#### **INVITATION TO TENDER**

## GEF 6 - Integrated Ecosystems Management and Restoration of Forests in the South East Coast Project

#### INVITATION

The Government of Saint Lucia, through the Department of Sustainable Development (Ministry of Education, Sustainable Development, Innovation, Science, Technology and Vocational Training) is inviting consultants to submit tenders for a consultancy to design engineering, procurement installation and training of beneficiaries in the use and maintenance of solar PV and dryer systems and other renewable energy systems identified.

## PROJECT LOCATION

Saint Lucia, with a particular focus on the South East Coast, from Mandelay Point in Dennery to Laborie.

## **TERMS OF REFERENCE**

#### 1.0 BACKGROUND AND INFORMATION

- 1.1 The South East Coast (SE Coast) of Saint Lucia is considered to be the home of many rare and endemic animal and plant species. Animal species, including birds (such as the Saint Lucia Black Finch) and reptiles (like the Saint Lucia Racer), are particularly well represented in this area. In addition, there are rare and restricted-range plants. Their habitat is best represented by deciduous tropical dry forests, mangroves and xeric scrublands, which are threatened throughout the Eastern Caribbean.
- **1.2** The island currently boasts 12 Forest Reserves and 24 Protected Forests, which cover about 15% of the land mass. The reserves perform essential functions in safeguarding and regulating the island's water supply, mitigating soil erosion and landslides, supporting the country's present and future renewable fuel supplies and providing many services such as nutrient enrichment and pollination through its wildlife species. The main threats are habitat modification and destruction. Habitat change is occurring at an alarming rate and is expected to increase in tandem with the increased projected future hotel and recreational activities that are being earmarked for the coastal regions. In addition, dry forests continue to be adversely impacted in response to meeting the increasing housing stock demands, as well as the infrastructure required to support the various developments.

- 1.3 The participatory threat analysis carried out in 2009 under the EC-funded National Forest Demarcation and Biophysical Resource Inventory Project<sup>1</sup> identified habitat modification and destruction as the main threats and pressures on forest biodiversity. Habitat change is occurring at an alarming rate and is expected to increase even further in the future from ongoing degradation and loss of deciduous seasonal forests, mangroves and freshwater swamp forests due to residential, touristic or other developments,2 invasive alien species and the overexploitation of certain species. Results from the analysis have revealed that forests outside of the Forest Reserve system were at least four times more at risk from severe threats than forests inside the reserves, thus highlighting the effectiveness of the reserves' management. A preliminary analysis of the carbon storage of Saint Lucia's forests was also conducted as part of the 2009 Biodiversity Assessment of Saint Lucia's Forests. The analysis showed that approximately 1.8 million tonnes are stored within the Forest Reserve and 1.2 million tonnes are stored outside the Forest Reserve, with clear potential for the latter figure to increase by enabling young secondary forests to mature.
- 1.4 The South East Coast has been documented as a Key Biodiversity Area (KBA) and an Important Bird Area (IBA). Priority ecosystems of the South East Coast comprise Ma Kote Mangrove and Savannes Bay Mangrove, both of which are designated as Reserves and adjoin private estates, which are poised for development. Immediate threats include invasive alien species (IAS), degradation of conch habitats, dumping of refuse in mangrove areas and sand mining. Permission has been granted in principle for developments which have the potential to damage or destroy Marine Reserves. These developments have little to no measures to avoid or mitigate adverse impacts. Management of forest, riparian, mangrove and marine areas is also absent, and livelihood options are limited.
- **1.5** Many regional and national-level efforts have sought to address the ill effects of an unclear development planning framework, which is coupled with poor land management processes.

Despite the aforementioned, the implementation of these project-driven interventions remains disjointed in their ability to target the challenges specific to poor land use planning, with the outcome being a largely underdeveloped framework for land use planning and ongoing national-scale land degradation, with some being specific to the South East Coast of Saint Lucia.

<sup>&</sup>lt;sup>1</sup> Biodiversity Assessment of Saint Lucia's Forests, with Management Recommendations, Jennifer C. Daltry (Fauna and Flora International

<sup>&</sup>lt;sup>2</sup> Projected increase in hotels, marinas and golf courses earmarked for coastal regions, and an increase in housing and infrastructure.

- **1.6** The application, expansion and long-term sustainability of these interventions within the South East Coast have been impeded by inadequacies within the wider policy and also by institutional environments that do not adequately allow for mainstreaming of these interventions beyond the realm of "project-driven, site-specific" actions. The fact that mechanisms for the implementation of appropriate and "fit-to-purpose" sustainable land and water management and biodiversity conservation interventions remain outside of traditional government programmes and budgets are areas of key concern in the South East Coast. These mechanisms include:
  - 1.6.1 <u>Land Use Planning:</u> Absence of planned, guided and managed development of all types (residential, agricultural, touristic and access) which takes ecosystem goods and services into account.
  - 1.6.2 <u>Safeguarding of Key areas:</u> Lack of measures to safeguard key areas of global and national significance, such as forests, coastal and marine whilst also taking into account national development needs.
  - 1.6.3 **Continuity:** Lack of follow-up or financing for completed biodiversity assessment and priority-setting exercises.
  - 1.6.4 <u>Sustainable replacements:</u> Lack of sustainable options to reduce pressures placed on ecosystem services and goods.
- 1.7 The Global Environment Facility (GEF 6) under its sixth replenishment funding cycle provided funding for a project entitled 'Integrated Ecosystems Management and Restoration of Forests of the South East Coast', to the Government of Saint Lucia through the project executing agency, the Department of Sustainable Development. This project focuses on Land use planning, safeguarding key areas, Continuity and Sustainable replacements. The United Nations Environment Programme (UNEP) is the project Implementing Agency. The project aims to address these concerns in three distinct components with accompanying overarching Project Management and Monitoring and Evaluation (M&E) system: These components are as follows:

**Component 1:** Ecosystem Management

**Component 2:** Rehabilitated Landscapes

**Component 3:** Sustainable Livelihoods

- **1.8** To support efforts to conserve forested areas and maintain carbon stocks in forests, the project will work with the Anse Ger and Vieux Fort municipalities to strengthen access to renewable energy sources. To achieve this, the project will take a value chain approach to increase the installed capacity of a reliable and commercially viable supply of small solar PV systems for Sea Moss Farmers and the Anse Ger Women's Group of farmers. Further, the sea moss farmers, cocoa farmers, and broom makers will be provided with solar dryers to increase the efficiencies of the drying process and to avoid the use of LPG and electricity for drying, both of which produce greenhouse gas emissions. The communities involved include Vieux-Fort, Anse Ger, Micoud, and Laborie. Based on the solar projects operating at about 15% capacity factor, the pilots could reduce GHG emissions by 8,870 tons of CO2 over 10 years, which is the technology's estimated lifetime and emissions factor of 0.8 ( this estimate is calculated as the substitute for grid power).
- **1.9** Overall, the GEF intervention will build on an existing legal framework to develop appropriate supporting regulations and guidelines which integrate environmental sensitivities, priorities and sustainable management options in forest, coastal and marine ecosystems. Without the GEF intervention, the high biodiversity, priority forest, and marine areas of the South East Coast would continue to be degraded and imperiled by development initiatives which fail to take local, national and global environmental considerations into account.

## 2.0 OBJECTIVE, PURPOSE & EXPECTED RESULTS

- **2.1** The overall objective of this consultancy is for the design, engineering, procurement, installation and training of end users in the use and maintenance of renewable energy systems that include solar PV and solar dryer systems and other renewable energy systems identified.
- **2.2** The purpose of the consultancy is to improve the energy efficiency of agribusiness or entrepreneurs who are provided with renewable energy systems within the South East Coast, leading to global environmental benefits and sustainable livelihoods.
- **2.3** The results to be achieved by the consultants are as follows:
  - (i) Renewable Energy systems, their capacities and specifications recommended for the identified beneficiaries, verified.
  - (ii) The design, engineering and electrical schematics for renewable energy

- systems identified for beneficiaries prepared.
- (iii) Renewable energy systems procured, installed and functionality verified for identified beneficiaries (by consulting firm)
- **(iv)** Users of renewable energy systems and technicians from the communities trained in the use and maintenance of the systems.
- (v) Replication plan prepared based on the Renewable Energy Identification and Prioritization Report and the National Energy Policy.

#### 3.0 METHODOLOGY AND SCOPE OF THE WORK

- **3.1** The Consultant will work closely with the following stakeholders throughout all phases of the assignment: the staff of the Energy and Public Utilities Division (EPU) and the Electrical Department of the Ministry of Infrastructure, the National Utilities Regulatory Commission (NURC), the Ministry of Agriculture, the Department of Sustainable Development this would facilitate the necessary synergies to complete tasks/activities for this assignment that will allow for all the formulation and preparation of all reports in this Consultancy.
- 3.2 The consultant will be required to work in conjunction with technical personnel from all relevant government agencies, including but not limited to, the Energy and Public Utilities Division and the Electrical Department of the Ministry of Infrastructure, The National Utilities Regulatory Commission, the Ministry of Agriculture, the Department of Sustainable Development and other collaborating NGOs and organisations to:
  - (a) Review the GEF- 6 Identifying and Prioritising Agro Processing groups in the South East Coast Report to verify the suitability of the RE systems proposed for the beneficiaries and verify the operational capacity of the systems to be provided.
  - (b) Prepare the design, engineering and electrical schematics for the renewable energy systems identified.
  - (c) Procure and purchase all energy systems and clear the equipment through the Department of Customs.

- (d) Receive and install the renewable energy systems at the site locations of the beneficiaries
- (e) Prepare the Operation and Maintenance Manuals for each of the installed systems
- (f) Prepare Training Manuals to train users and community technicians in the use and maintenance of the systems.
- (g) Prepare the Replication plan for the installation of RE systems in the region.

#### 4.0 SPECIFIC RESPONSIBILITIES

The Consultant will also be responsible for the following:

- a. Consolidating electronically any documents that will serve to enhance the baseline knowledge for the project implementation.
- b. Consult with staff from the Energy and Public Utilities Division and the Electrical Department of the Ministry of Infrastructure, the Ministry of Agriculture, the Department of Sustainable Development and project stakeholders to finalize training activities.

## 4.1 Scope of Services

The scope of services will involve providing renewable energy systems to one (1) agro-processing Centre, one (1) agro-processor, two (2) community facilities and two (2) agribusinesses involved in the processing of sea moss, cocoa beans or cassava.

# 4.1.1 Task 1: Meeting with Contracting Authority and preparation of Inception Report

a. Upon commencement of the project **c**onduct an Inception Meeting with the Contracting Authority and relevant parties to discuss and (i) review the process for conducting all activities within the project, (ii) determine roles and responsibilities, (iii) discuss the basis on which this work will be implemented, and (iv) finalize the work plan and timetable. A draft work plan and report on

the outcome of the inception meeting will be prepared by the Consultant and submitted to the client no later than two weeks from the commencement of the consultancy.

- b. Comments by the Contracting Authority and partners should reach the Consultant no later than ten (10) days after receipt of the *Draft Inception Report* and Work Plan.
- c. Submit the Final Inception Report with comments included within one (1) week of receipt of comments.

# 4.1.2 Task 2: Prepare design, engineering and electrical schematics for renewable energy systems identified for beneficiaries

In consultation with the technical officers of the Energy and Public Utilities Division and the Electrical Department of the Ministry of Infrastructure, the Department of Sustainable Development and stakeholders from the project area, the consultant is expected to:

- (a) Review and verify that the specifications of the renewable energy systems/ equipment identified for all beneficiaries by the Socio-economic Consultants are adequate for the operations being undertaken.
- (b) Validate the initial specifications and make appropriate modifications based on technology availability.
- (c) In consultation with the Energy and Public Utilities Division and the Electrical Department prepare engineering designs and electrical schematics for (a) PV Systems for:
  - i. **Anse Ger Agro-processing Centre** Three (3) separate PV systems; specifically:
    - Two (2) X 10 Kw PV for 3 Phase connections to power a grinding machine, a hydraulic press and a mill/grinder for the processing of cassava and cocoa beans.
    - One (1) 5 Kw system for a single phase to power a grinder for the processing of cassava; One solar water heater panel for the Rural Women's Group
  - ii. **So Natural** 3 Kw PV system for single phase to power a cocoa grinding machine and a grinder to infuse spices into cocoa products.

- iii. **Superior Brooms** -5 Kw PV system for single phase to power machines used to process fruits for juice making and an inverter
- iv. **The Papel in Laborie** - Three (3) separate 3 Kw PV systems for electricity and to power electrical appliances used by the proprietors of the units
- v. **La Tille Falls**; 5 Kw off-grid PV system to provide electricity to the main building and two other smaller buildings on the site and an inverter.
- (d) Prepare the design specifications for solar dryers required for:
  - (i) **Rural Women's Group** for the drying of cocoa beans and fruits
  - (ii) **So Natural** for the drying of cocoa beans and fruits
- (e) Prepare the design specification for solar lights for:
  - (i) The Anse Ger Facility (6 solar lights)
  - (ii) **The Papel** (5 solar lights)
- (f) Submit a final list of the equipment and accessories to be procured to the Division of Energy for approval before the procurement of the equipment.

### 4.1.3 Task 3: Installation of Renewable Energy Systems Identified

- (a) Purchase of renewable energy systems identified for beneficiaries based on approved budget allocation
- (b) Make necessary applications for the use of renewable energy systems from the National Utilities Regulatory Commission for beneficiaries.
- (c) Receive and install the renewable energy systems at the sites for the beneficiaries

# 4.1.4 Task 4: Conduct training for users in the Use and Maintenance of the Renewable

#### 4.1.5 **Energy Systems**

- (a) In consultation with the beneficiaries, the Energy and Public Utilities Division Energy and Public Utilities Division of the Department of Infrastructure, Social transformation Officers, the Constituency Councils, and youth groups, identify the trainees to receive training on the maintenance of the RE systems.
- (b) Design and prepare the training modules for the use and maintenance of PV, solar panels, solar dryers and other renewable energy systems identified for beneficiaries.
- (c) Facilitate the training of users and community technicians on the use and maintenance of the renewable energy systems identified for users.
- (d) Prepare a training report for the training activity which should include an evaluation of the training activity.
- (e) The Contractor will be responsible for the maintenance of the equipment for a period of two (2) years.

#### 4.2 Recommendations

- 4.2.1 The Consultant team will be expected to comment on the Terms of Reference and recommend potential refinements where necessary, including making such recommendations as deemed appropriate to enhance the quality of the assignment and outputs;
- 4.2.2 The selected Consultant team will be required to advise on the final scope of works and deliverables to ensure that the consultancy meets the objectives of the project and its components.

#### 5.0 DELIVERABLES

**5.1** The proposed consultancy will have the following deliverables:

DELIVERABLES	DUE DATE AFTER
	CONTRACT SIGNING
Task 1: Inception Report and Work Plan:	

DELIVERABLES	DUE DATE AFTER CONTRACT SIGNING
Draft Inception Report and a detailed Work Plan	2 weeks Comments in response, by Contracting Authority and partners, should reach the Consultant no later than ten (10) days after receipt of the Report
Final Inception Report which will incorporate comments from Contracting Authority and relevant partners.	4 weeks
Task 2: Design engineering for Renewable Energy systems	
Submission of 1st draft of engineering designs for renewable energy systems	8 weeks
Submission of the final draft of the engineering designs for the renewable energy systems	10 weeks
Task 3: Purchase, Receive and installation of Renewable Energy Systems	
1st Draft Report on the Installation of the Renewable Energy Systems	26 weeks
Final Report on the Installation of the Renewable Energy Systems	28 weeks
Task 4: Delivery of Training  Submission of Training Modules for the training activity	26 weeks
Conduct training with trainees and community technicians	28 weeks
Prepare Training Report	29 weeks
TASK: Closeout Report	30 Weeks

## 6.0 CONSULTANCY MANAGEMENT

## 6.1 Reporting

6.1.1 The Consultant will report to the National Project Coordinator, who will in turn provide the necessary linkages and information to the GEF 6 – Integrated Ecosystems Management and Restoration of Forests of the South East Coast –Project Steering Committee (PSC) comprising representatives of key agencies providing oversight to the project.

#### 6.2 Place of Work

6.2.1 The consultant will be based in his/her offices but will be accommodated from time to time at the offices of the Department of Sustainable Development, if necessary.

#### 6.3 Travel

6.3.1 The assignment will not require travel outside Saint Lucia. However, the consultant would be required to travel to and within the project area.

## 7.0 QUALIFICATIONS, KNOWLEDGE AND SKILLS

The consultant should demonstrate experience in similar assignments with at least one (1) completed contract within the past five (5) years.

### 7.1 General Qualification

The Consultant should have the following qualifications:

A Master's Degree or its equivalent in Electrical Engineering with at least 5 years experience in Renewable Energy Systems

OR

A Bachelor's Degree or its equivalent in Electrical Engineering with a minimum of 10 years experience in Renewable Energy Systems

#### Additional qualifications:

- 1. Previous experience in the procurement of renewable energy systems, especially in PV, Solar Panels, solar dryers and solar timers
- 2. Minimum 5-10 years of being involved in the installation of renewable energy systems with emphasis on PV, solar panels, Solar driers and solar timers or similar activity or activities
- 3. At least 5 years of experience in providing training in Renewable Energy systems, especially PV, solar panels,

## 7.2 Experience and Ability

- i. At least four years of professional RE experience and a strong background in renewable energy, such as solar and PV panels.
- ii. Understanding of Caribbean energy markets, regulatory environments and socio-economic challenges.
- iii. Experience in sourcing high quality renewable energy systems
- iv. High level of proficiency with RE applications.
- v. Experience in developing manuals on training in RE systems Maintenance.
- vi. Experience in training needs analysis.
- vii. Experience in conducting training in RE systems operations and maintenance
- viii. Experience in working in Caribbean countries.
  - ix. Experience with interaction with government agencies, the private sector and community groups.

## 7.3 Languages

- Excellent command of written and spoken English
- A good command of Creole would be useful

#### 8.0 TIME FRAME FOR CONSULTANCY

**8.1** The consultant will be contracted for eight (8) months.

#### 9.0 SUBMISSION

**9.1** A complete proposal consisting of separate technical and financial proposals should be contained in individually sealed envelopes and should be placed inside a sealed outer envelope.

The sealed **outer envelope** containing submissions should be marked:

#### "CONFIDENTIAL"

"PROPOSAL - Consultancy Services for preparation of the Project Document for Integrated Ecosystems Management and Restoration of the Forests on the South East Coast of Saint Lucia – Design Engineering, Procurement, Installation and Training of Beneficiaries in the Use and Maintenance of Solar PV and Dryer Systems and other Renewable Energy Systems Identified"

The envelope should not contain company logos or the Consultant's name.

**9.2** The envelope containing the **Technical Proposals** should be marked:

"TECHNICAL PROPOSAL - Consultancy Services for Integrated Ecosystems

Management and Restoration of the Forests on the South East Coast of Saint Lucia –

Design Engineering, Procurement, Installation and Training of Beneficiaries in

the Use and Maintenance of Solar PV and Dryer Systems and

other Renewable Energy Systems Identified"

**9.3** The envelope containing the **Financial Proposals** should be marked:

"FINANCIAL PROPOSAL - Consultancy Services for Integrated Ecosystems

Management and Restoration of the Forests on the South East Coast of Saint Lucia –

Design Engineering, Installation, Training of Beneficiaries in the

Use and Maintenance of Solar PV and Dryer Systems and

other Renewable Energy Systems Identified"

Submissions should be made to the following address by **4.30 PM by** Friday July **4, 2025** 

The Chairperson
Public Procurement Committee
Department of Sustainable Development
John Compton Highway
Castries
SAINT LUCIA

All information must be submitted in English. Five (5) hard copies of the submission must be received.

- **9.4** All queries should be e-mailed to Ms. Diana Joseph at the e-mail address: southeastcoastproject.sded@gmail.com
- **9.5** The deadline to submit queries is **Friday**, **June 20**, **2025**.
- 9.6 Please note that for companies or firms who are selected and are being considered for the assignment, the company's Bylaws, the company's Directors and a Certificate of Good Standing will be required to be submitted before the signing of a contract for the consultancy. If the documentation is not provided to the Department within 2 months of the request being made, all contact will be severed with the consultant and the next consulting firm will be considered for the consultancy.

## Annex 1

## **Specifications of the RE Systems**

#### Photovoltaic Modules

- The PV system should be designed to capacities outlined in the ToR and should meet or exceed current typical industry standards of performance for 25 years or more.
- All PV modules shall be listed to Underwriter's Laboratories (UL) Standard 1703 Standard for Safety for Flat-Plate Photovoltaic Modules. PV modules from a Tier 1 supplier meeting international standards.
- Individual PV modules capacity of no less than 430Wp each.

• Each PV module frame shall be made of corrosion-resistant material electrically compatible with the structural material used for mounting the modules.

## **Racking System for PV Modules**

- The Bidder shall furnish and install all mounting equipment for deploying modules on the roof.
- The racking system shall be engineered for a 150 mph wind zone.
- The racking structure shall be designed and constructed using materials and/or processes which provide high levels of corrosion resistance.
- Any welded joints or fasteners in the support structure shall be chosen and or treated to provide high levels of corrosion resistance.
- Any installation requiring roof penetrations must maintain the waterproof integrity of the roof
- The building and roof structure shall be inspected and surveyed before mounting.

#### **Inverter**

- Master/Slave or String type (IEC 60146, UL 1741/IEEE 1547 or other equivalent);
- Technical requirements (EN 50081, EN 60555, EN 50178 and others):
- Pure Sinewave output;
- High efficiency (AC) > 90% @ P/Pn (AC) = 10%;
- Protection against overcurrent and overvoltage;
- 240 VAC, 50Hz operation;
- International standards incl. EMC;
- Indications of status of operation (LED);
- capability of connecting monitoring devices;
- AC and DC disconnect switches;
- Security measures (EN 61000, EN 60950 and others);
- 10-year minimum manufacturer warranty.

- The inverter shall provide a stable voltage output maintained within plus 4% and minus 8%. The inverter shall maintain the nominal frequency of 50 cycles per second to within  $\pm 1\%$  of such frequency.
- The inverter shall limit DC injection onto the AC signal to less than 20 mV.
- The inverter shall ensure that the harmonic content of the supplied current does not exceed the maximum possible harmonic current as per BS EN 61000-3-2 Class A.
- The inverter shall have internal protection against any sustained faults and/or lightning in DC and mains AC grid circuits.
- The inverter shall at minimum be able to provide a display of AC power, daily energy production and total energy production and frequency. Remote monitoring of inverter parameters should be possible.
- The inverter shall be suitable for installation in a non-air-conditioned environment. It shall include adequate internal cooling arrangements if necessary.

## **Cabling**

- Cables exposed to the sun should show an adequate type design to withstand harsh weather conditions (UV radiation, salty humidity etc.), e.g. type HN07-RNF.
- Cable Trays, Wire Trunking, Basket Trays, Cable Ladders, etc are to be used as required to secure all wiring.
- All necessary equipment installation and wiring necessary for a complete, operational system shall be supplied by the Bidder.
- Transition boxes shall be installed at the end of each source circuit to transition from exterior wire on panels to conduit.
- Junction boxes shall have hinged, weatherproof lids with captive screws and cable gland entry points.
- The system shall feature a manual disconnect switch between the inverter and the distribution panel. This switch shall be clearly labelled, lockable and fully accessible to LUCELEC technicians.

- The Bidder shall liaise with LUCELEC/NURC (National Utility Regulation Commission) for grid interconnection requirements.
- All equipment necessary for proper system grounding shall be furnished and installed.
- Lightning protectors shall be supplied and connected to the existing system without voiding its warranty and UL listing.
- All necessary labels, tags and warning signs shall be installed to enable easy identification of system components and hazards in compliance with the requirements of the electrical department of the Department of Infrastructure, Port and Energy.

#### **SOLAR LIGHTS (LAMPS)**

- At least 70 watts
- 6500K colour temperature
- Greater than 12 hours of lighting
- Waterproof IP 67or greater
- Pole mounted
- Corrosion-resistant material
- Dusk to dawn operations

### **ANNEX 2**

# SHORT PROFILES OF AGRIBUSINESSES IDENTIFIED TO RECEIVE THE RE SYSTEMS

## 1. ANSE GER AGRO-PROCESSING FACILITY

The Anse Ger Processing Facility is located at Anse Ger Desruisseaux. The facility is owned and managed by the Ministry of Agriculture. Presently, three agroprocessing groups are currently operating at the facility. The first is the Micoud Chapter of the Rural Women's Group. The group has formed a company called the Micoud Chocolate Network Inc/Micoud Cluster. The Group occupies one of the buildings on the compound and is involved in the processing of cocoa into chocolate. In addition, the group is also involved in the production of cocoa drinks, grated cocoa, cocoa cubes and cocoa sticks which are sold locally. Nine (9) members are involved in the processing of cocoa products. The group sells to Massy Stores, local households, souvenir stores/shops, visitors to the facility, and clients of Export Saint Lucia. Equipment used in the processing process is as follows: - tubs, sun dryers, stoves, grinder, blower, tempering, machine.

The second user operating at the Facility is the Saint Lucia Civil Service Multi-Purpose Co-operative Society which is involved in the processing of cassava mash to make cassava bread and pastries. The Co-operative operates in the adjacent building to the Rural Women's Group. The Co-operative currently has four male full-time staff and three part-time staff of which two are women. Current buyers/clients of the Co-operative include Current buyers/clients: supermarkets, bakeries with potential clients to include, hotels and Export Saint Lucia clients. The equipment used by the cooperative includes a grinding machine a hydraulic press and mill/grinder for the processing of the cassava.

The third entity is the Noble Tree Group involved in the processing of cocoa beans. The company occupies a third building on the compound but away from the main buildings housing the Rural Women's Group and the Multi-Purpose Co-operative Society.

### 2. SO NATURAL

So Natural is an agro-processing venture located in Dessruisseaux. The enterprise is a group venture of five individuals comprising four (4) females and one (1) male. The company currently employs eight (8) workers from within the community. The enterprise sells packaged and labelled cocoa sticks, cocoa products and turmeric packets to the general public. The equipment used comprises a cocoa grinding machine and grinder to infuse spices in cocoa products.

## 3. Superior Brooms

Superior Brooms is an agribusiness based in La Pointe, Mon Repos involved in the production of local brooms. The company produces brooms made from the local Latanyé palm (Coccothrinax barbadensis), which are known for their durability and efficiency. The agribusiness enterprise has twenty-three (23) members and the brooms produced are sold locally.

The group was formed in 2001 and has since been promoting organic farming and climate-smart agriculture. Currently, the group is made up of twenty-five (25) members comprising eighteen (18) women and seven (7) males. The art of broommaking in Saint Lucia is deeply rooted in local traditions and has evolved into a specialized craft. The Latanyé brooms are not only practical but also hold cultural value, often associated with the "sweeping dance" – a unique, rhythmic sweeping motion. Superior Brooms supports local farmers and artisans, providing them with a sustainable source of income and helping to preserve traditional practices. The Enterprise wishes to diversify its operation and intends to go into agroprocessing of fruits to produce local juices.

## 4. La Tille Falls

La Tille Falls is located at Mahaut in Micoud and it is well known for its scenic beauty and tranquillity environment is a popular location generally visited by locals and overseas visitors. The Falls was established in 2000 on six (6) acres of land in Mahaut, Micoud. Its features include: (i) a natural waterfall used for

hydropower and irrigation (ii) a natural pond; (iii) a fish pond (iv) a tree crop garden (v) buildings made from timber and bamboo.

Visitors to the facility can enjoy a nature trail, a rope swing, and even a fish pedicure in the pool below the falls. The site is owned and managed by a local Saint Lucian who has made the area accessible and maintained its natural beauty for the enjoyment of all visitors. The owner was a pioneer in the use of microhydroelectricity. In 2008 he entered into an agreement and partnered with the University of Vermont to use La Tille Falls as a pilot project for demonstrating the use of renewable energy systems using micro hydroelectricity. The facility generates electricity from the falls and also uses photovoltaic panels to augment the energy needs of the facility. The facility employs four employers three (3) males and one (1) female. One of the PV systems due to age is not functioning and needs replacing.

# 5. The Papel

The Papel is located at the Rudy John Beach Park in Laborie. The facility is home to the Anse Kawet Crafters Association, a spa, and a small restaurant. The facility is currently being renovated to include a training/ conference room and to include three units to be used by small entrepreneurs from Laborie. The units would house local entrepreneurs such as other crafters, souvenir shops and massage parlours to name a few all requiring power to run appliances to be used. The renovation also includes the placing of chairs and tables in the courtyard to enable visitors to the Papel to be able to sit and enjoy refreshments. It is also envisaged that on evenings, local entertainment-specific nights during the week will be provided to patrons who visit the facility to dine, thus solar lights will be needed for the lighting of the facility for night time activities.