

Socio-economic Monitoring by Caribbean Challenge MPA Managers

Report No.6

**Perceptions of Planned Development in the Pitons
Management Area and the Soufriere Marine
Management Area in Soufriere, Saint Lucia**

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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 and Pomeroy 2003, Bunce et al. 2000). 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 St. Lucia are the Soufriere Marine Management Area (SMMA), the Pitons Management Area (PMA) and the Pointe Sable Environmental Protection Area (PSEA). This report

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

presents project activities and results of joint socio-economic monitoring conducted at the SMMA and PMA.

1.2 Situation overview

The Soufriere Marine Management Area (SMMA) is a marine protected area located on the south-west coast of Saint Lucia. This 11km of near-shore coastal and marine resources is managed by the Soufriere Marine Management Association Inc (SMMA Inc.). The SMMA is subdivided into five zones which are demarcated to manage users and uses of the area (Figure 1). Over the past years, the management of the SMMA Inc. has recognized the need to address anthropogenic activities occurring inland which have adverse impacts on the coastal and marine resources. The SMMA surrounds the town of Soufriere which is the prime tourist attraction on island for the diversity of natural and historical sites which are found in the community. The iconic twin pitons, drive-in volcano, mineral falls, black sand beaches, historic buildings from the French and British colonial period and incredible dive sites are located within the town.



Figure 1 Map of The Soufriere Marine Management Area

Soufriere is also home to the Pitons Management Area (PMA) which was inscribed as a World Heritage Site in 2004. The 29.09 km² site encompasses natural volcanic features including Petit and Gros Pitons which are volcanic spires which rise majestically from the sea and the Sulphur Springs which is an active volcanic centre with fumaroles and hot springs. The PMA is divided into seven policy areas (Figure 2).

Each policy area is subject to varying physical development guidelines including a no-build zone in Policy Area 1. For the past four years the impacts of physical developments on the Outstanding Universal Value of the Pitons have been questioned. In 2012 the World Heritage Committee handed down a decision which requested that the State Party issue a stop work order and not approve any additional developments until a Limits to Acceptable Change study, along with development regulations and guidelines, are completed and legally integrated into the development review process. The decision further requested an updated report be submitted by 1st February 2013 for examination by the committee “with a view to consider inscribing the property on the List of World Heritage in Danger if the measures requested by the Committee are not implemented” (World Heritage Committee 2012)

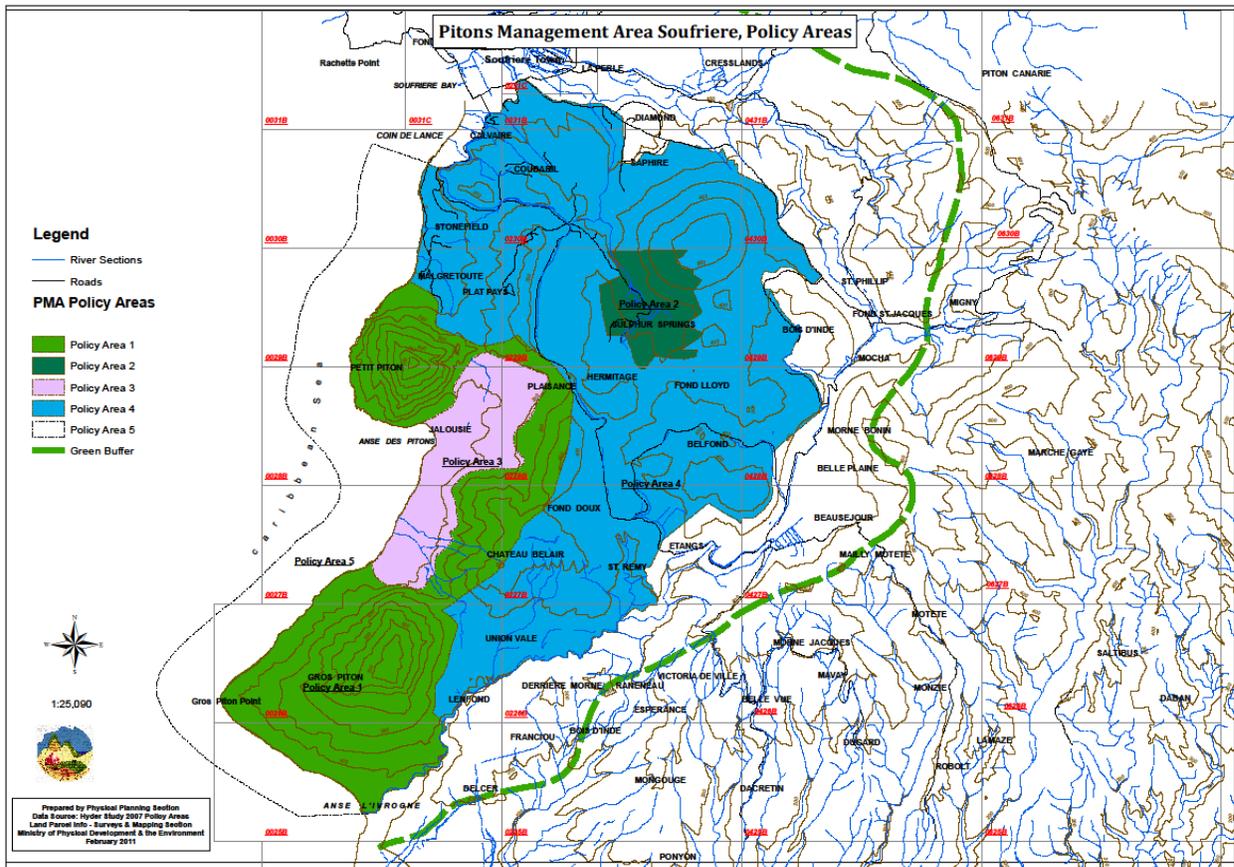


Figure 2 Map of the Pitons Management Area

Following the SocMon training in January 2012, the PMA and SMMA agreed to pool resources and conduct a joint research project. At that time, several social issues were coming to the fore with implications for both the SMMA and the PMA including the decision by the World Heritage Committee. The two project management teams ultimately agreed to monitor perceptions of residents on the impacts planned development on the SMMA and the PMA.

1.3 Goals and objectives

The goals and objectives for monitoring are outlined below.

Goal	Objectives
To collect data to design strategies to mitigate the socio-economic impacts of planned development within the Pitons Management Area (PMA) and the Soufriere Marine Management Area (SMMA).	1. To determine perceived threats of planned development within the SMMA and PMA by residents and other users.
	2. To determine the level and extent of use of the PMA and the SMMA by residents.
	3. To identify potential management solutions to address impacts identified.

1.4 Organization of report

This report is divided into seven sections. Section 1 provides a description of the SocMon Caribbean Challenge project, situation overview of the MPA sites in Saint Lucia where monitoring was conducted and the goals and objectives for monitoring. Section 2 outlines the methods used for gathering the data. The results from the household survey and focus group discussion are presented in Section 3. Discussions and conclusions are in Section 4. Recommendations for monitoring and adaptive management are provided in Section 5. The report ends with lessons learned in Section 6.

2 METHODS

2.1 SocMon training

Twelve participants from the three participating MPAs, Saint Lucia National Trust, Department of Fisheries, Ministry of Environment, local organisations and fishermen's cooperative were trained in the SocMon Caribbean methodology via a 5-day training workshop, 16-20 January 2012 at Juliette's Lodge Hotel, Vieux Fort. The Pointe Sable Environmental Protection Area (PSEPA) was used as the demonstration site for the duration of the workshop (Pena and Blackman 2012).

2.2 Preparatory activities

Two planning meetings were held to complete the site monitoring plan for the SocMon assessment (Appendix 1). A statistician with extensive experience in designing surveys, training enumerators and data analysis was hired as a consultant as part of the project team. The districts of Soufriere, Canaries and Choiseul were chosen as the study area because of the proximity and the concentration of users who work in the two protected areas. The project suffered one setback with a change of management at the Pitons Management Area in 2012 which delayed implementation.

2.3 SocMon team

The team comprised the Project Officer of the SMMA Inc. and the Manager of the Pitons Management Area and a consultant statistician.

2.4 Surveys of households

A household survey instrument was designed and reviewed (Appendix 1). It was then pilot tested and finalized. Ten persons were identified and trained as enumerators. The surveys were administered over a two week period in October 2012. One hundred and fifty-nine random household surveys were conducted in the communities of Soufriere (n = 79), Canaries (n = 32) and Choiseul (n= 48) (Table 1).

Table 1 Sample size of communities and number of enumerators designated to each

District	Sample Size (n)	Number of Enumerators
Soufriere	79	5
Canaries	32	2
Choiseul	48	3

Ten survey variables were used to collect the data for this project, six of which were original SocMon Caribbean variables (Bunce and Pomeroy 2003), with one requiring revision, i.e. six original variables and one original variable that was adapted. The development of four completely new variables was necessary to collecting data relevant to the objectives of this study such as household MPA livelihoods; knowledge and perceptions of physical development, impacts and negative impact reduction; perceived responsibility for impact reduction and MPA user frequency and type of MPA use(s) (Appendix 2).

2.5 Focus group discussion

A focus group discussion was held in January 2013 to collect further data on the study area. There were nineteen participants, nine males and ten females representing government, CBOs, communities and NGOs. The meeting was divided into two segments. The first segment included presentations on the Pitons Management Area (PMA) and the Soufriere Marine Management Area (SMMA) delivered by the project team leaders. The second segment which was the question and discussion session was moderated by the consultant as an impartial facilitator. See Appendix 3 for report.

2.6 Data entry and analysis

Data was entered into an Excel spreadsheet for analysis (Appendix 3). The Assistant SocMon trainer, Katherine Blackman, conducted a site visit in October 2012 and assisted in data entry and analysis. Preliminary results were presented at the 65th Gulf and Caribbean Fisheries Institute Conference in Santa Marta Colombia, 5-9 November 2013. Data entry validation was conducted by the Project Manager, Maria Pena.

2.7 Validation

A validation workshop was held on 28 January 2013 in Soufriere. The results of the household surveys and the focus group discussion were provided to community members for review and discussion.

3 RESULTS

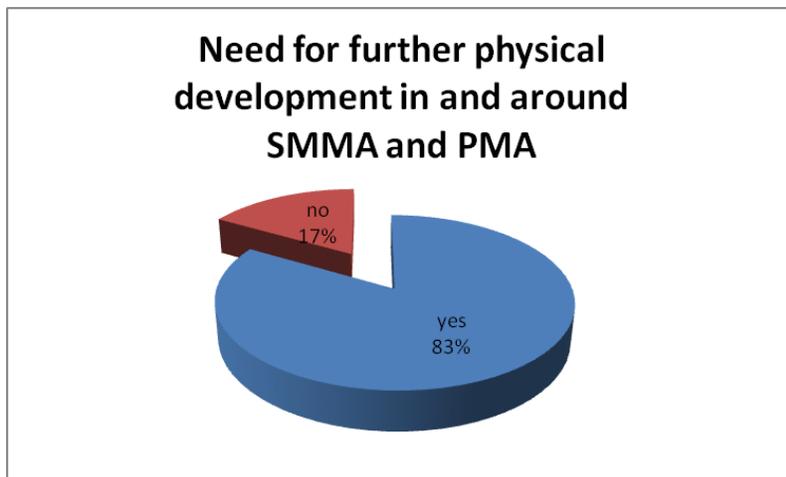
3.1 Household surveys

The results of site monitoring are presented below according to monitoring objective. Objectives regarding perceived threats of planned development and suggested management solutions to address these impacts are combined in sub-section 3.1.

3.1.1 To determine perceived threats of planned development within the SMMA and PMA by residents and other users and to identify potential management solutions to address impacts identified

In general the overwhelming majority of persons (83%) surveyed believe there is a need for further physical development within and around the SMMA and PMA (Figure 3). Only 2% of persons did not answer this question. When the data were disaggregated by location, the results were similar with the majority of persons in Canaries (56%), Soufriere and Choiseul (88% each) stating the need for further development within and around the protected areas.

The type of development that people would support in and around the SMMA and PMA varied according to protected area. Beach facilities (59%), jetties (45%), and tourism structures (35%) on the



water were the top three types of development people would support in and around the SMMA. The top three types of development that would be supported by people in and around the PMA were community parks/playground (41%), a community development centre (40%) and hotels (40%). See Figure 4.

Figure 3 Perceived need for further physical development within and around the SMMA

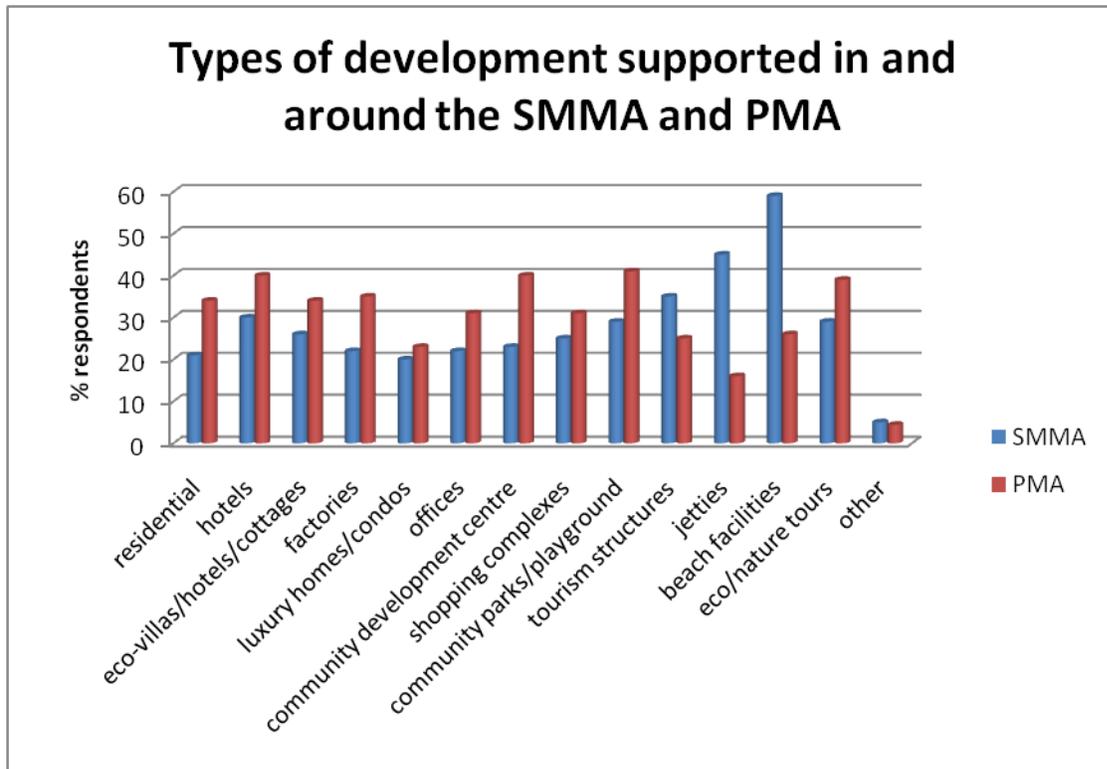


Figure 4 Support for varying types of physical development in and around the SMMA and PMA

A small percentage of persons suggested other types of physical development for the SMMA and PMA. The following would be supported in both the SMMA and PMA:

- Interpretation centres and public bathroom facilities
- Gas stations
- A learning/training institute
- Doctors' offices/hospitals

In addition to these, respondents noted that they would support specific types of physical development in each protected area - physical infrastructure for the pursuit of extra-curricular activities in the SMMA and small shops and restaurants in the PMA.

Of the 17% of people who thought there was no need for further physical development in the protected areas, the following reasons were given for this stance:

- Soufriere and surrounding areas are St. Lucia's national treasures, its resources should not be destroyed by development
- We must learn to value and appreciate what we have
- Development will benefit the 'big people'/foreign investors only, we are not building, we not selling, leave Soufriere alone
- Enough has been done in the area; some people are employed but small salaries make supporting families difficult

- St. Lucians will not be able to frequent these areas freely if development continues and the chance for making a living from the area will be less
- The PMA is not safe for development; cutting down trees can lead to landslides and extinction of some of our animal species
- Soufriere is too crowded
- Further development in the SMMA area has the potential to disturb habitats in marine areas through for example, pollution
- Threat of delisting the Pitons as a World Heritage Site
- There was an agreement to protect the PMA, therefore there should be no building in the PMA

The planned developments to be established within the PMA and SMMA that people were most familiar with were the hotel at Malgretoute, the expansion at Jalousie and Hotel Chocolat at Sulphur Springs. Over half of all respondents were aware of these planned developments (Table 2). Only 3% of respondents were aware of other planned developments to be established.

Other planned developments that respondents were aware of were a marina at Barons Drive and the building of a tunnel at AnseChastanet that was stopped.

Table 2 Knowledge of planned developments to be established in the protected areas

Planned development	% respondents
Hotel at Malgretoute	79
Expansion at Jalousie	60
Hotel Chocolat at Sulphur Springs	52
Beach park at Hummingbird	46
Construction of multi-million dollar houses between the Pitons	36
Expansion at AnseChastanet including multi-million dollar houses	29
Geothermal exploration	26
Hotel development at AnseL'Ivrogne	25
Touristic Development at Diamond	17
Other	3

Similar proportions of persons surveyed (over three-quarters) thought that the planned developments would have impacts both on the ways people make a living from the SMMA and PMA, and the coastal and marine resources of these areas (Figure 5).

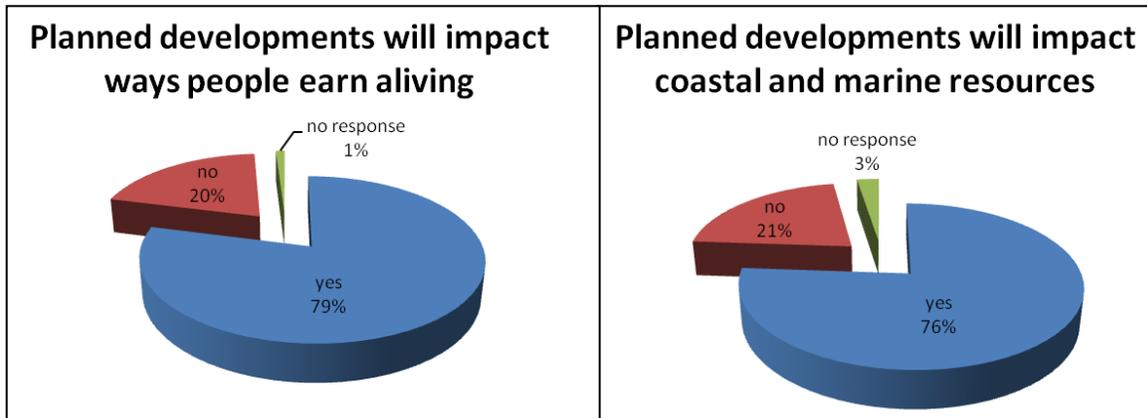


Figure 5 Perceptions of impacts of planned development

Thirty-two persons provided a number of reasons for why they believed planned developments would not impact the ways people make their living from the SMMA and PMA. It should be noted that greater than half of the reasons (57%) provided were focused on the ways people earn a living from the areas. Employment within the SMMA and PMA (34%); and business as usual, people will benefit more (17%) were the two most common reasons provided for developments not having an impact on livelihoods. A small proportion of individuals (18%) combined mentioned the adoption of guidelines and operational practices by developers and hotel management; development being on land and not the near the sea; and stewardship of resources by people as reasons why development would have no impact on the coastal and marine resources of the area (Table 3).

Table 3 Why planned developments will have no impacts on the livelihoods and the coastal and marine resources in the SMMA and PMA

Reasons for no impact	% respondents
Employment within SMMA and PMA	34
Business as usual, people will benefit more	17
No impact because hotels will not benefit any us; money doesn't stay with us	6
Developers and development will be guided by guidelines (during development)	6
Development will be on land; not near the sea	6
More money will be circulated	6
People will still look after the resources even if hotels are developed	3
No taxation	3
Surveys will aid in identifying negative impacts on resources	3
Hotel management could put certain practices in place to protect marine resources (after development)	3
Greater choices in the area	3
Real estate benefits; more jobs	3

Generally, potential positive and negative impacts on income-generating activities, and coastal and marine resources, perceived by respondents were similar across all planned developments. Ten

perceived positive impacts on people’s income-earning activities in and around the SMMA and PMA were identified by respondents. These were more employment, revenue generation, more income, increased tourism, foreign exchange generation, development, greater opportunities, more investment, more touristic attractions and higher standard of living. Of these positive impacts of development, 73% of respondents thought that employment would be the most important potential positive impact on income-generating activities. The other positive impacts were identified by a minority of respondents, less than 10%, in each case.

Respondents identified ten potential negative impacts that the planned developments could have on people’s income-earning activities: restricted use and access, too much foreign investment, less tourist attractions/appeal, delisting of the Pitons, loss of land and space, greater benefit to foreigners, foreign exchange leakage (money not remaining in the country), need for relocation, negative effect on fishing and vendor overcrowding. Of these, over half of the respondents (65%) thought that restricted use and access to coastal and marine areas was the most important potential negative impact that development would have on income-generating activities in and around the SMMA and PMA. It should be noted that a fairly significant proportion of persons (15%) felt the developments would have no negative impact on income-generating activities within and around the SMMA and PMA. The other negative impacts were identified by only a minority of respondents, 9% and less, in each case.

Respondents identified nine potential positive impacts that the developments could have on the coastal and marine resources of the SMMA and PMA. These were recognition/appreciation of the resources and areas; clean, beautiful coastal and marine areas; increase in fish; generation of income to the SMMA; protection of marine areas; preservation and enhancement of beaches; preservation of marine life; increase in sustainable development and decrease in pollution. Of these, the top three positive impacts identified were recognition/appreciation of the resources and areas (33%), generation of income to the SMMA (26%) and clean, beautiful coastal and marine areas (22%). See Figure 6. The other positive impacts were identified by between 6% and 2% of respondents.

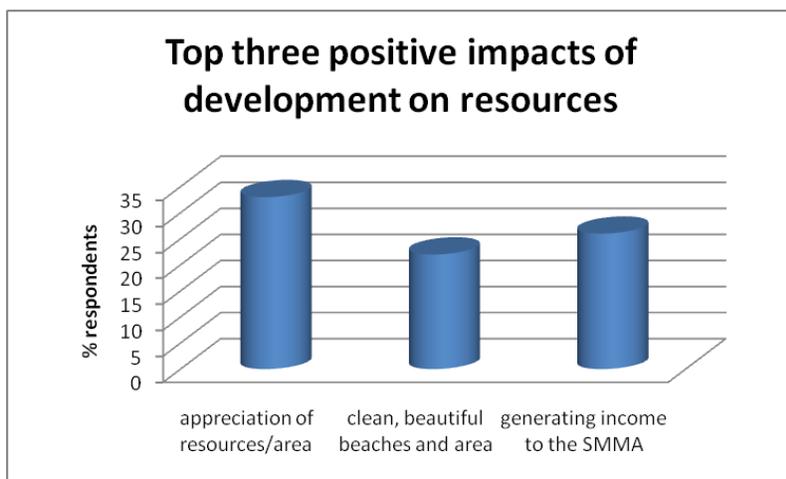


Figure 6 Potential positive impacts of developments on coastal and marine resources of the SMMA and PMA

Seven negative impacts of planned physical developments on the coastal and marine resources of the SMMA and PMA were identified by respondents. These included destruction and pollution of coastal and marine resources; loss of wildlife and natural scenery; coral harvesting (by tourists and for tourism); sedimentation (due to construction); decrease in fish; loss of habitats, and indiscriminate and improper waste disposal (solid and human waste). Of these negative impacts, the destruction and pollution of coastal and marine resources was thought to be by the majority of respondents (88%) to be the most important potential impact of the planned developments. This impact includes activities that would destroy beaches, fish, and coral reefs by construction activities and resulting pollution (chemicals, runoff etc.). The other negative impacts were identified by less than 5% of respondents in each case.

In general the questions on impacts of planned developments on income-generating activities and the coastal and marine resources of the SMMA and PMA were poorly answered by respondents, with the majority providing no response at all. Potential positive and negative impacts of the developments on income-generating activities were not provided by 69% and 83%, respectively. Similarly, 91% and 88% of respondents did not provide potential positive and negative impacts of the developments on coastal and marine resources of the SMMA and PMA.

Suggestions for ways of reducing the impacts of physical development were varied. The top five solutions recommended included allowed/free access to areas (38%); restriction and prohibition of further development (36%); proper disposal and management of waste (32%); building away from coastal areas (28%); and implementation of guidelines and policy (26%)(Figure 7).

In terms of reducing negative impacts of physical development on socio-economic activities in and around the SMMA and PMA, greater than three-quarters of respondents (77%) believe that the government should be responsible, whereas almost equal proportions of people feel that SMMA management (72%) and the government (71%) should be responsible for reducing impacts of physical development on coastal and marine resources (Figure 8). It should be noted however that relatively significant proportions of respondents ($\geq 33\%$ of persons surveyed in each case) believe that protected area management, surrounding communities and developers all have a part to play in reducing these impacts. A minority of people surveyed (10%) believe that other people and organisations - everyone, district representatives, professionals from overseas, St. Lucians, the attorney general, the governor general/police and the Soufriere Regional Development Foundation (SRDF) - should be responsible for reducing the impacts of development.

Although people hold the government the most responsible for reducing or mitigating the impacts of physical development on socio-economic activities in and around the SMMA and PMA, it is apparent that persons generally believe that all players – government, protected area management, the developers and communities – should all be involved in mitigating the effects of development impacts. This also seems to be true for reduction of development impacts on coastal and marine resources. It should be noted however, that in this instance, people believe that both the government and SMMA management are more responsible for mitigation of impacts.

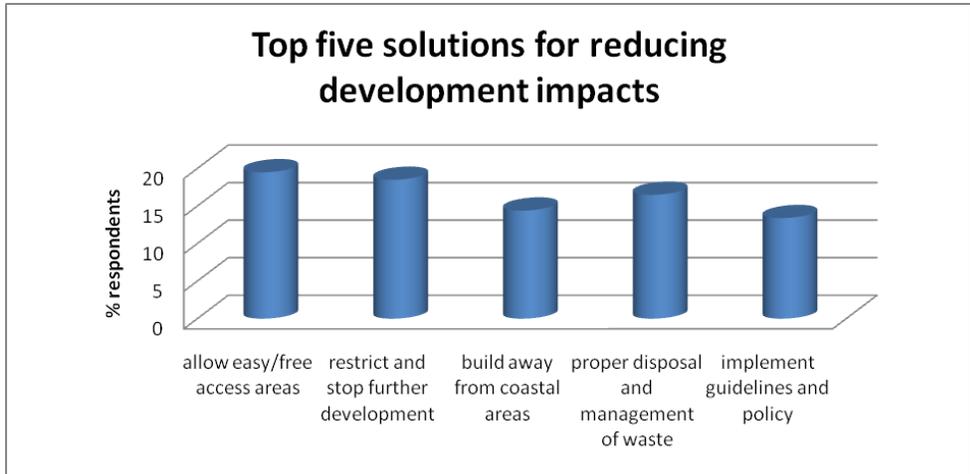


Figure 7 Suggestions for reducing the impacts of physical development

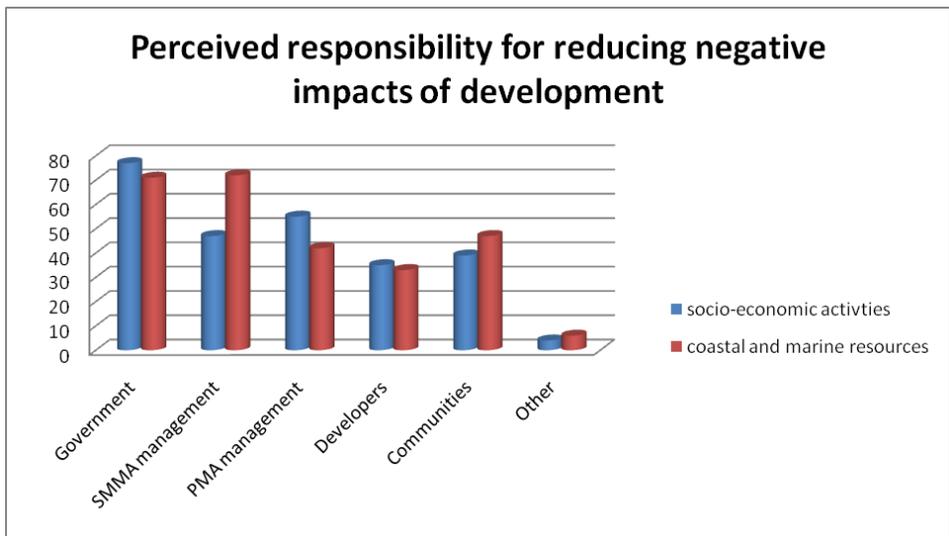


Figure 8 Perceived responsibility for reducing negative impacts on socio-economic activities and coastal and marine resources

3.1.2 To determine the level and extent of use of the PMA and the SMMA by residents and other users

Similar proportions of respondents and members of their household are either dependent (48%) or not dependent (52%) on the SMMA and/or PMA for their livelihoods. Of those persons who make a living from areas around and within the protected areas, only 41% provided information on numbers of household members dependent on these areas for their livelihoods. Generally, most households (41%) have one or two persons who are dependent on the SMMA and/or PMA for their livelihoods (Figure 9).

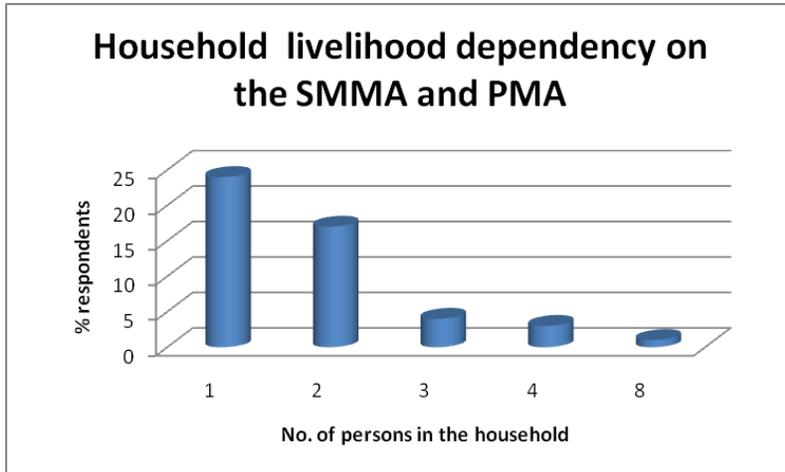


Figure 9 Number of household members dependent on the SMMA and/or PMA for their livelihoods

Thirty-nine percent of those persons who are dependent on the SMMA and/or PMA for their livelihoods have been making their living within the SMMA and PMA within recent years, for between 1 and 10 years. Only 11% have been making a living in these areas for greater than 10 years; the longest time being 30 years. There are a variety of ways in which people make a living that contribute the most income to households. However, the top four means of earning a living amongst household members noted by respondents were the hospitality industry (10%), provision of taxi services (both on land and water, 6%), farming and vending (4% each).

Bathing (69%), beach recreation (47%) and fishing (22%) are the top three ways in which respondents and the members of and the members of their household use the coastal resources in the SMMA. Other uses identified by respondents included diving and watching nature (

Figure 10). Most people (33%) use the SMMA one day per week. The SMMA is most frequently used by 71% of the respondents one to three days a week. Most people bathe and use the SMMA for beach recreation at least one day per week (15% and 8%, respectively), whereas fishing occurs by most persons at least three times a week (3%). See Figure 11.

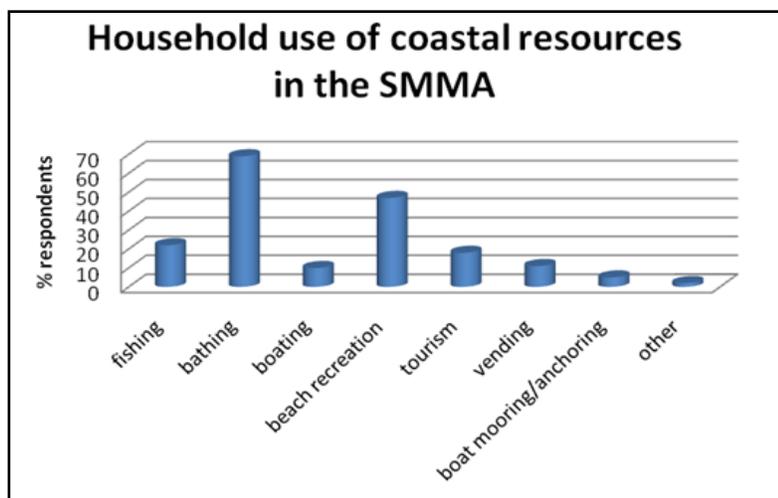


Figure 10 Types of use of coastal resources in the SMMA

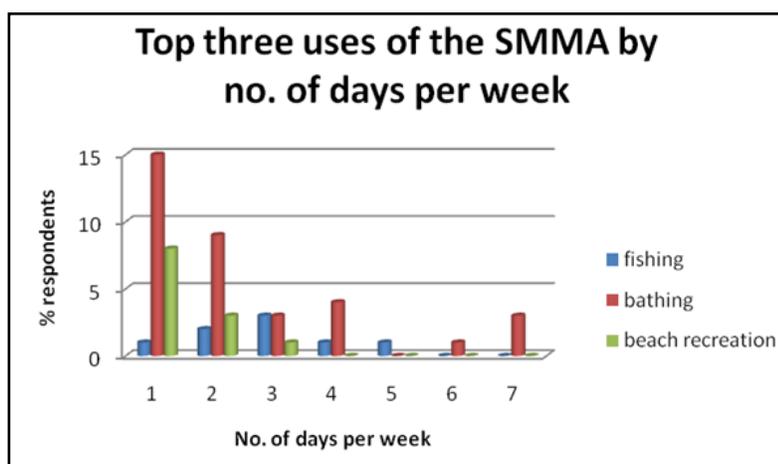


Figure 11 Frequency of use of coastal resources in the SMMA

Recreation at the Sulphur Springs (62%), waterfalls (36%) and beach (36%), and nature trail hikes (23%) are the most common ways people make use of the PMA resources. Other uses identified by respondents included patronising restaurants and selling/carving (Figure 12). Recreation at the Sulphur Springs occurs at least 4 times per week for most people (11%). Similar proportions of people use the beach in the area between once and twice a week (5 and 7%, respectively). This is also true for waterfall use in which 1% of respondents use these resources between one and four times weekly. Equal proportions of people use the area for nature trail hikes most between one and five times per week (1%, each) (

Figure 13). The majority of persons (27%) use the PMA throughout the week (seven days per week).

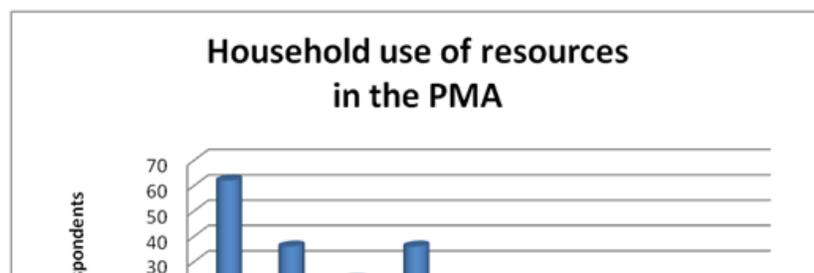


Figure 12 Types of use of resources in the PMA

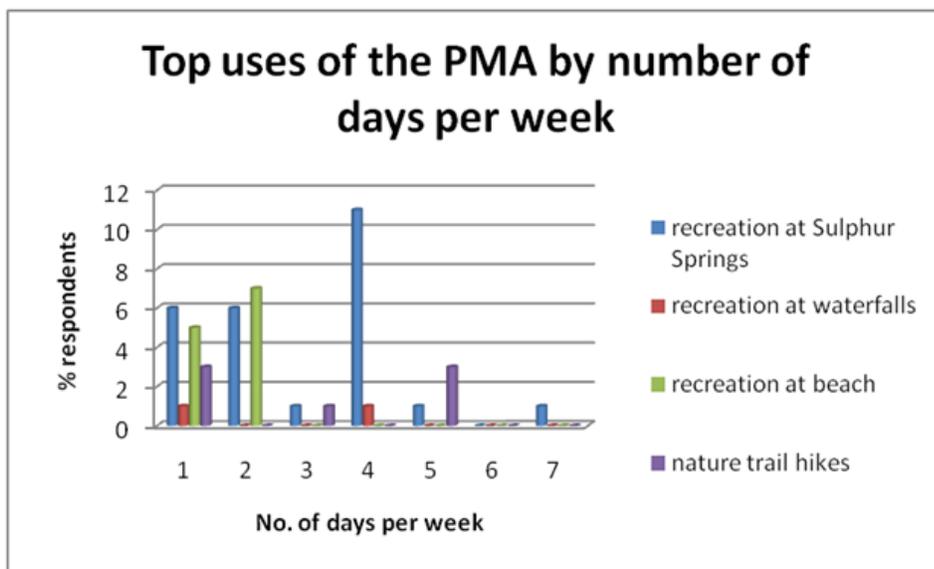


Figure 13 Frequency of use of resources in the PMA

3.1.3 Demographics

The majority of households (52%) comprise three to four persons who are 16 years and older. Two-thirds of the people interviewed were 36 years and over. A large percentage of respondents (49%) have secondary and tertiary education and technical training. The top three primary occupations of household heads are farming (11%), tourism and hospitality (11%) and business (9%).

3.2 Focus group discussion

The results of the focus group discussion are detailed in the report in Appendix 3.

4 DISCUSSION AND CONCLUSIONS

The discussion is presented according to the objectives of the project and includes the comments obtained from the focus group and the community validation meetings.

4.1 Perceived Impacts of Planned Development

4.1.1 Positive social and economic impacts

Although the majority of respondents felt that there should be further physical development in the study areas, there was concern that developments threaten the integrity of the Pitons Management Area as a World Heritage Site. Participants at the focus group discussion zoned in on that concern and recommended that developments should only be allowed in the policy areas that allow for development and relevant agencies conduct strict monitoring.

The majority of positive social and economic impacts related to the benefits typically derived from tourism developments and included creation of jobs and reduction in unemployment. A few responses included spill over benefit from increased tourism such as farmers and fishers having a larger market to sell their produce. A tiny fraction of responses from the household survey and the focus group discussion considered positive social impacts of community type developments which include rest and relaxation from beach recreation and nature trails, activities for youth and skills training.

A couple of households surveyed indicated developments constructed at beaches that currently do not have vehicular access would create access to the beach. However developers are only required to maintain access according to what is currently had. Therefore there is no guarantee that a developer will provide vehicular access to beaches that are currently considered remote.

4.1.2 Negative social and economic impacts

The majority of negative social and economic impacts indicated a present threat to local ownership of land. The outstanding universal value of the PMA and the designation as a World Heritage Site has also caused the price of land to surge due to demand from foreign investors. Saint Lucians who own property in the area are being offered large sums of money. Some willingly sell however a recent development has seen political interference with the Government of Saint Lucia applying “Eminent Domain” and gazetting the acquisition of private lands for a public purpose, *to wit* a touristic development. Local land owners who went to court to defend their right to keep their inherited lands were forced to sell land to a hotel developer. This threat was raised by a significant number of respondents in the household survey and also identified as a significant threat by the focus group. This value for land in that area is now priced out of the reach of Saint Lucians who wish to purchase property. There was one recommendation to place a moratorium on foreign land ownership in Saint Lucia and legislate or set a policy that any additional land be leased to foreigners but not sold. This would require a government agency or NGO to conduct an education campaign specifically for land owners within the SMMA and PMA. However the focus group discussion questioned the political will to adopt such a moratorium in light of the need to encourage investment to stimulate the local economy.

Another major negative threat was the loss of access to beaches and restrictions placed on the beaches that result in a loss of tradition and culture. Prior to construction of hotels at two of the main bays

within the SMMA and the PMA, Saint Lucians had open access to beaches and marine resources which were traditionally used for rest and relaxation and religious rituals. Although all beaches remain public according to law, access to the beach is still restricted and is managed as a private beach. At one property, vehicles are no longer allowed to drive down to the beach. The previous owner allowed residents use of their parking area and provided a shuttle to the beach however the present management at that property no longer offers a shuttle service. Families who would have unloaded their vehicles with supplies for a picnic within metres of the beach are now faced with the sole option of walking approximately one mile downhill carrying their food and drinks coolers, sports equipment, etc. to use the public beach. The difficulty in the ease of access by land, restricted use and unwelcoming atmosphere has caused a significant decline in the use of those beaches by residents. The responses from the data collected indicate a collective weariness towards any further loss of access to the remaining beaches. Also there was a loud call for government intervention to ensure that access is maintained and traditional uses are not restricted. The focus group recommended that Government adopt a policy mandating coastal developments maintain a setback from the waterline to ensure public access and not infringe on the rights and traditions of Saint Lucians.

Another negative economic impact with social implications raised was the loss of revenue generated in-country from foreign owned tourism business where profits are expatriated. Successive governments have granted and continue to grant concessions to encourage foreign investors. These companies legally change ownership at the end of the concession terms and are granted additional concessions including tax breaks. Local investors are disadvantaged because they do not benefit from these concessions whereas their profits remain in-country and are directly injected into the local economy.

Also of grave concern is the threat of destruction of natural resources in the area particularly fish and coral reefs which will adversely impact on revenue generated from reef-related tourism and the livelihoods of fishers and their families.

4.1.3 Positive impacts on natural resources

There was a very low response rate from the household survey for positive impacts on natural resources. The responses given indicated that developments adjacent to the beach tend to maintain the beaches thus planned developments keep the area clean and improve beach aesthetics.

There was overwhelming support for provision of beach facilities and community parks and a number of responses indicated that these facilities will improve use of beaches and parks, improve hygiene and the quality of water and surrounding resources.

4.1.4 Negative impacts on natural resources

The majority of respondents indicated concern about pollution and sedimentation from physical developments. The threat to the health and potential destruction of fish, coral and beaches were raised indicating relative awareness of those issues.

The landscape of this area is still well covered however there is a concern that built structures would soon overpower natural vegetation in certain key areas in the PMA contrary to the development

guidelines outlined in the PMA Management Plan (De Beauville-Scott et al. 2003) and the PMA and again in Soufriere Integrated Development Plan (Webber et. al 2007).

4.2 Levels of Use of the SMMA and the PMA

The levels of use discussed below pertain to household use of the SMMA and PMA. Levels of use by non-residents were not monitored in this project.

4.2.1 SMMA-Levels of use

Thirty-three percent of households surveyed indicated that they used the SMMA at least once per week which was debated at the validation workshop where some argued it should be higher. However through personal observations, attendees at the validation workshop indicated that a lot of the users of the beaches in particular are residents outside of this project's sample area. A relatively high number of respondents indicated they do not use the SMMA with the majority of these respondents coming from the two adjacent communities Choiseul and Canaries. The top three uses of the SMMA were bathing, beach recreation and fishing. The three most frequent uses of the SMMA were bathing, beach recreation, and tourism.

At the validation workshop, management of the jetties and restricted access to beaches were identified as contributing factors to low use figures. Reference was made to the changing use of the main Soufriere jetties which were widely used for recreational line fishing and as a diving platform over ten years ago. However it is managed by the Soufriere Regional Development Foundation and is operated primarily as a landing dock for passenger vessels (tourists). Employment was created for dock wardens who now keep recreational users off the jetty during daylight working hours because some engage in tourist solicitation.

4.2.2 PMA – Levels of use

Eighteen percent of households indicated they used the PMA at least once per week and 27% use it throughout the week. However, the validation workshop attendees thought frequency of use should be much higher given that "living" and "tourism employment" in the PMA were considered uses. This raised a question of awareness of the boundaries of the Pitons Management Area. There was a recommendation for an education campaign at the community level to sensitize residents and land owners on the boundaries of each zone. During the discussion at the validation workshop several factors were identified as potential causes for the 'low' use rates including the introduction and subsequent increase in the entrance fee for residents to bathe at the Sulphur Springs and a landslip post Hurricane Tomas which is still blocking vehicular and pedestrian access on the road between Malgretoute and Barons Drive. The other access road to Malgretoute is uphill and a much longer walking distance (approximately thirty minutes). This longer route dissuades persons (families with young children and the elderly) who used to walk only ten minutes to the beach and waterfall at Malgretoute.

Ten percent of households interviewed indicated they did not use the PMA however the survey options did not include in-transit or visiting persons who reside within the boundaries of the PMA. The top three uses of the PMA were recreation at Sulphur Springs (62%), beach recreation (36%) and recreation at

waterfalls (36%). However the three most frequent uses of the PMA were recreation at Sulphur Springs, live/home and tourism employment.

4.3 Potential Management Solutions and responsibility for mitigating impacts

The majority of management solutions from the household survey for reducing development impacts were recommendations that the Government of Saint Lucia (GOSL) should implement policy to ensure that public access to beaches is maintained. It was noted that by law, all beaches in Saint Lucia are public with the exceptions of a few small sections of the coast where there is no Queens Chain. The study area is surrounded by Queens Chain.

Although people hold the government the most responsible for reducing or mitigating the impacts of physical development on socio-economic activities in and around the SMMA and PMA, it is apparent that persons generally believe that all players – government, protected area management, the developers and communities – should all be involved in mitigating the effects of development impacts. This also seems to be true for reduction of development impacts on coastal and marine resources. It should be noted however, that in this instance, people believe that both the government and SMMA management are more responsible for mitigation of impacts. This indicates people’s fairly good understanding of management responsibility. MPAs and MPA resources are affected by external and internal factors, and management cannot be achieved in isolation. A number of key players including various government sectors and related ministries/agencies, private sector, NGOs etc. are needed to enhance management of MPAs and achieve stated objectives. The apparent realization of this by people may suggest an appreciation for MPA vulnerabilities and management. If people realize that the reduction of negative impacts of physical development cannot be borne solely by the MPA, people are likely to be supportive of any petitions to government and/or developers made by MPA management.

The majority of recommendations from the focus group discussion were focused on the role of the government in implementing and enforcing existing policies and legislation. The following recommendations were strongly endorsed at the focus group meeting:

1. The main income generating sectors in the study area are tourism and agriculture (including fishing). In order to capitalize on the income generation opportunities within the SMMA and PMA, GOSL should provide incentives to encourage business opportunities. In addition, adequate infrastructure should be constructed such as a craft market or trade market for vendors and other tourism related small businesses. Also GOSL and other relevant agencies in Soufriere should encourage entrepreneurship by providing skills training, loans facility, technical assistance and marketing of local businesses.
2. To stem the alarming increase of landholding licenses granted to aliens and alien companies, GOSL should institute a moratorium and conduct a study to determine an acceptable limit for licensing. This would also serve to regulate the price of land in Saint Lucia to ensure that the most desired locations are not priced outside of the financial reach of Saint Lucians. An innovative recommendation was that GOSL and residents should lease rather than sell any more land to non-Saint Lucians.

3. To combat the threat of pollution several recommendations were made pertaining to enacting several bills including the containers bill and enforcement of existing legislation. A recommendation was made to implement an environmental levy to fund environmental programs and projects. Reference was made to the funding mechanism for protected areas in Belize. There was also a recommendation to pilot a recycling program and plant in Soufriere as a new market opportunity.
4. Whilst participants supported foreign investment in the country, and having recognized that the majority of management positions of foreign businesses in Saint Lucia are outsourced to non-nationals, there was a call to adopt a policy like that of Barbados with a recommendation that at least fifty percent of management positions should be staffed by Saint Lucians.
5. There was a recognition that under the current legislation, the Planning Act, the decision making body established to review and authorize developments can be overridden by decisions from the Cabinet of Ministers. This led to a recommendation to amend the Planning Act, create a multi-agency committee that would be adequately staffed to monitor all physical developments in Saint Lucia.

5 RECOMMENDATIONS FOR MONITORING AND ADAPTIVE MANAGEMENT

The two agencies responsible for managing the two protected areas studied should continue utilizing the Caribbean SocMon methodology to develop a standard set of indicators to conduct sustained monitoring. This can be integrated into the program of the two agencies, SMMA and PMA and done every three to five years as recommended by the SocMon methodology. The results of the socio-economic monitoring conducted at these protected areas should be presented to the Board of Directors of the SMMA and the Piton Management Advisory Committee to guide adaptive management of the areas.

Many of the recommendations made during this study are applicable to legislative authorities and the Government of Saint Lucia.

6 LESSONS LEARNED

- The inclusion of a statistician complemented the project management team who had limited experience in designing surveys, training enumerators and facilitating focus group reports.
- The response rate of the household survey was high (100%). This could be attributed to the use of community members as enumerators.
- The issue which was being monitored (physical development) was being hotly debated in the news media at various times during the project. The participants at the focus group discussion included a wide selection of stakeholders who made very significant contributions and valid recommendations.

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8 APPENDICES

Appendix 1: Survey instrument

ID# ___/___Q# ___/___

Collecting data to inform and guide efforts aimed at reducing impacts of proposed physical development within the Pitons Management Area and Soufriere Marine Management Area

Household Survey

Start time: _____

End Time: _____

Good morning/afternoon, my name is I am conducting a survey on behalf of The Soufriere Marine Management Association Inc. (SMMA) and the Pitons Management Area (PMA) to obtain information about the impact of proposed physical developments on these areas. Your honest answers will help in collecting information that will assist in understanding the concerns that residents and users of the areas have about proposed physical development and that may guide efforts at reducing the impacts of proposed physical development within the PMA and SMMA. Any information you give will not be identified with you in reports on the survey. These reports will be shared with the public. Feedback is intended to make stakeholder opinions, decision-making and management efforts clearer to the general public.

Date: ___/___/___
dd-mm-yyyy

Location: _____

Respondent name (optional): _____

Perceived threats of planned development within the SMMA and PMA, and potential management solutions to address impacts identified

The Pitons Management Area is enclosed within the boundaries of the sea, the road leading to The Still up to the Diamond road, through Belle Plain and the river down to Anse L'Ivrogne. The boundary extends 1km out to sea (Show map). The Soufriere Marine Management Area is the area of the coast from Anse Jambon in the north to Anse L'Ivrogne in the south (Show map).

1. a) Do you think there is a need for further physical development (homes, shopping complexes, industrial development etc.) within and around the PMA and SMMA? Yes No *If NO, go to part (c).*
- b) If YES, what type of physical development would you support within each of these areas? *Tick ALL that apply. Read out the options*

SMMA

- Residential homes
- Hotels
- Low density eco-villas/hotels/cottages
- Factories
- Luxury Homes/Condominiums
- Offices
- Community Development Centre
- Shopping complexes
- Community Parks/Playground
- Tourism structures on the water
- Jetties
- Beach Facilities

PMA

- Residential homes
- Hotels
- Low density eco-villas/hotels/cottages
- Factories
- Luxury Homes/Condominiums
- Offices
- Community Development Centre
- Shopping complexes
- Community Parks/Playground
- Tourism structures on the water
- Jetties
- Beach Facilities

- Eco/Nature Tours
 Other, please specify

- Eco/Nature Tours
 Other, please specify

c) If NO, please explain your answer.

2. a) Which of the following planned developments to be established within the Pitons Management Area and Soufriere Marine Management Area have you heard of or know about? *(Read all options and tick ALL that apply.)*

- | | |
|--|--|
| <input type="checkbox"/> i. Hotel at Malgretoute | <input type="checkbox"/> ii. Expansion at Anse Chastanet including multi-million dollar houses |
| <input type="checkbox"/> iii. Construction of Multi-million dollar houses between the Pitons | <input type="checkbox"/> iv. Expansion at Jalousie |
| <input type="checkbox"/> v. Hotel development at Anse L'Ivrogne | <input type="checkbox"/> vi. Touristic Development at Diamond |
| <input type="checkbox"/> vii. Hotel Chocolat at Sulphur Springs | <input type="checkbox"/> viii. Geothermal exploration |
| <input type="checkbox"/> ix. Beach Park at Hummingbird | <input type="checkbox"/> x. Other, please specify |

b) Do you think any of these planned developments will have impacts on

- i) the ways people make their living from the SMMA and the PMA Yes No
 ii) The coastal and marine resources of these areas Yes No

If YES, go to parts (d), (e) and (f). If NO, go to part (c).

c) If NO, why do you think these planned developments will have no impact?

After answering part (c) skip to question 3.

- d) For each of the identified developments you are aware of, list if any, the MOST important potential positive and/or negative impact each development may have on income-generating activities taking place in and around the SMMA and PMA. *(complete section 'd' of the table following)*
- e) If relevant, kindly also identify the MOST important impact, positive and/or negative, the development(s) may have on coastal and marine resources of the SMMA and PMA. *(The latter is if impacts on coastal and marine resources have not been listed as impacts on income-generating activities.) (Complete section 'e')*

Development	'd'. Impacts on income-generating activities		'e'. Impacts on coastal and marine resources	
	Positive	Negative	Positive	Negative
<i>i. Hotel at Malgretoute</i>				
<i>ii. Expansion at Anse Chastanet</i>				
<i>iii. Million dollar houses between the Pitons</i>				
<i>iv. Expansion at Jalousie</i>				
<i>v. Hotel development at Anse L'Ivrogne</i>				
<i>vi. Touristic develop.. at Diamond</i>				
<i>vii. Hotel Chocolat at Sulphur Springs</i>				
<i>viii. Geothermal Exploration</i>				
<i>ix. Beach park at Hummingbird Beach</i>				
<i>ix. Other</i>				

f) For any negative impact identified, kindly suggest how to reduce it.

Development	Negative impact	Way(s) of reducing impact
<i>Hotel at Malgretoute</i>		
<i>Expansion at Anse Chastanet</i>		
<i>Multi-million dollar houses between the Pitons</i>		
<i>Expansion at Jalousie</i>		
<i>Hotel development at Anse L'Ivrogne</i>		
<i>Touristic development at Diamond</i>		
<i>Hotel Chocolat at Sulphur Springs</i>		
<i>Geothermal Exploration</i>		
<i>Other</i>		

The coastal and marine resources of the SMMA and PMA include the sea, beaches, sand, fish, coral reefs and seagrasses.

3. Who do you think should be responsible for reducing any of the identified negative impacts on socio-economic activities and coastal and marine resources in the area? Tick ALL that apply.

Responsibility for reducing impacts on socio-economic activities	Responsibility for reducing impacts on coastal and marine resources
<input type="checkbox"/> Government	<input type="checkbox"/> Government
<input type="checkbox"/> SMMA management	<input type="checkbox"/> SMMA management
<input type="checkbox"/> PMA management	<input type="checkbox"/> PMA management
<input type="checkbox"/> Developers	<input type="checkbox"/> Developers
<input type="checkbox"/> The communities within and adjacent to the management areas	<input type="checkbox"/> The communities within and adjacent to the management areas
<input type="checkbox"/> Other, please specify _____	<input type="checkbox"/> Other, please specify _____

Level and extent of use of the PMA and the SMMA by residents and other users

4. a) Do you or other members of your household make a living from the SMMA and/or PMA?
 Yes No
- b) If YES, how many people in your household depend on the SMMA and/or PMA for their livelihoods?

- c) If YES, how long have you been making a living from the SMMA/PMA? _____ years
(If less than one year write <1)
- d) Which, if any of these ways of making a living, provides the household with the most money?

5. a) Identify all the ways you and other members of your household use the coastal resources in the SMMA.
(Tick ALL that apply. Read each option)
- Fishing Bathing Boating Beach Recreation Tourism Vending
- Boat mooring/anchoring Other, please specify _____
- b) Which of these uses of the SMMA do you engage in **MOST** frequently and how often?

Most frequent use of PMA	Frequency (no. of days per week)
	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7
	<input type="checkbox"/> Other, please specify _____

6. a) Identify all the ways you and other members of your household use the resources in the PMA.

(Tick ALL that apply. Read each option)

- Recreation at Sulphur Springs Recreation at Waterfalls Hike nature trails Recreation at beaches
- Resource extraction Tourism-employment Farming Live/Home
- Other, please specify _____

b) Which of these uses of the PMA do you engage in **MOST** frequently and how often?

Most frequent use of PMA	Frequency (no. of days per week)
	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7
	<input type="checkbox"/> Other, please specify _____

Demographics

7. How many people, 16 and over, live in this household? _____

8. In the table below, list the members of this household who are employed and provide the relevant information requested.

Fill in the table with the appropriate letters (given in the key below) for age and education level.

Age Ranges: A. 15-25 B. 26-35 C. 36-45 D. Over 45

Last school attended: A. Primary B. Secondary C. University D. Technical E. None

#	Relation to head of household	Sex M/F	Age range	Last school attended	Primary occupation	Secondary occupation
1						
2						
3						
4						
5						
6						
7						

Thank You

Appendix 2: Variables selected for monitoring

Variable no.	Variable
S1	Age
S2	Gender
S4	Education
S7	Occupation
S8	Household size
S10* (revised)	Household activities
S17	Perceived threats
NEW	Household MPA livelihoods
NEW	Types and changes in MPA livelihoods
NEW	Knowledge and perceptions of physical development, impacts and negative impact reduction
NEW	Perceived responsibility of impact reduction
NEW	MPA user frequency and type of MPA use(s)

Socioeconomic Impact of Planned Physical Development in The Pitons Management Area And Soufriere Marine Management Area.

FOCUS GROUP DISCUSSION REPORT

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Disclaimer

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1. Introduction

One focus group discussion was held on 14th January 2013. There were nineteen participants, nine (9) males and ten (10) females representing government, CBOs, communities and NGOs. The first segment consisted of site presentations and a background on the project and SocMon Methodology. During the second segment, specific questions were asked and ample response time was allotted to allow for lengthy discussions. The second session was facilitated by the project consultant and statistician.

2. SITE PRESENTATIONS

Brief presentations on the Pitons Management Area (PMA) and the Soufriere Marine Management Area (SMMA) were delivered by Augustine Dominique and Nadia Cazaubon respectively. Ms. Cazaubon also presented a background on the SocMon project.

3. FOCUS DISCUSSION

The facilitator started out this session with a short ice-breaker and set the tone to get participants comfortable with voicing their opinions and free exchange of ideas by presenting her personal stories.

One participant interjected with a question- "Why is the PMA a World Heritage Site?", in order to gauge general perception of the reasons for working towards preservation of the designation of the site. Responses included:

- "The PMA is one area of natural heritage that we have to protect not only for Saint Lucia but for the entire world"
- "PMA and SMMA add to the attraction of tourists to the island. They complement tourism"
- "If we have something the world wants, let us make sure the goose is alive and don't kill the egg"

A healthy discussion on the importance of the PMA as a WHS to Saint Lucia ensued. Participants commented that the Government of Saint Lucia is not keeping to the intention of the designation. Another stated that they (sic GOSL) are not preserving natural beauty but developers use the designation to start and profit from developments.

The facilitator queried participants' awareness of the physical developments that were identified in the presentation. The participants were aware of the majority of developments except for those which were development proposals but not public knowledge. A representative from the Ministry of Planning (MoP) later informed participants that there were twenty (20) development proposals that have been placed on hold due to the pending Limits of Acceptable Change (LAC) study. Only two of these developments were given as options in the household survey.

A tourism representative then questioned whether the consultation process which should take place for any physical development actually takes place and when it does, are the participants representative of the entire town. A MoP representative explained that all major developments require Environmental Impact Assessments (EIA) to be conducted. The EIA process requires stakeholders be brought together to identify issues and the assessment should address those issues. The discussion segmented into a criticism of the EIA process with comments from EIA referral agencies represented that included:

- "Developers do consultations as a rubber stamp for approval. Recommendations made are not taken into consideration. Government must strengthen enforcement"
- "Developers must take the recommendations of technocrats and need to enforce them"

- "Developers should be required to arrange public consultations. Most times EIAs are conducted and a small consultation is arranged. The participants selected are not representative of the community"
- "Consultations are important however business places have made commitments/investments"
- "Ecosystem valuations should be included in the EIA."

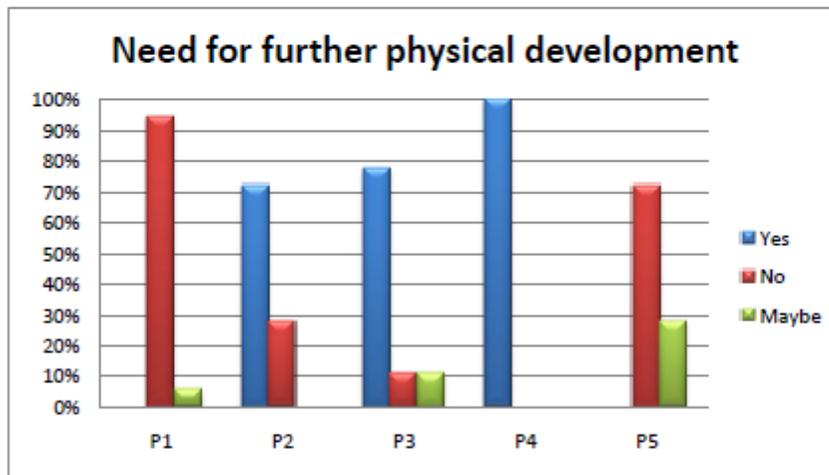
One participant indicated that consultations are a back breaker for any business. Further policing of developments by government agencies leave a lot to be desired. Reference was made to the country of Trinidad & Tobago where the planning ministry, water, sewage and electricity agencies monitor developments according to the plan submitted. Approvals are not granted for continuation if the plans are not adhered to. The participant called for Saint Lucia to adopt a best practice in policing of developments for the benefit of the country.

Participants unanimously agreed to this suggestion and made the following recommendations.

1. Government must review the EIA process to include mandatory public consultations.
2. DCA must strengthen enforcement including implementation of recommendations made in the EIA by referral agencies.
3. Government should establish a monitoring regime involving relevant agencies to commence stringent monitoring of developments and enforce adherence to the plans that were approved.

PERCEPTIONS OF PLANNED PHYSICAL DEVELOPMENT

Question 1. Is there need for further physical development?



Participants chose not answer strictly yes or no but asked that 'maybe' be added as a third option. Additionally, since the policy areas of the PMA have varying restrictions, they also requested that the answers be considered according to the policy areas.

Policy Areas 1 and 5 had the greatest opposition to any physical development. However one participant stated that consideration has to be given to residents and land owners who live or own property in Policy Area 1 who are unable to build their homes or purchase land within the PMA due to increased price of land.

All the 'yes' responses were on condition that buildings must conform to the guidelines and recommendations governing each area.

Question 2 What types of physical development will you support?

- Tourism Structures over Water – all participants indicated they did not support this type of physical development. Some reasons cited included the bathymetry of the area, potential for sewage pollution and the impact construction would have on fragile reef and sea grass ecosystems.
- Shopping complex – all participants indicated they would support construction of shopping complexes however the location of this type of physical development must be in a policy area that allows it.
- Residential Homes – all participants indicated they support construction of residential homes however most agreed that construction should only be in areas where residential development is allowed and guidelines are adhered to. One participant raised that the density of houses must also be controlled so that the carrying capacity is not exceeded. This is in reference to preventing the formation of slums in the Soufriere area.
- Offices – all yes, where building is allowed
- Luxury Homes – yes with conditions re DCA
- Low Density Villas – yes with conditions. MoT determine need for additional rooms.
- Jetties – yes with conditions
- Hotels – first determine room capacity
- Factories – yes with conditions
- Eco-tours – yes (trails, cottage industry)
- Community Park – all yes
- Community Development Centre – all yes
- Beach Facilities – all yes

SOCIO-ECONOMIC IMPACTS

Question 3. Identify potential socio-economic impacts (positive and negative) of planned developments.

The responses given for the potential social and economic impacts are listed below.

Positive

- Increase Employment/Reduce unemployment
- Economic Growth
- Reduce Poverty
- Increase youth participation in sports
- Tourism business and/or community development centre can promote craft development, production and create employment
- The availability of jobs requiring special skills and higher level of education will entice young persons to further their education. Tourism businesses can also provide scholarships to afford residents the opportunity to acquire necessary skills.
- An increase in the level of employment in the adjacent communities theoretically should also lead to improved human health

Negative

- The designation of the area as a world heritage site attracts touristic developments and foreigners to the area. This increase in demand has caused the price of land in the area to skyrocket out of financial reach of residents. Land owners therefore are selling to the highest bidder and Saint Lucians are losing prime real estate to developers.
- As facilities are constructed at parks and attractions to accommodate increase in the number of visitors, the management agencies/companies increase fees for park and attractions for not only tourists but residents as well
- Construction of tourism developments have caused restricted road and beach access in two areas in Soufriere. Residents of Mome La Croix who used to drive through Jalousie are no longer permitted to use the road creating distrust among the community and the hotel. One resident informed the group of an incident involving a young child who had an asthma attack and the security refused to allow the vehicle transporting the child to the hospital to drive through. They were forced to walk through and get a ride at the gate at the other end of the property.
- Many of the tourism businesses in the area are foreign owned. Government of Saint Lucia provides tax concessions to encourage investors however the profits from these companies are expatriated. The island thus suffers a loss of revenue with foreign owned business as opposed to locally owned.
- Increase in crime
- Pollution impact human health
- Loss of traditional use of beaches e.g. sports recreation

NATURAL RESOURCES IMPACTS

Question 4: Identify potential impacts to natural resources (positive and negative).

The responses given for perceived impacts to natural resources are listed below.

Positive

- Hotels with beach access tend to keep the area clean and improve beach aesthetics
- If a hotel is constructed at a remote beach like Anse L'Ivrogne then that would create access to beach
- Better awareness of global issues
- Provision of beach facilities will improve use of the beach, hygiene and improve the quality of resources

Negative

- Pollution
- Destroy fish, coral and beaches
- Price of land increases
- Loss of natural resources
- Built structures more prominent
- Loss of best dive sites

POTENTIAL MANAGEMENT SOLUTIONS

Question 5: Identify innovative solutions

The solutions identified sought to address the main issues of employment, enforcement and legislation, environmental pollution and rights of access. The solutions are categorized below.

A. Employment

- Craft market
- Theme parks
- Cottage industry
- Develop and market alternative livelihoods
- Adopt a policy that 50% of management should be locals
- Assist locals in investing in businesses in their own country

- Mandate tourism business to re-invest in the community
- GOSL to provide incentives to encourage agricultural land use for food security
- Encourage agro-tourism (local land owners realize potential)

B. Legislation and Enforcement

- Amend legislation e.g. Planning Act
- Pass legislation e.g. containers bill
- Protection for GOSL whistleblowers
- Proper planning with proper supervision from planning departments
- Ensure proper construction (sic ensure developers adhere to building requirements)
- GOSL and residents lease land rather than sell

C. Environmental protection

- Implement an environmental fee – utilize for environmental programs/projects
- Recycling Program – pilot in Soufriere
- Construct walls to avoid soil erosion, reinforce afforestation

D. Citizen Rights Protection

- Every vehicle at Morne-la-Croix should be registered as Jalousie did and only these can pass through the hotels
- ensure all communities benefit from geothermal exploration
- Ensure that the beach is left open to the public and not be privatized

4. Appendices

APPENDIX 1. PARTICIPANTS LIST

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1	Allena Joseph	Department of Fisheries	468-4140	Allena.Joseph@govt.lc
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11	Julian Alexis	Soufriere Fishermen's Cooperative Society Ltd.	459-5958 284-2683	souffish@gmail.com
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	Nadia Cazaubon	Soufriere Marine Management Association Inc.	459-5500 724-6333	cazaubon@smma.org.lc
	Augustine Dominique	Pitons Management Area	457-1635/36	augustine.dominique@gmail.com

APPENDIX 2. SMMA AND PROJECT PRESENTATION

Using socio-economic data to inform strategies to mitigate impacts of planned development within the Pitons Management Area (PMA) and Soufriere Marine Management Area (SMMA), St. Lucia

FOCUS GROUP DISCUSSION
14 January, 2013
Lalucare Inn Conference Room, Soufriere

Reginald Dominique, Protected Areas Manager, WCS
Nadia Cassacin, Project Officer, The SMMA Inc.
Ruphena Robinson, Statistician, Consultant




Background

- CERES SocMon Training – January 2012
- Two Protected Areas
 - Soufriere Marine Management Area (SMMA)
 - Pitons Management Area (PMA) – World Heritage Site
- Follow up project grant from CERES, UWI
 - \$2,500.00 per site
 - Eastern Caribbean SocMon projects
 - Funded by WWF



Monitoring Goal

- To collect data to design strategies to mitigate the socio-economic impacts of planned development within the Pitons Management Area (PMA) and the Soufriere Marine Management Area (SMMA).

Objectives

- To *determine perceived threats of planned development* within the SMMA and PMA by residents and other users.
- To *determine the level and extent of use* of the PMA and the SMMA.
- To *identify potential management solutions* to address impacts identified.

Study Areas

- Brief presentations on
 - Pitons Management Area (PMA)
 - Soufriere Marine Management Area (SMMA)

Pitons Management Area



- Managed by Government of Saint Lucia
- Marine and terrestrial zones/policy areas

Soufriere Marine Management Area



- 11km MPA on West coast of Saint Lucia
- Managed by NGO
- Soufriere Watershed uses
 - Tourism developments
 - Communities
 - Farming
 - Agro processing

Data Collection

- Secondary Data Collection
 - Central Statistics Office and previous studies
- Primary Data Collection
 - Household survey
 - Random sampling
- Data Analysis
- Focus Group Discussion
- Validation Workshop

List of Planned Developments

- Hotel Expansions
 - Anse Chastanet
 - Sugar Beach (Jalousie)
 - Ladern
 - Hotel Choixlat
- Resource Extraction
 - Geothermal Exploration
- Residential Developments
 - Anse Chastanet
 - Bessone(jour)/Bessone Estate
- New/Proposed Touristic Development
 - Freedom Bay (Volgretoute)
 - Bed & Breakfast (Diamond)
 - Villas (Diamond)
 - Development at Chateau Belair
 - Anse L'Yvrogne
- Public Facilities
 - Saffire Beach Park (Jalousie/Red Beach)

Focus Group Questions

- Is there need for further physical development?
- If no, why?
- What types of physical development will you/your user group support?
- Identify potential socio-economic impacts (positive and negative) for each user group.
- Identify potential impacts to natural resources (positive and negative).
- Identify innovative solutions
- Levels of use
- Recommended management actions

Muchas Gracias!

- Funding Agencies
 - NFWF
 - CERMES, UWI
 - Maria Pena, Katherine Blackmann, Patrick McConney
- Project Team
 - SMMA & PMA Staff
 - Mrs. Euphemie Edmund
- Enumerators & Respondents
- Photo Credits
 - Nadia Cassabon, Davon Baker, Janelle Charley
- AND YOU! Focus Group Participants



APPENDIX 3. PMA PRESENTATION

Pitons Management Area
UNESCO World Heritage Site
Soufriere, Saint Lucia, West Indies



Description of Pitons Management Area (PMA)

- A 2,909 ha site along the picturesque west coast town of Soufriere, Saint Lucia
- Inscribed on UNESCO list of **World Heritage Sites** at the 28th Session of the World Heritage Committee in China on June 30 2004
- Inscribed as a **Natural site** under **criteria vii and viii**
- Comprises **terrestrial and marine** components



Justification for PMA Inscription *Criterion (vi)*

The PMA derives its primary visual impact and aesthetic qualities from the Pitons, two adjacent forest-clad volcanic lava domes rising abruptly from the sea to heights greater than 700m. The Pitons predominate over the St Lucian landscape, being visible from virtually every part of the island and providing a distinctive landmark for seafarers. The combination of the Pitons against the backdrop of green tropical vegetation and a varying topography combined with a marine foreground gives the area its superlative beauty



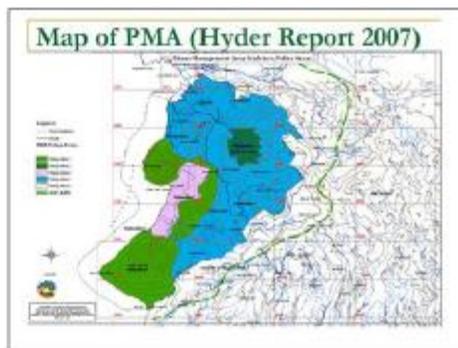
Justification for PMA Inscription *Criterion (viii)*

The PMA contains the greater part of a collapsed strato-volcano contained within the volcanic system, known to geologists as the Soufriere Volcanic Centre. Prominent within the volcanic landscape are two eroded remnants of lava domes, Gros Piton and Petit Piton. The Pitons occur with a variety of other volcanic features including cumulo-domes, explosion craters, pyroclastic deposits (pumice and ash), and lava flows. Collectively, these fully illustrate the volcanic history of an andesitic composite volcano associated with crustal plate sub-duction



Main Components of PMA

- Pitons
- Sulphur Springs Park
- Botanical Gardens
- Waterfalls
- Unique flora
- Nature Trails
- Phytocliffs
- Zones (Hyder Report 2007)

 **PMA Office Mandate** 

- **Protect and maintain the patrimony and integrity of St. Lucia's World Heritage Site by:**
 - Ensuring the outstanding universal value of the site is not compromised through monitoring developments within the area
 - To facilitate World Heritage compliance
 - To facilitate Physical Planning/DCA compliance
 - Liaison between UNESCO and community at large through the dissemination of information
 - Act as a referral agency for DCA through PMAAC
 - Meet the Reporting Requirements of the UNESCO WHC as per **Operational Guidelines**

 **Members of PMAAC** 

- Permanent Secretary (or designee), Ministry of Sustainable Development, Energy, Science & Technology to serve as Chair
- Chief Physical Planning Officer
- Chief Forestry Officer
- Representative of the Ministry of Social Transformation
- Chief Sustainable Development & Environment
- Secretary General, National Commission for UNESCO
- Director, Saint Lucia National Trust- Convener
- Representative of the Soufrière Marine Management Authority (SMMA)
- Executive Director, Soufrière Regional Development Foundation (SRDF)- Vice Chair
- Representative of the tourism business sector in Soufrière
- Representative of the La Pointe/Deizer Communities (Choiseul)
- Fond Denis Libres Community Representative (Soufrière)
- Protected Areas Manager-Secretary to the Committee

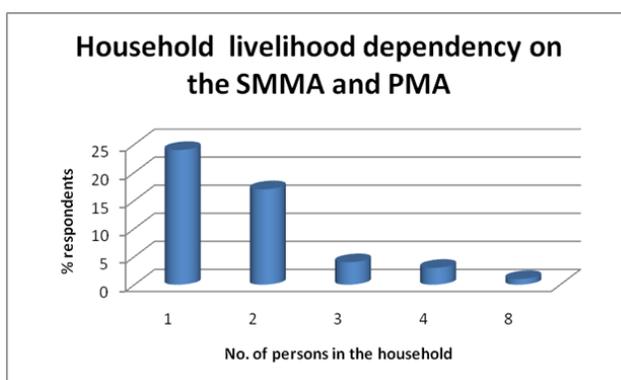
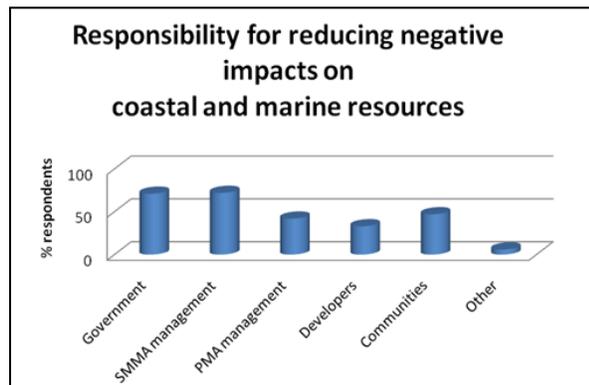
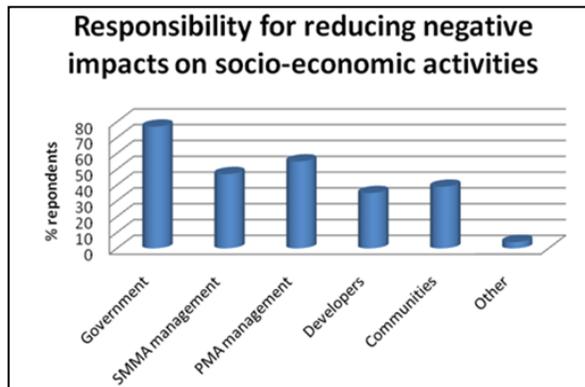
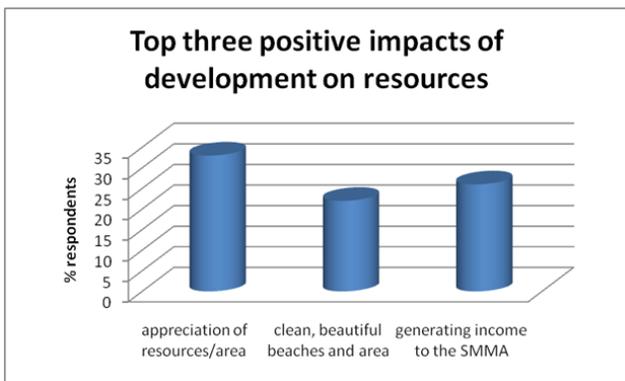
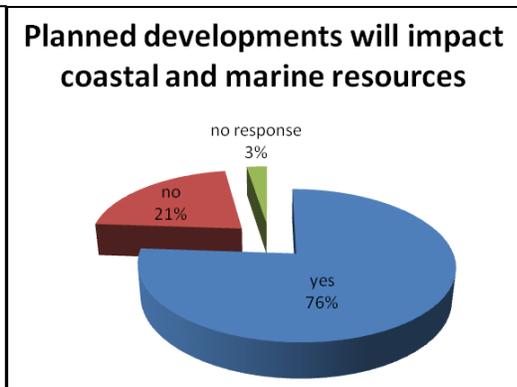
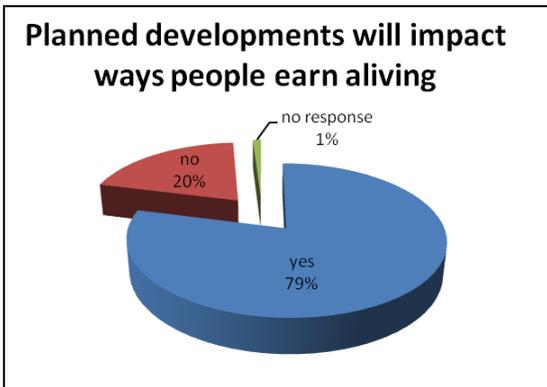
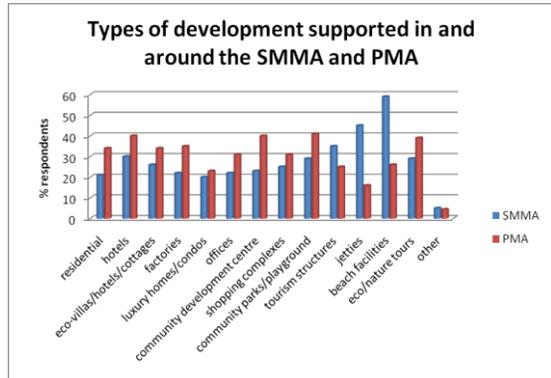
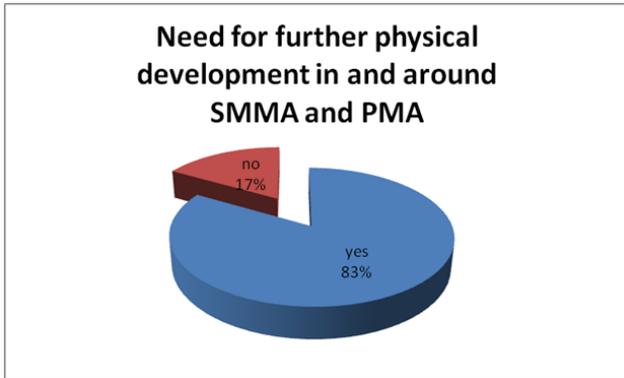
 **PMA Policy Areas** 

- **Policy Area 1**
 - No build Zone comprising the area of the pylon plugs and connecting ridge
- **Policy Area 2**
 - Sulphur Springs Park which is also a no-build zone
- **Policy Area 3**
 - Jalousie and Malgretoute area
- **Policy Area 4**
 - Remainder of PMA
- **Policy Area 5**
 - Marine zone

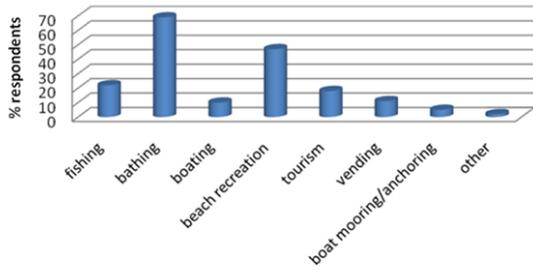
 **Current Status** 

- **Exists as a project under the Ministry of Sustainable Development, Energy, Science & Technology**
 - PMA Office established in Soufrière Town
 - Currently headed by a Protected Areas Manager
 - Support Staff includes Secretary and Office Assistant

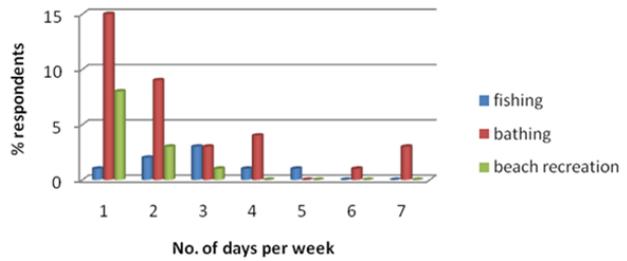
Appendix 4: Graphs, charts, tables etc. from survey data analysis



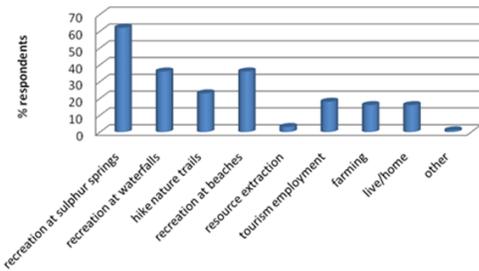
Household use of coastal resources in the SMMA



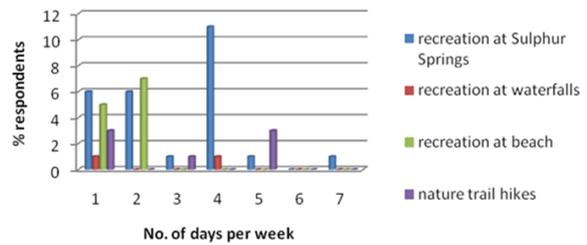
Top three uses of the SMMA by no. of days per week



Household use of resources in the PMA



Top uses of the PMA by number of days per week



Top five solutions for reducing development impacts

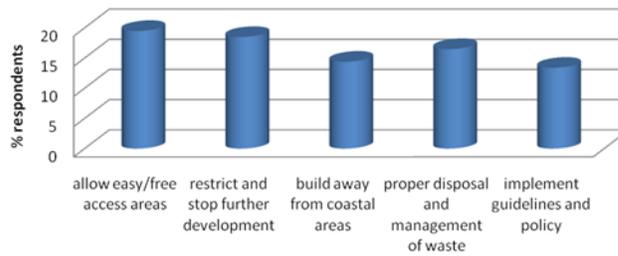


Table 4 Knowledge of planned developments to be established in the protected areas

Planned development	% respondents
Hotel at Malgretoute	79
Expansion at Jalousie	60
Hotel Chocolat at Sulphur Springs	52
Beach park at Hummingbird	46
Construction of multi-million dollar houses between the Pitons	36
Expansion at AnseChastanet including multi-million dollar houses	29
Geothermal exploration	26
Hotel development at AnseL'Ivrogne	25
Touristic Development at Diamond	17
Other	3

Table 5 Why planned developments will have no impacts on the livelihoods and the coastal and marine resources in the SMMA and PMA

Reasons for no impact	% respondents
Employment within SMMA and PMA	34
Business as usual, people will benefit more	17
No impact because hotels will not benefit any us; money doesn't stay with us	6
Developers and development will be guided by guidelines (during development)	6
Development will be on land; not near the sea	6
More money will be circulated	6
People will still look after the resources even if hotels are developed	3
No taxation	3
Surveys will aid in identifying negative impacts on resources	3
Hotel management could put certain practices in place to protect marine resources (after development)	3
Greater choices in the area	3
Hotels may not buy food from farmers	3
Real estate benefits; more jobs	3

Appendix 5: SocMon project cost

Description of expense	Total cost (XCD)
Preparatory activities	
Recon	
Design Survey Instrument	\$ 400.00
Purchase necessary equipment	
Secondary data collection	
Gather and review secondary data	
Primary data collection and observation	
Key Informant interviews	\$ -
Focus Group Discussion	\$ 565.17
Identify and train enumerators	\$ 181.98
Administer surveys	\$ 795.00
Transportation	\$ 149.81
Data analysis and interpretation	
Enter data	\$ 100.00
Analyse Data	\$ 500.00
Data Interpretation	\$ 100.00
Draft Report	
Validation, communication, adaptation	
Validation Workshop	\$ 314.61
Finalise Report	
Submit Project Report	
Contingency	\$ 170.04
SocMon costs at 31 Jan 2013	\$ 3,276.61