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NATURAL ENVIRONMENTAL RESOURCES



LA VISITE NATIONAL PARK AND WINNER MANAGEMENT STRATEGIES

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FROM THE AMERICAN PEOPLE

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EXECUTIVE SUMMARY

The purpose of this study is to develop strategies within the Grise River that integrate the goals of the Ministry of Environment, responsible for the management of La Visite National Park, and those of USAID WINNER. Specifically, the report analyzes the organizational, administrative, socio-economic and ecological issues of the park with the objective of recommending activities that support the conservation and an increase in areas of biological significance.

La Visite National Park, located about 25 km southeast of Port-au-Prince and at the headwaters of the Grise River, is critical to the reduction of risks associated with landslides and flooding of downstream populations. These headwaters form the northern boundary of the park, a steep escarpment of cloud forests that are under immense threat by human disturbance, notably poaching and garden cultivation. The La Visite cloud forests are among the last remaining in Haiti and are home to an extremely high diversity of endemic plants and animals. The aesthetic value of the escarpment, its high vulnerability to disturbance and the critical role of the cloud forests to the Grise River aquifer combine to highlight the urgency and importance for their conservation.

The three areas of WINNER activity required to conserve and increase the area of the cloud forests are the buffer zone outside the park (610 hectares), the escarpment inside the park (1030 hectares) and the entire park (4600 hectares) managed by the Ministry of Environment. Recommended activities in the buffer zone include 1) organizing slope stabilization and agroforestry interventions among landholders, 2) supporting the diversification and productivity of farm/non-farm enterprises, 3) facilitating the establishment of tree/plant nurseries, 4) facilitating social and financial services, supply stores and farmer training to target landholders and 5) studying the feasibility of incentive-based contracts to pay for ecosystem services. Recommended activities in the escarpment are 1) strengthening the coordination and capacity of the Corps de Surveillance, police and volunteer watch brigades to control encroachment activities, 2) determining the lower elevation park boundaries at approximately the 1500 m contour, 3) conducting an inventory of the extent and status of remaining cloud forests, 4) identifying and prioritizing the micro-basins that are the most vulnerable to disturbance, 5) presenting the findings to government bodies including the Ministry of Environment and local government councils, 6) determining a strategy to halt encroachment of escarpment forests with mandatory and voluntary sanctions, 7) determining the feasibility of MDE-sanctioned carbon offsets, 8) determining the feasibility of co-management agreements between MDE and local CBOs to protect the escarpment forests and 9) developing recovery plans for endangered species with current universities and conservation organizations active in the area.

Recommended activities for the entire park include 1) participating in the planning of the park management plan, 2) identifying major laws and reforms needed to resolve the legal status of park residents, 3) assisting in developing a strategy to determine park boundaries, 4) liaising with the implementation of ANAP and 5) providing assistance to MDE park service to improve administrative and operational efficiencies

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ACRONYMS & ABBREVIATIONS

AECID	Agence Espagnol de Coopération Internationale de Developpement
ANAP	Agence Nationale des Aires Protégées
ASEC	Assemblée de la Section Communale
ATPPF	Appui Technique pour la Protection des Parcs et Forêts
CASEC	Conseil de l'Administration de la Section Communale
CBO	Community Based Organization
CIAT	Comité Interministériel d'Aménagement du Territoire
CGCK	Conseil de Gestion de Commune de Kenscoff
CNHCU	Commission Nationale Haïtienne de Coopération avec l'UNESCO
CNIGS	Centre National de l'Information Géospatiale
CODEP	Comprehensive Development Project (Cormier, Haiti)
CROSE	Coordination Régionale des Organisations du Sud-Est
EU	European Union
FAN	Fédération des Amis de la Nature
FAO	Food and Agricultural Organization
FGPB	Federasyon Gwoupman Peyizan Belfontèn
FREH	Fonds pour la Réhabilitation de l'Environnement Haïtien
FS	Fondation Seguin
GAFE	Groupe d'Action Francophone pour l'Environnement
GIS	Geographic Information System
GOH	Government of Haiti
GPS	Global Positioning System
IDB	Inter-American Development Bank
IHSI	Institut Haïtien de Statistique de d'Informatique
ISPAN	Institut de Sauvegard du Patrimoine National
LOKAL	Limyè ak Oganizasyon pou Kolektivite yo Ale Lwen (USAID-funded)
LVNP	La Visite National Park
MARNDR	Ministère de l'Agriculture, des Ressources Naturelles et du Développement Rural
MDE	Ministère de l'Environnement
MICT	Ministère de l'Intérieur, des Collectivités Territoriales et de la Sécurité Nationale
MPCE	Ministère de la Planification et de la Coopération Externe
MTPTC	Ministère des Travaux Publics, Transport et Communication
NGO	Non-Governmental Organization
NRM	Natural Resource Management
ORE	Organisation pour la Réhabilitation de l'Environnement
PNH	Police Nationale d'Haiti
PPPP	Public-Private-Producer Partnership

PRESTEN	Prese Swen Tè Nou
REPIE	Réseau d'Enseignement Professionel et d'Interventions Écologiques
SAH	Société Audubon Haïti
SCH	Service Chrétien d'Haïti
SHADA	Société Haïtienne-Américaine pour le Développement Agricôle
SOHADERK	Solidarité Haïtienne de Développement Rural de Kenscoff
STTA	Short Term Technical Assistance
UNESCO	United Nations Educational, Scientific and Cultural Organization
USAID	United States Agency for International Development
WINNER	Watershed Initiative for National Natural Environmental Resources

1.0 INTRODUCTION

This report supports USAID WINNER strategies to improve the management of La Visite National Park (LVNP) and the surrounding area within the context of current political and socio-economic trends in Haiti. Its purpose is to decide how best WINNER should engage its activities alongside other government and non-government organizations to achieve the broad objectives of the park while significantly reducing risks of flooding, improving livelihoods and conserving significant biological area in the Grise River watershed.

LVNP, located about 25 km southeast of Port-au-Prince and at the headwaters of the Grise River, is critical to the reduction of risks associated with landslides and flooding of downstream populations (Figure 1). These headwaters form the northern boundary of LVNP, a steep escarpment of cloud forest that is under immense threat by human disturbance, notably poaching and garden cultivation. Such disturbances exacerbate risks associated with hurricanes, landslides, wild land fires, and flooding. The largest remaining extent of cloud forest occurs along a narrow 10-km band between Morne d'Enfer and Morne Kadeneau. It is home to 8 globally threatened bird species, two-thirds of Hispaniola's endemic birds and the most important breeding site of the endangered Black-capped Petrel (Goetz, 2009). The remnant cloud forest, replete with endemic plant and animal species, is among the last of the native forests of Haiti.

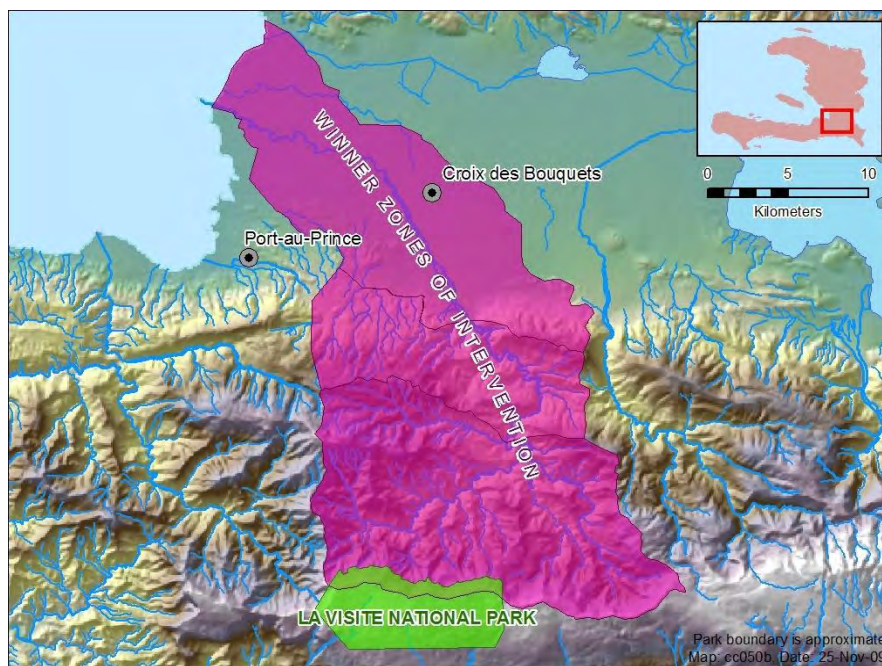


Figure 1. Map showing USAID WINNER intervention zone in the Grise River. The darker green area of La Visite National Park falls within the Grise River watershed, a band of cloud forest between 1500 - 2280 meters elevation.

2.0 PURPOSE & OBJECTIVES

This study falls within the scope of the USAID WINNER project, launched in 2009. Its goals are to implement broad scale investments in sustainable natural resource management at the scale needed to produce reductions in environmental and economic vulnerability in the Cul-de-Sac and Gonaives/La Quinte watersheds. The four main components of USAID WINNER include supports to 1) infrastructure, 2) livelihoods, 3) governance and 4) public-private-producer partnerships (PPPP) designed to expand markets and encourage sustainable economic development among watershed residents.

The purpose of this study is to develop WINNER strategies within the Grise River that integrate the goals of the Ministry of Environment, responsible for the management of LVNP, and those of USAID WINNER. Specifically, the report analyzes the organizational, administrative, socio-economic and ecological issues of LVNP with the objective of recommending activities that support an increase in areas of biological significance, as detailed in the Terms of Reference (Annex 1). The recommendations that emerge from the study basically try to answer the following lead queries:

- *Important Biological Sites.* Where are they?
- *Stakeholders.* Who are they?
- *Park Management.* What are the main issues?
- *Alternative Economic Supports.* What options are available to reduce forest degradation and biodiversity loss?
- *Conservation Funding.* What mechanisms might provide long-term funding?
- *Policy.* What policy instruments might encourage conservation decisions among residents?

3.0 SUMMARY OF ACTIVITIES

The author spent 3 weeks in Haiti (November 7-28) and met with many of the LVNP stakeholders. These included government ministries and agencies, international donors, conservation and humanitarian organizations, local authorities (mayors, ASECs, CASECs), scientific and university groups, and community-based organizations. Several international groups involved with the park were also contacted. A summary of contacts made in Haiti during this visit is provided in Annex 2. Annex 3 provides a literature review relevant to policy, park management, and technical and scientific studies supporting WINNER strategies as they relate to LVNP.

The author was invited to participate in an international workshop held at Cyvadier (Nov. 12-13) and hosted by CNHCU – *Atelier d'Information et de Sensibilisation sur la Mise en Place d'Une Réserve de Biosphère*. The Biosphere Reserve is being developed as part of a bi-national protected area management strategy with the Dominican Republic and includes LVNP. The author also participated in several meetings with the Araucaria XXI project regarding upcoming planning sessions that will serve as the basis for the Ministry of Environment's new approach to managing the LVNP.

4.0 PROTECTED AREAS OF HAITI

Haiti has among the least developed protected area systems in the Caribbean, claiming less than 0.3% of the country's area (Victor, 1997). Yet, Haiti, sharing the island of Hispaniola with the Dominican Republic, contains a large number of historically significant cultural sites and a disproportionate share of endemic species. The country is recognized among the most important biological hotspots in the Caribbean (Mittenmeier et al., 2000). Macaya National Park was recently considered among the most important "key biodiversity areas" in the world by lead conservation organizations. La Visite National Park, as part of the La Selle/Barohuco mountain chain of southern Hispaniola, is second only to Macaya National Park in terms of the island's biological conservation value.

There are 4 major protected areas in Haiti that receive the most attention: Macaya National Park, La Visite National Park, National Pine Forest and the Citadelle National Historical Park. These were established in the early 1980s and for the most part suffer from varying levels of disturbance and encroachment, lack of adequate institutional and administrative management capacity, and weak policies that otherwise would conserve their rich biological and cultural heritage. Promising attempts have been made recently to develop a lead government agency, ANAP¹, whose legal status and functions are specified in a landmark 2006 decree that establishes a national environmental framework.² In addition to the national system of protected areas, there is a Technical Coordination Committee that coordinates with the Dominican Republic and Cuba to develop the Biosphere Reserve as a biological corridor along the southern border of Haiti and the DR (Edouarzin, 2009; Hilaire, 2009; Barthélu, 2009). This reserve is intended to include La Visite National Park, as currently administered by the MDE with financial support of AECID and the Araucaria XXI project (AECID, 2007) and falling within the frameworks of other international organizations such as UNESCO's Man and Biosphere Program and UNDP. A key historical event leading to the incorporation of LVNP into the Biosphere Reserve was the Declaration de Jacmel (MDE, 2005).

5.0 LA VISITE NATIONAL PARK

5.1 Background

La Visite National Park was legally established in 1983.³ The designation of "Morne La Visite du Massif de la Selle" covered 2,000 hectares but did not specify an exact location, nor stipulate the manner in which park boundaries would be officially determined. Article 3 of the Decree designates 8 primary responsibilities of the Ministry of Agriculture, Natural Resources and Rural Development (MARNDR) relative to the Park:

- 1) Protect natural ecological conditions and processes;
- 2) Identify sites possessing a significant element of national patrimony;
- 3) Preserve existing parks and potential park sites;

¹ Agence National des Aires Protégées (MDE, 2009).

² *Décret portant sur la Gestion de l'Environnement (Le Moniteur, 26 Janvier, 2006).*

³ *Décret déclarant Parcs Nationaux et Sites Naturels (Le Moniteur, 4 Avril, 1983).*

- 4) Inventory and description of natural plant and animal species;
- 5) Research and propose necessary management for endemic species;
- 6) Research and describe critical processes of the natural ecosystems;
- 7) Develop an interpretation and education program to inform the people of Haiti of their patrimony; and
- 8) Develop a recreation and tourism program based on sites of national patrimony.

The 1983 Presidential Decree was preceded by previous laws dating back to 1968 and 1974.⁴ Prior to 1983, LVNP had been under the sole authority of the Ministry of Agriculture who initiated logging concessions through SHADA since the early 1940s. During the 1980s, the autonomous ISPAN was created to manage national parks and historical monuments. However, with insufficient budget and little political clout, ISPAN was not able to make significant progress to permanently establish a national park service. When the Ministry of Environment was formed in 1994, it shared administrative responsibilities with MARNDR for park management. This lasted throughout the ATPPF period (1997-2001) and through to 2006. In that year, the MDE was given full responsibility for the national parks. Annex 4 provides key milestones in the development of La Visite National Park.

5.2 Population

There are various estimates how many people actually reside within the park. This reflects the ambiguity of park boundaries, different methods of estimating the population and the highly migratory nature of people that reside there. MDE (1999) estimated 12,950 persons, based on a census of 2,123 households averaging 6.1 persons per household. However, the study showed no evidence that the area sampled was ever calculated, except to assume an arbitrary 2,000 hectares. Such an assumption would result in very high densities (648 persons/km²) - or quadruple the rural densities reported in the 2003 census (IHSI, 2006). It is certain that a much wider area was sampled. An estimate of 8,500 persons for an area of 4,600 ha is estimated based on the 2003 census data and adjusted for a 2% growth rate during 2003-2009. The area, though unofficial, is from the recent biological inventory conducted by MDE (2008).

5.3 Land Use

The most recent survey of the park, encompassing 4,600 ha. reveals that about 54% (2,500 ha) of the area has been converted to various modes of agricultural and residential development (MDE, 2008). The remainder of the park is dominated by pine forests (1,500 ha; 33%) and cloud forests (600 ha; 13%) in various states of use from relatively pristine to highly degraded as a result of pasturing, gardening and wood cutting activities. The study cites 480 ha as the area remaining in cloud forest along the LVNP escarpment. This should be verified and compared with the 2002 orthophotos to estimate rates of decline and to target critical zones for WINNER interventions.

MDE (1999) determined that about 2.8 ha of land is cultivated annually per household and that each parcel ranges from 0.03 – 3.9 ha with an average of 0.9 ha. Most of the cultivated land is devoted to seasonal cash crops - potatoes, onions, carrots, cabbage, corn and beans. Very little

⁴ *Loi du 18 Mars 1968* designating national parks and the *Décret du 4 Avril 1974* that defined national park areas. These and other laws pertaining to the environment are reviewed by Victor (1995).

agroforestry is practiced. The gardens are in a cycle of exhausting soil fertility and moving on to convert new patches of rak bwa or pine forest. Chemical fertilizer costs are generally too expensive and little composting or organic fertilizers is practiced (Pollini & Goetz, 2009).

5.4 Land Tenure

The modes of tenure, in declining order of importance, are divided inherited land (29%), purchased land (20%), private tenant (17%), undivided inherited land (17%), leased state land or fermier de l'Etat (14%), and sharecropped land (3%) (MDE, 1999). The majority of the land is occupied without evidence of legal property documents. The rights to and control of land inside park boundaries is the most problematic issue facing the GOH at the current time. It is also the most critical in order to advance the park's conservation objectives.

5.5 Livelihoods

The dominant sources of income, in order of importance, are cash crops, livestock, wood products (fat wood, charcoal), petty commerce, sale of labor and professional occupations. Pollini & Goetz (2009) estimate that average incomes of most farmers are in the "few tens of USD per week". However, this varies considerably throughout the year with lengthy periods of little income opportunity when emigration is forced out of the area in search of employment. The large majority of crops are sold, either directly by family members to urban consumers or through dealers (madan sara). The dependence of the farmers on relatively expensive food purchases and agricultural inputs (various combinations of seed, fertilizer, land rent, and labor) keeps household incomes at or below the poverty line and provides little if any investment capacity. Many families have yet to recover from the 2008 hurricane disasters having lost their livestock, homes and family members. Social cohesion appears to have been seriously impacted by the disasters.

5.6 Social and Financial Services

Social and financial services are not available to most park residents. Road infrastructure in the area is poor and maintained largely through periodic NGO initiatives and local community organizations. The only reliable road to Port-au-Prince is via Jacmel, a 4-5 hour journey. No reliable solution has been identified to keep the Furcy-Seguin road in operation.

Though a small bank exists in Seguin, credit is based on guarantees, such as legal property documents, that most residents lack thus making it unavailable. The closest micro-finance bank, FONKOZE, is located in Marigot, about 15 km along the coast. MSPP runs a clinic, but there is no evidence that family planning services, vaccinations or basic health services are being provided on a regular basis. A number of churches provide periodic clinics (dental, physical exams) through partnerships with USA-based programs. There is a newly established police post that plans to begin operations in November, 2009. About half of the children aged 6-15 are enrolled in some type of elementary or secondary school program. The closest high school is located in Marigot.

6.0 IMPORTANT BIOLOGICAL SITES

The Grise River watershed is part of the larger Cul-de-Sac watershed that bridges the Massif de la Selle/Barohuco and the Chaîne de Matheux/Neiba mountain ranges and separated by the Cul-de-Sac Plain. This area of Hispaniola features extremely high rates of endemism and a rich biodiversity due to a complex geological past and varied topography. The two areas of the Cul-de-Sac watershed that are the most important in terms of conservation value are those found along the Massif de la Selle/Barohuco, including LVNP, and those that flank the Chaîne de Mathieu/Neiba range, including Lac Azuéi.

The part of LVNP that occurs within the Grise River watershed is the north-facing escarpment between elevations 1,500 – 2,280 m. The cloud forests that remain along this escarpment likely contain the most diverse assemblage of plant and animal species found in the park and without question should be the first conservation priority in terms of WINNER activities.⁵ This same area has been the focus of recent scientific studies as well as being recognized internationally as an important bird area of the Caribbean (Birdlife International, 2008; Goetz, 2009). The designation for this cloud forest, Aux Diablotins, refers to the Black-capped Petrel (*Pterodroma hasitata*), a globally threatened species that breeds in this area. LVNP is one of the few known breeding sites for the bird and maybe the most important within its natural range.

Another important bird area, Aux Cornichons, also occurs in the park on the south-sloping plateau dominated by the endemic Hispaniolan pine (*Pinus occidentalis*). Together, the two sites account for 67 bird species, 19 of 31 endemic birds, 8 globally threatened birds, and 3 endangered birds. Figure 2 shows the location of the two sites relative to the landscape of southern Haiti and the watershed boundaries of the Grise River.

⁵ Cloud forests worldwide are among the most threatened habitats of endemic plants and animals, recognized for their disproportionately high biodiversity and their unique role in capturing fresh water for downstream communities (UNEP-WCMC, 2004).



Figure 2. Location of 2 important bird areas in La Visite National Park: HT007 = Aux Diablotins, HT008 = Aux Cornichons. Watershed boundaries of the Grise River are shown in pink. The Black-capped Petrel, Hispaniolan Crossbill and La Selle Thrush are endangered and risk extinction if trends of habitat destruction continue.

It is important to note that these same areas are also the most important for the rest of the endemic flora and fauna. An example of the endemism and species richness found in these areas can be summarized by the most recent estimates: 150 endemic of 450 vascular plants, 38 endemic of 45 mollusks, 15 endemic of 16 reptiles, 11 endemic of 12 amphibians, 9 endemic of 11 bats and 2 endemic of 10 terrestrial mammals (Judd & Timyan, 2005; J. V. Hilaire, pers. comm.). These numbers likely underestimate the biodiversity since there has been insufficient field collection as supported by trends in the discovery of new species (Hedges, 2006).

Among the diversity of species found here, several are noted for their uniqueness and economic importance. The rare *Juniperus gracior* var. *ekmanii* was formerly a valuable tree species along the Massif de la Selle. It provided a durable, rot-resistant lumber and grew to



Figure 3. Photo of mature *Juniperus gracior* var. *ekmanii* with trunk measuring > 2 meter diameter. Photo taken in early 1930s west of Mare Rouge.

extraordinary size proving its resistance to natural disturbances (Figure 3). Tree ferns, orchids, and bromeliads are among the many ornamentals in this area with notable market potential provided that safeguards are in place to conserve their wild populations. Medicinal plants, tea herbs and a host of native fruit and wood species are used daily by local residents and largely unexplored for their commercial value. A large number are currently over-exploited and urgently need recovery plans to bolster their populations and to streamline their availability into viable horticultural and agroforestry systems.

In addition to the above mentioned biological sites, there can be found isolated patches of natural forests throughout the watershed that have high conservation value, mostly on very steep slopes, around springs or along water channels that feed the Grise River. These are the last remaining remnants of the watershed's natural identity. Time constraints did not allow for a complete survey of these sites. However, these sites should be noted by the WINNER project for their importance in reducing risks to natural disasters and improving the livelihoods of watershed residents.

6.1 Intervention Zones

The area encompassing the vulnerable escarpment cloud forest is divided into 3 zones for WINNER management strategies: 1) south-facing LVNP plateau; 2) north-facing LVNP escarpment (el. 1500 – 2280 m), and 3) buffer zone (el. 1300 – 1500 m). While the former 2 zones are considered public land, the buffer zone is largely occupied as private land. These zones are shown in Figure 4.

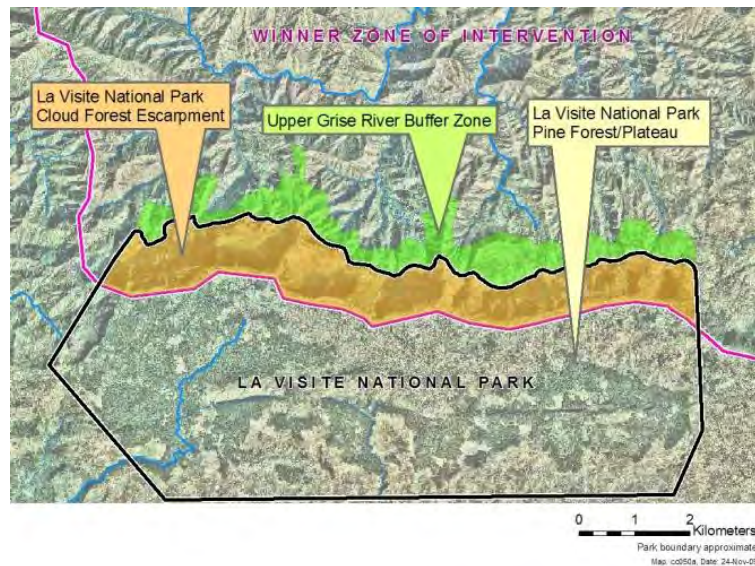


Figure 4. Map showing the escarpment cloud forest, *Aux Diablotins* (orange) between the buffer zone (green) and the LVNP plateau (gray).

WINNER activities that are recommended to conserve the escarpment forests are detailed below. Those activities intended to expand the forests in the buffer zone are developed under the section *Alternative Economic Supports*. Those activities targeting the LVNP plateau apply to WINNER support of MDE policies, as detailed in the section *Park Management Issues*. Technically, these are measures that are supported in the MOU between WINNER and the Ministry of Environment and should be coordinated closely with the goals and strategies of the LVNP management plan.

6.2 Biological Sites Recommendations:

- Strengthen coordination and capacity of *Corps de Surveillance*, PNH & volunteer watch brigades to control encroachment activities.
- Determine the status of park boundaries that delimit LVNP below the escarpment at approximately the 1500 m contour.
- Inventory the extent and status of the northern escarpment cloud forest covering approximately 1030 ha with most recent geospatial imagery and field survey (GPS).
- Identify and prioritize micro-basins most vulnerable to current land encroachment activities, landslide risk, and severe erosion risk.
- Present findings and develop buffer zone intervention strategy to MDE, followed by CGCK and local CBOs (PRESTEN, SOHADERK, FGPB, *Comités Pilotages*).

- Determine strategy among CASECs, lead CBOs (PRESTEN, FGPB, SOHADERK), NGOs (SCH, SAH) and affiliated government groups (MDE, CGCK, Kenscoff & Croix-des-Bouquets mayor offices), to halt encroachment of escarpment forests with mandatory (e.g., *Arrêté Communale*, penalties) and voluntary sanctions (e.g., brigades, *Attente*).
- Determine feasibility of establishing MDE-sanctioned carbon offsets in the cloud forests based on REDD (Reducing Emissions from Deforestation and Degradation) or LUCLUCF (Land Use, Land Use Change and Forestry) mechanisms available to the GOH and modeled after the approach designed by newly implemented Macaya project (IADB, 2009).
- Determine feasibility of co-management agreements with MDE and local CBOs to protect escarpment forest.
- Develop and facilitate recovery plans with MDE for endangered species such as Black-capped Petrel and Ekman's Juniper with current universities and conservation organizations that have vested research and scientific interests in LVNP.

7.0 STAKEHOLDERS OF LA VISITE NATIONAL PARK

7.1 Government of Haiti

The Ministry of Environment is currently the lead government agency responsible for park management. At the time of this report, the organizational structure and official responsibilities of the ministry were being drafted into law.⁶ Several agencies are proposed that are directly aligned with protected area management (e.g., Agence Nationale des Aires Protégées (ANAP), Fonds pour la Réhabilitation de l'Environnement Haïtien (FREH) in addition to lines of authority that pass through the Directions Centrales for various functions such as park surveillance (Direction de l'Inspection et de la Surveillance Environnementale), public awareness and communication (Direction d'Information, Communication et Education) and protection of natural ecosystems including the demarcation of park boundaries (Direction des Sols et Écosystèmes). The Direction Départementale de Sud-Est would be directly involved with the management of La Visite National Park, currently being supported through Araucaria XXI project.

The Araucaria project has conducted a recent biological inventory of the park with the assistance of the Sociedad Española de Ornitología (2009) and is planning a workshop in December, 2009 to map the various institutions and the range of their services in the LVNP area.

The Ministry of Agriculture has ceased activities in the immediate area of LVNP and since 2006 has ceded administrative responsibilities for the park to MDE. However, several of their former employees are local residents and play various roles as elected officials, park volunteers and members of local farmer's associations and NGOs. Currently, MARNDR is engaged in a new Gestion des Écosystèmes Fragiles that plans to establish 1,200 hectares of *Pinus occidentalis* stands in the Réserve Forêt des Pins. Two hundred hectares will be planted in the Mare Rouge area of Unit 2 in collaboration with Helvetas.⁷ This area is being considered to connect with

⁶ *Avant Projet de Lois portant Organisation et Fonctionnement du Ministère de l'Environnement: Loi Organique*. Ébauche, Septembre 2009.

⁷ Mare Rouge is located east of LVNP, approximately 20 km from Seguin.

LVNP to create a biological corridor along the Chaîne de la Selle/Barohuco range and the western extension of the Biosphere Reserve (R. Toussaint, pers. comm.).

The Direction Générale des Impôts is in charge of collecting taxes on public lands under private lease arrangements. According to local informants, DGI is collecting taxes for land holdings within LVNP. However, there does not appear to be an adequate accounting for such taxes nor the extra-legal manner that outside investors, government authorities or local fermiers de l'Etat are active in terms of various rent-seeking strategies. The end result of such rents, combined with illegal conversion of frontier lands for new gardens, is the most serious threat to the integrity of the native ecosystems. In the case of LVNP, a strategy is urgently needed to assess current land tenure situation, evaluate the distortions in the tax code and develop alternative strategies to create incentives and promote investments in conservation that meet park objectives.

The local authorities in LVNP are the ASECs and CASECs that represent 4 communes (Kenscoff, Croix-des-Bouquets, Marigot and Belle Anse), the newly established office of the PNH in Seguin and members of the Corps de Surveillance. The CASECs are quite active in the political and socio-economic lives of their constituencies. Occasionally, they will organize inter-communal meetings to deliberate problems associated with natural resource use, especially those dealing with increasing migratory pressures on available garden land or the illegal poaching of wood resources inside the park. The CASEC representing 2eme Marbiole (Belle Anse) organized a volunteer brigade to keep watch on poaching activities along the northern escarpment east of Morne Kadeneau after an inter-communal meeting with 3eme Belle Fontaine in September. During my interview with one of the CASEC members, WINNER was requested to facilitate further dialogue with 3eme Belle Fontaine in order to reach an agreement (attente) or to facilitate an Arrêté Communale.

The Conseil de Gestion de Commune de Kenscoff meets weekly in Furcy, headed by the magistrate and attended by representatives of government ministries, legislators, local authorities (mayors, CASECs), NGOs and other members of civil society. The meeting appears to be very successful in airing the needs of local communities and holding government leaders accountable for decisions that impact the commune. Issues range from support for education, health services, governance, and infrastructure development in the commune. WINNER is an active participant of these meetings and was invited to present its objectives and activities regarding LVNP at the Nov. 14 meeting. This council should continue to play an important role to inform the governing authorities of WINNER activities.

The Conseil Consultatif du Parc (CCP), created during the ATPPF phase of LVNP, was disbanded after the closure of the project in 2001. The council, comprised of local leaders among government and civil society groups, was located in Marigot and served as an advisory board to the park management units. Park staff claim that the geographic separation from LVNP rendered the council ineffective and that the council should have had a regular presence in the park. Toussaint (2008) observed that overall the CCP approach was successful with members still advocating on behalf of park interests and advancing park issues as participants in local community associations and NGOs.

7.2 Conservation Organizations

Fondation Seguin (FS) is actively engaged in LVNP, either through the direct investment of its members or programs oriented toward projects that include education (“Ecole Vert”), soil conservation, tree planting, and eco-tourism. FS members reside either onsite or travel regularly from Port-au-Prince. Currently, FS has a GTZ grant to support activities in local infrastructure, micro-enterprise development and a participatory zoning initiative. Zonation divides the land in the area of LPNV into 5 categories ranging from natural forests to settlement areas. Incentives, to adopt the zoning, are being financed by GTZ in the form of grants. These grants are provided to landholders and range from 250-875 USD according to type of zone and activities appropriate to each zone.

FS also indirectly assists the administration of LVNP through small-scale plantings of the endemic pine (*Pinus occidentalis*), tourist management with the operation of a small hotel and local employment of park volunteers.

Société Audubon Haiti (SAH) is active in the LVNP on an occasional basis, primarily by assisting in scientific studies relating to the flora and fauna. Several US-based scientific institutions (Cornell Lab of Ornithology, Vermont Center for Ecostudies, Penn State University, and University of Puerto Rico) have on-going scientific studies and are actively interested in the conservation biology of LVNP. These institutions typically coordinate their activities with SAH members, as do several international groups such as Conservation International, The Nature Conservancy, Birdlife International, Critical Ecosystems Partnership Fund, Grupo Xaragua and Fundación Moscoso Puello. SAH has partnered with REPIE in the area of environmental education and related interventions among local community groups.

SAH is more active in Macaya National Park where they are implementing a multi-year community development project that integrates conservation objectives with simple strategies to improve the livelihoods of buffer zone residents. Innovative contracts, adapted along the lines of conservation easements and community-based environmental education, are a promising kind of payment for ecosystem services (PES) that SAH has developed. SAH receives funding through the Jensen Foundation and ACDI in partnership with Birdlife International.

7.3 NGOs

Service Chrétien d’Haiti is implementing a pilot program (Comité Pilotage) organized with local community elders, notaries, ASEC and CASEC members as a way to advance environmental education of teachers, governance, tree planting and food security initiatives. They are active in the 4ème Grand Fond and 4ème Belle Fontaine communal sections of the Grise River watershed. Groupe d’Action Francophone pour l’Environnement (GAFE), based in Kenscoff, is engaged in organizational development, alternative energy solutions, environmental education, health services and tourism in all 4 communal sections of the Kenscoff commune. Caritas is active on the LVNP plateau, focusing on the improvement of subsistence crops and food security. Helvetas is mostly active in the Mare Rouge area east of LVNP. They focus on cash crop and income generating activities as well as collaborative efforts with MARNDR to reforest sections of Unit 2 of the Forêt des Pins. Helvetas is also collaborating with FS to implement a zoning plan that aims to protect and restore important natural areas while increasing productivity of land devoted to agriculture.

7.4 Community-Based Organizations

WINNER is engaged with several prominent organizations in the Grise River watershed, including FPGB, PRESTEN and SOHADERK. FPBB and PRESTEN are active in 1ère and 3ème Belle Fontaine communal sections while SOHADERK is active in 4ème Belle Fontaine communal section. Their importance relative to the objectives of this report is based on their proximity to LVNP and the influence that members of these organizations may have to decrease migratory pressures and poaching activities that originate from the lower elevations. These pressures are generating much conflict in addition to irreparable ecological damage. The high dangers of such disturbances to landslides, rock avalanches, impacted aquifer flows, floods would be a high priority for WINNER disaster prevention strategies in addition to the supports that improve household economies and the biophysical conditions of their land.

8.0 PARK MANAGEMENT ISSUES

An historical perspective of protected area management has been recently reviewed (Toussaint, 2008). Many of the key issues apply to La Visite National Park, though details have been added to reflect its unique history and proximity relative to Port-au-Prince.

8.1 Boundary Issues

Official National Park boundaries and land tenure issues have not been resolved despite repeated attempts to establish such boundaries since the 1983 decree. Park demarcation is a major obstacle to park management and a continuing source of confusion and conflict among stakeholders. An equitable and efficient process to establish such boundaries is constrained by residents who claim land rights within the park. In the case of LVNP, these landholdings extend back to the 1940s when SHADA sold logging concessions, established several sawmills in the region and provided land to laborers who migrated to the area. Land had also been given to certain families as political favors of past regimes.

8.2 Park Administration

Park management is severely handicapped by sporadic and insufficient funding levels, inadequate presence of field staff and little support of local residents. Co-administration and political wrangling by central government entities has rendered policy implementation either ineffective or incoherent during most of the period since park establishment. Notable gaps in management (e.g. 1995-1998) during periods of political unrest have resulted in little progress to establish government authority. Political behavior between government and local residents remains antagonistic and extremely fragile rather than trending toward positive and innovative co-management approaches to cope with chronic budget shortfalls, field staff and park infrastructure.

8.3 Law Enforcement

Access to the parks is for the most part unrestricted and free. Progressive strategies to gain government control of the parks remains elusive, particularly if park boundaries are not visible and adequately trained law enforcement staff are not present. Coordination between police, the park's Corps de Surveillance and volunteer watch brigades lack communication channels, clear division of responsibilities and professional rules of conduct to enforce the laws.

8.4 Professional and Institutional Capacities

There is very little professional education or training program for park staff to implement a management plan based on achieving the objectives of a protected area. Staff cannot be expected to remain on the job and attend to their daily responsibilities if incentives (performance-based pay, benefits, adequate administrative, technical and resources) are not in place and they are not held accountable to international norms and standards. Non-government organizations play too large a role in management and should be reserved for specialized technical or scientific skills or innovative co-management approaches which are lacking in Haiti. The role of providing basic park management services should be the main responsibility of park staff.

8.5 Governance

The laws governing land rights and legal procedures are little understood or incoherent among local residents, elected officials and park staff. Education and effective communication programs to raise awareness, build moral support and establish transparency are lacking. Platforms to facilitate or mediate conflicting issues rarely result in concrete actions that support satisfactory solutions. Multi-stakeholder management committees are lacking effective and efficient mechanisms to regulate local private interests that continue to jeopardize the government's credibility and authority.

8.6 Land Use

The unsustainable practice of "frontier farming" by an ever increasing population is destroying the capacity of natural ecosystems to provide important ecosystem services. Neither voluntary nor mandatory regulatory systems are in place to pay for ecosystem services or adequately safeguard what's left of the natural landscape. Among the many barriers to sustainable land use patterns are an inadequate land title system, extra-legal rent seeking on part of local tax authorities and outside investors, disincentives associated with land rents, and an absence of government services and supports.

8.7 Economic Development

Alternatives to exploiting public land for its natural resources are absent or too scarce to make a significant difference in livelihoods. Local social, economic and political systems fail to provide basic needs of the people or achieve the objectives of protected areas. Incentives are lacking to encourage conservation or investments in alternative energy and non-farm employment.

8.8 Biodiversity

The loss of habitat proceeds unmitigated despite the knowledge among professionals and the government that it is a serious problem. Invasive plants and animals are uncontrolled and are a serious threat to the survival of endemic species and their habitats. Several plant species being promoted by local NGOs for tree planting and soil conservation are invasive. There are no recovery plans in place for threatened endemic species.

8.9 Ministry of Environment Recommendations:

- Participate in planning of MDE/AECID LVNP management plan.
- Identify major laws and reforms required to resolve legal status of LVNP park residents
- Assist in developing a strategy to determine park boundaries
- Liaison with the implementation of ANAP.
- Provide assistance to MDE park service to improve administrative and operational efficiencies, develop measurable targets, manage personnel, and establish law enforcement protocols.

9.0 ALTERNATIVE ECONOMIC SUPPORTS

Despite the long-term economic value of conserving sites rich in biological diversity, Haitian farmers cannot be expected to forego the immediate cash returns associated with converting forests to vegetable gardens, wood harvests and livestock pasture. Biodiversity loss is a consequent of such activities and can only be addressed if alternatives are available that can cover the opportunity costs of *business as usual* scenarios. In most cases, this means some level of subsidy or direct payment to offset opportunity costs. Dolisca (2009) cites several factors that influence farmers' conservation behavior, the key factor being the opportunity to increase income. These include increasing access to credit, improving education, strengthening organizational memberships, and providing information about environmental benefits – all within WINNER's scope of activities.

In the case of conserving the most important area of biological diversity in the Grise River – the cloud forests of the LVNP escarpment - there are several additional factors that must be considered. First, there is a heightened awareness among farmers below the escarpment and those living on the LVNP plateau that current trends to clear the cloud forests should not continue. The dangers associated with loss of life, landslides, ravine destabilization and decline in water flows appear to be in the conscience of most area farmers, especially after the damaging storms of 2008. Political decisions and actions are being considered to protect the escarpment forest. Such actions should be integrated with the national effort to reduce risks and disasters.⁸ Second, the migratory pressure and trespassing violations caused by land encroachment is highlighting the need for stronger government control and the establishment of clear park boundaries in the upper Grise River watershed. Third, community organizers recognize the need for a unified plan, since most of the positive economic development activity is scattered too broadly to make a visible, landscape-level difference. Though the local authorities and farmer

⁸ See MICT (2001) *Plan National de Gestion des Risques et des Désastres*.

associations are ready to engage, they lack sufficient platforms to participate or competence to develop a risk-reduction strategy that would support a park “master plan” and address critical mechanical and biological infrastructure needs.

9.1 Payment for Ecosystem Services

PES is based on the idea that incentives are required to conserve lands that provide ecosystem services. These services can be the capture and release of fresh water, carbon sequestration, biodiversity, clean air or a combination of all the above. PES expands the farmer’s market base by providing a means to sell environmental services and defrays the opportunity costs that are sacrificed to make the trade. There are many PES approaches that can be used in the WINNER project and a brief review of the options follow. They differ primarily in the mechanisms used to make the transaction.

The current proposals that are circulating in Haiti to generate and sell carbon credits through agroforestry, avoided deforestation of park lands or changes in land use are all forms of PES (Kloss & Lewis, IADB, 2009). Goetz & Pollini (2009) outlined an approach for the residents in the LVNP area that is based on establishing a payment system equivalent to local opportunity costs of converting cloud forest to agriculture. This approach is similar to conservation easements that are paid to farmers in the US who set aside land for aquifer recharge, wildlife habitat and landscape diversity. Another approach being experimented in Haiti is land leases. SAH has developed a 5-year land lease, renewable up to an additional 10 years, to direct conservation objectives in the southern buffer zone of Macaya National Park. The rent received by the beneficiaries relinquishes their rights to the land. Another adaptation of the PES model is one based on providing educational services to family members who sign a contract that sanctions conservation strategies, including tree planting, prohibition of land use inside park boundaries and other incentives (Annex 5).

A different, credit-based approach by CODEP in southern Haiti is being used to establish landscape level changes in tree cover (Figure 5). This approach, beginning in the early 1990s, is based on the organization of solidarity groups (generally 5-7 people with a group leader) and the generation of credit for cisterns and water conveyance systems through tree planting and soil conservation structures. Seed, bags, fertilizer and training are provided, but the group is expected to grow, plant and take care of the seedlings, generally as a rotational woodlot.⁹ Credit is disbursed to the group when a threshold of trees have been established that is equivalent to about 0.30 USD per tree and enough to pay for the costs of needed infrastructure. Over 8 million trees have been planted using this approach, mostly eucalyptus under planted at a later stage with high-quality trees such as grafted mango, cedar and Haitian oak (Figure 5).

⁹ In order to minimize production costs, woodlots are generally intercropped with annual or cash crops to control weeds, benefit from soil (fertilizer, manure) and increase security against trespassing.

Since such PES approaches are so new to Haiti, it can be expected that they are considered with caution. They require an administrative and management capacity that is not immediately available in the upper Grise River watershed. Though direct payments for conservation are an important policy tool in high income countries, there is little evidence to support how well they would perform among farmer's associations in Haiti. Initially, they would need a high level of support to ensure local community buy-ins and to design/test a pilot program. USAID funds would be used to leverage buy-ins of international conservation donors and private investors so that such support could be withdrawn over time. Co-management agreements with the MDE to gain the legal support of the GOH, especially in the protection of park boundaries, could factor as an important feature. In the case of carbon credits, legal documents to secure property rights would be absolutely critical, adding to the costs of setting up a PES. These and other details associated with PES would be the objective of Activity 3.6.1 (Chemonics, 2009).



Figure 5. Credit-based tree planting efforts in Cormier, Haiti.

9.2 Buffer Zone Conservation Activities

The 600 ha buffer zone, located between the elevation contour of 1300-1500 m below the escarpment, contains several micro-basins that are highly vulnerable to landslides, poaching and garden clearing activities, and erosion. These would be targeted for intensive treatments combining mechanical and biological conservation structures and incorporating agroforestry and highly productive energy woodlots on parcels that have an adequate degree of tenure security. Appropriate soil conservation measures would include progressive terracing with *bann manje*¹⁰, perennial, non-invasive clumping grasses (bamboos, Pennisetum, vetiver) and trees (commercial fruit and wood species). These would be established using seedlings from the WINNER-supported nurseries or directly established in the field using a variety of low-cost techniques.

It would be ideal, but perhaps not feasible, to work with landholders of adjacent parcels that span the micro-basins. This would cluster local investments and allow a degree of neighborly support to control land security problems. Products would include grafted varieties of commercial fruit (Guatemala hybrid avocados, peaches, strawberry guava, citrus), fast-growing high-quality lumber (*Cedrela odorata*, *Grevillea robusta*), shade-coffee and teas, improved pastures and small livestock varieties. Non-invasive clumping bamboo varieties should be promoted, such as is available from ORE, instead of the invasive *Phyllostachys* varieties.

¹⁰ *Bann manje* is a perennial plant band planted along the contour with subsistence and cash crops including sugar cane, plantains, coffee, tea and often interplanted with annual root crops such as sweet potato.

9.3 Buffer Zone Recommendations:

- Organize slope stabilization/agroforestry interventions in 1300-1500 m el. buffer zone.
- Target high risk micro-basins, cluster landholder interventions to capture contiguity.
- Study feasibility of incentive-based contracts (land lease, credit, education) to direct landscape diversity and conservation of high-risk slopes bordering cloud forests.
- Integrate social and financial services, supply stores, and farmer training with buffer zone activities in Belle Fontaine 1^{ere}, 4^{eme} communal sections.
- Facilitate establishment of tree/plant nurseries geared toward agroforestry, product diversification and commercial fruit production.
- Support diversification and intensification of farm/non-farm enterprises including raspberry + pine silviculture, ornamentals, teas & herbs, medicinals, honey, *bann manje*, shade-coffee polycultures, cultural & eco-tourism.

10.0 CONSERVATION FUNDING OPPORTUNITIES

10.1 Fondation Haïtienne pour l'Environnement

In 1997, the Ministry of Environment, World Bank and USAID organized a colloquium on the “Management of Protected Areas and the Financing of Biodiversity Conservation in Haiti” (MDE, 1997). Partly as a result of this forum, the Fondation Haïtienne pour l'Environnement (FHE) was created in 1999 as a private, non-profit organization to provide long-term financing for environmental activities in Haiti. It was created to specifically support the MDE's National Environmental Action Plan.

The foundation was initially supported through funds from USAID, UNDP and contributions by its founding members. The goal was to build an endowment that would perpetually finance environmental projects in Haiti through fund-raising activities, sound investment strategies and fiduciary responsibilities. While the FHE has not met the high expectations of its beginnings, a 10-year operational span for any environmental foundation in Haiti is worth noting. What have been the shortfalls, strengths, weaknesses of its operations? Might these be lessons that would allow WINNER to assist the MDE in its new Fonds pour la Réhabilitation de l'Environnement Haïtien (FREH)?

10.2 Fonds pour la Réhabilitation de l'Environnement

The 2006 Décret Cadre, Articles 77-79, specifically address the management of environmental funds. Art. 77 creates FREH under the control of the Ministry of Finance, financed in part through taxes, debt swaps, public/private donations and Treasury deposits. Art. 78 determines the executive role of the MDE in the administration of FREH to pay for various environmental programs identified in Art. 29. These include 1) strengthening institutional capacities of different levels of government in environmental management, 2) sustainable energy development, 3) environmental education, 4) sustainable management of biodiversity conservation, 5) integrated watershed management, 6) mitigation of risks associated with natural disasters and climate change, 7) improvement of urban environment, 8) waste management and 9) management of mineral resources. Art. 79 stipulates that private environmental funds will be recognized as public utilities conforming to the regulations defined by law and benefiting from

such status. They are obligated to submit an audited financial report to the MDE on an annual basis.

It is uncertain when FREH will be operational and to what degree it could have an impact on WINNER activities. WINNER should keep abreast of such developments, especially as they relate to the support of local governing and law enforcement entities. Programs in environmental education, protected area management, watershed management, and biological conservation would be relevant.

10.3 Haitian Conservation Organizations

Fondation Seguin and Société Audubon Haïti manage private donations and solicit grants from donors and international foundations for specific projects and initiatives. Special events are sponsored by local companies. Neither organization appears to have a professional fund raiser or grant proposal writer. These would strengthen their competitiveness and make them more effective as lead conservation organizations in Haiti. FHE, FAN and other environmental groups in Haiti are not active in LVNP.

10.4 International Conservation Organizations

The international conservation groups are not physically present in Haiti, but operate “behind the scenes” in terms of the role they play in securing financial support for biological conservation. For example, Birdlife International was the lead on an endemic bird conservation project that is active in Macaya through SAH. The Nature Conservancy is assisting the MDE in the identification of priority protected areas in Haiti. The Critical Ecosystem Partnership Fund is setting up a regional facility to consider what might be possible in Haiti. Overall, the international conservation groups have the potential of becoming a significant and reliable source of funds given an in-country capacity to solicit and manage such funds. Additionally, their support in developing proposals and programs funded by the major bi- and multi-lateral donors is recommended as their support network, donor base and expertise in project management dramatically increases the likelihood of success.

11.0 CONSERVATION POLICY

11.1 National Biodiversity Strategy Action Plan

The policies governing WINNER activities, as they relate to conservation strategies, should agree with the current National Biodiversity Strategy Action Plan (www.cbd.int) which in effect prioritizes certain objectives implicit in the 2006 Décret Cadre. These are 1) to promote education awareness among the public and decision-makers on biodiversity issues, 2) to undertake immediate measures to stop biodiversity loss in natural areas, 3) to conserve biodiversity resources, 4) to develop and implement ecological management approaches to use biodiversity on a sustainable basis and 5) to implement institutional, legal and fiscal measures in support of biodiversity conservation.

11.2 WINNER Activities

The activities in the WINNER action plan incorporate most of the above objectives with synergies among several of the specific activities, including the strengthening of local organizations (Act. 1.6), the creation of conservation accords among NGOs and CBOs (Act. 1.8.2), the strengthening of representative governing bodies (Act. 3.3), the implementation of sustainable financing mechanisms (Act. 3.6) and the development of participatory disaster management plans (Act. 3.7). Table 1 summarizes the WINNER activities that are most relevant to meeting the conservation goals of the NBSAP and the 2006 Décret Cadre.

Table 1. WINNER activities that relate to the major policies of the National Biodiversity Strategy Action Plan.

NBSAP Policy	WINNER Activity	Description
Education Awareness	1.1.3	Establish system to train master farmers
Biodiversity Loss	1.6.1	Expand, plan, organize producer groups
	1.6.2	Strengthen leadership
	2.1.2	Treat priority ravines
	2.1.3	Install biological infrastructure
	3.6.1	PPPP – Payment for Ecosystem Services
Biodiversity Conservation	1.3.2	Identify sites for tree planting
	1.8.1	Inventory of significant biological sites
	1.8.2	Facilitate creation of conservation alliances
	2.1.2	Treat priority ravines
	2.1.3	Install biological infrastructure
3.6.1	PPPP – Payment for Ecosystem Services	
Ecological Management	1.1.3	Establish system to train master farmers
	3.5.1	Participatory local management plan
	3.6.1	PPPP – Payment for Ecosystem Services
Institutional Support	1.6.1	Expand, plan, organize producer groups
	1.6.2	Strengthen leadership
	3.1.1	Build local governance structure
	3.3.1	Assistance to ASEC/CASEC
	3.4.1	CRDD policy analyses

12.0 CONCLUSIONS

The last of the cloud forests are being eliminated and are perhaps the most threatened native forests in Haiti. The largest block of cloud forests occurring along the northern escarpment of LVNP are under immense encroachment pressure. At the same time, they are among the most biological diverse ecosystems in the country, being a natural treasure of medicinal plants, ornamentals and many other valuable products. Their hydrological function is critical to the capture of fog, and in addition to rainfall allows for the recharge of aquifers with fresh water to downstream communities. They are the home and a primary breeding area of a globally threatened bird species, the Black-capped Petrel, and numerous other endemic wildlife and plant species. The aesthetic wonder of such a remarkable geological formation is a national asset, perhaps the most important feature of the park. Last, but not least, the cloud forests reduce risks associated with floods, landslides, sedimentation and erosion, buffering the impacts of hurricanes and tropical storms.

It should not be too difficult to convince the Grise River watershed residents the importance of preserving the cloud forests. Strengthening local capacities to respect and govern their national

heritage should be a positive step to reinforce democratic principles and improve the economic base for development.

The WINNER strategies outlined in this report will be challenging, but not impossible. The successful outcome will be a significant victory for local governments and community residents, but also for the entire country and the incredible natural heritage that is found in La Visite National Park.

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ANNEXES

ANNEX 1. TERMS OF REFERENCE

TITLE: Evaluation of Organizational, Administrative, Economic and Ecological Structure of La Visite National Park

WORK PLAN ACTIVITY:

WINNER Activity 1.8.1: Inventory of significant biological sites in Gonaives and Cul-de-Sac Watersheds, Park La Visite, and Forêt des Pins Reserve

WINNER Indicators:

- Number of hectares in areas of biological significance under improved management as a result of USG assistance;
- Number of hectares of natural resources showing improved biophysical conditions as a result of USG assistance

WINNER Tools & Approaches to Measure Indicators: 1) GIS-referenced land use information, 2) orthophotos and satellite imagery, 3) rapid environmental assessments, and 4) biological studies. Baseline and current trends are established in order to evaluate quantitative and qualitative progress of WINNER activities.

Background

The WINNER project (Watershed Initiative for National Natural Environmental Resources) aims at implementing broad scale investments in sustainable natural resource management at the scale and density needed to produce future positive landscape level reductions in environmental, infrastructural, and economic vulnerability in the Cul-de-Sac, Cabaret, Gonaives/La Quinte, and other selected watersheds.

The Grise and La Quinte watersheds, Park La Visite, and Forêt des Pins Reserve are endowed with a significant biological heritage that is under immense threat to human and natural disturbances including agriculture, commercial & residential development, mining and energy production, infrastructure and climate change. The evaluation of management and organizational structure is necessary to integrate these structures into the Park La Visite management plan and to inform local, public, and private organizations how best to mitigate the loss of their conservation values.

Purpose

This assignment aims at evaluating Park La Visite administrative, ecological, economic and organizational structure in order to alleviate the problem of forest degradation and biodiversity loss. More specifically, the assignment aims at:

- Identifying different stakeholders (government agencies, international conservation donors, non-governmental organizations (NGO), private sector, local communities, farmers associations,...) involved in Park La Visite management;
- Strengthening Park La Visite administrative structure and social organization;
- Identifying significant biological sites, production systems, and potential sources of revenue;
- Identifying ways to facilitate creation of alliance among representative governing bodies, local population, farmer associations, producers, private sector, international conservation donors, and conservation organizations;
- Establishing mechanisms for providing reliable and long-term funding for conservation;
- Clarifying potential benefits to be derived by local farmers from forestry programs and significant biological site conservation;
- Investigating alternative economic solutions to the problem of forest degradation and biodiversity loss;
- Identifying policy instruments to persuade local population to adopt conservation decisions, and how they are likely to achieve long-term sustainable benefits.

Tasks

The assignment includes accomplishment of the following tasks:

- Make a literature review, conduct a survey, and contact local communities, WINNER, staff, the Ministry of Environment staff, non-governmental organizations, donors, and other stakeholders involved in Park La Visite to make a baseline assessment of the conservation and development situation in the Park;
- Work with the Ministry of the Environment, other governmental institutions and local stakeholders to strengthen and/or modify the administrative structures of the Park;
- Recommend policy instruments that increase net annual income, substitute degrading activities, and reduce the rate of forest depletion and biodiversity loss;
- Recommend activities that WINNER should implement to provide appropriate technical and financial support to improve the situation in Park La Visite and help the Government.

Deliverables

The consultant will deliver the following deliverables:

- A work plan indicating activity calendar;

- A proposed methodology of the assignment;
- A preliminary report;
- A restitution workshop of the report;
- A final report based on comments from workshop.

Timing/Duration

Table below shows calendar of execution for this assignment.

Calendar of Execution

Activities	Number of Days	Responsibilities
Preparation of work plan and methodology	2	International Consultant
Contact with the national stakeholders, WINNER and Ministry of Environment staff;	2	International Consultant
Literature review	3	International Consultant
Conducting surveys (formal and informal)	6	International Consultant
Preparation final report and maps	6	International Consultant
Presentation of findings to WINNER, MDE, USAID and Government personnel	1	International Consultant
Submission final report	-	International Consultant

The duration of the assignment will be 22 days (including two travel days).

Location

The International Consultant will be based in Haiti.

Reporting

The assignment will be implemented under the supervision of the USAID/WINNER project. The International Consultant will work directly with the Chief of Party, the Deputy Chief of Party, and the Specialist in Natural Resource Management of the USAID/WINNER project.

Professional Requirements

- University Degree with post-graduate studies in agronomy, forestry, social sciences, or any related discipline;
- Excellent understanding of issues pertaining to biodiversity conservation and in particular to sustainable natural resource and watershed management;
- Extent of experience at national and international levels in the field of biodiversity conservation, community-based management, and natural resources;
- Excellent drafting skills, strong operational and analytical skills, and the ability to work as a member of a team;
- Excellent French is essential and Creole would be a significant advantage.

ANNEX 2. LIST OF INSTITUTIONS AND CONTACTS MADE DURING THIS STTA

Institution	Address	Contacts	Phone Nos.
AECID	14, rue Martin, Port-au-Prince	David Palacios	3779-8724, 2245-3676
AGRIDEV		Tim Aston	3720-0528
CARITAS	31, Delmas 65, PAP	Serge Chadik	2246-1690, 2249-0347
CASEC, 1^{ère} Belle Fontaine	Blokos, Commune de Crx-des-Bouquets	Jerome Phenelus	3903-4222
CASEC, 4^{ème} Belle Fontaine	Gelin, Commune de Kenscoff	Nicholas Acuné	3481-9346
CASEC, 2^{ème} Marbiole	Chaudry, Commune de Belle Anse	Sainelus Lucien	
Cornell Lab of Ornithology	159 Sapsucker Rd., Ithaca, NY 14850	Jim Goetz	800-843-2473
CROSE	Jamel, Haiti	Gerard Mathurin	
FGPB	Marminerve, 1 ^{ère} Belle Fontaine	Thelusmond Marius	3710-8260
Fondation Seguin	100, Rue Lambert, PV	Yves Wainright et al.	3619-1869
GTZ	8, rue Ulysse, PAP	Wolfgang Lutz	2256-2230
Helvetas	30, Imp. Laroise, Delmas 60, Port-au-Prince	Bernard Zaugg	3766-9318
Marie, Croix des Bouquets		Marius St. Pierre	3710-8260
Ministry of Agriculture	Damien office of Dir. Ress. Nat.	Jean Pierre Louis Ogé	3745-6976
Ministry of Environment (MDE)	Juvenat office, Petionville	Astrel Joseph et al.	2245-7572, 2245-9309
MDE, DD Sud-Est	Jacmel, Haiti	Charles H. Ménard	3666-4943
Ministry of Interior	Champ Mars office, PAP	Smith Barthélus	2223-6600, 3401-3427
Ministry of Tourism	Bureau du Port Touristique, Jacmel	Yanick Martin	3452-7257, 3735-1331
Penn State University	208 Mueller Lab, PSU, University Park, PA 16802	Dr. S. Blair Hedges	814-865-9991
PRESTEN	Ducrabon, 3 ^{ème} Belle Fontaine	Jean Alfonse	
REPIE	221, RN 1, Crx-des-Missions	Jean Robert Julien	3446-0279, 2514-0984
Service Chretien d'Haiti	Platon-Café, Kenscoff	Dieuseul Plaisil	3710-8260
SAH	2, Imp. St. Juste, PAP	J. V. Hilaire	3401-2337
SOHADERK	2, Platon-Café 81, Kenscoff	Pierre P. Jules	3446-1500
University of Puerto Rico	Dept. of Biology, Univ. Puerto Rico, PO Box 23360, San Juan PR 00931	Dr. Richard Thomas	787-764-0000
USAID	Bld. 15 octobre, Tabarre 41, Tabarre	Chris Abrams et al.	2229-8000, 3701-3538
USAID DEED	6, Imp. Giraud, Bourdon, PAP	Mike Godfrey	3871-2998
USAID LOKAL	2, Solon Menos, Petionville	Louis Siegel	3404-6636
USAID WINNER	42, Route de Pégyville	JR Estime et al.	3702-8824

ANNEX 3. LITERATURE SUPPORTING POLICY AND MANAGEMENT STRATEGIES IN LA VISITE NATIONAL PARK

I. Policy, Legal Papers and Evaluations of Protected Area Management in Haiti

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- Ministère de l'Environnement. 1999. Rapport Final: Etude de la situation socio-économique des gens habitant à l'intérieur et/ou aux alentours des aires protégées de Parc Macaya, Forêt-des-Pins et Parc La Visite. Projet d'Appui Technique à la Protection des Parcs et Forêts (ATPPF), Port-au-Prince. 229 p.
- Ministère de l'Environnement. 2000. Aire Protégée de La Visite: Plan Préliminaire de Gestion. SECA, Montpellier, France & MDE, Port-au-Prince. 106 p, 7 annexes.
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- Pierre-Louis, R. 1989. Forest policy and deforestation in Haiti: the case of the Forêt des Pins (1915-1985). MARNDR, Port-au-Prince. 151 p.
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ANNEX 4. KEY MILESTONES IN THE HISTORY OF LA VISITE NATIONAL PARK

YEAR	EVENT
1940s	SHADA, approximately 75000 ha. <i>Pinus occidentalis</i> logging concessions, sawmills established.
1980s	Government of Haiti closed sawmills.
1983	Presidential Decree establishing La Visite National Park, 2000 ha. ¹¹
1984-1988	University of Florida flora & fauna surveys.
1992	University of Florida Stewardship Plan, Convention on Biological Diversity treaty signed by Haiti.
1996	CBD ratified by Haiti
1997	World Bank <i>Appui Technique pour la Protection des Parcs et Forêts</i> starts.
2000	First park management plan.
2001	Closure of World Bank ATPPF project.
2005	<i>Jacmel Declaration</i> to establish Biosphere Reserve, including LVNP.
2006	MDE responsible for National Parks. No longer co-administered with MARNDR.
2006	<i>Décret Cadre de Gestion de l'Environnement</i> establishes ANAP.
2007	Araucaria XXI project with objectives of planning, zoning and operational management plan of LVNP.
2007	Biosphere Reserve concept as part of a Caribbean biological corridor.
2008	HT008 (<i>Aux Diablotins</i>), HT009 (<i>Aux Cornichons</i>) established as Key Bird Areas.
2009	Operational structure and function of <i>Agence Nationale des Aires Protégées</i> developed by MDE.
2009	Re-organization of Ministry of Environment.

¹¹ The decree lacked a formal management plan and selection of lead agency to demarcate boundaries.

ANNEX 5. EXAMPLES OF LAND LEASE AND EDUCATION-BASED CONTRACTS USED BY SAH TO DIRECT CONSERVATION PRACTICES IN VICINITY OF MACAYA NATIONAL PARK IN HAITI

Contrat de location de terrain

Entre M. Raymond Despagne (Propriétaire)
et la Société Audubon Haïti (Locataire)

Je, soussigné, M. Raymond Despagne identifié au numéro 07-03-99-1944-04-00011, demeurant et domicilié au numéro 111 de la Rue Nicolas Géffrard, dans la ville des Cayes, agissant en tant que propriétaire d'un terrain situé sur l'habitation Soulette, Commune de Chantal d'une superficie de 6 carreaux et 1/2, soit 78,000m² correspondant aux coordonnées géographiques suivantes :

.....

.....

avoir donné en location, à des fins de restauration et de développement d'agroforesterie, pour la somme de trente et deux mille cinq cent gourdes (32,500.00) par année, le dit terrain, pour une période de 5 ans renouvelables au moins 2 fois, à la Société Audubon Haïti, représentée par son directeur exécutif le Dr Jean Vilmond Hilaire, lui-même identifié au numéro 003-397-792-7.

Je déclare, par la même occasion, avoir reçu, comme avance, du Dr. Jean Vilmond Hilaire en chèque le montant de soixante et cinq mille gourdes (65,000.00) dont copie est jointe à la présente, représentant les deux premières années du bail et renonce à la jouissance de ce terrain en tant que propriétaire pour toutes les années du bail.

Fait aux Cayes, le 12 novembre 2009 en présence de :

- Myotte Despagne (Nif : 007-256-873-3).....
- Jean Sténio Pierre (Nif : 007-257-565-0).....
- Sylvain Jean Désir (Nif : 003-187-527-3).....
- Jean Djems Michel (Nif : 007-257-914-3).....

Raymond DESPAGNE

École Communautaire de Formon

C O N T R A T D ' E N G A G E M E N T

Je soussigné(e) : Nom : Prénoms :

Date de naissance :/...../..... Lieu :

Adresse :

CIN : Téléphone(s) :

Etat civil : Nbr d'enfants : Profession :

Agissant en tant que : Père ;
 Mère ;
 Responsable ; (lien avec l'enfant :

De l'enfant : Nom : Prénoms :

Date de naissance :/...../..... Lieu :

Adresse :

CIN : Téléphone(s) :

Classe : Année Académique :/...../.....

Nbr de frères : Nbr de sœurs :

Declare adhérer aux Règlements Intérieurs et aux Principes de l'École Communautaire de Formon.

Plus précisément, je m'engage à ce que mon enfant :

1. soit à l'heure le matin lors de l'ouverture des cours (* sauf en cas de maladie ou d'accident) ;
2. suive la totalité de l'enseignement selon les horaires et les jours prévus ;
3. ait le temps nécessaire à la maison pour qu'il puisse faire ses exercices et apprendre ses leçons ;
4. ne fasse pas d'actions contraires aux objectifs de la Société Audubon (ex : couper des arbres dans le Parc Macaya, etc.)
5. puisse participer aux activités parascolaires organisées par l'école sous la demande de la Société Audubon ;

Je m'engage aussi personnellement :

1. à fournir les pièces administratives demandées par l'administration de l'école : l'Extrait de l'Acte de Naissance de mon enfant, son carnet scolaire, son carnet de vaccination, mon numéro de CIN ;
2. à bien traiter les livres scolaires, à les protéger et les couvrir avec du plastique afin de les remettre en bon état à l'Administration de l'école à la fin de l'année scolaire ;
3. de ne pas parler avec le directeur de l'école des questions concernant la scolarité de mon (mes) enfant(s) ailleurs que dans son bureau et sur rendez-vous ;
4. à ne pas parler des problèmes de l'école en dehors des réunions formelles des parents d'élèves ;
5. d'assister à toutes les réunions de parents d'élèves ;
6. de participer au vote pour élire un représentant du comité des parents d'élèves qui me représentera lors des réunions du conseil d'administration de l'école ;
7. à ne pas agir contrairement aux objectifs de la Société Audubon (ex : couper des arbres dans le Parc Macaya, etc.)

Je suis conscient que toute entrave à mes engagements ou tout non respect des principes et règlements de l'école peut entraîner le renvoi de mon (mes) enfant(s) de l'école.

Fait le :/...../..... à : Signature :

CACDEL, Conseil d'Administration du Centre de Développement Local
S O C I E T E A U D U B O N H A I T I