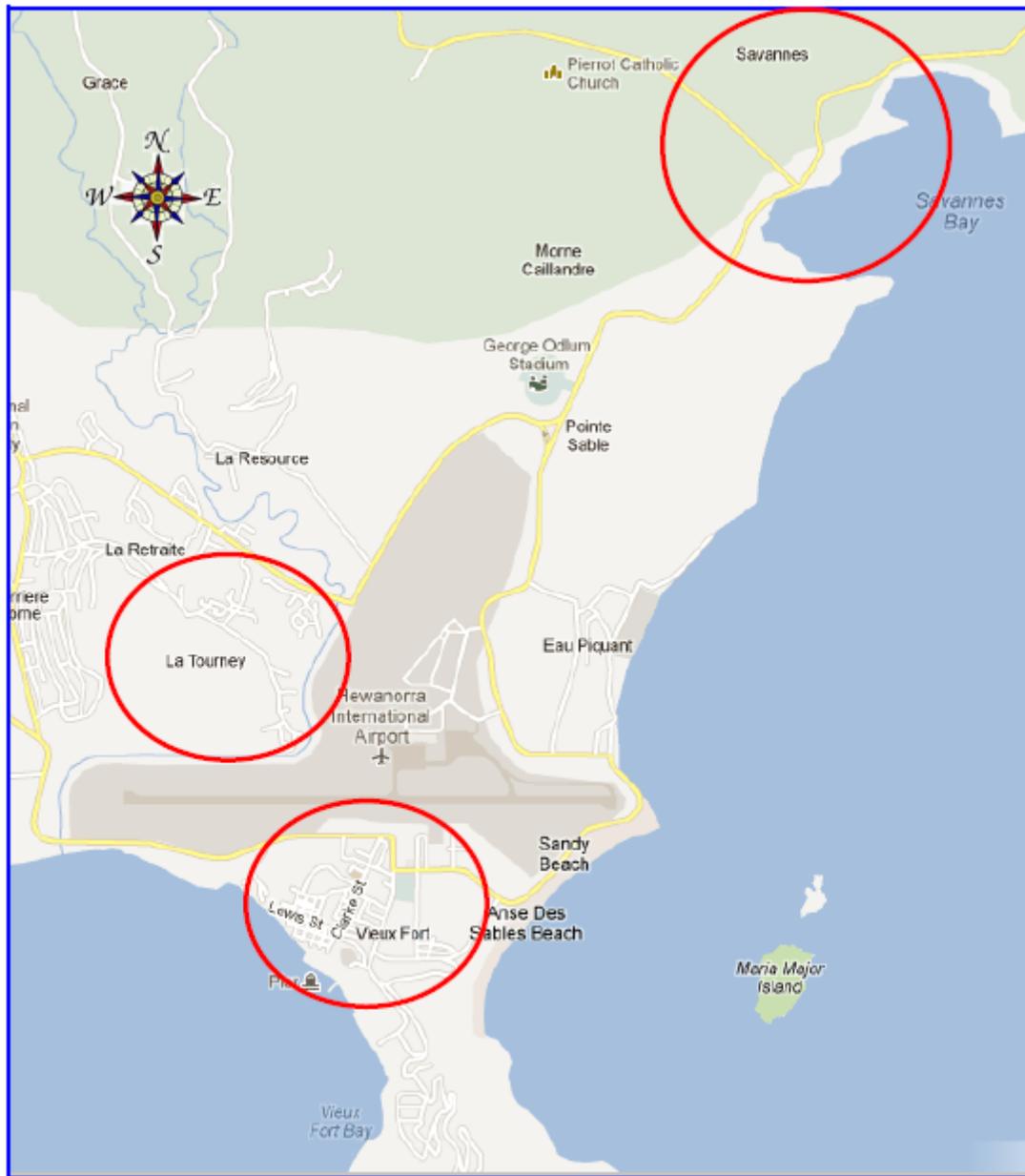
A key informant interview was designed by the SocMon team and reviewed by CERMES (Appendix 1). Interviews were conducted from 30 August 2012 to 7 September 2012. Seven key informant variables were used to collect the data for this project, four of which were original SocMon Caribbean variables (Bunce and Pomeroy 2003). The development of three new variables was necessary to measure and capture additional data required such as MPA knowledge and awareness, business and service provision and alternative livelihoods (Appendix 2).

2.4 Surveys of households

Household surveys were conducted using questionnaires with precise, highly structured questions ranging from the simple dichotomous questions to the multiple response questions. Likert scale questions also enabled respondents to express a wide range of attitudes from strongly agree to strongly disagree (Appendix 3).

The area surrounding the Pointe Sable Environmental Protection Area was divided into three major sections: Vieux Fort town area, the La Tourney area and the Savannes Bay/Aupicon area (Figure 3). Thirty-eight households were surveyed from each area giving a total of 114 surveys. This number of households was selected based on the overall number of households surrounding the PSEPA and the recommended sample sizes provided in the SocMon Caribbean Guidelines (Bunce and Pomeroy 2003).

Thirteen survey variables were used to collect the data for this project, eight of which were original SocMon Caribbean variables (Bunce and Pomeroy 2003). Of these eight original variables, one was revised and adapted to collect data relevant to the objectives of the project. The development of five new variables was necessary to measure and capture additional data required such as MPA knowledge and awareness, types and changes in MPA livelihoods, alternative livelihoods, household MPA livelihoods and sector development (Appendix 4)



Source: Google Earth

Figure 3 Household survey sample areas within the PSEPA

Two interviewers were assigned to each section. All interviewers were A-Level students attending the Vieux Fort Comprehensive Sixth Form. Prior to the household surveys, interviewers attended a Surveys and Data Analysis Workshop held at the Saint Lucia National Trust, Southern Office on 29 August 2012. The students were schooled on Field Data Collection, Sampling Techniques and Data Entry. This workshop was facilitated by Ms. Bethia Daniel. With the understanding that the sample must be representative of the entire population, the method of random selection was chosen. After drawing a sketch map of the area, interviewers went to every fifth house on the map. The surveys were conducted from 30 August 2012 to 7 September 2012.

2.4 Observations

Limited data was collected through observations. During the SocMon training workshop, preliminary or reconnaissance site visits were undertaken. Photographs of the physical environment and the economic activities within the PSEPA were taken and noted.

2.5 Data entry and analysis

The data entry was undertaken by the interviewers and re-checked by the data analyst before any analysis and subsequent inference could commence. The data obtained from household and key informant interviews, as well as information gathered from preliminary and reconnaissance site visits, and interviewer field notes were utilized to produce this report. All data analysis was conducted using Microsoft Excel. Key informant interviews were analysed using narrative summaries.

2.6 Validation

A validation meeting to share the results of the SocMon project was scheduled for 27 February 2013 at the Vieux Fort Primary School for 5:30p.m. A public service announcement (Appendix 5) was sent to six media houses and broadcasted during the regular Community Notice Board Programmes, from 25-27 February. Media houses comprised only radio stations: Radio Saint Lucia (RSL), Rhythm FM, Hot FM, Helen FM, Radio Caribbean International (RCI) and Government Information Service (GIS).

2.7 Communication for use

The main output from this study is the production of this report. It is anticipated that the information in this report will inform policies and guide legislation for the continued protection of the Pointe Sable Environmental Protection Area. It is also believed that the report will depict a true representation of people's level of awareness of the PSEPA and thus indicate their level of involvement in its protection.

It is also the intention of the SocMonteam to follow the example of other SocMon Caribbean studies, by presenting the information gleaned from this report in various formats to different stakeholders. The production of brochures and posters, radio and television discussions, school visits and community meetings along with the publication of newspaper articles are a few of the public awareness activities planned to highlight and share the results of this report.

3 HOUSEHOLD SURVEY RESULTS

Results are presented under two headings corresponding to the assessment objectives:

1. Level of awareness of the existence of the PSEPA.
2. Current and potential livelihoods opportunities which exist within the PSEPA and number of households currently benefiting (economically) from the PSEPA.

3.1 Level of Awareness of the Existence of the PSEPA

3.1.1 Understanding the meaning of Environmental Protection Area (EPA)

There is a disheartening reality that almost three quarters (71%) of the residents of the PSEPA do not have an understanding of what an Environmental Protection Area (EPA) is, having not received information on it. The remaining 29% that have received information on an EPA are fairly knowledgeable about what an EPA means (Figure 4). The majority appear to understand that EPAs are

for the protection of marine and coastal resources (62%) as well as protection of natural and cultural resources (57%). For over one-third of respondents in each case an EPA means recreation (36%), a no-take zone (34%) and tourism (34%). Fairly large proportions of persons believe that an EPA signals restricted access (51%) and sustainable use of resources (43%). For the minority (23%) an EPA means no swimming.

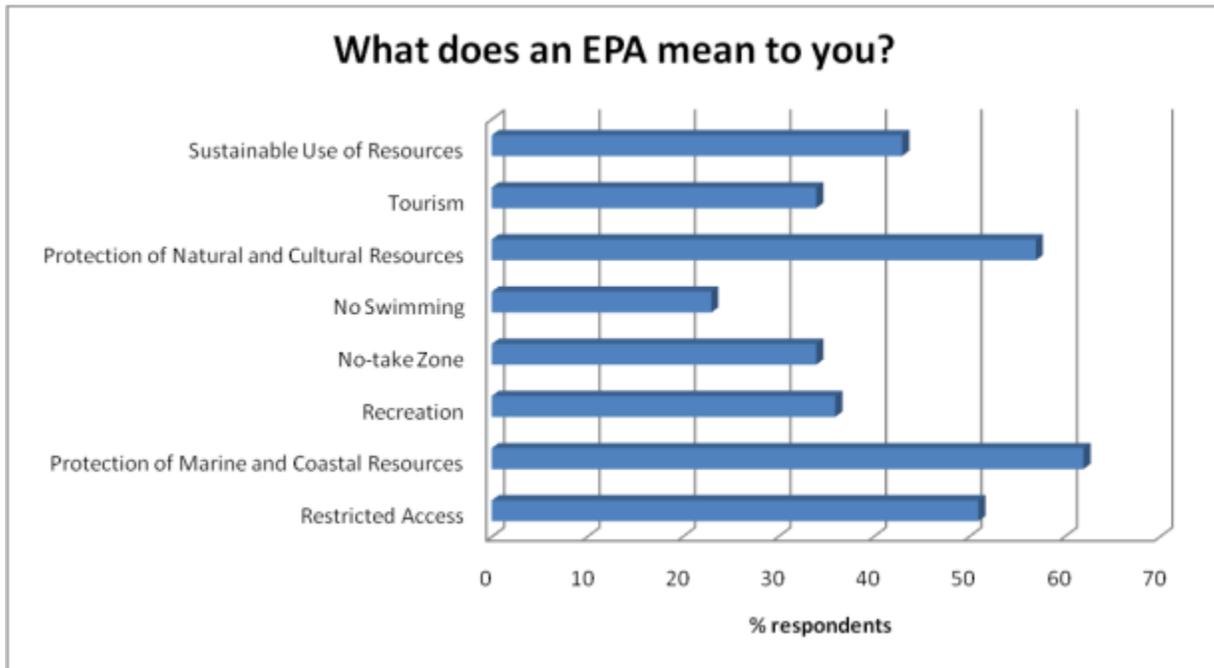


Figure 4 Meaning of an EPA to respondents

3.1.2 Existence of the PSEPA

Less than half of the respondents (46%) have heard about the PSEPA. The knowledge people have about the area may be grouped into five categories (Table 3).

Table 3 People’s knowledge of the PSEPA

What people have heard about the PSEPA	% respondents
Protection of wildlife/natural resources	44
Recreational areas	25
Preservation of historical/cultural resources	19
Government restrictions	9
Job opportunities	3

Those persons knowledgeable of the PSEPA appear to have a thorough understanding of what it comprises. Large proportions of respondents are aware the area comprises the Maria Islands (96%), Moule-a-Chique (85%), Savannes Bay (81%) and the Mankote Mangrove (73%). It is important to note, however, that a fairly large proportion, 46% of persons did not know that the PSEPA included historically and culturally important sites (Figure 5).

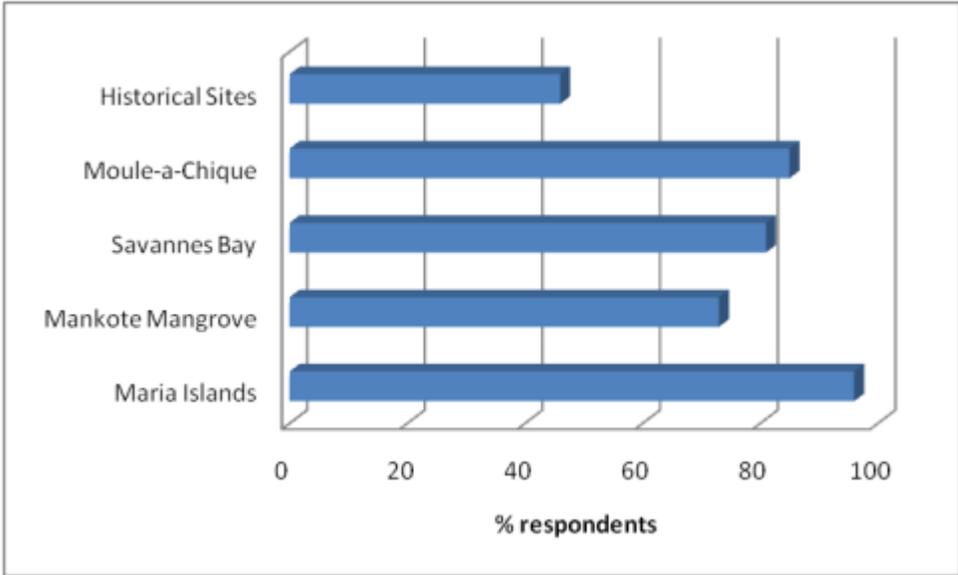


Figure 5 Knowledge of composition of the PSEPA

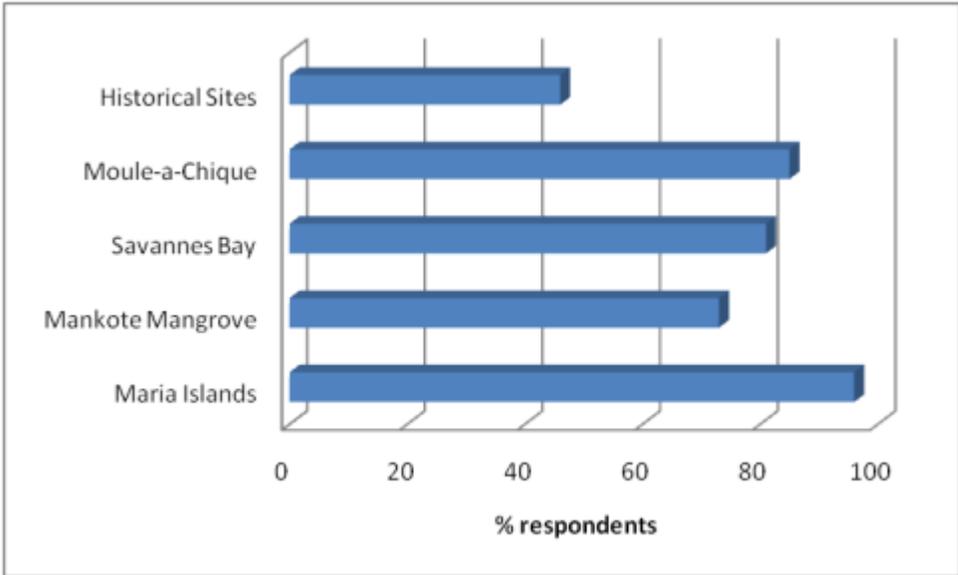


Figure 6 Respondent knowledge of the composition of the PSEPA

Of the persons who are aware of the existence of the PSEPA, just over one quarter (26%) have heard of the Ministry responsible for the management of the PSEPA (Figure 7). The three Ministries which respondents thought were responsible for the management of the PSEPA were the former Ministry of Agriculture, Land, Forestry and Fisheries (55%), the former Ministry of Physical Development and the Environment (27%) and the Ministry of Tourism (18%). See Figure 8.

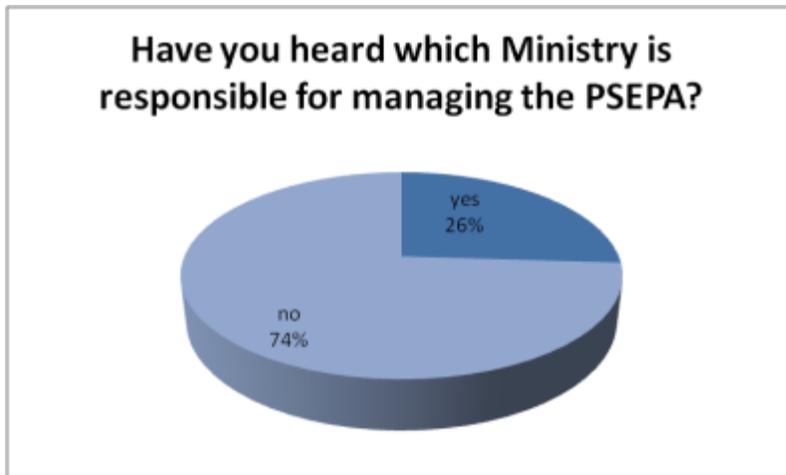


Figure 7 Knowledge of management responsibility for the PSEPA

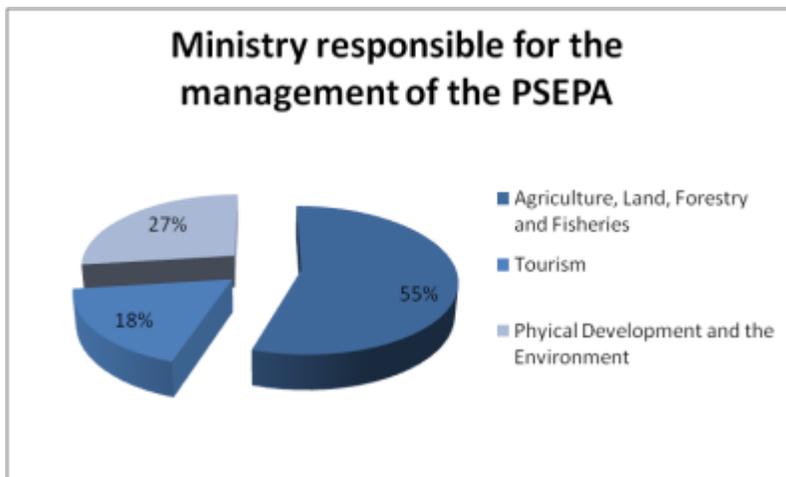


Figure 8 Perceptions of Ministry responsible for managing the PSEPA

The majority of respondents (92%) strongly agree and agree that the Maria Islands should be protected since they are home to the St. Lucia Whiptail Lizard (Figure 9). Similarly, 91% of respondents strongly agree and agree that the Mankote Mangrove should be managed because of its importance to the environment (Figure 10). In addition, most respondents believe there should be some restriction as to where fishers are allowed to fish. Combined 64% of respondents strongly disagree and disagree with the statement that fishers should be allowed to fish anywhere (Figure 11). These statements demonstrate that respondents are concerned about the protection of the areas that comprise the PSEPA and also the importance of the controlled harvesting of the fishery resource. The statement that hotel development should be encouraged along Sandy Beach, met with mixed opinion. However the majority of respondents combined (56%) strongly disagree and disagree with the statement, as opposed to 39% combined who strongly agree and agree (Figure 12). Most respondents (46% strongly agree and 25% agree) support eco-tourism in the area (Figure 13).

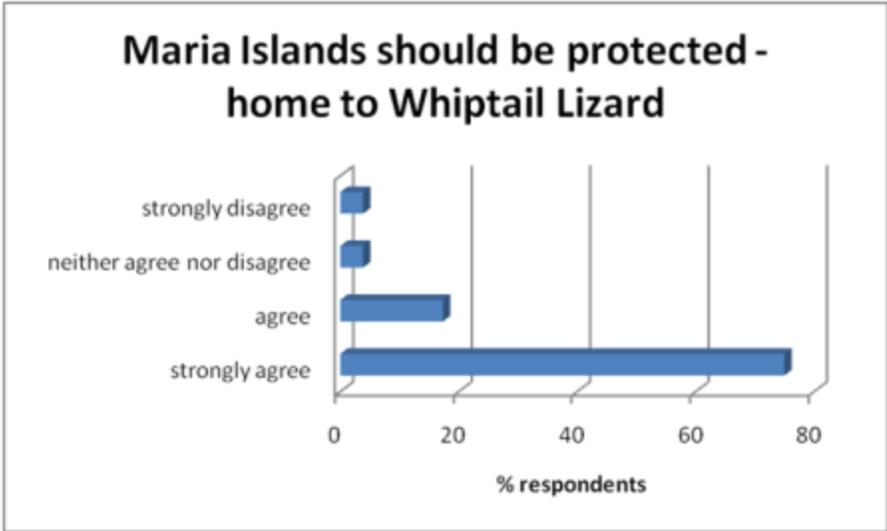


Figure 9 The Maria Islands should be protected since they are home to the St. Lucia Whiptail Lizard

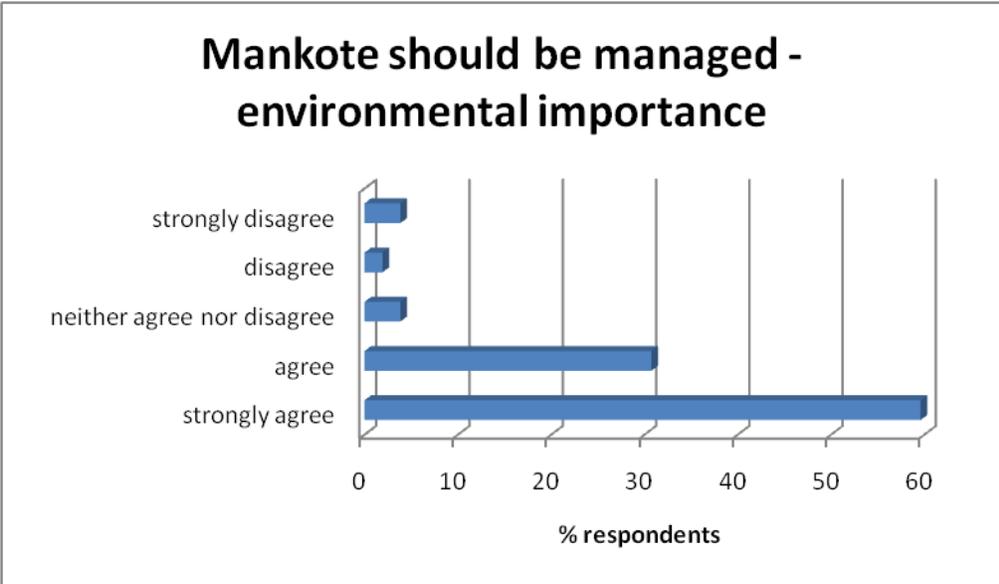


Figure 10 The Mankote mangrove should be managed because of its importance to the environment

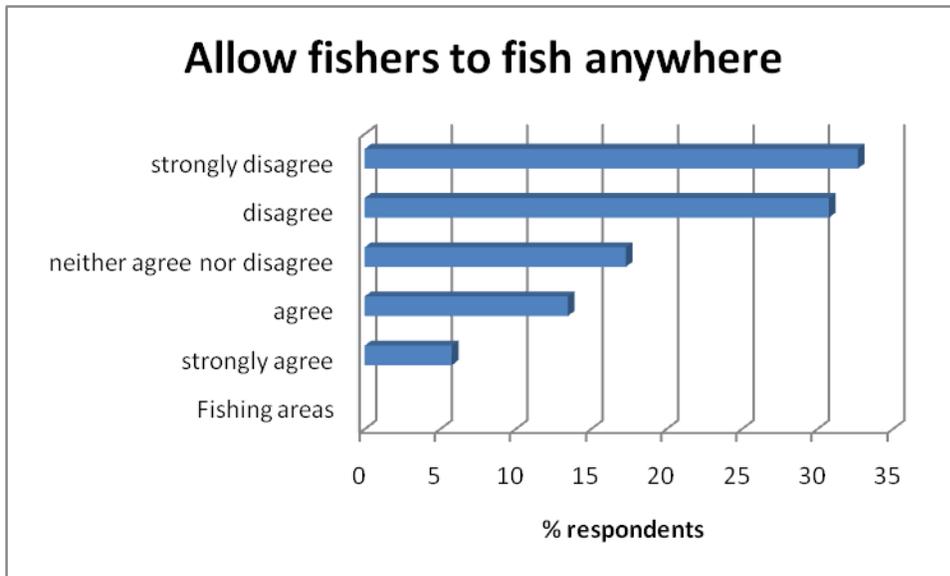


Figure 11 Fishers should be allowed to fish anywhere in the PSEPA

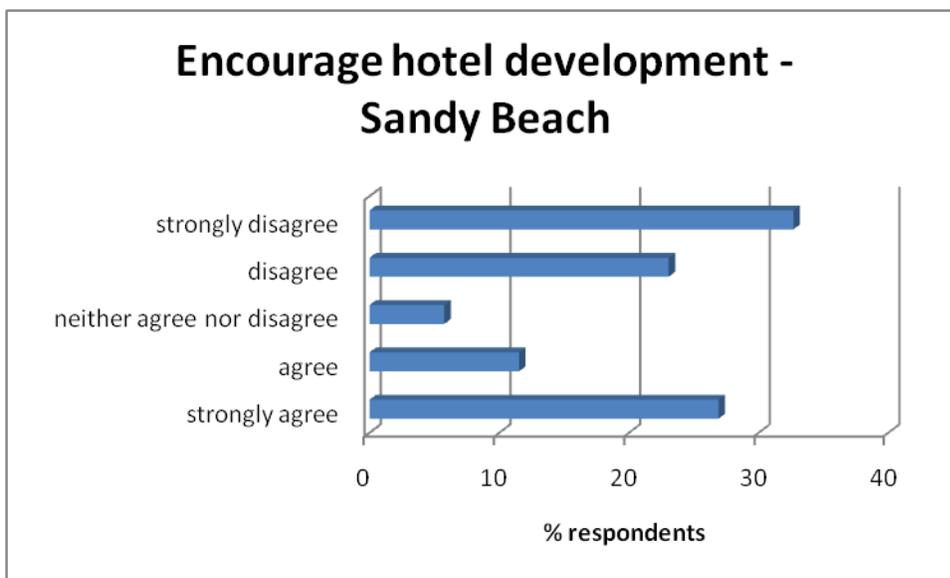


Figure 12 Hotel development should be encouraged along Sandy Beach

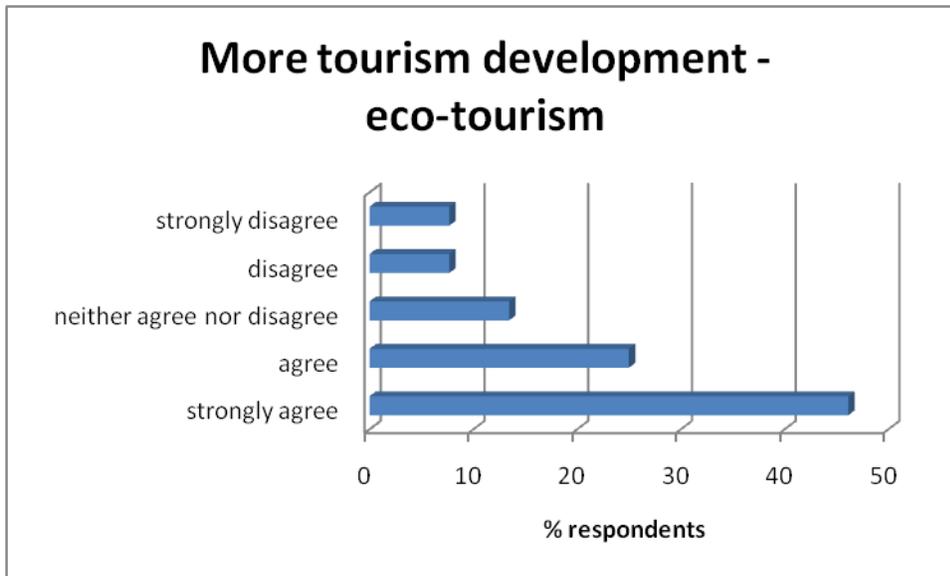


Figure 13 There is a need for more tourism development, especially eco-tourism, in the PSEPA

3.1.3 Legislation governing the PSEPA

Almost half of the respondents (47%) believe that the PSEPA was legally declared in the 1980s and equal numbers of respondents (27% each) believe that the PSEPA was legally declared in the 1990s and the 2000s, respectively (Figure 14). When asked whether they knew of any particular rules and regulations that govern the PSEPA the majority of respondents (65%) answered in the affirmative. Some of the regulations highlighted include: no littering, no sand mining, no driving on the beach, no use of explosive/toxic substances for fishing, no fires on islands, no destruction of wildlife and the designation of restricted areas.

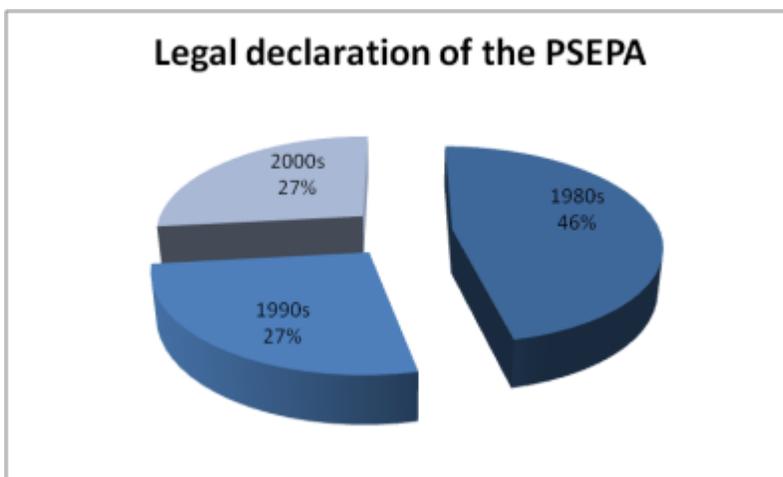


Figure 14 Awareness of period when the PSEPA was legally declared

As shown in Figure 15, most respondents (64%) are familiar with rules and regulations that protect and manage the Maria Islands. This corresponds closely with the previously highlighted trend, where most respondents knew that the PSEPA included the Maria Islands. Generally, respondents appear to be very

knowledgeable about the Maria Islands. However, the same cannot be said about the other areas, where lack of knowledge of rules and regulations is high - more than three-quarters (77%) of respondents do not know of rules governing the management of Savannes Bay; 57%, did not know of rules and regulations for the Mankote Mangrove, and 52% each are unaware of rules and regulations for Sandy Beach and fishing.

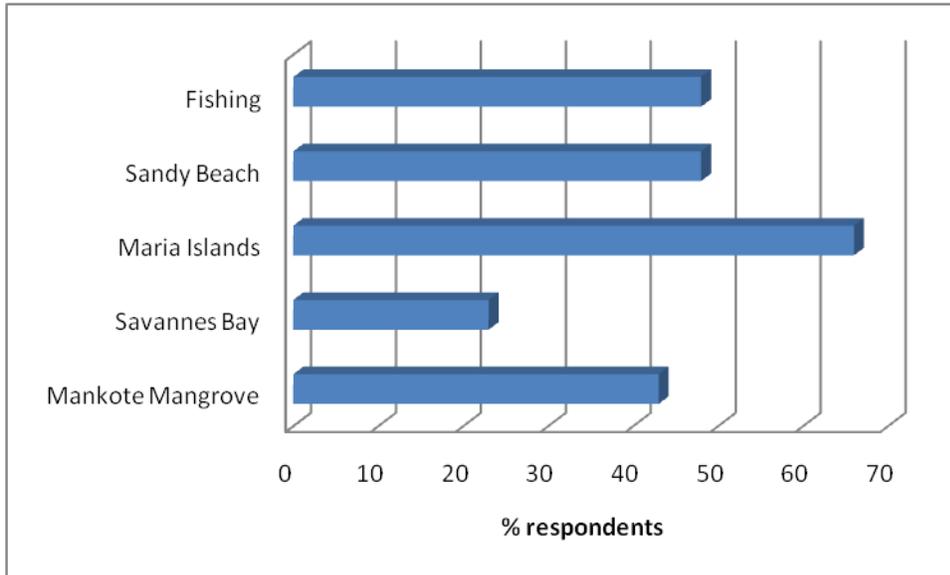


Figure 15 Familiarity with rules and regulations within the PSEPA

With the exception of the Maria Islands (61%) perceived compliance with rules and regulations that govern the other areas and activities within the PSEPA is generally low. As many as 77% of respondents believe that regulations protecting and managing Savannes Bay are disregarded. The other percentages; 76% for Sandy Beach, 67% for Mankote Mangrove, and 61% for fishing, are not very encouraging either (Figure 16).

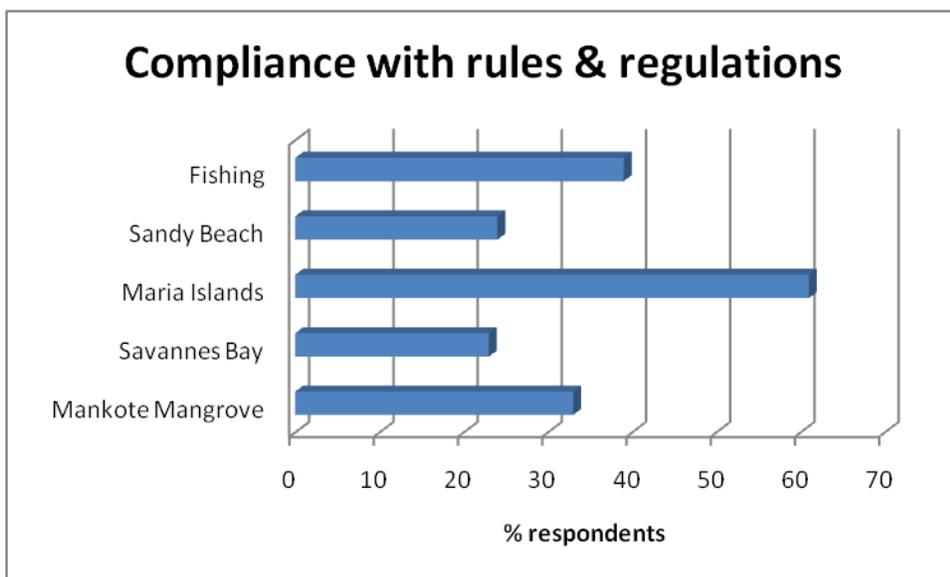


Figure 16 Perceived compliance with rules and regulations in the PSEPA

3.2 Livelihood opportunities and economic benefit from the PSEPA

3.2.1 Current and potential livelihood opportunities in the PSEPA

In general, involvement in income generating activities within the PSEPA was fairly low among respondents and members of their households, with only 35% involvement noted. Although the proportion is small, results on activity involvement and earnings by activity are still provided to give an idea of current and potential livelihoods in the area. Less than 10% in all cases are involved in vending (8%), charcoal production (7%), tour guiding (6%), dayboat tours (4%), arts and crafts (3%), and watersports and hospitality (1% each). The low involvement of respondents in watersports and hospitality is rather surprising. None of the respondents are involved in seamoss farming (Figure 17). The activity which most respondents are involved in is fishing (24%), though this only represents approximately one-quarter of the population.

It should be noted that of the 36 respondents (out of 104) involved in income generating activities in the EPA, fourteen persons (39%) combine activities for economic purposes. Of these, the majority (57%) combine fishing with at least one of four other income generating activities in the PSEPA, specifically, vending, charcoal production, tour guiding, and arts and crafts production.

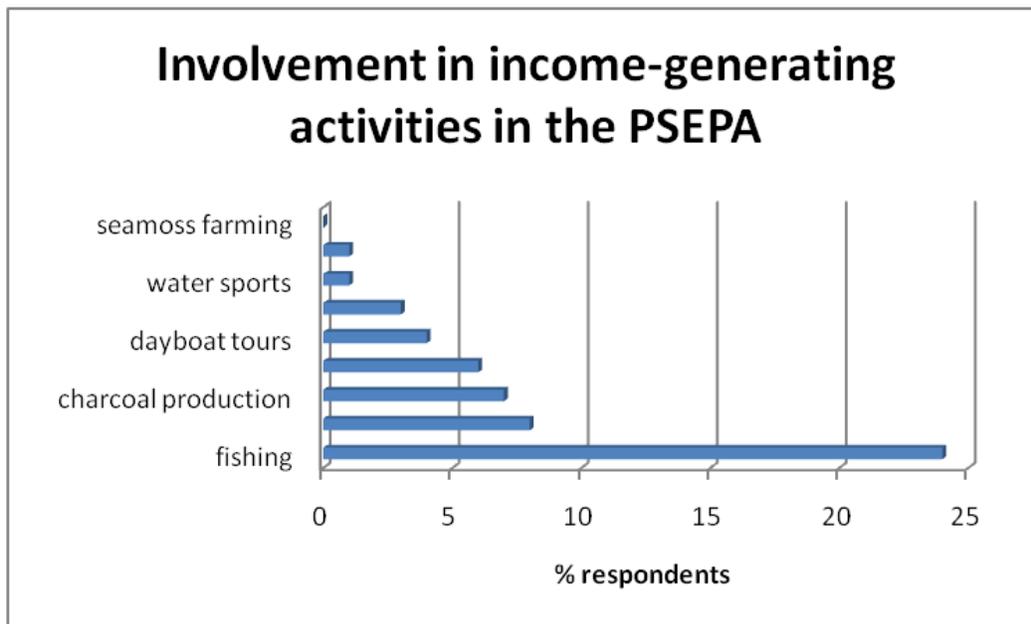


Figure 17 Income generating activities that respondents and their households are involved in within the PSEPA

Of the thirty-six persons who are involved in income-earning activities in the PSEPA, sixteen provided information on average earnings per week. The majority (50%) make less than 100 XCD per week, 44% earn between 100 to 499 XCD, while the minority make in the range of 500 to 999 XCD a week from activities they are involved in within the PSEPA. Thirty-eight percent of those who make less than 100 XCD per week are involved in fishing only. Similarly, persons who combine fishing, day boat tours and vending; and day boat tours and tour guiding apparently earn less than 100 XCD (6% each). Persons who combine income-generating activities in the PSEPA make up the majority of those who earn between 100

to 499XCD per week (24% combined). Combined activities include fishing and tour guiding; fishing and vending; charcoal production and vending; and charcoal production and tour guiding (6% each). Those engaged in fishing not only earn the lower and middle-income ranges but also the highest range per week of 500-999XCD (6% each).

Ten persons provided information on monthly earning from activities within the PSEPA. Sixty percent earn less than 1,000XCD per month, 30% earn between 1,000 to 2,999XCD per month and 10% make between 3,000 to 5,999XCD monthly.

People's thoughts on alternative ways in which people could earn a living from the PSEPA can be grouped in 5 categories: tourism (including eco-tourism), business or commerce, vending, agriculture and fishing, and charcoal production. Most persons thought that the best alternative form of livelihood from the PSEPA would be tourism (55%). This is followed by vending (34%) and agriculture and fishing (17%). A small percentage of respondents saw business (9%) as a viable alternative and only 1% of respondents saw charcoal production as an option.

The majority of respondents (88%) were opposed to changing their current way of making a living from the PSEPA. Reasons provided for this reluctance were mainly satisfaction with current employment, too risky, and simply no interest in anything else. The small percentage who did respond in the positive gave reasons such as increased income and self-development.

Respondents also agreed that many plans and initiatives are needed to facilitate the development of new livelihood opportunities in the PSEPA. These include: government intervention and assistance and initiatives (25%), more information and education (18%), financial aid (16%), hotel development and tourism (16%) and training opportunities (7%). They also saw stricter regulations and legislations, absence of political will, lack of finances, unplanned development, destruction of wildlife and other natural resources, crime and natural disasters as factors that would hinder or limit the alternative livelihood opportunities in the PSEPA.

The vast majority of respondents (80%) believe there would be changes in the livelihood opportunities in the communities surrounding the PSEPA if there was to be an increase in tourism. Although people were asked to identify the types of the changes that may occur in ways in which people make a living from the PSEPA, the information collected also reflected changes not related to livelihoods. The information is provided here. The most significant change that respondents see is that of increased opportunities for employment (55%). Closely linked with increased job opportunities is economic and social growth and development (28%). Many respondents indicated that they would be interested in becoming shop owners, working in the hotels and restaurants or even work as tour guides if tourism were to become one of the main economic activities of the PSEPA. They also saw this as providing routes for foreign exchange (10%) and still others (7%) were glad that their communities would benefit from "nice roads and big hotels" (development). See Figure 18.

Two respondents however, indicated that an increase in tourism in the PSEPA would have negative effects on livelihood opportunities of residents. Pollution leading to environmental degradation, restricted access to the beach, and designation of no fishing or no-take zones would all hamper employment prospects in the PSEPA.

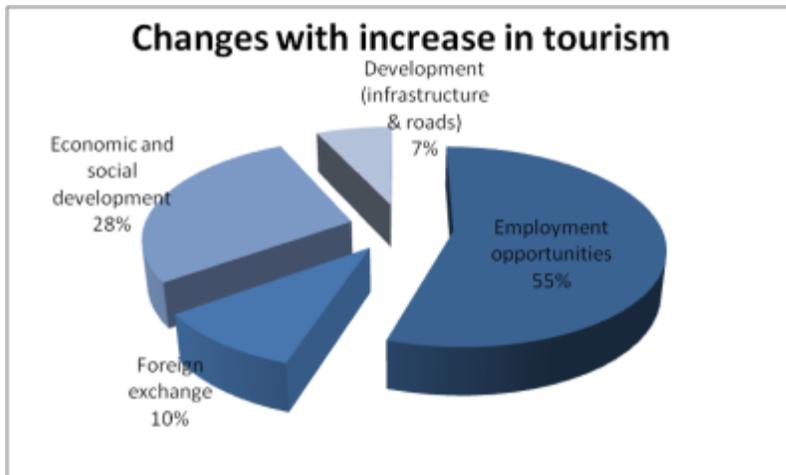


Figure 18 Perceived changes that may occur within the PSEPA if there was to be an increase in tourism in the area

3.2.2 Livelihood Activities

An overwhelming majority (45%) of respondents within the PSEPA are unemployed. Public/civil servants and self-employed persons are the second most prominent types of employment with 15% each. Public servants included nurses, teachers and policemen; while self-employed persons worked as vendors, bus drivers, salesmen and shop keepers. Also noteworthy is that an almost equal percentage of respondents are involved in agriculture, construction and tourism/hospitality. It is rather surprising however that only 4% of respondents work as fisherfolk (**Error! Reference source not found.**).

Figure 19 Primary occupation of respondents

The top two sources of income of most importance to respondent households are government jobs (32%) and self-employment (20%). Fourteen percent of persons are unemployed.

Only a minority (22%) of respondents have another form of income (Figure 20). Those who do have additional means are mainly involved in agriculture (8%), fishing (12%), tourism (16%) or are self-employed (20%). A few respondents indicated they were self-employed as charcoal producers and

seamoss farmers and still others indicated they were involved in touristic related activities like boat tour operators. These results indicate that persons may leave the PSEPA for their 'main form of income' but utilise natural resources from the PSEPA for supplementary income.

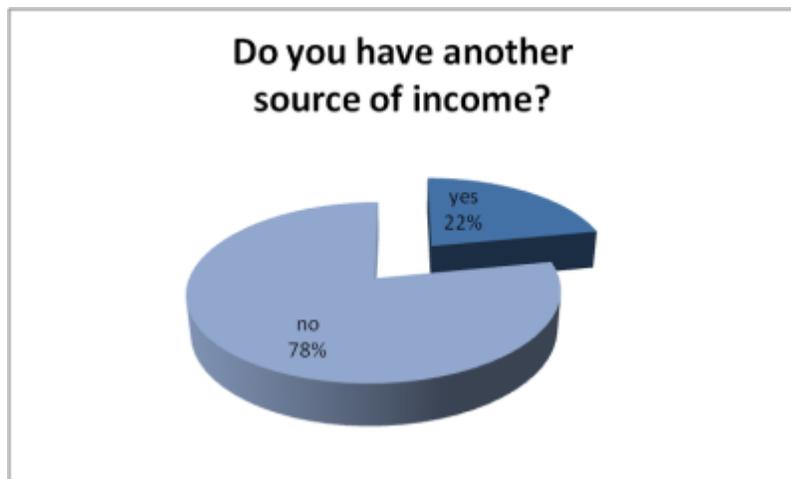


Figure 20 Existence of other sources of income

3.3 Household Demographics

More than half of the respondents (55%) were males implying that 10% more males than females were interviewed in the household surveys. The ages of the respondents were approximately normally distributed. The majority (32%) were between the ages of 20–39 years, while a minority (7%) were 60 years and over. A more or less youthful population was surveyed. The majority of respondents (39%) possess a secondary education, followed by tertiary education (32%) which includes post-secondary as well as university education, and then primary education (25%). Only 4% had no formal education.

Family size in the PSEPA is small to average. A vast majority of respondents (74%) stated that between 0-3 persons over 16 years old reside within their household. This indicates that most of the interviewees have very young families. This could also indicate that in most of the households that were interviewed, the children have not reached the age where they can earn an income to supplement the family's present income.

4 KEY INFORMANT INTERVIEW RESULTS

The results presented here are those obtained from key informant interviews conducted to supplement and corroborate the household surveys. These interviews were carried out on a one-on-one basis, at the availability of the key informant. A number of key informants were initially identified. However, due to circumstances beyond the control of the SocMonteam only seven of these persons could be interviewed (Table 4).

Table 4 PSEPA key informants

Key informant	Affiliation
Mr. Cyril Saltibus	Saint Lucia National Trust Director, Southern Office
Mr. Christo Williams	Community Member
Mr. Hardin Jn Pierre	Fisheries Department

Key informant	Affiliation
Mr. Vincent Clarke	Horseback Riders Company (presently setting up business)
Hayley Moses	Horseback Riding Company (already established)
Jolien Harmsen	Manager of Reef Restaurant
Nethelia James	Arts and Crafts

The information gleaned from these interviews can be placed in five categories: study area, activities, livelihood opportunities, types of use and value of goods and services. Despite the fact that only a few key informants were actually contacted, the information gathered provided a further basis for comparison with previous data obtained.

4.1 Level of awareness of the PSEPA

Key informants were very knowledgeable about the Point Sable Environmental Protection Area. They demonstrated a strong understanding of the areas that comprise the PSEPA and the fact that it is a protected area.

As observed in the literature review and household surveys a plethora of activities take place within the PSEPA. These include: fishing, horse-back riding, seamount farming, sightseeing, water sports, camping, charcoal production, tours, bird watching, craft production and vending, beach parties and sea bathing. Mr. Clarke emphasized that horseback riding is a fairly new activity within the PSEPA and hopes to get his business in operation in the near future. A few illegal activities also take place in the PSEPA. These include: sand mining; harvesting sea urchins out of season; slaughtering sea turtles; unregulated cutting of mangrove for charcoal production; drug trafficking and noise pollution (loud music) during the early morning hours when turtles are trying to nest.

4.2 Livelihood opportunities in the PSEPA

The job opportunities underscored by the key informants were in agreement with those previously highlighted in Section 3.2. When asked of other ways that persons could earn a living in the PSEPA, the following potential livelihood opportunities were highlighted: rental of beach equipment; increased local vending of crafts and food; local watersporting events; scuba diving and snorkeling; mangrove tours and better organized tours.

4.3 Types of use and value of goods and services

Mr. Hardin pointed out that various techniques were used to harvest the fishery resource. Techniques included fish pots, cast nets (lapavi), handlines, trolling lines and beach seines. According to Mr. Hardin, pot fish can be priced at \$7.00 EC per pound while lobster is valued at \$15.00 EC per pound. The market for these resources includes hoteliers, tourists and the general public. While pot fish is sold at least twice for the week, the sale of lobster depends on the amount that is harvested, the demand and the time of year. Hardin also posits that the fishery resource most valuable to him is the lobster, with most of his income being made from the sale of these species. The interview with Hardin did not address larger pelagics or their seasonality.

Though Mr. Clarke is in the process of setting up his new business in horseback riding, he already believes that his target audience would primarily be tourists and then locals. He also envisions this to be

a very lucrative business, functioning in the future as his main form of income. Mr. Haley Moses who currently operates a horseback riding company, states that he charges \$20.00 EC for locals and \$40.00 US for tourists per session. He attests that this is a very successful business and emphasises that it is also very valuable to him, as it allows him to employ persons who would otherwise find it very difficult to find work.

Reef Restaurant manager, Jolien Harmsen, confirms that she operates her business all year around for 14 hours a day. She states that it is as valuable to her as “bread and water.” Conversely, art and craft producer and vendor, Nethalia James, states that her trade is seasonal in nature and depends heavily on major special events. The value of the products depends largely on production time, quality of raw materials/product, availability of materials and customer requests. She wishes there would be greater promotion of her product at sales outlets at established hotels and restaurants as a functional dependable market is very important for her business.

5 VALIDATION OF RESULTS

Unfortunately, none of the respondents showed up for the validation exercise. According to Ms. Saphira Hunt, SLNT Southern Office Caretaker and Field Monitor (Critical Ecosystems Partnership Fund - Islands without Aliens Project), this was primarily due to the fact that persons from Vieux Fort and the surrounding communities have a low information culture and would not normally make an appearance for such events.

Photographs depicting the attempt at conducting the validation exercise are shown below:



Figure 21 (a) Consultant (far right) waiting patiently with other team members, Saphira Hunt and Lance Peterson; (b) Packing up to leave after waiting for one hour

6 DISCUSSION AND CONCLUSION

The SocMon team believes that sufficient data was gathered during this project which allowed for adequate analysis, comparisons and inference.

6.1 Level of Awareness of the PSEPA

Less than half of the population that live within or near to the PSEPA is aware of its existence. The persons that do know of the PSEPA however seem to be very knowledgeable about the Maria Islands and the regulations that govern its management perhaps because they are so obvious and visible. However the other areas; Mankote Mangrove, Sandy Beach, Moule-a-Chique and especially Savannes Bay, were less understood.

Most respondents did not know when the PSEPA was legally declared. Most persons have a fair idea of the Ministry responsible for the management of the PSEPA. However the phrasing of this question may have led respondents to believe that interviewers were looking for a single answer. Presently there is no single ministerial responsibility for management of the PSEPA as a number of ministries, departments and organizations share this responsibility. The PSEPA was legally declared under the Physical Planning and Development Act, 2004, so the Ministry of Physical Development, Housing and Urban Renewal has some measure of responsibility. In addition, much of the lands in the PSEPA are crown property so there are management responsibilities for the Crown Lands Department. Then there are the marine and coastal areas which give the Fisheries Division some responsibility. There is also the Mankote Mangrove which is also of interest to Fisheries, but it is also a RAMSAR site, so the Forestry Division has interest. Furthermore the Saint Lucia National Trust owns the Maria Islands but they are wildlife sanctuaries, the shared responsibility of the Saint Lucia National Trust and Forestry Division

This is a strong indication that there is a dire need for greater education on the PSEPA; its importance, components and rules and regulations that govern its management. A few initiatives have been undertaken in the past, aimed primarily at educating the general public in the surrounding communities about the PSEPA. This includes work undertaken by the Saint Lucia National Trust and awareness campaigns launched during the implementation of specific projects, for example, the OPAAL Project. The education level of a community has implications for community development and coastal management. Persons in this area are 'fairly well educated', the majority of whom have a secondary education. Thus information on environmental regulations, importance of coastal resources, development and this SocMon report can be presented to the residents in a variety of forms which would further eliminate possible misunderstanding for the information. Information from key informants support that of the household surveys that the majority of persons living within the PSEPA fall between the age-range of 20-49 years. This means that much work can still be done through education and increased awareness, to effect change in future generations and instil a sense of responsibility. When training is undertaken in a youthful population, it is more likely to be adopted.

Despite limited knowledge of the PSEPA, the majority of respondents strongly agreed to its continued protection and management. The Maria Islands should be protected because of its biodiversity, the Mankote Mangroves should be protected because of its environmental importance and the practice of fishing should be controlled with the designation of specific fishing areas. This demonstrates that persons are willing to take ownership of what is theirs and see that it remains in existence for future generations. Research has shown that when there is 'stakeholder buy-in', initiatives like establishing an EPA will more likely be successful. Coastal managers should take advantage of the interest of the people

and work in collaboration with them to bring about the successful protection and management of the PSEPA.

4.2 Livelihoods and economic benefit from the PSEPA

An understanding of the socio-economic profile of an area is paramount to decision making. Almost half of the persons that live within the PSEPA are unemployed. This validates the information provided by the 2010 Population and Housing Census Preliminary Report, that Vieux Fort is one of the communities with the highest rate of unemployment in Saint Lucia. In addition, our results demonstrate that most persons living within the PSEPA do not earn a living directly from the PSEPA, as the majority of them are public/civil servants. Other forms of livelihoods within the PSEPA include tourism (hotel and restaurant workers), fishing, agriculture, vending, arts and craft production, construction and business. Once thriving trades like seamoss farming, is practiced on such a minor scale that it is almost nonexistent. While previous studies done in the PSEPA indicated that seamoss farming was widely practiced (Espeut, 2006), our research indicated otherwise, indicating that this is a rapidly dying trade.

By contrast, the alternative forms of income generation do include the PSEPA and its resources. While only a small percentage of persons (22%) have an alternative form of livelihood, either indicating no need for supplementary income or no means exist to supplement and enhance salaries. The majority of this 22% are involved in fishing while other alternative income sources include vending, charcoal production and tour guiding.

These results indicate that while the majority of households do not depend on the PSEPA for their main form of employment, some do depend on the PSEPA for their supplementary income. Thus there needs to be instruction on the sustainable harvesting of these resources and management interventions need to consider impacts on those persons dependent on the PSEPA. A thorough understanding of sustainable harvesting techniques whether it is in fishing, charcoal production or art and craft production, would allow persons to benefit economically from the PSEPA while permitting its effective and controlled management.

4.3 Potential livelihood opportunities

Respondents are generally satisfied with their present state of employment. Those who are discontented are apprehensive of change because of the risks involved in venturing into unfamiliar waters. The vast majority of respondents believe there would be changes in the livelihood opportunities in the communities surrounding the PSEPA if there was to be an increase in tourism. Respondents are in agreement that greater hotel development should be encouraged along the PSEPA. However, the form of tourism that respondents are interested in is ecotourism.

Two potential livelihood opportunities emerge from these results: ecotourism, and art and craft production. Ecotourism is aptly defined as, "responsible travel to natural areas that conserves the environment and improves the well-being of local people" (TIES 1990) and involves uniting conservation, communities, and sustainable travel. According to respondents, those who implement and participate in ecotourism activities would:

- Minimise impact
- Build environmental and cultural awareness and respect

- Provide positive experiences for both visitors and hosts
- Provide direct financial benefits for conservation
- Provide financial benefits and empowerment for local people, and
- Raise sensitivity to host PSEPA's political, environmental, and social climate.

A number of income-generating activities would fall under ecotourism which include: tour-guiding, horseback riding, boat operation, snorkelling, wind surfing and kayaking. Respondents believe that if more hotels and restaurants are developed in the PSEPA with this ecotourism theme, then together we would achieve the true meaning of sustainable development.

There is the potential for developing a craft industry without negatively impacting the environment. As visitors, both foreign and local, spend time in the PSEPA, they may wish to purchase souvenirs to remember their visit, which will create a market for high quality art and craft items. Thus the possibility of training in craft production should be explored. Though this is available in St. Lucia, the training centres are not particularly near to Vieux Fort. It should be possible to operate a craft training programme in Vieux Fort for unemployed young men and women who have the aptitude.

A number of positive results would emanate from increased tourism in the PSEPA. Closely linked with increased employment due to job creation, is socio-economic development and improved standard of living. However respondents do not think that the area is ready to embrace this change just yet, as they believe that much still needs to be done by the Government of Saint Lucia to provide financial aid, training opportunities and education. Respondents emphasised that if they are equipped with the necessary tools, they are willing to move forward.

7 LIMITATIONS

A few limitations were experienced during this SocMon study. These included:

- Limited man-power to conduct the data analysis making this process tedious and time consuming.
- Time constraints which resulted in missing deadlines.
- Financial constraints due to the small SocMon sub-grant which restricted the number of interviewers that could be hired.

These limitations were noted and efforts will be made to eradicate or reduce these limitations in future SocMon studies. However the SocMon team does not believe that the quality of this report was hampered by these limitations and efforts were made to overcome these challenges.

8 RECOMMENDATIONS FOR MONITORING AND MANAGEMENT

- Enhance the Management Plan for the PSEPA ensuring that this improved plan includes sustained monitoring.
- Develop an Education Programme for the PSEPA. This would be specifically designed to raise the level of awareness of the PSEPA by utilizing diverse methods and targeting different audiences.
- Establish a Livelihood Development Programme for the PSEPA. This should include a feasibility study to determine the capacity of the PSEPA to support livelihoods.

- Promote opportunities for the economic, educational, cultural and inspirational upliftment of locals and visitors.
- Develop a deeper understanding of, and appreciation for, the natural and cultural environment of the PSEPA, and to enhance the ability of all partners to manage the use of the resources.
- Optimize the current and potential uses of natural and cultural assets of the PSEPA in ways that benefit the local resource users and the wider population.
- Implement sustained socio-economic monitoring at the PSEPA.

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10 APPENDICES

Appendix 1: Key informant interview

Socio-economic Monitoring by Caribbean Challenge MPA Managers, PSEPA, St. Lucia

Key Informant questions/interview guide

Var. No.	Question
K1. – Study Area	Tell me what you know about the Pointe Sable Environmental Protection Area (PSEPA)
	What areas are protected?
K14. – Activities	What activities take place in the PSEPA? (use the map as a guide)
	Are there any illegal activities taking place? Specify
K15. – Goods and services	How do you make a living from activities within the PSEPA?
	What other ways could you earn a living within the PSEPA?
K16. – Types of use	What techniques do you use to harvest the resource? (timeline)
K17. – Value of goods and services	How much do you charge for the products you sell?
	Who are the customers
	How often do you sell your products?
	How valuable is it to you?
-----	Other information from general discussion

Appendix 2: Key informant SocMon Caribbean variables selected for monitoring

Variable no.	Variable name
K14	Activities
K15	Goods and services
K16	Types of use
K17	Value of goods and services
NEW	MPA knowledge and awareness
NEW	MPA knowledge and awareness
NEW	Business and service provision
NEW	Alternative livelihoods

Appendix 3: Household survey



ID# ___/___ Q# ___/___

The Saint Lucia National Trust is conducting a survey amongst the residents of Vieux-Fort to determine the awareness, uses and benefits of the Pointe Sable Environmental Protection Area (PSEPA). We would like you to participate in this survey. Any information you give will not be identified with you in reports on the survey. These reports will be shared with the public.

Date: _____ Vieux Fort area: _____
 dd-mm-yyyy

Level of awareness of the existence of the PSEPA

- 1)
 a) Have you received information on what an environmental protection area (EPA) is?
 Yes No

If YES, go to part (b). If NO, interviewer must briefly explain the meaning of an EPA and go to question 2. An EPA is an area of land and/or sea specially dedicated to the protection of natural resources and the places where they live/found as well as cultural resources. The area is managed through legal or other effective means.

- b) If YES, what does it mean to you? Tick ALL that apply.

<input type="checkbox"/> Restricted access
<input type="checkbox"/> Protection of marine and coastal resources
<input type="checkbox"/> Recreation
<input type="checkbox"/> No take zone
<input type="checkbox"/> No swimming
<input type="checkbox"/> Protection of natural and cultural features
<input type="checkbox"/> Tourism
<input type="checkbox"/> Sustainable use of resources from natural ecosystems (coral reefs, mangroves etc.)
<input type="checkbox"/> Other, please specify

- 2)
 (a) Have you heard about the Pointe Sable Environmental Protection Area?
 Yes No

If YES, follow-up with part (b) to verify respondent's understanding is correct. Then go to question 3. If NO, interviewer must show a map of the PSEPA and provide a description

of the area. The Pointe Sable Environmental Protection Area is a protected area which runs from Pointe de Calle to Moule-a-Chique. It is approximately 1,038 hectares in area along the south east coast, and is made up of a narrow coastal strip and a larger off shore area. The area includes long beaches, the Savannes Bay and Mankote Mangroves, Scorpion and Maria Islands, several off shore reefs and the Moule-a-Chique Peninsula. If NO, skip to question 9.

(b) Tell me what you have heard about the Pointe Sable Environmental Protection Area.

3) Do you know when the PSEPA was legally declared? Tick ONE.

- 1980s
 1990s
 2000s

4) Which of the following make up the PSEPA? Tick ALL that apply.
 [New: MPA knowledge and awareness]

<input type="checkbox"/> The Maria Islands
<input type="checkbox"/> The Mankote mangrove area
<input type="checkbox"/> Savannes Bay
<input type="checkbox"/> Moule-a-Chique
<input type="checkbox"/> Historical sites
<input type="checkbox"/> Other, please specify

5) On a scale of 1 to 5, rate your level of agreement with the following statements. Circle the appropriate rating.

- 1-Strongly agree
 2-Agree
 3-Neither agree nor disagree
 4 - Disagree
 5 - Strongly disagree.

The Maria Islands should be protected since they are home to the St. Lucia Whiptail Lizard	1	2	3	4	5
The Mankote Mangrove should be managed because of its importance to the environment	1	2	3	4	5
Fishers should be allowed to fish anywhere in the PSEPA	1	2	3	4	5
Hotel development should be encouraged along Sandy Beach	1	2	3	4	5
There is a need for more tourism development, especially eco-tourism, in the PSEPA	1	2	3	4	5

6) Have you heard which Ministry is responsible for managing the PSEPA?

Yes, Which Ministry? _____ No

7)

(a) To the best of your knowledge do particular legal rules and regulations apply within the PSEPA?

Yes No

(b) If YES, what are some of the rules and regulations you know about?
[S18 Awareness of rules and regulations]

8)

a) Are you familiar with the rules and regulations for protecting and managing the following areas and activities?

Mankote Mangrove	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Savannes Bay	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Maria Islands	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sandy Beach	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Fishing	<input type="checkbox"/> Yes	<input type="checkbox"/> No

9) Do you think people in the area obey rules and regulations related to the following areas and activities?

Mankote Mangrove	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Savannes Bay	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Maria Islands	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sandy Beach	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Fishing	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Current and potential livelihood opportunities in the PSEPA and number of households benefitting economically from the PSEPA

Show map of the PSEPA and then ask the following questions.

10) List three ways in which people make a living from the resources in the PSEPA?

11) What income generating activities are you and other members of your household involved in within the PSEPA? (Tick ALL that apply).

If the respondent is not involved in any income generating activities within the area skip to question 15 (a), (c) and (d).

- | | |
|--|--|
| <input type="checkbox"/> Fishing | <input type="checkbox"/> Water sports (SCUBA diving, windsurfing, kite surfing, kayaking etc.) |
| <input type="checkbox"/> Seamoss farming | <input type="checkbox"/> Tour guiding |
| <input type="checkbox"/> Day boat tours | <input type="checkbox"/> Hospitality |
| <input type="checkbox"/> Charcoal production | <input type="checkbox"/> Arts and crafts |
| <input type="checkbox"/> Vending | <input type="checkbox"/> Other, please specify _____ |

12) On average, how much do you make per week or month from the activity/activities you are involved in? List activities and tick money earned EITHER per week OR month.

Activity	Income per week	Income per month
	<input type="checkbox"/> less than 100 XCD	<input type="checkbox"/> less than 1,000 XCD
	<input type="checkbox"/> 100 – 499 XCD	<input type="checkbox"/> 1,000 – 2,999 XCD
	<input type="checkbox"/> 500 – 999 XCD	<input type="checkbox"/> 3,000 – 5,999 XCD
	<input type="checkbox"/> 1,000 and over XCD	<input type="checkbox"/> 6,000 and over

13)

a) Are any of the ways in which you make a living from the PSEPA seasonal in nature, (that is, carried out a particular time of the year)?

Yes No

b) If YES, when are you involved in the activity/activities? List income-generating activity and circle or strike through shade months during which people are involved in the activity.

Income-generating activity	Months of activity											
	J	F	M	A	M	J	J	A	S	O	N	D
	J	F	M	A	M	J	J	A	S	O	N	D
	J	F	M	A	M	J	J	A	S	O	N	D
	J	F	M	A	M	J	J	A	S	O	N	D
	J	F	M	A	M	J	J	A	S	O	N	D

14) In what way, if any, has the management of the PSEPA, affected either in a good way or a bad way, your ability to make a living from the resources and activities in the area?

15)

a) How else do you think people could make a living from the PSEPA?

b) Would you be interested in changing your current way of making a living from the PSEPA to pursue any of these potential livelihood opportunities? Explain your answer.

c) Is anything needed to encourage the development of these opportunities to make a living from the PSEPA?

d) Is there anything that could prevent the development of these opportunities for making a living from the PSEPA?

16) What sort of, if any, increase in tourism do people want in the area and why?

17)

(a) If there was to be an increase in tourism in the area, do you think there would be changes in livelihood opportunities in the communities surrounding the environmental protection area? [] Yes [] No

(b) If YES, what types of changes may occur (that is, in what ways would people's means of making a living change)?

Personal information

18) How old are you?

0-19 20-39 40-49 50-59 60 +

19) Sex of the respondent

Male Female

20) What is the highest level of education you have attained?

Primary
 Secondary
 Tertiary
 Other, please specify _____

21) How many persons over 16 are in your household? _____

22)

(a) What is your primary occupation? _____

(b) Do you have another source of income? Yes No

(c) If YES, what is this other source of income?

23) What is your household's most important source of income?

Thank you for your time!

Appendix 4: Household survey SocMon Caribbean variables selected for monitoring

Variable no.	Variable name
S1	Age
S2	Gender
S4	Education
S7	Occupation
S8	HH size
S9	HH income
S18 (Revised)	Awareness of rules and regulations
S19	Compliance
NEW	MPA knowledge and awareness
NEW	Types and changes in MPA livelihoods
NEW	Alternative livelihoods
NEW	HH MPA livelihoods
NEW	Sector development

Appendix 5: Public service announcement for validation meeting



SAINT LUCIA NATIONAL TRUST

TEL: (758) 452-5005/31495 P.O. BOX 595 CASTRIES, ST. LUCIA WEST INDIES
FAX NO: (758) 453-2791 Email: natrust@csandw.lc Website: www.slmatrust.org

*Patron: Her Excellency Dame Pearlette Louisy
Governor General of St. Lucia*

February 25, 2013

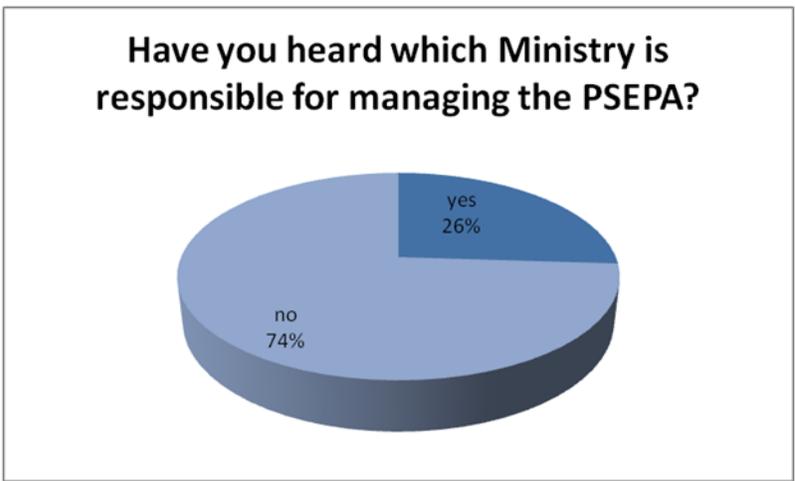
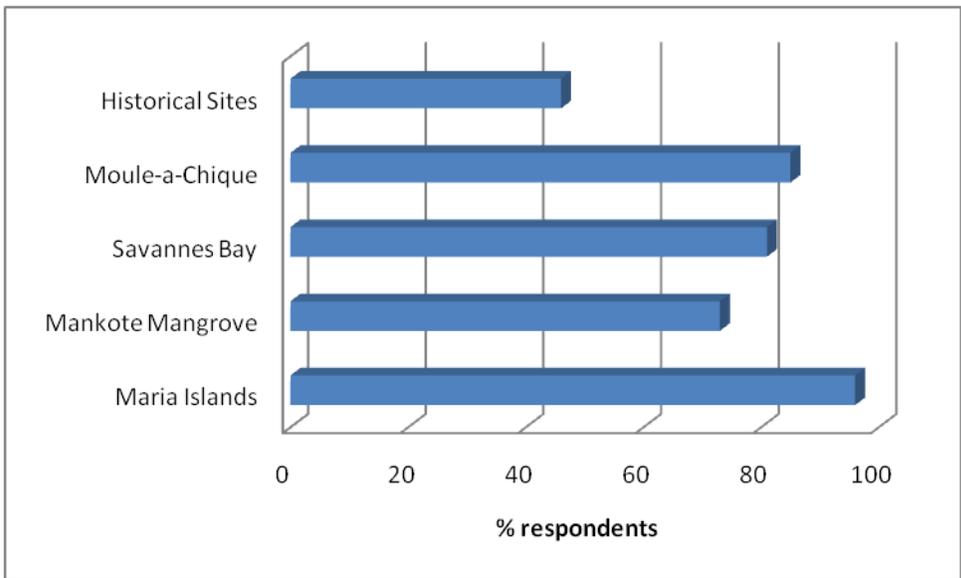
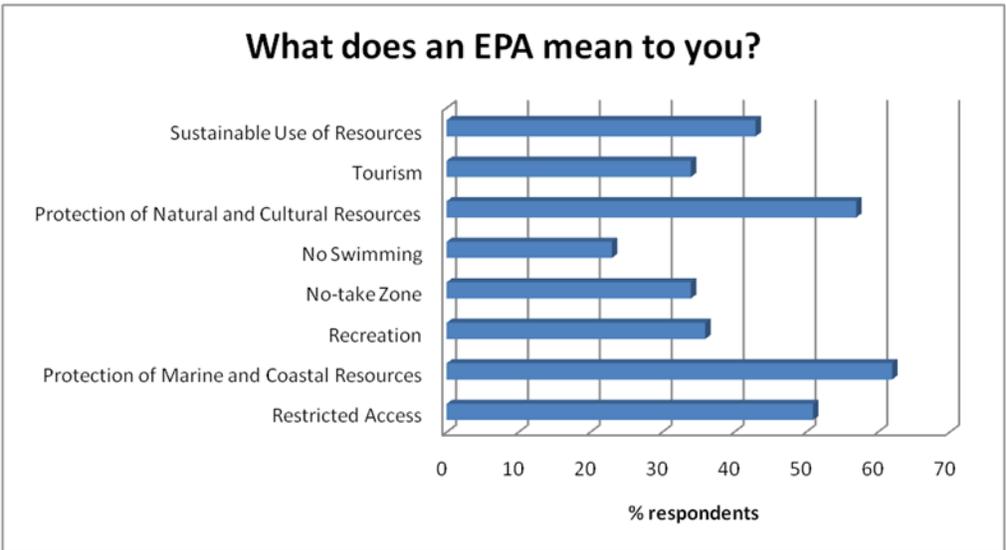
PRESS RELEASE

The Results Are In

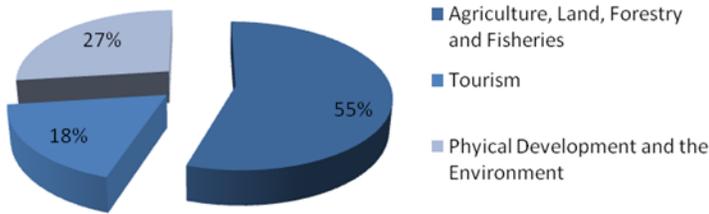
The Saint Lucia National Trust (SLNT) is inviting the residents of Aupicon; Savannes Bay; Latourney communities and Vieux Fort town who participated in the Socio Economic Monitoring household survey on Aug 30th to September 1, in 2012 to a validation meeting on Wednesday 27th February 2013 at the Vieux Fort Primary School from 5:30pm. All survey participants are asked to attend, and to be on time.

THE SLNT CHAMPIONS FAIR HELENS PATRIMONY

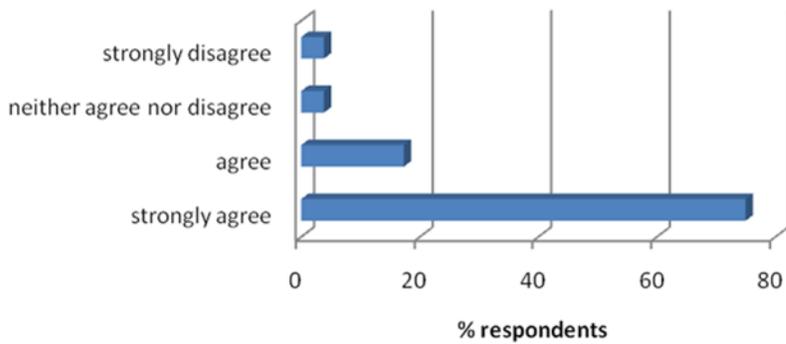
Appendix 6: Graphs from household survey analysis



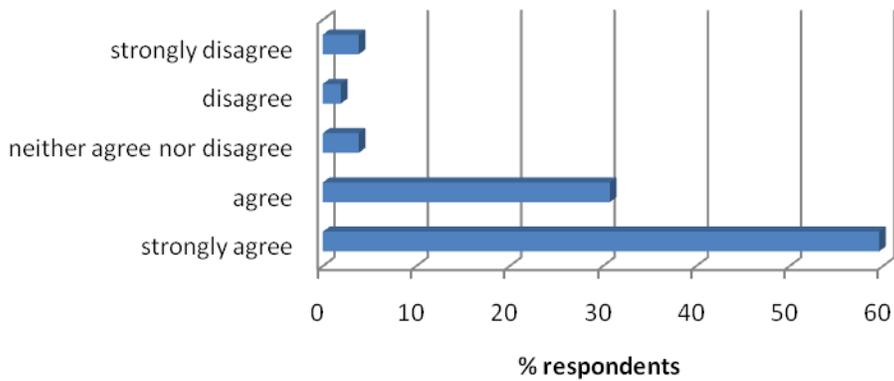
Ministry responsible for the management of the PSEPA



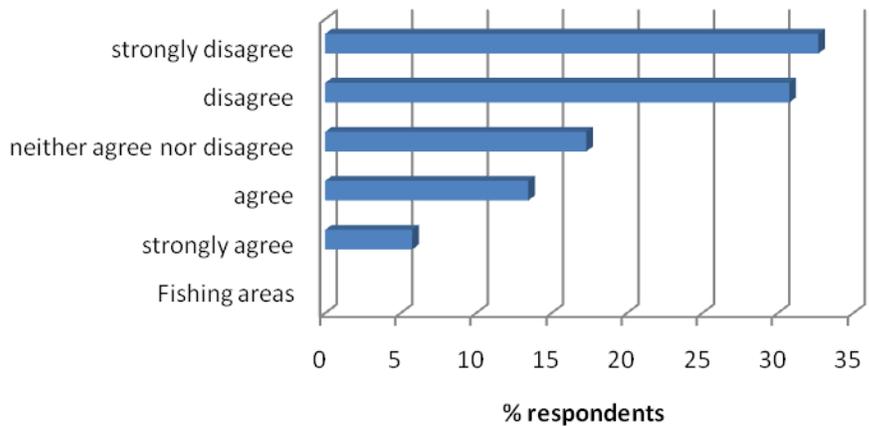
Maria Islands should be protected - home to Whiptail Lizard



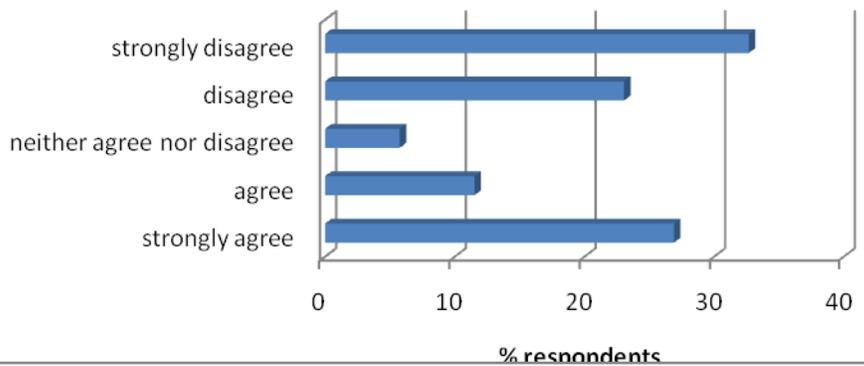
Mankote should be managed - environmental importance



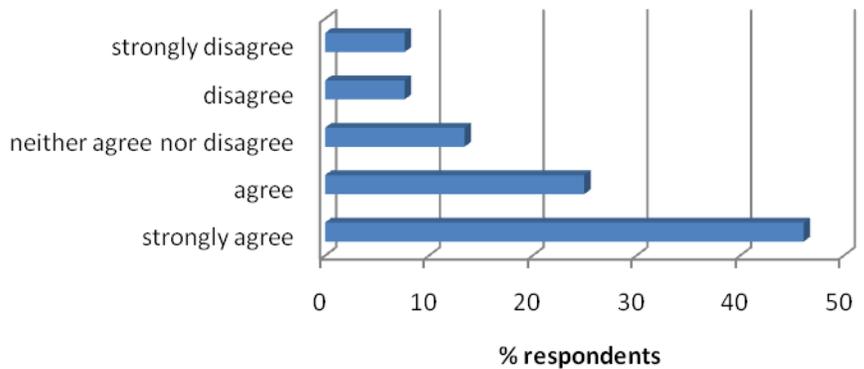
Allow fishers to fish anywhere



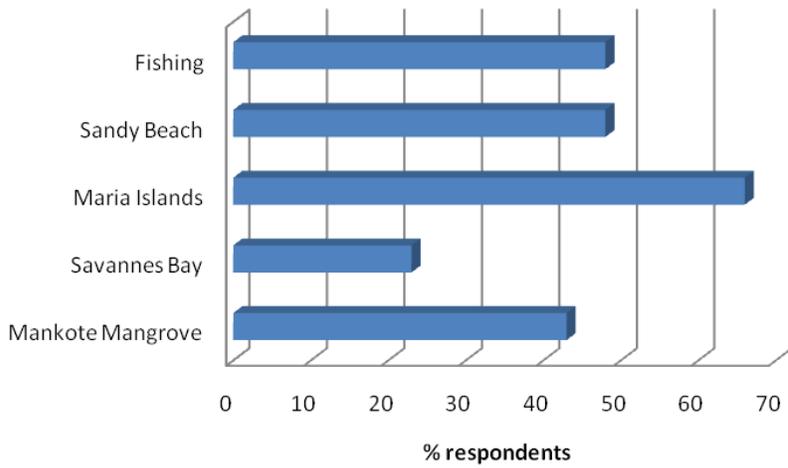
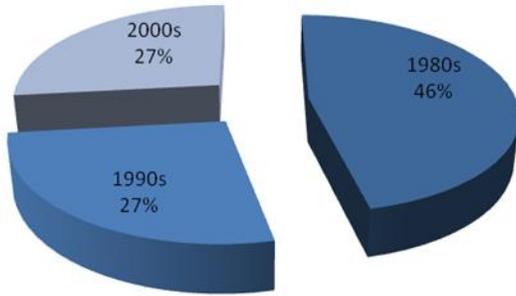
Encourage hotel development - Sandy Beach



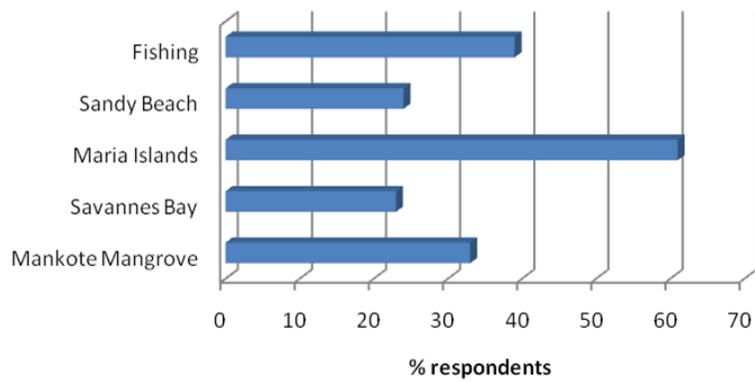
More tourism development - eco-tourism



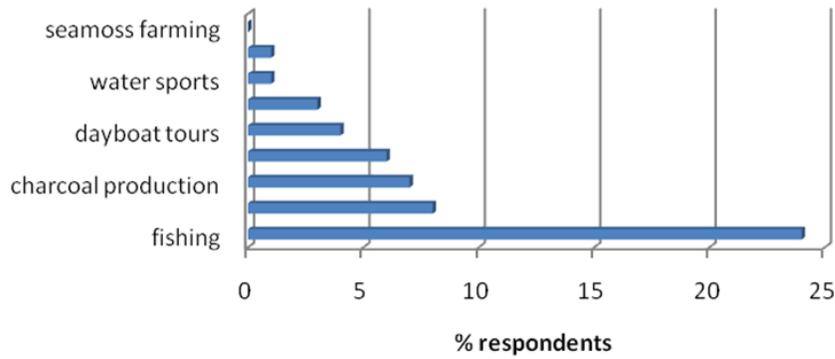
Legal declaration of the PSEPA



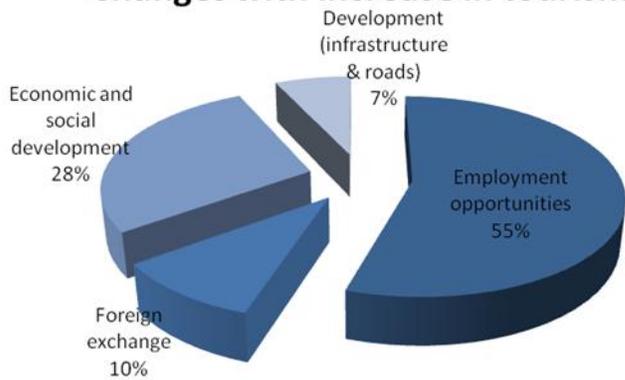
Compliance with rules & regulations



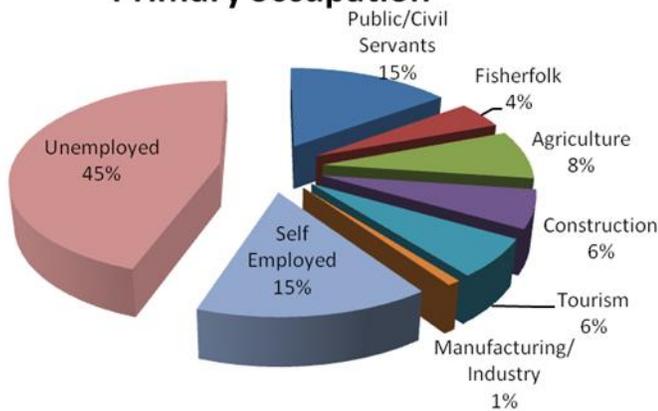
Involvement in income-generating activities in the PSEPA



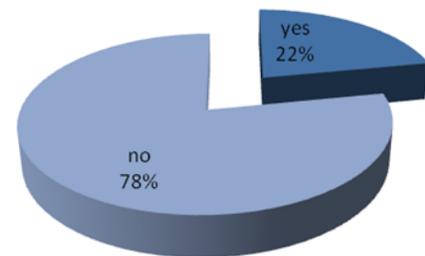
Changes with increase in tourism



Primary occupation



Do you have another source of income?



Appendix7: Photos

Photographs were supplied courtesy Mr. Devron Thomas. These photographs were taken 30 September 2012.

Savannes Bay



Sandy Beach



Charcoal Producer (centre) and some members of SocMon Team

Maria Islands



Maria Island Minor



Maria Island Major

Moule-a-Chique



Natural resources





Material style of life





Educational institutions





Religion





Livelihood activities
Fishing



Tourism



Construction



Business



Banking





Unemployment



'sitting on the block'

Recreational uses of the PSEPA

Fishing



Picnics



Beach Parties



Sea Bathing

