Towards Introducing The Blue Flag Eco-Label In SIDS:
The Case Of Mauritius

Salim Aliraja and Soonil D. Rughooputh
Faculty of Science, University of Mauritius, Reduit, Mauritius.
Tel 230 454 1041 Ext 1481; Fax: 230 454 9642; sdr@uom.ac.mu

ABSTRACT
Tourists are showing preferences for destinations that protect and preserve their environment. The propulsion of the environmental issue to the priority list of many governments in consultation with the non-governmental organisations have led to the development of best practices and eventually to the development of environmental standards and certification schemes. Basically, certification schemes can be defined as compliance to a set of regulatory, institutional and management frameworks. The Blue Flag (BF) certification scheme is an eco-label awarded to beaches and marinas complying with specific criteria within the categories of water quality, environmental education and information, environmental management, and safety and service facilities. One of the strengths of the concept lies in the approach towards Integrated Coastal Zone Management. Hence, the BF Label is an important tool in the work towards sustainable coastal development. It concentrates on tourism by addressing actions at beaches. A goal to continue to the sustain use of current areas, and leave the more pristine areas untouched. This paper focuses on the feasibility of introducing the BF in Mauritius with the purpose of awarding the BF status to its beaches. The study showed that:

- existing environmental and tourism policies match the requirements of the 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.

We also propose the creation of a SIDS BF Consortium for the purpose of developing standards and criteria for all SIDS.

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

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 fish 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 causes, 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.

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 this paper, we propose the creation of a SIDS BF Consortium for the purpose of developing standards and criteria for all SIDS. The connection between the SIDS consortium and FEE will then follow. As a country profile study, we present an assessment of Mauritius with respect to the adoption of the Blue Flag. National BF Councils will need to be developed that will report to the SIDS BF Consortium proposed earlier. The NBF Jury will be expected to award the BF status to at least two beaches every year.
2. Blue Flag Implementation Process For SIDS

At the outset, the following scheme is proposed for BF implementation for SIDS (see below):

When a new country is interested in implementing the BF Campaign, it will first of all be important to contact the International BF Co-ordination in order to discuss the conditions for being included in the BF Campaign. The BF implementation process in a new country normally has the following steps:

- Arrange a National BF (NBF) workshop
- Set up a NBF Council or Committee
- Appoint a NBF Co-ordinator
- Produce a BF feasibility study
- Run a BF pilot phase
- Full BF Campaign

**BF WORKSHOP:** The first step is targeted towards identifying and mobilizing interests, at local, regional and national level, through BF workshops where all major stakeholders on the national level meet and discuss the interest and feasibility for BF in the country. Interested participants then should create an NBF Council (with all major stakeholders on the national level) and decide on the appointment of an NBF co-ordinator.

**NBF COUNCIL:** This council or committee shall be in charge of the process of investigating the feasibility of an NBF Campaign, identifying tasks in a work plan, reflecting the findings of the feasibility study and the identification of national priorities. Such a committee shall be responsible in carrying out the initial feasibility study together with an NBF Co-ordinator. The purpose is to identify the needs for technical and human resources and other infrastructure to support a NBF Campaign and to examine the conditions on location in coastal communities, and lastly to define a strategy or plan for implementing the NBF Campaign, including training programmes, investment programs, information exchange etc. Moreover, the group of experts
and interests placed together in the national council should be entrusted with evaluating progress in establishing an NBF Campaign. At a later date the council/committee or a part of it, should become the National Jury which each year evaluates and selects the national candidates for the Blue Flag. When composing this NBF council it is important to ensure that all relevant interests and capable experts are represented. The following should be considered:

- National water quality authorities
  - In charge of bathing water quality monitoring
  - In charge of the implementation of national water quality policies, including public works and infra-structural improvements
- National authorities or bodies
  - In charge of national policies on coastal zone management
  - In charge of nature protection policies and their implementation
- National tourism authorities
  - In charge of national tourism policies including environmental policies and programmes
  - In charge of co-operation with the private end of the sector
- National safety boards
  - In charge of policy and guidelines for safety management on and by the sea
- National associations of regional and local authorities/interests
- Non-governmental bodies representing environmental interests and/or with competence for environmental education
- National representatives of the tourism trade
- National consumer associations
- Marina experts
- Environmental organisations
- Experts in environmental management and policy, environmental education, tourism planning and management

NBF CO-ORDINATOR: An NBF Co-ordinator should also be appointed to co-ordinate the production of the BF feasibility study in co-operation with the NBF Council, the SIDS BF Consortium and FEE. The co-ordinator of the BF implementation can be a representative from an NGO (FEE member organisation), a governmental representative or a private sector representative. Within 3-5 years, a FEE SIDS can be created consisting of the national NGOs members of FEE from SIDS countries.

BF FEASIBILITY PHASE: In the feasibility phase the existing conditions concerning the national regulations, codes or programmes regarding the different aspects of the Campaign (A), and on-site conditions in local communities (B) are investigated and described. This investigation should result in a plan of action for how the implementation and management of the BF Campaign can be carried out. The first locations selected, as pilot beaches/marinas will normally serve as models for other locations wanting to participate in the BF Campaign. It is therefore essential to locations representing the spectrum of situations that will later be encountered, both with respect to the factors just mentioned and those of a capacity and institutional character. The National Jury, SIDS Consortium and the International Jury will evaluate and approve the local feasibility studies and the suggestion for pilot beaches/marinas as a condition for starting the pilot phase.
A. BF feasibility phase on the national level
An NBF Campaign involves many different partners relevant to the Campaign because of their specific expertise, policy area and their role in its implementation. An NBF Campaign feeds into and relies on a variety of policies at a variety of levels from local to national. As a result, the Campaign places demands on such policies and their implementation, be they about safety, water quality, environmental education, waste management, recreational nature management, siting of tourism facilities, etc. The initial feasibility study must address whether existing policies and their implementation can meet the demands of a national campaign and how it fits into existing frameworks for addressing its issues. If there are no such frameworks or they are identified as insufficient in aims, capacity and function, it must be considered how a BF "Policy" or "Programme" can be implemented in a combination of local, regional and national sharing of responsibilities. In countries with a large degree of decentralisation, national institutions and policies may not be as much of a deciding factor for a BF Campaign as in countries with stronger national authorities. If that is the case, the NBF Campaign must rely more on local and regional capacities for environmental management than on national authorities and their policies and regulations. The NBF Committee should, in its national feasibility study, answer a number of questions for the aspects covered by the “Country Profile Form” (http://www.blueflag.org/pdf/Countryform.pdf) and the “Stakeholders’ Questionnaire” (http://www.blueflag.org/pdf/Questionnaire.pdf). If the conditions and requirements are met, the BF scheme can then be successfully transferred to a new country. The information on the normative and institutional frameworks provided as well as on the human and technological capacities, will be necessary to evaluate the feasibility of the BF in a SIDS’ country. The NBF Council, the SIDS BF Consortium and the International Jury will evaluate the national feasibility study and approve the documentation as a condition for starting the pilot phase.

B. BF feasibility phase on the local level
In addition to the national assessment, it is necessary to examine the capacity at local level and the diversity of local conditions. This assessment can be used in the process of investigating local conditions relative to the 2004 European BF criteria (http://www.blueflag.org/pdf/BeachExplanatoryNotes2004.pdf) and the functions they demand in connection with the identification of locations (beaches/marinas) for the pilot project.

BF PILOT PHASE: The pilot phase is the period of time needed to bring beaches and marinas up to the BF standards and to have a small number of selected sites function as models for the development at other sites. The experience of working with these sites together with the findings of the above investigation should be used in planning how to launch and manage a full-scale national campaign. The pilot beaches/marinas should organise a “local BF Committee” with the involvement of the relevant stakeholders at the local level. The local committee will be in charge of analysing the exact situation at the beach/marina concerning the compliance with the BF criteria and guidance notes. The committee should produce a gap analysis and a master plan.
(with a time frame) for filling the gaps, and the committee should oversee the improvement of facilities/standards. The gap analysis and master plan should be sent to the NBF co-ordinator and NBF Council and the SIDS BF Consortium for information.

**FULL BF AWARD:** After having implemented the above, it will be possible to apply for the full BF award for the beaches and marinas in the SIDS that have been involved in the pilot phase. The local committee must ensure that an application form is completed and relevant documentation must be enclosed. It is furthermore recommended to include information about how the gaps described in the gap analysis have been filled. The documentation is forwarded to the national BF co-ordinator. An NBF Jury (the most important stakeholders from the former NBF Council) is in charge of evaluating the candidates according to the procedures described in the National Jury Guide. The evaluation should lead to a decision on the national level (yes, no or yes with dispensation) concerning the beach/marina applications. The approved applications are forwarded to the SIDS Consortium, which is responsible for forming a regional SIDS BF Jury in charge of evaluating the candidates. The approved candidates will be forwarded to the International BF Jury that meets in September every year. The International Jury has the final decision regarding the award of Blue Flags to beaches and marinas, the award of BF certificates to BF pilot beaches and marinas and the approval of feasibility studies. The flags can now be raised. After the final launch of the BF Campaign in a country, the NBF organisation is expected by FEE to fulfill a number of functions as final BF operator. These include:

- Providing new potential participating beaches/marinas with guidance about how to meet the BF criteria and explaining the conditions for participation
- Carrying out consultative visits to the BF beaches/marinas and controlling compliance with the criteria during the season
- Providing the BF beaches/marinas with information material to be distributed to the visitors and users.
- Providing the BF beaches/marinas with other public relations materials so as to spread effectively the message and knowledge of the BF Campaign
- Being a continuous source of inspiration and encouragement to the participants
- Being an active participant and contributor to the regional and international elements of the Campaign
- Raise the funds for running the BF Campaign on the national level.

### 3. 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 Mauritius towards introducing BF. We evaluate 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.

#### 3.1 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.

3.2 THE REGULATORY FRAMEWORK AS IT RELATES TO THE COASTAL AREA

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

**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).

**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.

**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.

**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.
**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.

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

**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).

**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.

**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.

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

**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.

**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.

**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 Vacas 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.

**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.

**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 aircrash in the Marine Park of Blue Bay.

3.3 THE INSTITUTIONAL FRAMEWORK

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

**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 Géometriques*.

**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.

### 3.4 MONITORING AND ASSESSMENT

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

<table>
<thead>
<tr>
<th>Central Water Authority</th>
<th>St Paul, Vacoas</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Environment Laboratories</td>
<td>NEL Complex, Reduit.</td>
</tr>
<tr>
<td>University of Mauritius</td>
<td>Reduit</td>
</tr>
<tr>
<td>Albion Fisheries Research Centre</td>
<td>Albion</td>
</tr>
<tr>
<td>SGS (private company)</td>
<td>Port Louis</td>
</tr>
</tbody>
</table>

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.

**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).

**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).

**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.

**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.

**Maps of the coastal areas:** Natural resources and salient features of the coastal areas have been mapped in the Oil Spill Coastal Sensitivity Atlas of 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).

**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.

### 3.5 IMPROVING IN-COUNTRY CAPACITY

**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.

**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.

**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.

### 3.6 RAISING AWARENESS AND VOLUNTARY INITIATIVES

**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).

**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.

**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).

<table>
<thead>
<tr>
<th>Hotel</th>
<th>Types of EMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labourdonnais Waterfront Hotel</td>
<td>Green Globe Certified, ISO 14001 Certified</td>
</tr>
<tr>
<td>Le Coco Beach Hotel</td>
<td>Green Globe Certified</td>
</tr>
<tr>
<td>Sugar Beach Resort</td>
<td>Green Globe Certified</td>
</tr>
</tbody>
</table>

**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).

### 3.7 OTHER STAKEHOLDERS
**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, Maucescoy and the Institute of Environmental & Legal Studies.

**3.8 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.

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).

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.

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.

4. 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 propose a consortium for BF for SIDS. Member states will be called upon to work on their country profiles. We give in this work 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
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.

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

15. THOMSEN F. B. (2001). International Newsletter of Coastal Management, Coastal Resources Center, University of Rhode Island, USA.