

Feasibility of the Blue Flag Eco-Labeling Scheme for Beaches in Mauritius

Bye Salim Aliraja*

Faculty of Engineering,

University of Mauritius

Email: b.al.salim@intnet.mu

Soonil D D V Rughooputh

Faculty of Science,

University of Mauritius

Email: sdr@uom.ac.mu

Paper Accepted on 25 May 2009

Abstract

Beaches are very important to Mauritius not only for its tourism industry to expand but also for local recreation. Tourists are increasingly showing preferences for destinations that protect and preserve environment apart from their own safety. Various awards and quality assurance systems are in widespread use for promoting beach tourism worldwide. Such requirements are likely to boost Mauritian tourism and also help to alleviate poverty among poorer coastal communities. The Blue Flag (BF) is one of the most successful among such eco-labels that is awarded to beaches complying with specific criteria embracing water quality, environmental education and information, environmental management and safety and service facilities. One of the strengths of the BF concept lies in its approach towards Integrated Coastal Zone Management. BF is therefore an important tool towards sustainable coastal development. In this paper, the feasibility of introducing the BF in Mauritius with the purpose of awarding the BF status to its beaches is discussed. Our study reveals that:

- existing environmental and tourism policies match the requirements of Blue Flag,
- Mauritian institutional framework corresponds to the operational procedures of the BF scheme,
- compliance with existing legislation on bathing water, waste-water treatment, legislation concerning beach use, and protection of natural sensitive coastal areas and the surrounding environment,

Selected (eleven) public beaches of Mauritius showed that none of the beaches at present could be awarded the Blue Flag status, unless certain requirements are fulfilled. Of these public beaches, La Cuvette and Blue Bay could be the first

amongst the beaches that could be awarded the Blue Flag eco-labelling upon fulfilments of the requirements.

Keywords: Eco-label; Blue Flag; Beach Quality; Regulatory and Institutional Framework.

**For correspondences and reprints*

1. INTRODUCTION

Globalisation is a fact of life: as it continues to progress, the earth's natural processes transform local problems into international issues. Some of the largest problems now affecting the world are environmental challenges, such as global warming, air pollution, energy consumption, hazardous waste, ozone depletion, smog, water pollution, overpopulation, rain forest destruction, sea level rise and coastal erosion (ISO Focus, 2004). According to the World Bank 2003 edition of *Environment Matters*, half of the world's wetlands disappeared over the last century, with some rivers now no longer reaching the sea, and 20 % of freshwater fishes now endangered or extinct. If current trends continue, 4 billion people will live under conditions of severe water stress by 2025, particularly in Small Island Developing States (SIDS). Over the last decade, many tools have been used to put environmental sustainability into practice. Every environmental problem has caused, numerous effects, and most importantly, a solution – International Standards, such as Environmental Management Systems, Environmental Labelling, Life Cycle Assessment, Environmental Communication, Cleaner Production (Starkey R., 1998), Green Globe and BF are helping in a concrete manner.

However, in tourist and coastal zone sectors around the world, there are over 20 renowned, trustworthy eco-labelling and certification programs offering labels or logos designed to signify environmental, socio-cultural, and/or economic business practices that are superior.

The Table below gives an overview of the different eco-label schemes addressing the different tourism and coastal zone sectors and their limitations in geographical scopes.

ECOLABEL	COVERING SECTOR	GEOGRAPHIC SCOPE
Audubon Green Leaf™	hotels	United States
Blue Flag	beaches and marinas	International
Brazil Sustainable Tourism Program	accommodations and tourism operators	Brazil
Certification for Sustainable Tourism	accommodations and tourism operators	Costa Rica
The Swan	hotels, youth hostels, and other lodging services	Denmark, Iceland, Finland, Norway, Sweden
The Luxembourg Ecolabel	accommodations, hotels, youth hostels, holiday apartments, gîtes, and campgrounds	Luxembourg
Legambiente Turismo	accommodations, hotels and campgrounds	Italy
La Clef Verte	campgrounds	France

Ibexes	hotels and restaurants	Switzerland
Green Tourism Business Scheme	B&Bs, self-catering accommodation, hotels, guesthouses, youth hostels, holiday parks, visitor attractions, and tourism companies	Scotland & the United Kingdom
Green Seal, Inc.	accommodations including hotels, motels and lodges	United States
Green Globe 21	communities, accommodations, visitor attractions, tourism operators, and their administrative offices	International
Green Deal	accommodations, guides, restaurants, communities and tourism operators	Guatemala
Eco-Certified Sustainable Travel	accommodations, visitor attractions, tourism operators, and transportation service providers	North America
Milieubarometer	campgrounds, youth hostels, and holiday parks	The Netherlands
Qualmark™	accommodations, transportation providers, and tourism businesses	New Zealand
Saskatchewan Ecotourism Accreditation Program	attractions, accommodations and guided tours	Saskatchewan, Canada
SmartVoyager™	tour boats	Ecuador's Galapagos Islands
PAN Parks®	National Parks, forest reserves	Europe

Source: (Eco-labels - Sustainable Travel International, 2009).

After an analysis of the geographic scopes and covering sectors of the different eco-certification schemes, we find that Blue Flag and Green Globe are international. Moreover, since Mauritius is surrounded mainly by sandy beaches, out of which most of them are public beaches, we find that Blue Flag is the most appropriate certification scheme because BF addresses sustainable concerns towards public beaches. One of the strengths of the concept lies in the approach towards Integrated Coastal Zone Management. It caters for almost all stakeholders (tourists, general public, fishermen, road users, local residents and others) and management plan requirements of the coastal zone. Since the operation of BF, the number of countries adopting this certification has greatly increased from four in 1981 to thirty-seven in 2004 worldwide, with a total of 2093 beaches having BF status (Thomsen F. B., 2001).

1.1 THE BLUE FLAG ECO-LABEL

The Blue Flag (BF) Eco-label, is becoming synonymous with good coastal zone use and management, thereby establishing itself as the cornerstone of corporate concern for the coastal environment. The BF Campaign is an important tool towards sustainable coastal development. It focuses on tourism by addressing actions at beaches and marinas (Thomsen F. B., 2001). A goal is to continue sustain use of current areas, and leave the more pristine areas untouched. The BF concept, introduced in 1985 to award the first French coastal municipalities; the award renewed each year subject to continuous compliance with the criteria. The BF is owned and run by the independent non-profit organization, the Foundation for Environmental Education (FEE) in Europe. The criteria consider different environmental management components: compliance with existing legislation on bathing water, waste-water treatment, physical planning, environmental codes of conduct at beaches/marinas, legislation concerning beach use, and protection of natural sensitive coastal areas and the surrounding environment. The BF has become a very recognized symbol in Europe; tourists and tour operators identifying the Flag as a symbol of clean, safe and environment-friendly managed coastal areas. An increasing number of tourists are therefore asking for Blue Flags before choosing their holiday destination (Thomsen F. B., 2001). Due to this, local authorities and marina owners are making efforts to increase the environmental and safety standards in order to comply with the strict criteria and receive the recognition. In recent years, the success of the BF campaign has spread to countries and regions outside Europe. With the active support of the United Nations Environmental Programme (UNEP) and World Tourism Organization (WTO), the work towards the implementation of the campaign in a number of areas outside Europe has begun. South Africa, the Caribbean, the Southeast Asia are actively working on the introduction of the campaign; South Africa becoming the first country outside Europe to be awarded BF status in 2001. Other countries around the world, like Australia, Canada, Chile and countries in South & East Africa are interested in starting the implementation of the BF Campaign (Mercedes S., 2004)

As far SIDS is concerned, a few Caribbean countries (Dominican Republic, Jamaica, Puerto Rico, Venezuela and the Bahamas) are already implementing the BF Campaign with the first beaches to apply for the full BF award in November 2004. In our study, we present an assessment of Mauritius with respect to the adoption of the Blue Flag. National BF Councils will need to be developed and NBF Jury will be expected to award the BF status to at least two beaches every year. In this paper, all the necessary requirements are discussed as case study for Mauritius. In addition to that, the prime visitors of Mauritius are from European countries with an increased in arrivals by 2.1% to 608,358 in the major generating countries like France (+8.3%), U.K (+0.6%), Italy (-4.4%), and Germany (-5.6%) (CSO, 2008).

2. THE CASE OF MAURITIUS

Mauritius, in the near future, will be facing increasing pressures to adopt eco-labels. This work represents the first study carried out in year 2004 in Mauritius towards introducing BF. We evaluated the feasibility of the adaptability of the BF requirements; determine what are the existing environmental and tourism policies on which the BF could rely and link to, at the local, national and regional levels; determine if Mauritian's institutional framework matches the operational procedures of the BF scheme; and, finally assess whether the appropriate framework exists for Mauritius to implement the BF process.

2.1 THE COASTAL AREA

The main activities taking place in coastal areas of Mauritius are: bathing, pleasure boating, snorkeling, reef walking, scuba diving, hotels, restaurants, housing and residential activities, vending and beach hawking, fishing, agriculture, sea and air ports and military activities. Conflicts between these activities exist. For example, the public hardly gets access to public beaches from the main coastal road as hotels and bungalows have blocked the passage. Also, very often there are quarrel between beach walkers and occupier of the bungalows. The main kind of coastal tourism predominant in the coastal areas is international holiday tourists, especially looking for the 9 S's: 'Sun, Sand, Sea, Smile, Style, Scenery, Sophistication, Service and Shopping'. The main beaches of Mauritius that are heavily developed for tourism activities are: Pereybere, Grand Bay, La Cuvette, Mont Choisy, Trou aux Biches, Belle Mare, Trou d'Eau Douce, Flic en Flac and Le Morne.

2.2 THE REGULATORY FRAMEWORK AS IT RELATES TO THE COASTAL AREA

2.2.1 Effluent discharge standards: According to Effluent Discharge Permit Regulation 2003, there exist standards for both discharge of domestic sewage and industrial waste.

2.2.2 Connection to Sewage Systems: At present connection to sewerage systems is not mandatory everywhere in Mauritius, neither for households nor for commercial buildings. If there are no sewage connection facilities in a region, then according to the Building Act 1981 and Town and Country Planning Act 1954 (GN No. 6 of 1954), an on-site treatment is obligatory. It is recommended that Domestic Uses do primary treatment; Industrial and Hotels do secondary and tertiary treatments of their wastes. Households uses the septic tanks whereas, industrial buildings have to use a treatment plant. The receiving systems for sewage effluent are ocean for areas under sewage networks, whereas for rural areas it is septic tank or improved pits (soil).

2.2.3 Bathing Water Quality Standards: Until at present, we do not have a national standard for bathing water quality, but national guidelines exist, under the Regulation for Guidelines for Coastal Water Quality (GN No. 620 of 1999), and

monitoring of seawater quality is carried out the Albion Fisheries Research Centre of the Ministry of Fisheries and the National Laboratory of the Ministry of Environment and National Development Unit.

2.2.4 Fresh Water Supply: Information on composition of fresh water supply (level of minerals and salts) and consumption by the tourist industry is available both for the Central Water Authority and the private bottling firms.

2.2.5 Management of Solid Waste: Regulations for the management of solid waste have been set under the Local Government Act 2003(GN No. 32 of 2003). In Mauritius there are 4 transfer stations namely: Roche Bois, St Martin, Poudre d'Or and La Brasserie, and one landfill at Mare Chicose whose capacity is expected to end by 2009. New waste management strategies have been developed up the Ministry of Local Government, which calls for recycling programmes in the field of plastics, papers, composting and certain metals. Under the Environment Protection Act 2002 (EPA Act 2002) and the Local Government Act 2003 there are heavy penalties for littering.

2.2.6 Protection of Wildlife: Under the Fisheries and Marine Resources Act and EPA Act 2002, special norms have been set to protect wildlife from souvenirs' collectors. The Acts address protection of, amongst others, sea turtles, corals, shells, and birds.

2.2.7 Noise Pollution Standards: Noise pollution standards have been set under the Noise pollution Standards regulations 1997 (GN No.17 of 1997).

2.2.8 Air pollution standards: Air pollution standards have been set under Air pollution regulations 1998, catering for the emission standard and the ambient air quality standards, (GN No. 105 of 1998).

2.2.9 Sand Mining Activities: Lagoonal sand mining activities have been banned since October 2001, however mining activities on sand dunes (St Felix and La Prairie) are still permitted.

2.2.10 Environmental Impact Assessment (EIA): Another approach that has been incorporated in the Environment Protection Act 2002 is one that is proactive in nature, namely, the EIA. EIA encourages project promoters to take into consideration environmental issues at the stage of conception and planning. It also stimulates developers to compare alternative technologies and adopt pollution prevention and control strategies. Finally, it enables the best possible option to be retained, as all environmental mitigation costs are part and parcel of the overall project cost. EIA applies to activities listed in the First Schedule of the EPA Act 2002. This approach also requires close monitoring once project implementation starts. Part IV of the EPA Act 2002 relating to EIA came into force on 1st June 1993. Amendments were brought to the Act in 2002. New features include, *inter alia*, the smoothening of the EIA mechanism and the revision of the First Schedule with a view to establishing a more selective and more defined list of undertakings including a requirement for major plans such as the National Physical Development Plan (NPDP) and the Integrated Coastal Zone Management (ICZM)

plan to submit a strategic EIA. The EIA is legislated according to the EPA Act 2002 and it includes tourism related services and facilities such as: Hotels; Removal of marine flora such as sea grasses and marine algae, except for use as bait by a local fisherman; Construction of breakwaters, groins, jetties, revetments and seawalls; Construction of marinas; Golf course; Lagoon dredging and re-profiling of sea beds including creation of bathing areas; Modification of existing coastline such as beach re-profiling, coastal protection works and removal of basaltic and beach rock; undersea walk.

2.2.11 Integrated Coastal Zone Management Plan: The ICZM plan is still at the consultation stages through committees since the 2002.

2.2.12 Tourism Development Plan: The latest Tourism Development plan for Mauritius was developed in 2002. It addressed national issues. The main guidelines and recommendations were to go for quality tourism instead of mass tourism, to go for eco-tourism instead of infra-structural building tourism.

2.2.13 Local Agenda 21 strategy: Mauritius does have a Local Agenda 21 strategic plan. The main guidelines and recommendations are as follows: Zoning of the coastal areas; Set back limits; Guidelines and regulations for buildings construction and development; Regulation / standards for coastal structures (piers, groins); Regulations for trail protection; Guidelines for development in special sensitive areas, such as: mangroves, wetlands, sea grass beds and corals. However, in certain highly vulnerable areas like Ile aux Cerfs and Pte D'Esny, mangroves have been cleared to make way for Golf Course and hotels developments respectively.

2.2.14 Protected areas: According to the Fisheries and Marine Resources Act 1998, Regulation on General Provisions, there are provisions for the protection of marine protected areas and general prohibitions within specific marine protected areas. As such in Mauritius there are two legislated marine parks one at Blue Bay and the other one at Balaclava. Moreover, in the National Parks and Conservation Service Regulation the following Islets with endemic biodiversity such as Round Island, Ile aux Aigrettes, Ile aux Vacoas and Flat Island have been declared as restricted zone for the public. Also, Terre Rouge Estuary is a declared coastal wetland recognized by the Ramsar Convention. It is the only coastal wetland in the world that is located in a capital city – Port-Louis. Until now the other islands apart from that mentioned above are for recreational use. The Government of Mauritius set up a Task Force in February 2001 to find the causes and extent of degradation and to make recommendations on short and long term measures for restoration and protection of the islets.

2.2.15 Emergency Plans for natural hazards: The principal natural hazard that Mauritius faced so far has been the passage of cyclones. A National Disaster Committee has been established under the Prime Minister's Office, chaired by the Prime Minister.

2.2.16 Oil Pollution Accidents Emergency Plan: Mauritius is highly vulnerable to oil spill threats. Unless precautions are taken well in advance, environmental

damage can be swift and irreversible. In order to face such a situation, Mauritius has prepared two contingency plans, the National Oil Spill Contingency Plan and the Port Louis Harbour Oil Spill Response Plan. They provide the framework for oil spill response. A coastal Sensitivity Atlas has also been prepared to identify the coastal sensitive resources, which require special attention. The National Oil Spill Contingency Plan is activated in the event of a spill in the territorial zone of Mauritius. The Port Louis Harbour Oil Spill Response Plan caters for spill within the boundaries of the protected area. As part of a strategy to combat oil spill effectively, Mauritius has ratified four international conventions developed by the International Maritime Organisation, the CLC 92, FUND 92, OPRC 90 and MARPOL 73/78. However, there is no Oil spill or Emergency plan in case of an air crash in the Marine Park of Blue Bay.

2.3 THE INSTITUTIONAL FRAMEWORK

2.3.1 The Administrative System of Mauritius: The legal and administrative system follows the Westminster British System, with Constitution of Mauritius being the supreme power.

2.3.2 Coastal Zone Ownership System: Most of the lands in Mauritius are privately owned. However, there are also state lands consisting of 21, 211 ha of forest land, nature reserves, islets and the *Pas Géométriques*, a narrow strip of land around the coast. The *Pas Géométriques* are used for hotel, recreational and conservation purposes. In fact the coastal areas support the third pillar of the economy - tourism. The major focus of international tourism is on the beach environment with sea, sun and the sand being the basic ingredients of the industry. The Government of Mauritius acts as a facilitator for private sector initiative by leasing State lands and *Pas Géométriques*.

2.3.3 Community Involvement and Consultation in the decision making process: Formal procedures are in place for community involvement and consultation on project undergoing Environmental Impact Assessment (EIA) before a development permit is issued by the government. However, to what extent do public consultations are undergone is still questionable. Major constraints that occur are:

- Accessibility: EIAs are only available at the resource center of the Ministry of Environment and in Local Authorities during office hours, which many people have difficulties to go there when they are working.
- Language: EIAs are very technical reports which most of the people have difficulties to understand. As a result, public does not turn up to consult the EIA reports.

Until recently with the coming of EPA Act 2002 into force that non-governmental organizations are represented in certain committees, like Integrated Coastal Zone Management of the Ministry of Environment.

2.4 MONITORING AND ASSESSMENT

2.4.1 Laboratories Equipped to run Water Quality Testing: At present the laboratories shown in the table below are allowed to run water quality tests.

Central Water Authority	St Paul, Vacoas
National Environment Laboratories	NEL Complex, Reduit.
University of Mauritius	Reduit
Albion Fisheries Research Centre	Albion
SGS (private company)	Port Louis

The University of Mauritius, the Albion Fisheries Research Centre, the Mauritius Oceanography Institute and the Mauritius Meteorological Services carry out most of the researches on marine and coastal issues.

2.4.2 Inventory Studies of natural coastal and marine resources: Inventory studies of natural coastal and marine resources have recently been carried out by the consultancy firm, Baird and Associates Coastal Engineers Ltd. of Canada in the Report on “Study on Coastal Erosion in Mauritius – August 2003” (Baird, 2003).

2.4.3 Inventory studies of Tourist coastal and marine resources and attraction: Inventory studies of Tourist coastal and marine resources and attractions are carried out by the Ministry of Tourism which keep statistics on tourist arrival, room occupancy, distribution of tourists in coastal areas, etc. (Ministry of Tourism and Leisure, 1999).

2.4.5 Base line studies of the State of Environment exist: A report was published by the Ministry of Environment in 1992 – “State of Environment Report 1992”. Moreover, the Ministry of Environment publishes its Annual Report on the Environment. In 2002, the Ministry of Environment published a report on “Meeting the Challenges of Sustainable Development”, which was also presented in the Johannesburg Earth Summit 2002, in South Africa.

2.4.6 Data Base on Environmental related Issues: At present no database exists on environmental related issues. However, the government is compiling data for its Environment Information System to be implemented by the Ministry of Environment, under the supervision of Smec Consultant of Australia.

2.4.7 Maps of the coastal areas: Natural resources and salient features of the coastal areas have been mapped in the Oil Spill Coastal Sensitivity Atlas Mauritius (Murday and Gurlach, 1989; Runghen, Bhuruth and Rughooputh, 2004) and the Study on Coastal Erosion in Mauritius (Baird, 2003). The latter report also points out the location of endangered coastal habitats and biodiversity

hotspots. Moreover, the Albion Fisheries Research Centre has developed the Thematic Maps for Coastal Areas (AFRC, 1999).

2.4.8 Collection of Statistics: Mauritius collects statistics on International tourism arrivals, tourists' preferences and tourists' satisfaction levels. These statistical surveys are carried out the Ministry of Tourism and directed to the Central Statistics Office (CSO). The CSO is the main agency for overall collection of data in the country. Statistics on different subject areas are published on a regular basis the by the CSO and are also available to the general public.

2.5 IMPROVING IN-COUNTRY CAPACITY

2.5.1 Training Programmes for Public Officials: Formal Training programmes for public officers during their office hours in the field of Tourism management, Safety and Environmental Management are not offered as such. However, from time to time there are seminars and workshops that are organized.

2.5.2 Promotion of Tourism in Mauritius: The Mauritius Tourism Promotion Authority (MTPA) is responsible for coordinating all promotional aspects of the tourism sector of Mauritius. In fact it has the following main responsibilities: promote Mauritius abroad as a tourist destination by conducting advertising campaigns; participating in tourism fairs and organizing, in collaboration with the local tourism industry, promotional campaign and activities in Mauritius and abroad; provide information to tourists on facilities, infrastructures and services available to them in Mauritius; initiate such action as may be necessary to promote cooperation with other tourism agencies; conduct research into market trends and market opportunities and disseminate such information and other relevant statistical data on Mauritius; and advise the Minister on all matters relating to the promotion of tourism

2.5.3 Special Promotion Campaigns focusing on tourism in coastal areas:

- **Raid Vittel 2003:** Last year Mauritius organized an international sport-tourism campaign known as the Raid Vittel Amazones reserved for ladies, especially sports women. This promotion attracted lots of tourists from all parts of the world (Poonissamy P., 2003)
- **International Golf Tournament:** Each year the major coastal hotel groups of Mauritius organises the Annual International Open Golf Tournament (18 holes) in Mauritius.
- **Indian Ocean Big Game Fishing:** The Indian Ocean Big Game Fishing is held every year during the October-November season in the high seas of the western part of Mauritius. A major innovation in this competition is that after the fish is caught and weighed, it is released again in the water.

2.6 RAISING AWARENESS AND VOLUNTARY INITIATIVES

2.6.1 Information and Awareness raising campaigns on tourism related issues:

There are campaigns for new form of tourism such as eco-tourism, green tourism, new types of marine tourism such as Dolphins Watching that are emerging now (Jeetoo C., 2002). However, the main constraint is that most of the hotels want to protect their “Star” standard image that should not compromise with the hotels’ luxury services and facilities (Purgun R., 2000).

2.6.2 Information and Awareness raising campaigns for the protection of the coastal environment include the following: Operation Plage Propre –2003 and World Environment Day – oceans and seas. Very little awareness campaigns are conducted at national level.

2.6.3 Adoption of Environmental Management System by the Tourism facilities and Services sector: In Mauritius only a few hotels groups have adopted Environmental Management System based on the ISO 14000 and Green Globe Standards. At present out of 88 operational hotels as at July 2002, only 3 hotels are Green Globe certified and the Labourdonnais Hotel which is the only hotel using the ISO 14000 certification. Practically, 6 % of the coastal hotels are using Environmental Management System (Abdallah W., 2003).

Hotel	Types of EMS
Labourdonnais Waterfront Hotel	Green Globe Certified, ISO 14001 Certified
Le Coco Beach Hotel	Green Globe Certified
Sugar Beach Resort	Green Globe Certified

2.6.4 Other voluntary certification scheme in Mauritius – the AHRIM Charter: The “Association des Hoteliers et Restaurateurs de Ile Maurice” (AHRIM) developed and launched the AHRIM Tourism Environment Charter in 2002. The AHRIM has 14 hotel members and out of which only 6 hotel establishments have signed the charter. Here the AHRIM own members have crossed not even the 50 % benchmark in signing the charter. This shows clearly that hotels are reluctant to go for environment certification (AHRIM, 2002).

2.7 OTHER STAKEHOLDERS

2.7.1 The Role Of Non-Governmental Organisations: With the changing socio-economic and environmental features following industrialization and accelerated growth over the past years, there has been a shift in government strategy in relation to the NGOs. Government has been encouraging NGOs to play a more active part in social welfare and environmental protection. Since NGOs by their very nature, operate at the grass-root level, they are constantly in touch with the masses and as

such they are aware of the different problems and difficulties that people are facing everyday. Thus, increased support is being given to enable NGOs to participate fully in the socio-economic development of the country. Some NGOs are very active in implementing projects that are in line with Government objectives. NGOs work in close collaboration with the Department of Environment (DOE) where there is an NGO desk and about 40 NGOs are registered. The Ministry of Environment provides logistical support to NGOs, such as access to the DOE Resource Centre, use of the conference room for holding meetings and grants for the implementation of environmental projects. NGOs are involved in decision-making through their representation in the National Network for Sustainable Development. The National Environment Fund (NEF), under the Ministry of Environment, provides financial support to NGOs for environmental projects. Several NGOs are grouped under the Mauritius Council of Social Service (MACOSS) focusing on promoting social and development work in Mauritius. Its main objectives are to co-ordinate activities of NGOs, organise and introduce new and innovative actions in the NGO sector. Furthermore, a network of facilitators and trainers supporting NGOs working in the field of the environment has been created. Thus, NGOs in Mauritius are being given the necessary support to work as partners in furthering the concept of sustainable development at grass-root level (MoE, 2002). The Main Non Governmental Organisations (NGOs) working on Environment related field: The main NGOs working on Environmental related fields are Shoal of Capricorn, Mauritius Underwater Group, Forever Blue, Mauritius Scuba Diving Association, Grand Bay Watch, Gold Award Holders Association, Friends of Environment, Mauritian Wildlife Foundation, Eco-Sud, Maucescoya and the Institute of Environmental & Legal Studies.

2.8 REGIONAL AND INTERNATIONAL COOPERATION

As a SIDS, Mauritius is constrained in its development by factors such as: small domestic market; diseconomies of scale; distances from major growth centers; high costs of transporting exports to overseas markets; limited resources; limited arable land; narrow production base; high infrastructure costs; ecological fragility; proneness to natural disasters; heavy dependence on international trade. Despite the above constraints, Mauritius has fared well and has successfully moved from a low-income to a medium-income economy in a relatively short lapse of time. Nevertheless, there are two important sources of pressure that may hamper the national sustainable development of Mauritius. First, there is pressure for greater economic competitiveness, which has been given a strong momentum with the institution of the World Trade Organization as a trade policy body with representatives from 144 countries and which has legal force. Poorly managed economic activities may lead to unsustainable exploitation of the environment. Secondly, there are various external economic and political pressures which have direct and indirect effects on the atmosphere, land and water resources and which may in turn have drastic consequences on quality of life in the country. International and/or Regional Cooperation is, therefore, viewed as an important ingredient in the overall development strategy of Mauritius to achieve sustainable development, in order to give due protection to the global environment and build resilience to the rising economic challenges.

2.8.1 Membership of Regional Organisations involved in the Sustainable Development of Tourism: Mauritius is member of a few regional/international organizations involved in the sustainable development of tourism and these are World Tourism Organization (WTO), Regional Tourism Organization of Southern Africa (RETOSA), Small Islands Developing States (SIDS), Southern African Development Community (SADC) and the New Partnership for Africa's Development (NEPAD).

2.8.2 Signatory of Regional Conventions/Agreements with relevance to sustainable tourism development: Mauritius has signed many Agreements and Conventions concerning environment and sustainable tourism developments. Some of the regional conventions that Mauritius has signed are: SADC Protocol, RETOSA Charter, Agenda 21, SIDS protocol and COMESA Treaty.

2.8.3 Regional Development Plan relevant to sustainable tourism development: Mauritius is not only part of Regional development Plan with relevance to sustainable tourism development but playing active and leading role in the region. Recently, the SADC Conference – August 2004 was held in Mauritius and the question of sustainable tourism development plan was discussed in line with the RETOSA issue that is part of SADC. In January 2005, the SIDS development plan will be discussed in Mauritius. Mauritius is part of the NEPAD programme. The African leaders based on a common vision and a shared conviction around three clusters of programmes and policy areas initiated the NEPAD programme: *Conditions for sustainable development*: peace, security, democracy and political governance, economic and corporate governance, sub-regional and regional approaches to development; *Sector priorities*: infrastructure, human resource development, agriculture, environment, culture, science and technology platforms; *Mobilizing resources*: capital flows, market access.

3. CONCLUSIONS

After a long period during which humanity had no concern for environmental preservation or protection, the environmental issue suddenly became 'en vogue', especially after the first Earth Summit held in Rio de Janeiro in 1992. Environmental awareness is now growing in the world and naturally this fact is also reflected in the tourist industry. The primary aim of this study was to present the Country Profile for Mauritius. It was found that Mauritius has sufficient standards, regulations and plans for the protection of coastal areas. There are laws in force in Mauritius regarding protection and conservation of the environment, especially marine environment. However, it is worth noting that the enforcing agencies are not playing an active role; total enforcement of these regulations remains a challenging problem. NGOs, on the other hand, are playing an active role in the protection, conservation and environmental education, especially to coastal environment. Nevertheless, there is still the question of the lack of emphasis put upon the fact that defending public interest is too passive. In terms of monitoring and assessment, the laboratories and monitoring institutions are well equipped. The problem that posed, however, is the poor quantity of monitoring

registered so far. Another impediment is the fragmentation and duplication of work. Regional and international co-operations are judged to be satisfactory. Overall, it can be said that existing environmental and tourism policies for Mauritius match the requirements of the BF at regional and international levels.

Furthermore, this research is not an end itself as future in-depth works could involve Beach Use Satisfaction, Water Sampling and Analysis using Standard Methods, Sensitivity Indexing using Geographical Information System, Cost Benefit Analysis and Scenario building using GIS.

ACKNOWLEDGEMENT

We thank the Ministries of Environment, Tourism and Leisure, and Local Government and the Albion Fisheries Research Centre for providing assistance. Special thanks to Mrs. Mercedes Silva, Coordinator for Caribbean BF Consortium and Mr. Finn Bolding, International BF Coordinator for providing valuable advice and giving the permission to make optimum use of the information on Blue Flag.

REFERENCES

1. ABDALLAH W (2003). B.Sc. Environmental Science Project on 'Green Globe Standard in Mauritius: A survey in the Mauritius Tourism Sector', University of Mauritius.
2. AFRC (1999). Albion Fisheries Research Centre, Thematic Maps for Coastal Areas.
3. AHRIM (2002). 'Association des Hoteliers et Restaurateurs de l'Ile Maurice' – AHRIM Annual Report 2002.
4. BAIRD (2003). Baird and Associates Coastal Engineers Ltd. report on 'Study on Coastal Erosion in Mauritius' for the Ministry of Environment.
5. CSO (2008). International Travel and Tourism Report.
6. GUNDLACH AND MURDAY (1987). Oil Spill Response Coastal Sensitivity Atlas of Mauritius.
7. ISO FOCUS (2004). Fostering Environmental Sustainability, ISO Focus, Vol. 1, No. 6
8. JEETOO C. (2002). B.Sc. Management Project on 'Novel Avenues for Marine Tourism Development in Mauritius', University of Mauritius.
9. MERCEDES S (2004). Caribbean BF Start Document, Caribbean Tourism Organisation.
10. MINISTRY OF TOURISM AND LEISURE (1999). Handbook of Statistical data on Tourism.
11. MOE (2002). Ministry of Environment, Meeting the Challenges of Sustainable Development.

12. POONISSAMY P (2003). Raid Vittel Amazones, Mauritius Police Magazine 2003, pg. 104-105.
13. PURGUN R (2000). B.Sc. Management Project on 'Green Globe Certification – A case study at Le Coco Beach Hotel', University of Mauritius.
14. RUNGHEN, BHURUTH AND RUGHOOPUTH (2004), personal communications.
15. STARKEY R. (1998). Environmental Management Tools for SMEs: A Handbook, European Environment Agency.
16. THOMSEN F. B. (2001). International Newsletter of Coastal Management, Coastal Resources Center, University of Rhode Island, USA.