CONSERVATION AND ECO-TOURISM PROJECT AT CHAMAREL

NON TECHNICAL SUMMARY

Project Promoter

The project promoter, Ebony Forest Ltd, is a private company, duly registered and incorporated in Mauritius on the 18th November 2005.

The project promoter Ebony Forest Ltd is applying for an Environmental Impact Assessment (EIA) Licence to establish a Conservation and Eco-Tourism Project undertaking situated near Chamarel Village, in the district of Black River.

Project Overview

The proposed conservation and eco-tourism project involves the restoration of 38 hectares of degraded forest, which has been invaded by exotic plants and animals.

The restoration work initiated in 2006 involves weeding the exotic vegetation and replanting with indigenous species to create a high-quality native forest. This project will not only help protect Mauritius's highly threatened flora and fauna, but will also contribute significantly to the country's biodiversity action plan target which aims at placing 10% of Mauritian terrestrial area within a protected area network by 2015. Furthermore, the project is expected to boost the endemic bird populations in the nearby nature reserves and Black River Gorges National Park.

In addition, a key component of the project will be to establish an Ecology Education Centre wherein a curriculum will be devised with the aim of educating local primary and secondary school children, local communities and other visitors about the country's unique flora and fauna. Along the natural trails, visitors will learn what Mauritius was like before the arrival of humans, and the importance of preserving Mauritius' ecological heritage for the country's future generations.

Project Location

The proposed project site of an extent of 39Ha4960 or 394, 960m^2 is located at Chamarel, in the district of Black River, within the south-west part of the island, at approximately 2km from Chamarel Village. The site adjoins the well-known tourist attraction, known as "La Terre des Sept Couleurs".

Project Description

The promoter, Ebony Forest Ltd, intends to develop its site into a conservation and eco-tourism project which will comprise of the following features:

- Reception Area/Souvenir Shop
- Visitor Centre
- Ebony Museum
- Ecology Education Centre
- Nature and education trails
- Raised guided walkways

- Viewpoints
- Fernery
- Orchid house
- Snailery
- Tortoise grazing area
- Super predator-free fence
- Endemic bird feeding stations
- Research field station
- Snack Outlets

Project Justification

The project is justified in that it will aim at:

(i) Restoring and creating an ebony- and palm- dominated hardwood forest as reported by early colonists.

(ii) Ensuring the conservation of threatened Mauritian flora and fauna.

(iii) Creating an international centre of botanical excellence.

(iv) Informing and inspiring Mauritians and foreign visitors to preserve Mauritius's natural heritage.

(v) Providing nature trails in large tracts of the fully-restored indigenous (native and endemic) forest inhabited with endemic birds

Consequently, the proposed project at Ebony Forest Chamarel will fulfil major national objectives as specified in the National Forestry Policy 2006, National Biodiversity Strategy and Action Plan (NBSAP) and the Fourth National Report on the Convention on Biological Diversity 2010 which are:

- to create public awareness about the productive and protective functions of the forests;
- to create awareness about the important role the forest sector plays in national development and human well-being;
- to ensure the conservation and sustainable management of forests and forest eco-systems of the country for the benefit and sustainability of present and future generations;
- to establish a representative and viable Protected Area Network (PAN); and
- to manage key components of the biodiversity;

Project Site Ownership

The project site of total area of 39Ha4960 or 394,960m^2 belongs to Ebony Forest Ltd, the promoter of the Conservation and Eco-Tourism Project.

Mr and Mrs Owen Griffiths, the owners and directors of Ebony Forest Ltd are a pioneer in the initiation and development of conservation and eco-tourism projects. Their current achievements include the well-known La Vanille Reserve des Mascareignes located at Riviere des Anguilles and the Francois Leguat Giant Tortoise and Cave Reserve at Anse Quittor in Rodrigues.

Site Environmental Characteristics

The project site consists of 39Ha496m^2 of privately owned land located at Chamarel, in the district of Black River. Approximately 38Ha746 is covered by forest lands. The remaining 2% encompasses the existing amenities i.e. nursery, watchman house and open areas where proposed development is planned.

The upper part of the site falls within the slopes of Piton Chamarel and is classified as Mountain Reserve under the Forest and Reserves Act 1983. Below the mountain reserve, exotic forest plantations dominate the central part of the site, while the lower part of the site encompasses the entrance, existing nursery/sheltered area for indigenous plants and watchman's house.

With the approval of and in conjunction with the Forestry Services, the restoration work started in 2006; consequently, for this purpose, a nursery/sheltered area as well as a watchman house were erected.

The existing forest land comprises predominantly of invasive, exotic species as well as indigenous (endemic and native) plants. Patches of degraded native forest have been weeded to the benefit of the indigenous plants.

While the site harbours a large number of indigenous species, the commonest trees, shrubs and plants are exotic species, many of which are highly invasive such as *Hiptage benghalensis* (lianedecerf), *Mikania micrantha* (mile-a-minute), *Psidium cattleanium* (guava) and *Tabebuia pallida* (Tecoma). Indeed, invasive plants are among one of the greatest threats to the island's plant biodiversity.

The site also harbours both endemic flora and fauna. Native and endemic trees are mainly found in the mountain reserve. At lower altitudes, some native plants mainly *Diospyros tessellaria* are found scattered among the dense canopy of exotic vegetation.

The dense forest land has been the subject of important ecological studies and the salient details of the floral survey are listed below.

The plants recorded during the survey have been grouped into:

(a) Introduced Flowering Plants: for example Ravenale, Goyave de Chine, Tecoma, Liane de Cerf, Privet, Vieille Fille, Acacia, Piquant Loulou, etc.

(b) Native Flowering Plants: for example Bois d'Ebène, Takamaka, Bois Banane, Bois Manioc, Bois Balais, Bois Clou, Bois de Pomme, Bois Canne, etc.

In addition, the site also harbours some important indigenous bird species, reptiles, mammals and invertebrates:

- Indigenous birds e.g. Mauritius flycatcher *Terpsiphone desolata* (coq de bois), Mauritius merle *Hypsipetes olivaceus* (merle Charpentier), Paille en queue, etc
- Endemic geckos e.g. lowland forest gecko, blue-tailed gecko, etc
- Indigenous mammals e.g. Mauritian fruit bat, etc
- Indigenous invertebrates e.g. *Dupontia nitella*, *G. callifera*, etc

The concept of the proposed conservation project is to protect the native flowering plants found at Ebony Forest Chamarel and to provide a refuge for the native Mauritian plants which are critically endangered elsewhere due to habitat destruction and invasive species. By restoring the native forest on site, Ebony Forest's goal is to enhance indigenous biodiversity for the pleasure and interests of locals and tourists.

Utility Provision

Water

Water to the project users will be provided from a borehole and supplemented by rain-water harvesting from the project buildings for domestic usage and irrigation purposes.

Electricity

The project site is already supplied from the CEB power network grid; an additional power requirement of the order of 50KVA will be associated with the proposed project – which will be provided from the same existing CEB grid network.

Telecommunication

Telecommunication will be through mobile telephones. Internal communication within the site between tour guides and reception which is essential for the proper management and operation of the activities at the project site will be ensured through walkie-talkies and mobile phones.

Sewerage Collection, Treatment and Disposal

There is no public sewer system in the region. The proposed method of disposal of waste water will be individual on-site disposal system comprising of a septic tank and absorption pit/leaching field arrangement.

Percolation tests have been duly carried out by Water Research Co Ltd– which have proved that the absorption characteristics of the soil are satisfactory for this purpose. This method of on-site sewage disposal is normally acceptable to the WMA in regions where no public sewer networks exist.

Two trial pits were excavated for the purpose of carrying out the percolation tests; no water table at below ground level depths of 2.70 metres was observed; this confirms the possibility of having an on-site individual sewage collection, treatment and disposal system (septic tank and absorption pit/leaching field).

The design and sizing of the on-site sewage system (septic tank, absorption pit/leaching field and interconnecting piping) will be undertaken at the design stage and will be submitted to the WMA for due approval.

Solid Waste Management

The biodegradable solids waste generated at the snack outlets as well as the green wastes from maintenance of landscaped areas will be used as bedding and food for the tortoises at the tortoise park.

The inorganic wastes comprising of paper, plastic bottles, food packaging will be collected in separate garbage bins for disposal to approved dumping sites and where possible for recycling.

Environmental Impacts

An assessment of the possible environmental impacts reveals that the proposed development would not give rise to any serious effect on most of the physical environmental components. It will not affect the land, sea or air at the local level. It will not put any unbearable stress on the existing road network; utility services for the additional resources (water, electricity, and telecommunication) will be duly applied for to Authorities.

Socio-Economic Impact

The socio-economic impact is overall positive as:

a) The proposed conservation and eco-tourism project is in line with the Government Policies with respect to National Forestry Policy 2006, National Biodiversity Strategy and Action Plan (NBSAP), the Fourth National Report on the Convention on Biological Diversity 2010 and National Tourism Development Plan for Mauritius and Rodrigues

b) It will develop the tourist potential of the Chamarel area – which has not known any economic development for a long time.

c) It will form part of a tourist package deal which together with Terre des Sept Couleurs and the Rhumerie de Chamarel would constitute a whole day's visit to the south of the island

d) It will develop natural awareness about the need to protect Mauritius endemic plants, forests and animals

e) It will create employment both directly and indirectly

f) It will not generate any serious environmental pollution.

g) It will provide amenity facilities to the region

Enhancement Opportunities

The enhancement opportunities will be two-fold: restoration and protection of endemic forests and their inhabitants and secondly the development of the amenity and leisure potential of Chamarel.

The project will facilitate public awareness and provide educational opportunities for people to learn more about conservation and instil respect for nature and environmental ethics. In this respect, the project promoter will seek and obtain the contribution of other conservation organizations such as the Mauritius Wildlife Foundation and work in collaboration with Forestry Services and National Parks and Conservation Services.

The ultimate aim of the Conservation and Eco-Tourism Project is to create a self-sustaining indigenous ecosystem where indigenous wildlife can thrive. The project will thus serve as a model for ecological restoration work elsewhere in Mauritius and seeks to become internationally recognised as a leader in restoration and conservation of endangered habitat.

Conclusion

Based on the aforementioned, this conservation and eco-tourism project is considered to be environmentally sustainable and is therefore recommended for a favourable approval by the Department of Environment within the normally accepted lead time of 3 months.