

Consultancy to Develop

NATIONAL ACTION PLAN AND STRATEGIC ACTION PLAN TO COMBAT LAND DEGRADATION AND DROUGHT in Saint Lucia

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Inception Report

Presented to the Banana Industry Trust

by



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CONSULTANCY TO DEVELOP NATIONAL ACTION PLAN AND STRATEGIC ACTION PLAN TO COMBAT LAND DEGRADATION AND DROUGHT IN SAINT LUCIA

INCEPTION REPORT

1.0 INTRODUCTION

In Saint Lucia, there is mounting pressure on the natural environment particularly on the land and water resource base, which poses a major challenge to the country's thrust towards sustainable development. Like most Small Island Developing States (SIDS) the island is highly dependent on its natural resource endowment for the viability and sustainability of all forms of economic and social activity, particularly the key economic sectors tourism, agriculture and industry which also impact on it, sometimes adversely. The demand for lands for agricultural expansion, industrial development, housing and human settlements, hotel development among others, which has been driven by a constant increase in the country's population and migration trends, typically results in land degradation in key watersheds.

Unsustainable agricultural practices have since been determined as the primary contributor to land degradation, and the persistent and pervasive problems of soil loss and land degradation have underscored the need for sustainable land management, focused in the agriculture sector and other sectors which rely heavily on the land resource. Land on steep slopes and along the riverbanks is constantly utilized for agriculture, and in other instances for construction and other development. This typically¹ results in land degradation, manifested in the increased sedimentation of the waterways or channels (sediment loading) causing water pollution, progressive dwindling of the islands water resources, which is essentially surface water, the loss of productivity in cultivated areas, and increased incidents of land slippage in areas of unplanned development. The corollary, is the negative impact of high sediment levels on the natural environment; aquatic life, mangroves and corals, and near-shore fisheries; and increased livelihood risks

In this regard, the Department of Forestry from as far back as the mid 1940's attempted to establish restrictions to the utilisation of high elevation lands and other sensitive lands, e.g. along riverbanks, aimed at a broader sustainable land conservation programme. To this end legislation such as the Forest, Soil and Water Conservation Ordinance (Chap. 25 of 1946) and Land Conservation Improvement Act (1992) have been enacted, though regulations to permit enforcement are yet to be developed. Consequently, old survey plans and Crown Grants (land sold by the Crown) all clearly identified ridge reserves and Riverbank Buffer Zones (RBBZ), and

¹ Rapid expansion of the banana industry in the 1970's and 1980's and the associated unsustainable agricultural practices, leading to soil erosion and encroachment of RBBS and forested areas, have in particular been recognized as a major cause of land degradation – WEMP Report

in more recent times Protected Forest Areas (PFAs), implying that some form of land conservation regimes were in place.

The United Nations Convention to Combat Desertification (UNCCD) has been elaborated and well articulated as an instrument for achieving sustainable development, with a focus on addressing land degradation issues. On July 2, 1997, Saint Lucia signed the Convention to Combat Desertification/Land Degradation, negotiated under the auspices of the United Nations (UNCCD)².

Since signing the United Nations Convention to Combat Desertification (UNCCD), Saint Lucia continues to be faced with challenges with regard to land degradation and drought-like conditions, particularly in watersheds with high agricultural activity. The island, however, is no different from other small island developing states (SIDS), faced with the dilemma of balancing economic development and environmental conservation with limited resources.

The Ministry of Agriculture, Forestry and Fisheries (MAFF), through the Department of Forestry which acts as the national focal point (NFP) for the Convention, has seen the need to facilitate several initiatives aimed at fostering collaboration among the various sectors of development to achieve where possible, synergies in programmes and activities to ensure more effective use of available funds. These synergies cater to enhancing the contribution of land to economic development, including poverty reduction, food security, and employment generation opportunities, for sustainable development.

Further, in response to the degrading state of lands and the coastal environment, several studies have been commissioned, and a number of programmes and projects have or are being implemented that are directly or indirectly related to land and water resources management, though within a broader context of integrated management of watersheds and coastal areas. Most notable are the GEF-funded Integrated Watershed and Coastal Area Management (IWCAM), OECS/NOAA project, and the more recent OPAAL project. Additionally, are Sustainable Land Management (SLM) initiatives, financed by the United Nations Development Programme (UNDP) and the Global Environment Facility (GEF), both of which have provided funding for capacity building and mainstreaming sustainable land management in Saint Lucia. Some of these projects are linked to multilateral environmental conventions such as the United Nations Convention to Combat Desertification (UNCCD), Convention for Biological Diversity (CBD), and regional environmental agreements such as the St. George's Declaration for Environmental Sustainability in the OECS, among others. Many of these initiatives have also yielded some baseline information and a framework for sustainable land management in Saint Lucia.

However, efforts to reduce the negative impact of land degradation, including the protection of water sheds, safeguarding of endangered biodiversity while supporting traditional livelihood patterns have been frustrated by a weak legislative system, absence of a national land policy, land zoning and planning, limited economic incentives, and a general lack of capacity at the institutional, systemic and individual levels.

Apart from an out dated Forest Management Plan (1992 – 2002), and the Forest, Soil and Water conservation Ordinance focused specifically on the management of forest reserve lands and Crown Lands, there are no other documents outlining any

² The UNCCD was established in the wake of the 1992 Earth Summit in Rio de Janeiro

principles of land management. The absence of a national or strategic action plan to guide the sustainable management of the land resource base in St Lucia has rendered many of the interventions unsustainable. Hence the approach in more recent years has been to focus on the inextricable link between land and water security, and the need for ameliorating water quality. As a result, the modality for intervention in sustainable land practices has been community-based³ management interventions focussed on a water supply/watershed management theme.

Following many such initiatives and other related activities undertaken to date in the various sectors, which serve to advance implementation efforts for meeting the requirements of the Convention, the National Action Programme (NAP) for implementing the UNCCD provides the status of and future endeavours in this regard.

The island of Saint Lucia is currently benefiting from funding from the EU Special Framework of Assistance (SFA) 2003 programme, Economic and Agricultural Diversification and Poverty Reduction through Integrated Natural Resources Management. The programme is aimed at the management of Saint Lucia's natural resources by building capacity and developing consensus on a collective vision for the efficient, sustainable and equitable use of the resources. Hence, the outputs of the various components of the programme are considered a substantial investment in environmental management for sustainable development and therefore must complement ongoing initiatives in integrated land management, water resource management, biodiversity protection, agriculture and other economic diversification initiatives.

The consultancy to formalize the process of Sustainable Land Management (SLM) in St Lucia, through the completion of the National Action Plan (NAP) and the Strategic Action Plan (SAP), is consistent with the country's development objectives for economic diversification and sustainable development. These objectives are articulated in the GOSL Medium Term Economic Strategy, the National Environment Policy and National Environmental Strategy (NEPs and NEMs), and commitments under pertinent international agreements, particularly the United Nation Convention Combat Desertification, United Nations Framework Convention on Climate Change, the Convention on Biological Diversity, the Millennium Development Goals, Agenda 21 and the Mauritius Implementation Plan for Small Island Developing States (2005).

It is expected that the assignment will facilitate (i) mainstreaming SLM amongst the relevant agencies, primary and secondary stakeholders, (ii) introduce a system of effective monitoring and evaluation to support the identification, classification and mapping of land degradation (iii) further understanding of the socio-economic impacts of land degradation and drought. On a broader scale, the impact of land degradation and drought on agro-ecosystems may also be facilitated and presented in a monetary form.

The consultancy will also seek to complement ongoing initiatives to address water supply challenges through implementation of effective land management approaches. These include, water sector reform initiatives embodied within the National Water Policy (approved in 2006) and the Water and Sewerage Act of 2005, an Agricultural Policy and Strategic Plan, and a Coastal Zone Management Policy, as well as derive synergies from initiatives such as the Development of Watershed Plans, Local Development Practice Area concept, the IWCAM project, and other

³ Most notable have been the Talvan and Thomazo Watershed Community-based interventions

Sustainable Land Management (SLM) initiatives that are ongoing in select watersheds.

In response to the Terms of Reference issued for the consulting assignment, **Agricultural Consultancy and Technical Services Limited (AGRICO LTD.), a Saint Lucia based company, leading a team of four (4) consultants**, with the particular professional and technical expertise and experience for undertaking the assignment, were selected through a competitive bidding process. The team comprises Ms. Luvette Thomas-Louisy - Team Leader/Agronomist and Natural Resource Management Specialist, Mr. Herbert Regis – Meteorologist, Mr Embert Charles - Public/Environmental Education Specialist and Ms. Elizabeth Charles-Soomer, Geographic Information Systems (GIS) Specialist.

The service contract for the consultancy was signed on March 18th, 2008. The work programme of activities was initiated with an inception meeting between the consultants and the Client's representatives, on March 31st, 2008, with an agreed assignment commencement date of April 1st, and a completion date of December 31st, 2008, inclusive of time for feedback on reporting.

1.1. Objectives of the Consultancy

The primary objective of the Consultancy, as defined by the Client, is to contribute to the development of an integrated framework for combating land degradation in Saint Lucia and for mitigating the physical, biological and socio-economic impacts of land degradation and drought. This is in keeping with obligations of the Parties to the Convention: Parties are required to develop a National Action Programme (NAP) to address land degradation and mitigate the effects of drought. In the process of developing and implementing NAPs, Parties are encouraged to address the underlying biophysical and socio-economic causes of land degradation in a participatory, integrated and coordinated manner and promote the active participation of resource owners and land-users. National governments are urged to mobilize resources to support the implementation of NAPs and to have them mainstreamed into national sustainable development planning processes.

The purpose of the assignment is to:

- Complete the preparation of the NAP for Land Degradation and Drought in St. Lucia;
- Develop a Ten (10) Year SAP to support the implementation of the NAP for Land Degradation and Drought;
- Enhance local capacity in Geographic Information Systems (GIS) and GPS application for sustainable land management; and
- Promote public awareness and sensitization on the issues of land degradation in Saint Lucia and on the importance of adapting sustainable land management (SLM) practices.

1.2. Purpose of the Inception Report

The Inception Report is intended to provide the Client, with a more detailed Work Programme and a precise definition of the anticipated approach and methodology, and work schedule for the consultancy assignment. Following initiation of the consultancy, at the meetings with the Client's representatives, comprising staff from the Department of Forestry, on March 31st, 2008, the Consultants have focused attention on refining the Scope of Works for the consultancy based on the following impacting factors:

- The slight adjustment to the timing of the consultancy, from March 17th, 2008 to April 1st, 2008 and the potential impact on the activity schedule which spans nine (9) months, as the completion of the consulting period will be falling during the end of year holiday period.
- Acknowledgement of the time challenge in conjunction with the current limited resources (esp. human resource) of the DoF and need to establish appropriate mechanism to draw on other available resources;
- Recognition of the earlier role played by the Adhoc Technical Working Group in conceptualizing the NAP and the need for reactivation of this mechanism to assist the DoF and the Consultants in reviewing the technical aspects of the study;
- Recognition of the important linkage between the National Land Policy (NLP) and the NAP/SAP, and the need to ensure that the latter serves as one of the strategic components for the immediate implementation of the NLP;
- Appreciation of the time based context for development of the Strategic Plan for UNCCD-NAP implementation, based on the approval by the Conference of Parties (COP) for results based oriented programming over a ten (10)-year period; recognition however, of the dynamic nature of the initiative, and tacit agreement for the proposed development of the SAP in five (5) year intervals, to enable periodic review, in particular towards the end of the five years, to permit opportunities for updating and harmonizing with the various existing and emerging policies and legal instruments;
- Formulation of mechanisms for integrating sustainable land management (SLM) initiatives, particularly the United Nations Development Programme (UNDP) and the Global Environment Facility (GEF) have provided funding through a Medium Size Portfolio Project for the following: Capacity Building and Mainstreaming of Sustainable Land Management in Saint Lucia, into the NAP/SAP development process;
- Need for updating of the Situational Analysis with respect to a re-identification of key issues such as food security given the growing global food crisis, and identification of emerging issues and trends to be included in land management, e.g. fire management;
- Appreciation of the inextricable link between land and water management on the island and the need to create synergies with ongoing initiatives to address water supply challenges through implementation of effective land management approaches; in particular the Integrated Watershed & Coastal Area Management (IWCAM) initiative;
- Ensuring that policy makers are adequately sensitized and capable of endorsing the process at the highest level to impact current and future policies that affect natural resource management and rural development;
- Need to capitalize on the potential for leveraging the clout of politicians to influence process at the constituency level, as district representatives, separate from their ministerial portfolios;

- Requirement for technical support of the MALFF Agricultural Information Unit and the Environmental Education Unit of the DoF in certain production aspects of the public awareness component of the assignment;
- Concerns were raised with respect the level of coverage, format, currency and the availability of data at varying scales of capture and the implications for use of Geographic Information Systems (GIS) applications and Geographic Position System (GPS) technology and the implications for the development of a land resource monitoring and evaluation system;
- Noted that the Consultant's input would be specific to the development of a system to support the identification, classification and mapping of land degradation;
- The need to ensure that the consultative process is well distributed spatially to generate input from stakeholders across the island, for buy-in and ownership of the national Action Plan, and to promote partnerships between public sector, development partners, the private sector, NGOs and community groups for more effective participation in and adoption of SLM.

These issues highlighted at the above-mentioned inception meetings between the Consultants and the Client's representatives were further refined into the following major elements to be addressed by the consultancy including:

- The completion of the National Action Plan (NAP) to combat Land Degradation and Drought – UNCCD utilizing a process of national stakeholder analysis and consultation;
- Completion of a 10 year Strategic Action Plan for implementation of the NAP, elaborated through a process of national stakeholder analysis and consultation;
- The formalization of the NAP/SAP as the official strategic document for Sustainable Land Management (SLM) in St. Lucia;
- The provision of recommendations on the nature of modifications required to the Land Conservation Improvement Act (1992) to support successful implementation the NAP/SAP.
- Enhancement of local capacity of a range of a range of pertinent agencies including Forestry officers, Agriculture Extension officers, Social Transformation officers, Farmers, Community Based Organizations (CBOs) and Non-Governmental Organizations (NGOs), focused on the training of at least seventy (70) persons in the use of Geographic Information Systems (GIS) applications and Geographic Position System (GPS) for land resources assessment and management, including the monitoring and evaluation of SLM in Saint Lucia;
- The development of a criteria for identification, classifying and prioritizing land degradation sites in St. Lucia to facilitate preparation of project concepts at the local and national levels;
- The development of a public sensitisation campaign focusing on the elements of the NAP/SAP to create the means for effective action at all levels in sustainable land management involving five (5) regional workshops, with a total estimated participation of 200-250 persons across the country, to highlight the impacts of land degradation on the environment and socio-economic development of the country; to sensitize the farming, rural and local communities of the need to adapt sustainable land management to ensure land conservation and by extension the country's biodiversity;

- The development of a twenty (20) - thirty (30) minute video/DVD to be used by the consultant in association with the MALFF/DoF to undertake a public outreach campaign
- The development of a user friendly manual identifying SLM approaches and practices.

In order to satisfactorily address the above impinging issues, this report presents the confirmed scope of work and the refined arrangements for undertaking the assignment. The associated detailed work programme and task schedule are also outlined. The Consultancy Team is also using the opportunity of this Inception Report to articulate the approach and methodology that will be employed in undertaking the assignment.

2.0 APPRECIATION OF CLIENT'S REQUIREMENTS

2.1. Terms of Reference Defined

In the review of the Terms of Reference, issued by the office of the Banana Industry Trust (BIT) in Annex II of the tender dossier dated January, 2008, the Consultancy team recognizes that the principal concern of the Client is the development of development of an integrated and harmonised framework for coordinating national activities geared to meeting the country's commitments under the United Nation Convention Combat Desertification, for combating land degradation in St Lucia and for mitigating the physical, biological and socio-economic impacts of land degradation and drought.

The consultants' understanding is that the completion of the NAP and the SAP will formalize the process of SLM in St Lucia, through mainstreaming amongst the relevant agencies, primary and secondary stakeholders, a system of effective management, including the monitoring and evaluation of land resources. Moreover, in the pursuit of these objectives, the systems established will further facilitate the understanding of the socio-economic aspects of land degradation. In addition, in the conduct of the exercise capacity building of key stakeholders will facilitate the increased use of GIS and GPS technologies to support the conduct of the various land assessments and implement a systematic monitoring and evaluation process.

In this regard, the consulting team understands that they are expected to assist the Client in the implementation of four key project components:

- The finalization of a National Action Plan for Land Degradation and Drought in St. Lucia; and
- The development of a Ten (10) Year Strategic Action Plan to support the implementation of the National Action Plan (NAP) for Land Degradation and Drought.
- Capacity building of a range of pertinent agencies in the use of Geographic Information Systems (GIS) applications and Geographic Position System (GPS) for land resources assessment and management.
- Development of Public Sensitisation Campaign based on the elements of the NAP/SAP.

During the introductory meeting with the Client's representatives, the issue of resource limitations was acknowledged. It was agreed in this regard, that the scale and scope of the consultants input in the development of the Public Sensitisation Campaign would be limited to sensitization and awareness activities to inform the public on the outcomes of the consultancy. The MALFF Agricultural Information Unit, would further provide the requisite support with respect to accessing equipment and facilities for the production of the aforementioned video presentation, as well as in conjunction with the Environmental Education Unit of the DoF take responsibility for the promotion of awareness and sensitization.

The Consultancy Team will therefore endeavour, within the scope of works, produce the 20-30 minute video, utilizing equipment, facilities and material such as available footage from the MALFF, DoF, and other related agencies, and make recommendations for the promotion of the video within a national public outreach campaign.

Additionally, what could be realistically achieved in this consultancy - given the budgetary limitations and the EU procurement restrictions - with regards to the equipment procurement for GIS application and GPS technology is the development of Terms of Reference for procurement of the type of equipment and technology required for land resource assessments and management to support the implementation of the NAP/SAP. Further, the Client would need to ensure that the requisite equipment for training in the GPS applications and GIS technologies are made available for timely implementation of the training component of the assignment.

The fundamental roles of the various institutions, agencies, and community groups, in the land degradation, particularly with respect to the effective participation in the implementation of the NAP/SAP, was recognised as a pre-requisite for ensuring sustainability and the mainstreaming of the NAP/SAP activities into SLM programmes and projects. Hence, the adoption of a fully participatory approach by the consultants.

2.2. Refined Scope of Works

Based on the consideration of the several influencing factors outlined above and in Section 1, the Consultancy Team has been able to further refine the scope of works for the consultancy. This refined scope of works was accepted by the Client's representative during the aforementioned inception meeting of March 31st, 2008.

The confirmed scope of work for the assignment will be based on the four core components of the assignment further aligned with the ten (10) outputs and the eleven (11) activities that the Client as defined in the Terms of Reference, expects from the assignment.

The consultancy assignment will be undertaken through the following detailed tasks:

1. Conduct of stakeholder analysis to identify stakeholders of the land resource base and to define their roles and responsibilities in the implementation of the NAP/SAP;
2. Stakeholder consultations to promote a participatory approach and community involvement for ensuring mainstreaming into SLM the recommended actions in NAP/SAP;
3. Assembly and review documents and reports including, the major piece of land legislation, the Forest Ordinance and Land Conservation Act, the available base data, and information from stakeholder consultations, on factors influencing land degradation and drought, with a view to identifying

- gaps and further actions in the development of the NAP/SAP as the driver for SLM in St. Lucia;
4. Compilation and finalisation of National Action Plan (NAP) for Land Degradation and Drought in St. Lucia.
 5. Preparation and finalisation of Strategic Action Plan (SAP) to support the implementation of the NAP
 6. Formalisation of NAP/SAP as official strategic document for SLM in St. Lucia.
 7. Development of Public Sensitisation Campaign Strategy focusing on the importance of the NAP and SAP for sustainable land management in St. Lucia
 8. Production of a 20-30 minute video/DVD to be used in the public sensitization campaign;
 9. Compilation of a user friendly manual identifying SLM approaches and practices;
 10. Formulation of criteria for assessing and evaluating sites for land degradation, based on available data and information.
 11. Development of local capacity through training delivery and preparation of tender dossier for procurement of appropriate equipment for increased use of GIS applications and GPS technology in sustainable land management;
 12. Develop a framework based on the use of GIS/GPS tools for assessing and monitoring land degradation and drought for SLM;
 13. Preparation of Terms of Reference to engage requisite services, works and supplies, including project profiles to implement recommended measures for degraded sites, for funding under EMF.

The National Action Plan (NAP) and Strategic Action Plan (SAP) will thus provide recommendations on (i) the nature of the modifications required to be made to the key piece of land legislation, the Forest Ordinance and Land Conservation Act, for the successful implementation of the NAP/SAP; and (ii) a system for assessing and monitoring land degradation and drought ensuring increased use of GIS applications and GPS technologies.

The public sensitization component of the assignment will seek to engage as wide a range of stakeholders as possible, taking into account the issues of gender, eco-efficiency and the role of the private sector, particularly in relation to investment in the management of the land resource base. Thus in its design, the campaign will aim to promote the concept of public-private sector partnership, to facilitate more effective participation and adoption of sustainable land management.

The consultants will also assist in providing requisite training for enhancing the capacities of resource managers in the use of the GIS and GPS as tools for

assessment and monitoring of land degradation and drought. This, in conjunction with the use of criteria developed for assessing and evaluating degraded sites will provide the framework for ongoing assessments to assist in the selection of sites and the design of projects for implementation of remedial measures on a sustained basis.

2.3. Deliverables

The main deliverables of the consultancy are as follows:

- Inception Report;
- Completed National Action Plan (NAP);
- Draft and Final Strategic Action Plan (SAP);
- Public outreach campaign strategy and campaign to include delivery of five workshops with estimated participation of 200-250 persons, for promotion of SLM;
- A 20- 30 minute video/DVD production to be used in public awareness campaign;
- User-friendly manual identifying SLM approaches and practices;
- Capacity building activities for forestry, extension and social transformation field staff, CBOs and NGOs representatives including training delivery to a cadre of 70 persons comprising a cross section of land resources managers in GIS applications and GPS technology; and Terms of Reference to engage requisite services, works and supplies for procurement of equipment to increase the use GIS applications and GPS technology.
- Quarterly Interim Reports presenting a summary of the consultants' activities to date and summary of outcomes of tasks undertaken to date;
- Draft and Final Report comprising a summary of the consultants' activities, and outcomes of tasks, including the main report comprising the final adaptation of NAP/SAP;
- Recommendations in Final Report for (i) a system for monitoring and evaluation of land degradation and drought using GIS/GPS as assessment tools (ii) nature of modifications required to be made key legislation: Forest Ordinance and Land Conservation Act, and (iii) outline Project Profiles (TORs to engage requisite services, works and supplies to implement NAP/SAP recommendations re degraded sites) for funding under EMF;

2.4. Client Input

Under the agreed collaborative approach for delivery of the scope of work the Client and Project Management Team are expected to provide the following supportive services:

- Assistance in the conduct of a stakeholder analysis to identify key stakeholders and their roles and responsibilities in SLM;
- Assistance in cataloguing of and facilitating access to all relevant documentation;
- Re-activation of the Adhoc Technical Working Group (ATWG) to serve as a channel for institutional linkage, accessing relevant information, and reviewing recommendations for validity and practicality;
- Technical guidance as required on the specific data inputs and information outputs expected from the assessment and monitoring methodology for land degradation and drought;
- Assistance in the convening of national stakeholder consultations and other meetings with relevant agencies and important officials, whose information are critical to the consultancy;
- Coordination of responses and report reviews among stakeholders to ensure timely feedback to the consultants;
- Obligation and collaboration of the Agriculture Communications Unit for the provision of equipment, support staff and archival footage for the production of the video;
- Timely access to requisite equipment, facilities and requisite material for GIS training;
- Liaison with other consulting teams under the SFA 2003 Project, that are addressing similar or related issues and targeting the same groups or individuals;
- Ensuring the timely disbursement of funds to facilitate smooth implementation of project tasks.

3.0 WORK PLAN

3.1 Approach

In undertaking the assignment, the Team of Consultants will employ a consultative and participatory approach that will allow for all the stakeholders and beneficiaries to be involved in the development of the National Action Plan and Strategic Action Plan. For this purpose, the team will undertake a stakeholder analysis for identification of key stakeholders and their roles in SLM. The team will undertake consultations, workshops and interviews as deemed appropriate, including two national consultations with key stakeholders, for information gathering and updating in the finalization of the NAP and elaboration of the SAP; and five workshop sessions in different locations around the island, to conduct sensitization and awareness activities related to the outputs of the consultancy.

The team will work with and respond to the DoF of the Ministry of Agriculture, Lands, Fisheries and Forestry. The team will also collaborate with the office of the Banana Industry Trust (BIT), as indicated in the Terms of Reference (TORs) with respect to the management of the assignment. The consultant assumes that the previously established Adhoc Technical Working Group (ATWG) for development of the NAP, will be re-activated, to assist the DoF, in providing guidance to the Consultancy team; in the sourcing of data and information; reviewing technical content of consultancy outputs and convening of consultation meetings to ensure cohesion and full participation of all main stakeholders during the assignment. The consultant proposes periodic meetings, tied to the reporting schedule, between the Consultancy team, the Client and the ATWG to monitor and evaluate the progress of the assignment.

An indicative list of stakeholders to constitute the Adhoc Technical Working Group comprises representatives of a range of relevant agencies, including:

- MALFF – Departments of Agriculture, Fisheries, Biodiversity, Marketing and Engineering;
- Water and Sewerage Company (WASCO);
- Ministry of Economic Affairs, Economic Planning and National Development - Sustainable Development and Environment Section (Agency); Crownlands Department;
- Ministry of Communications, Works, Transport and Public Utilities – Meteorological Services Department;
- Ministry of Tourism;
- Ministry of Social Transformation;
- Ministry of Finance;
- Ministry of Education;
- Ministry of Legal Affairs - Attorney General Office;
- St Lucia National Trust;
- CEHI;
- National Emergency Management Organisation (NEMO);
- Private Sector Representative.

The participatory and consultative approach to be used by the team will involve public sensitization component focusing on the importance of the NAP/SAP, as an important link in sustainable land management, and having a bearing on water resources management and environmental protection. This, in the process will allow the various stakeholders, especially the policy makers, public and private sector agencies who are involved in the management and/or impacted by the management of land resources to recognize and assume their fundamental roles in sustainable land management through the implementation of the NAP and SAP.

The team will seek to utilize the outcomes and recommendations from this participatory process, to address key issues and trends in the development of the NAP/SAP, as well as to identify key public awareness needs and specific capacity building needs.

Additionally, the consultants will compile a matrix of recommendations that have been generated in previous related reports and documents, to present for discussion with relevant stakeholders to identify their relevance and feasibility of incorporating into the plans. The consultants will also endeavour through the consultative process to identify those recommendations that could be readily implemented within the constraints of limited budget.

The participatory approach is also a fundamental tool in the sensitization of government agencies and policy makers in order to minimize the risk of the outputs of this consultancy suffering a similar fate of previous consultancies, with respect to the delayed implementation of recommendations. The Government of Saint Lucia must therefore, be committed to and must be able to source the necessary funding for implementing the recommendations. The consultants will further endeavour to ensure that the outputs are results oriented and strategic in terms of impact.

3.2 Method

As mentioned previously, the team will employ a consultative and participatory approach in undertaking the work, for which the activities are grouped into four components or major work packages as indicated in the work breakdown structure. It must be noted that while the activities are packaged into four separate work breakdown structures (Figure 1), many of the activities are inter-related and will be scheduled to reflect this inter-relatedness. The four work packages will be coordinated by different experts in the Team to ensure that the Outputs are delivered on a timely basis. The Team will, however, work together to ensure that, where appropriate, activities are well coordinated, so that the outputs of all activities feed into each other and are informed by one another.

The timing, sequencing and duration of the activities proposed as well as major milestones are also reflected in the timetable of activities (Table 2). The inputs required for each key result and outputs are reflected in Table 4.

Box 1 Participatory and Consultative Approach

The participatory and consultative approach seeks to integrate the input of a broad base of stakeholders to cover as many land management and water related issues. Effective stakeholder involvement provides a method for identifying public concerns and values, developing consensus among affected parties, and producing efficient and effective solutions through an open, inclusive process.

Integrating stakeholder input, capacity development and institutional/organisational strengthening, public education and sensitization, and resource management strategies into a framework for harmonized management of land and water resources is pivotal to effective sustainable land management.

The following is the revised work plan of the activities, to be undertaken, grouped as per the four phases of the consultancy assignment. A project management component is also incorporated within the various phases.

Phase I – Completion of the National Action Plan (NAP) for the UNCCD

This phase will involve completing and the finalizing the NAP document, through a short process of national stakeholder consultations. Since much work and consultations have already been undertaken on the subject matter, the consultants will endeavour to remain focused on identifying recommendations that have been generated through these previous processes for further analysis and discussion with relevant stakeholders to:

- determine their relevance and implementability; and
- place in an implementation time frame.

The draft elements of the proposed Table of Contents for the NAP, emanating from the outcomes of the previous consultative processes, are presented in Appendix III.

This phase will also include the preparation of a Cabinet Submission by the DoF to the Cabinet of Ministers for approval and adoption of the NAP.

Phase II – Formulation of a Strategic Action Plan (SAP)

This phase will involve the elaboration of a Strategic Action Plan (SAP) **to support the implementation of the NAP**. The activities conducted under this phase are inextricably linked with the activities of Phase I, and will include national stakeholder consultations, and wide ranging discussions through focus group discussions and interviews/meetings to identify key issues and gaps to be addressed under the SAP.

This phase will also include the provision of assistance to the DoF in the preparation of a Cabinet Submission to the Cabinet of Ministers for approval and adoption of the SAP.

Phase III – Development of Public Education Campaign

The strategy for public education and outreach will be informed by Phase I and II activities. The consultant in the production of outputs for public education campaign will however, require critical support in terms of provision of equipment and facilities, available material, for the production of the 20-30 minute Video/DVD presentation and the conduct of public awareness activities. Request for support will be made by the Client to the Ministry of Agriculture's Communications Unit and the Government Information Services, where the national capacity for this type of work resides.

Phase IV – Capacity Building for Assessing and Monitoring Land Degradation and Drought

This phase will include the delivery of training in GIS applications and GPS technology for use as tools in the assessment and monitoring of land degradation and drought. The consultant will also through consultation with resource managers identify appropriate equipment required to support future application and prepare a tender dossier for procurement of same.

Training in the application of GIS and GPS technology will require strong technical support from the GIS section in the DoF, and the Ministry of Physical Development,

where the requisite equipment and materials, as well as the national GIS, topographic and national cadastre lie. The GIS expert within the consulting team will provide the requisite direction for the technical support services, in this regard.

The Consultant will also assist in the development of guidelines and criteria to be used for preliminary assessment and evaluation to determine sites demonstrating the ill effects of land degradation and drought. These criteria will of need, be chosen to fit the unique characteristics of the environment in which the project is being implemented, taking into account, in particular, the resources and capacities and skills of the stakeholders. The team is of the view that sites identified through this methodology will require more in-depth field assessment for further development of projects for implementation of remedial measures.

3.3 Work Packages

The consultants have identified four (4) work packages for the assignment. These work packages will be further deconstructed as presented in Figure 1. It is to be noted that while the activities are packaged into four separate work breakdown structures, many of the activities are inter-related. They will be scheduled to reflect this inter relatedness. Table 1 presents a summary of activities and outputs with a time schedule for the various components of the consultancy. A final implementation schedule for the components of the consultancy is presented in Table 2; and Table 3 presents a summary of project milestones based on the assignment completion date.

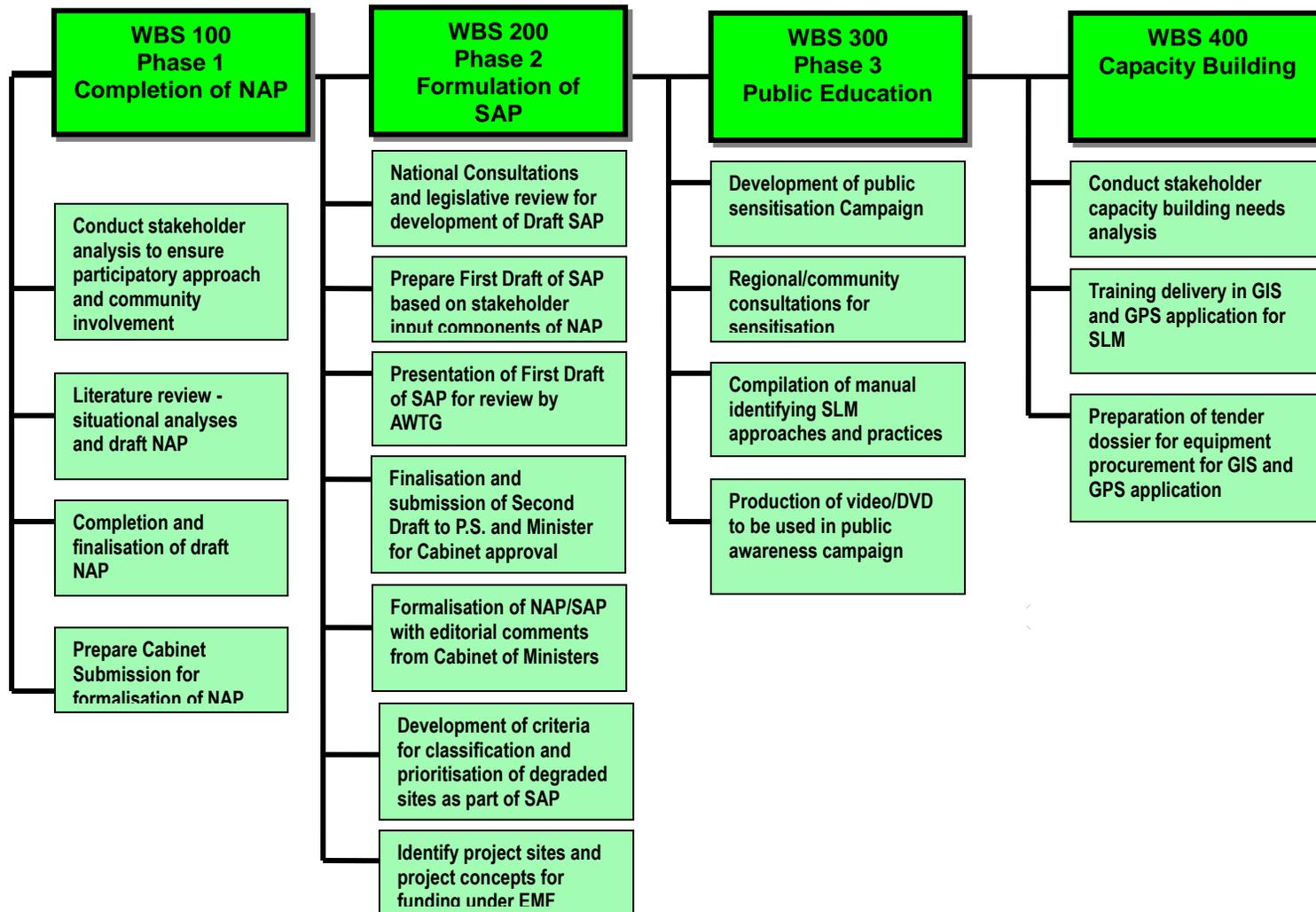


Figure 1: Proposed Work Breakdown Structure

Table 1: Project Activities and Outputs

Task	Activities	Outputs	Timeframe Due dates	Responsibility	External factors affection success of project
Inception Report – Submission Date April 30th, 2008					
WBS 100 – Completion of NAP					
Desk Research/ Stakeholder Analysis	<ul style="list-style-type: none"> Identify and request relevant documents. Prepare preliminary list of documents required by the consultants Bibliographic compilation Assemble and Review documents Conduct stakeholder analysis to ensure participatory approach and community involvement. 	<ul style="list-style-type: none"> Inception report with detailed schedule of work. List of institutions, organizations and individuals to be consulted Bibliography Completed Stakeholder Analysis Matrix. 	<p>M1 <u>April 15, 2008</u></p> <p><u>Period: Apr 14 – April 29, 2008</u></p>	<ul style="list-style-type: none"> Consulting Team PIU, Staff of DoF Adhoc Technical Working Group (ATWG) for providing or serving as a liaison for requested information Stakeholders 	<ul style="list-style-type: none"> Availability of documents Timeframe for response to request for documents, stakeholders list, etc. Establishment of Adhoc Technical Working Group
Completion of National Action Plan (NAP)	<ul style="list-style-type: none"> Two national consultations – north and south of the island Completion and finalization of draft NAP Prepare Cabinet submission for formalization of NAP 	<ul style="list-style-type: none"> National Consultations Completed NAP Cabinet Submission for NAP approval and formalization 	<p>M2 – M3 <u>Period: May 1 to June 17, 2008</u></p> <p>National Consultations: <u>(i) May 13th, 2008 (or week of)</u> <u>(ii) May 20th, 2008 (or week of)</u></p> <p>Submission Final Draft: June 15, 2008</p>	<ul style="list-style-type: none"> Team Leader and Meteorologist Other members of Consultancy team Staff of DoF Stakeholders 	<ul style="list-style-type: none"> Availability of DoF staff and stakeholders to participate in consultations Cost associated with the hosting of consultations Timeliness of input from DoF and MALFF staff for preparation of Cabinet Submission
WBS 200: Preparation of SAP					
Preparation	<ul style="list-style-type: none"> Conduct stakeholder consultations 	<ul style="list-style-type: none"> First and Second Draft 	M2 – M4	<ul style="list-style-type: none"> Team Leader 	<ul style="list-style-type: none"> Availability of DoF staff and

Task	Activities	Outputs	Timeframe Due dates	Responsibility	External factors affection success of project
submission and Review of SAP Report (First and Second Draft)	<ul style="list-style-type: none"> – focus group discussions and interviews/meetings for development of draft SAP • Review Forest Ordinance and Land Conservation Act for issues related to implementation of NAP/SAP • Prepare first and second draft of a 5-year SAP based on stakeholder component input of NAP. • Presentation of first draft of SAP for review by AWTC • Finalization and submission of second draft to P.S. and Cabinet of Ministers. • Formalization of NAP/SAP with editorial comments from Cabinet of Ministers. 	<p>of Strategic Action Plan (SAP) including recommendations from Legislative review</p> <ul style="list-style-type: none"> • Final adapted NAP/SAP • Cabinet submission for SAP approval and formalization. 	<p>Period: May 13 – Jul 31, 2008;</p> <p>Submission; First Draft – Jul 11, 2008 Final Draft: Jul 31, 2008</p>	<p>and Meteorologist</p> <ul style="list-style-type: none"> • Other members of Consultancy team • PIU/DoF • Cabinet Ministers • Other Stakeholders 	<p>stakeholders to participate in consultations</p> <ul style="list-style-type: none"> • Cost associated with consultations • Prerequisite tasks completed in a timely manner • Timeliness of input from DoF staff for preparation of Cabinet Submission • Timeliness of the input from the Cabinet ministers
Development of Land Degradation Assessment and Monitoring System	<ul style="list-style-type: none"> • Development of criteria for classification and prioritization of degraded sites as part of SAP • Identify project concepts related to remediation of land degradation and drought for NAP/SAP implementation for funding under EMF • Develop project profiles for implementation of NAP/SAP 	<ul style="list-style-type: none"> • Criteria for classification and prioritization of degraded sites • Recommendation on Assessment and Monitoring system for land degradation and drought based on available GIS data for SLM • Outline project concepts in SAP • Outline Project Profiles (TORs to engage requisite services, works 	<p>M4 Period: Jul 1 – Jul 31, 2008</p> <p>M2 - M3 Period: May 13 – June 30, 2008;</p> <p>M9 Period: Dec 2 – Dec 31, 2008</p>	<ul style="list-style-type: none"> • Consultants • DoF • Other Stakeholders • ATWG 	<ul style="list-style-type: none"> • Accessibility and timeframe for response to request for requisite meta data • Interest and commitment of stakeholders/ beneficiaries to provide requisite data • Information are up-to-date, available and accessible

Task	Activities	Outputs	Timeframe Due dates	Responsibility	External factors affection success of project
	recommendations related to remediation of land degradation and drought	and supplies to implement NAP/SAP recommendations re degraded sites) for funding under the EMF			
Preparation and submission of Interim progress report	<ul style="list-style-type: none"> Preparation and submission of interim progress report <ul style="list-style-type: none"> Draft Final 	<ul style="list-style-type: none"> Draft Interim report on status of activity undertaken by the consultants to date and a summary of preliminary findings and recommendations 	M6 Period: Sept 2 – Sept 9, 2008 Report: Draft: Sept. 10, 2008 Final: Sept 26, 2008	<ul style="list-style-type: none"> Team Leader Other members of Consultancy team DoF/PIU ATWG 	<ul style="list-style-type: none"> Pre-requisite activities of assignment completed in a timely manner Timeliness of feedback from Client
Preparation and submission of Final Report	Preparation and submission of Draft Final Report and Final Report	<ul style="list-style-type: none"> Draft and Draft Final Report comprising a summary of the consultants' activities, and outcomes of tasks undertaken to date 	M9 Period: Dec 2 – Dec 12 2008 Report: Draft: Dec 12, 2008 Final: Dec 31, 2008	<ul style="list-style-type: none"> Team Leader Other members of Consultancy team DoF/PIU ATWG 	<ul style="list-style-type: none"> All activities of assignment completed in a timely manner Timeliness of feedback from Client
WBS 300: Development of Public Education Campaign					
Development of public education campaign strategy	<ul style="list-style-type: none"> .Develop strategy in conjunction with SAP Production of video/DVD to be used in public awareness campaign 	<ul style="list-style-type: none"> Public Outreach Campaign strategy developed as part of SAP A 20-30 minutes Video/DVD production for public awareness campaign 	M2 - M3 Period: May 6 – June 20, 2008 Submission: June 30 th , 2008	<ul style="list-style-type: none"> Public/ Environmental Education Specialist MALFF Information Unit staff Other members of Consulting Team PIU/DoF ATWG 	<ul style="list-style-type: none"> Prerequisite tasks completed in a timely manner Availability of consultants /stakeholders to participate in workshops Cost associated with consultations. Availability of equipment for video/DVD production Ability and willingness of community/regional personnel to be trained

Task	Activities	Outputs	Timeframe Due dates	Responsibility	External factors affection success of project
					<ul style="list-style-type: none"> Interest and commitment of stakeholders/ beneficiaries to provide meaningful input
Assist in the conduct of public awareness and sensitisation	<ul style="list-style-type: none"> Five (5) regional consultations/workshops for public sensitisation of 200-250 stakeholders on NAP/SAP and SLM Compilation of a user-friendly manual identifying SLM approaches and practices 	<ul style="list-style-type: none"> Five (5) regional consultations for public sensitisation of 200-250 stakeholders on NAP/SAP and SLM Manual identifying SLM approaches and practices 	<p>M4 – M9 (One a month – e.g. first Tuesday of each month?) Or M3, M5, M7 – one or more during these months</p> <p>M5 – M6 Period: Aug 5 – Sept 30, 2008 Submission: Sept 30, 2008</p>	<ul style="list-style-type: none"> Public/ Environmental Education Specialist Other members of Consultancy team PIU/DoF ATWG providing liaison Other Stakeholders 	<ul style="list-style-type: none"> Availability of DoF staff and stakeholders to participate in consultations Interest and commitment of stakeholders/ beneficiaries to provide meaningful and timely input.
WBS 400: Capacity Building in GIS/GPS					
Enhanced capacity for increased use of GIS and GPS in SLM	<ul style="list-style-type: none"> Conduct stakeholder capacity building needs analysis Workshops for delivery of training in GIS/GPS for SLM Preparation and development of tender dossier for equipment procurement for GIS and GPS application 	<ul style="list-style-type: none"> Stakeholder analysis Training delivery to cadre of 70 persons comprising a cross section of land resources managers and users in GIS and GPS technology to acquire knowledge and skills which can be applied in SLM Tender Dossier for equipment procurement to support use of GIS and GPS applications in SLM 	<p>M1 M7 – M8 Period: Oct 7 – Nov 28, 2008 Proposed W/shop Dates: (i) Oct 14, 2008 (or week of) (ii) Nov 18, 2008 (or week of)</p> <p>M9 Period: Dec 2 – Dec 16, 2008 Submission: Dec 12,</p>	<ul style="list-style-type: none"> GIS Expert Other members of Consulting Team PIU/DoF ATWG 	<ul style="list-style-type: none"> Ability and willingness of community/regional personnel to be trained Accessibility and timeframe for response to request for requisite meta data Interest and commitment of stakeholders/ beneficiaries to provide requisite data Information are up-to-date, available and accessible Timeframe to accommodate the full extent of services to be undertaken by team.

Task	Activities	Outputs	Timeframe Due dates	Responsibility	External factors affection success of project
			<u>2008</u>		

Table 2: Implementation Schedule

Work Package	April	May	June	July	August	Sept	Oct	Nov	Dec
WBS 100 – Completion of NAP									
• Revise work plan and Inception Report	▲								
• Stakeholder Analysis									
• Lit. Review/ Updating Situational Analyses									
• National Consultations									
• Compilation and Finalisation of NAP			▲						
• Preparation of Cabinet Submission for approval and formalization of NAP									
WBS 200 – Preparation of SAP									
• Consultations and legislative review for development of draft SAP									
• Preparation and Presentation of First Draft of SAP									
• Finalisation into Second Draft for submission to PS and Minister and preparation of Cabinet Submission									
• Development of Land Degradation and Drought Assessment and Monitoring System									
• Formalisation of NAP/SAP from Cabinet approval									
• Preparation of Project profiles for EMF funding									
• Preparation and submission of Interim Progress Report									
• Preparation and submission of Final Project Report									
WBS 300 – Development of Public Education Campaign									
• Development of public sensitisation campaign strategy									
• Production of Video/DVD to be used in public awareness campaign									

Work Package	April	May	June	July	August	Sept	Oct	Nov	Dec
<ul style="list-style-type: none"> Compilation of manual identifying SLM approaches and practices 					▲				
<ul style="list-style-type: none"> Consultations/workshops for stakeholder sensitisation 				▲	▲	▲	▲	▲	▲
WBS 400 – Capacity Building in GIS/GPS									
<ul style="list-style-type: none"> Stakeholder capacity building needs assessment 									
<ul style="list-style-type: none"> Workshops for training delivery in GIS/GPS applications for SLM 								▲	
<ul style="list-style-type: none"> Develop Tender Dossier for equipment procurement 									▲

Table 3: Summary of Project Milestones

Major Milestone	Milestone Date(Completion dates) 2008
Submission of Inception Report	Month 1 April 15, 2008 (April 30, 2008)
Submission of Interim Progress Report: <ul style="list-style-type: none"> • Draft Interim Report • Final Interim Report 	Month 6 Sept. 10, 2008 Sept. 26, 2008
Submission of Outputs <ul style="list-style-type: none"> • Completed NAP • First Draft SAP • Final Draft SAP • Public Education Strategy and Video/DVD • SLM Manual • GIS/GPS Training Delivery • Tender Dossier for Equipment Procurement 	Month 3 – June 17, 2008 Month 4 – July 11, 2008 Month 4 – July 31, 2008 Month 3 – June 30, 2008 Month 6 – Sept. 30, 2008 Months 7 to 8 – Oct 14 and Nov. 18, 2008 (or week of these dates) Month 9 – Dec. 12, 2008
Submission of Final Project Report: <ul style="list-style-type: none"> • Draft Final Report • Final Report inclusive of feedback 	Month 9 Dec. 12, 2008 Dec. 31, 2008

4.0 CONCLUSION

The service contract for the Consultancy for *National Action Plan to Combat Desertification and Drought in Saint Lucia* was awarded to the consultant, AGRICO Ltd., on March 18th, 2008. An inception meeting was subsequently held with the Client on March 31st, 2008, to formally initiate the assignment, April 1st, 2008. At this meeting the members of the Consulting Team were introduced and the proposed methodology and work plan for performing the assignment further elaborated.

It is the Client's expectation that the consultancy will contribute to the development of an integrated framework for combating land degradation in Saint Lucia and for mitigating the physical, biological and socio-economic impacts of land degradation and drought. This will be achieved through the preparation of the National Action Plan for Land Degradation and Drought in St. Lucia, a Strategic Action Plan (SAP) to support the implementation of the National Action Plan (NAP) for Land Degradation and Drought, enhanced local capacity in Geographic Information Systems (GIS) and GPS application in a sustainable land management context and the increased public awareness and sensitization to the issues of land degradation in Saint Lucia and the importance of adapting SLM practices.

This Inception Report addresses a revised scope of work based on the appreciation of issues and concerns raised during the inception meeting with the Client and Client's representatives. The report also provides a detailed approach and methodology for the assignment; a summary of the major technical outputs of the assignment and activities to define these outputs, and a well defined time schedule for the consultancy. A preliminary listing of data and information required and stakeholders to be consulted is also included.

It is anticipated that the report will provide the client with the necessary assurance that the consultancy will be conducted by a team of professionals who will provide the services defined in the terms of reference and further elaborated in this report, in a timely and effective manner.

APPENDICES

Appendix I Indicative List of Stakeholders to be Consulted

TYPE	STAKEHOLDER
Public Sector	Ministry of Agriculture, Lands, Forestry and Fisheries*
	Ministry of Economic Affairs – SDES, CZMU, National Development, Crown lands Dept.
	Ministry of Finance
	Ministry of Communications, Works, Transport and Public Utilities – Meteorological Services Department
	Ministry of Tourism and Civil Aviation
	Ministry of Education and Culture
	Ministry of Social Transformation Ministry of Physical Development, Housing, Urban Renewal and Local Government – Housing Department
Statutory Bodies	Water and Sewerage Corporation
	Solid Waste Management Authority
	Saint Lucia National Trust
Private Sector/NGOs	Farmers Organisation- Fairtrade, TQFC, SLBC
	Fishers Organisation
	Saint Lucia Chamber of Commerce
	Representatives of Manufacturers
	Saint Lucia Hotel and Tourism Association (SLHTA)/Private Tour/Site owners
	Caribbean Agri-business Association and affiliates – Local Chapters
National Organisations	BERU (or successor agency)
	Organisation of Rastafarians
	National Youth Council
Community Organisations	Community Based Organisations (CBOs)
	Watershed/Water Catchment Groups
	SMMA/SRDF
	Other Resource Users
Regional and International Organisations	Organisation of Eastern Caribbean States (OECS)
	Caribbean Environmental Health Institute (CEHI)
	Caribbean Conservation Association (CCA)
	Inter-American Institute for Cooperation on Agriculture (IICA)
	Windward Islands Banana Development and Exporting Company (WIBDECO)
Caribbean Agricultural Research and Development Institute (CARDI)	
Other	

*- Departments of Forestry, Fisheries, Agriculture/Extension, Engineering, WRMA, IWCAM

Appendix II Preliminary List of Documents for Review

- I. St Lucia - European Community Country Strategy Paper and National Indicative Programme for the period 2001 – 2007
- II. A thematic assessment of the implementation of the United Nations Convention to Combat Desertification/ Land degradation (UNCCD) in Saint Lucia[AGRICO Ltd]
- III. UNCCD: Country Report On National Action Programme, Saint Lucia
- IV. Third National Report for UNCCD – Government of St. Lucia, 2006
- V. World Bank Report on Desertification and Maps
- VI. Project Proposal: Introduction of sustainable land management methodologies in Fond St. Jacques, Soufriere. [submitted to GEF medium sized grants]
- VII. Forest Management Plan, 1995
- VIII. Reports on Related Initiatives – Department of Forestry
- IX. Assessing and Mapping Land Degradation: Case of the Southern Region of Saint Lucia – J. Polius et al, 2007
- X. Dregne, H. E. 1998. Land Degradation: Assessment And Monitoring. Land Degradation News Letter, No. 3, U.S. Natural Resources Conservation Service. 28 Pp.
- XI. Eswaran, H., R. Lal And P.F. Reich. 2001. Land Degradation: An Overview. In: Bridges, E.M., I.D. Hannam, L.R. Oldeman, F.W.T. Pening De Vries, S.J. Scherr, And S. Sompatpanit (Eds.). Responses To Land Degradation. Proc. 2nd. International Conference On Land Degradation And Desertification, Khon Kaen, Thailand. Oxford Press, New Delhi, India.
- XII. CDERA, 2003. Status Of Hazard Map, Vulnerability Assessments And Digital Maps In The Caribbean: Saint Lucia Country Report. The Caribbean Disaster Emergency Response Agency (CDERA), October 2003.

- XIII. Cox, C., Sarangi, A., Madramootoo, C.A. (2006). Effect Of Land Management On Runoff And Soil Losses From Two Small Watersheds In St. Lucia. Land Degradation And Development 17(1), Pp.55-72.
- XIV. Government Of St. Lucia. 1992. Forest Management Plan (1992 – 2002). Vols. 1 And 2. Ministry Of Agriculture, Castries, St. Lucia.
- XV. Hunting Technical Services Ltd. 1997. Watershed And Environmental Management Project, Final Report. Vol. 3. Hemel Hempsted, UK.
- XVI. Isaac, C., 2001. Quantifying Evapotranspiration For The Island Of St. Lucia; Application Of An Energy Balance & Hydrological Model To Complex Landscapes. University Of New Brunswick, Canada.
- XVII. Otto J. G. And D. R. Zak, 1996. **Tropical Dry Forests Of St. Lucia, West Indies: Vegetation And Soil Properties.** Biotropica, Vol. 28, No. 4, Part B, Pp. 618-626
- XVIII. Organization Of American States, 1987. Saint Lucia Development Atlas: Map Preparation. OAS, Dept. Reg. Dev., Washington, DC.
- XIX. Prior, D.B. And C. Ho, 1972. Coastal And Mountain Slope Instability On The Islands Of St. Lucia And Barbados. Eng. Geol. 6:1-18.
- XX. UNEP. 1993. Good News In The Fight Against Desertification. Desertification Control Bulletin, 22, 3.
- XXI. National Report on Integrating the Management of Watersheds and Coastal Areas in St. Lucia
- XXII. Watershed And Environmental Management Project. World Bank
- XXIII. A hydrological assessment and watershed management plan for the Talvan water catchment [Cox]
- XXIV. Incentives for watershed management in the Caribbean: diagnostic studies in Grenada, Jamaica, St. Lucia and Trinidad [CANARI]
- XXV. Incentives For Watershed Management In St. Lucia: Results Of A Brief Diagnostic [Saint Lucia]
- XXVI. Integrated Water Resources Management: Institutional and Policy Reform [Proceedings]
- XXVII. Assessment of Poverty in Saint Lucia[2006]
- XXVIII. Guidelines and manual on land - use planning and practices in watershed management and disaster reduction.[UN. Economic and Social Commission for Asia and the Pacific]

Appendix III Proposed Table of Contents for UNCCD National Action Plan for Saint Lucia

UNCCD National Action Plan – Saint Lucia

Proposed Table of Contents

Forward by the Minister of Agriculture, Forestry and Fisheries

List of Acronyms and Abbreviations

- 1.0 Introduction – Background and Rationale**
- 2.0 The Vision**
- 3.0 Issues and Trends**
- 4.0 Aims and Objectives**
 - 4.1.1. Goal
 - 4.1.2. Objectives
- 5.0 Guiding Principles**
- 6.0 Strategic Actions**
- 7.0 Conditions and Requirements**
- 8.0 Programme Areas**
 - 8.1 Behavioral/Attitudinal and Functional Change
 - 8.2 Capacity development and institutional/organisational strengthening
 - 8.3 Sustainable Land Management Approach for the protection and management of Land Resources
 - 8.4 Disaster Risk Reduction and Early Warning Systems
- 9.0 Implementation**
 - 9.1. Financing the NAP
 - 9.1.1. Local (government, private sector, NGO)
 - 9.1.2. International (UNCCD, GM, etc.)
 - 9.2. Monitoring and Evaluation
- 10.0 Proposed Projects**