



**Evolution of the Speyside Eco-Marine Park Rangers from a Community-Based Management Project:  
Contributions of the Global Environment Facility - Small Grants Programme in Tobago**

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**Title:** Evolution of the Speyside Eco-Marine Park Rangers from a Community-Based Management Project: Contributions of the Global Environment Facility - Small Grants Programme in Tobago

**Abstract:**

A community-based management project in Tobago carried out scientific surveys of the coral reef ecosystems in the Speyside Marine Area, assessing them as relatively robust and resilient with consistently high conservation management values. However, anthropological activities such as over-fishing and deforestation, along with climate change threaten the reefs and ecosystem services they provide. Concurrent community sensitization and capacity building proved to be essential to the sustainable management of the marine area as it is not legally protected. Concepts in coral reef ecology and coastal zone management were integrated into many aspects of the residents' lives with activities such as family fun-days, training programmes and scholarship opportunities. 42% (450/1064)





of the community, including students (200/1064), tour guides and families participated. The project inadvertently led to the formation of the Speyside Eco-Marine Park Rangers, dedicated to protecting the marine area and continuing conservation efforts. They in turn, embarked on the project, "My Island-My Community" and network among twelve other Caribbean countries and local organizations to develop communication initiatives. These facilitate learning exchanges and enhance community-based climate change adaptation activities. These two case studies, along with their challenges and lessons learnt can be used as a model to replicate successive sustainable development initiatives.

**Keywords:** coral reef; community; capacity building; Speyside; Tobago

#### Introduction:

Coral reefs serve a number of ecological functions such as supplying the pelagic food web with organic material and nutrients, providing feeding and breeding grounds for an array of fish and invertebrate species, acting as physical buffers for oceanic currents, and facilitating biological and biogeochemical interactions (Fredrik Moberg and Carl Folke 1999; H. Cesar, L. Burke, and L. Pet-Soede 2003). These fragile ecosystems support critical economic and recreational activities such as fishing, diving, tourism and a number of spin-off industries which contribute to an estimated US\$ 30 billion in net benefits and goods each year (H. Cesar, L. Burke, and L. Pet-Soede 2003). Despite this, coral reefs face several threats stemming from unsustainable anthropological activities such as over-harvesting, pollution and the effects of climate change (D. R. Bellwood et al. 2004; H. Cesar, L. Burke, and L. Pet-Soede 2003). As a result of this in the Caribbean, several critical groups of corals are missing or represented by only a handful of species thus posing great risk to the key role they play. (D. R. Bellwood et al. 2004).

The geographic focus of this study is the town of Speyside located on the north eastern coast of Tobago, one of the southern-most islands in the Caribbean Sea. Speyside is bordered by the Tobago Main Ridge Reserve, the oldest protected forest reserve in the Western world, and is fringed by the sea





and coral reef ecosystems (Speyside Eco-Marine Park Rangers 2010). The coral reefs extend to a distance of 500m from the coast and are submerged under 10m of water, sloping to depths of 35m (Kelly Ann Mannette 2005). Studies conducted in consecutive decades from 1985 to 2002 by Laydoo and the Institute of Marine Affairs (IMA) have labelled the reefs as being in good condition and having a high species diversity with 44 coral species and 84 fish species (Kelly Ann Mannette 2005).

Threats from climate change on Tobago's coral reefs were seen most significantly in 2005 when a large-scale bleaching event caused by thermal stress negatively impacted on 85% of coral colonies and resulted in several exhibiting signs of disease (Hyacinth Armstrong et al. 2009; Buccoo Reef Trust 2008). In contrast to the Buccoo Reef, the reefs in Speyside showed low levels of bleaching and were described as being versatile and resilient with urgent need for their conservation and sustainable use (Buccoo Reef Trust 2008). With continued over-exploitation, unsustainable use and current conditions in the Speyside Marine Area, it is evident that the reefs' susceptibility to such events may be much greater in the future. Considering that they provide a consistent tourist attraction with one of the best recreational scuba diving experiences in the Caribbean, the potential socio-economic impacts of bleaching, disease and coral death should not be underestimated (GEF-SGP T&T and BRT 2008; Kelly Ann Mannette 2005).

There are 1,064 persons who live in Speyside and the community lacks a culture of extensive commercialism and tourist activities which is otherwise seen in the southern part of the island (Hyacinth Armstrong et al. 2009; GEF-SGP T&T and BRT 2008). There are, however, threats to this way of life with increased proposals for the development of villas and businesses (Hyacinth Armstrong et al. 2009); carrying with it accelerated environmental problems for which the community has already shown problems in coping with on a small scale. Present anthropogenic activities which negatively impact the reefs at Speyside include habitat degradation, spear fishing, deforestation of the Main Ridge ultimately leading to the sedimentation of shallow seas, land-based pollution stresses stemming from the application of fertilizers during farming activities, improper solid waste disposal





and untreated sewage discharge (Hyacinth Armstrong et al. 2009; Kelly Ann Mannette 2005; GEF-SGP T&T and BRT 2008). Additionally, overfishing has threatened the existence of several herbivorous fish that feed on algae and this has upset the competitive balance between corals and seaweed (Hyacinth Armstrong et al. 2009). This situation poses a danger to reefs, as the potential for eutrophication increases when coupled with fertilizers from the aforementioned agricultural runoff. Eutrophication has been reported to have detrimental effects on the species composition of coral reef ecosystems, as seen in the Great Barrier Reef in Australia (P.R.F. Bell 1992), the windward reefs of Barbados (T. Tomasick and F. Sander 1987) and Reunion Island in the Western Indian Ocean (Odile Naim 1993).

Very often coral reefs are undervalued in decision making related to their use and conservation due to their open-access nature and public good characteristics (Luke M. Brander, Pieter Van Beukering, and Cesar 2007). For this reason, in 2008 the Buccoo Reef Trust (BRT) focused on engaging the Speyside community towards principles in reef conservation and gathering data necessary to elevate its chances of becoming a legally protected area. Previously in 1985 the local governing body, the Tobago House of Assembly (THA) made recommendations to have the Speyside Marine Area designated as a restricted area and marine park; and in 2002 the IMA formulated a management plan for its status as the Speyside Reefs Marine Park (Hyacinth Armstrong et al. 2009). One year later in 2003, with assistance from the European Commission, the North East Tobago Management Plan (NETMP) was produced for the THA. This plan recommended a strategy and approach to ensure protection of the marine area by identifying various development activities which could be carried out without detrimental consequences (Environment Development Group 2003). Despite these efforts, the Speyside Marine Area remains without legal status as a marine park, restricted area or protected area.

The NETMP also identified that baseline data, required for effective and sustainable environmental management, was missing for north-eastern Tobago. To bridge this gap as well as to fulfil the needs of the Speyside community and surrounding ecosystems, the BRT executed the project entitled the





“Speyside Marine Area Community-Based Management Project” (referred to hereafter as the “BRT project”) (Hyacinth Armstrong et al. 2009; GEF-SGP T&T and BRT 2008). It was hoped that the project would achieve the development of a database of natural resources to facilitate local and national management needs along with a community-based “ridge to reef” approach for environmental conservation (GEF-SGP T&T and BRT 2008). The BRT project was funded through the Global Environment Facility - Small Grants Programme (GEF-SGP) with partners, the Coral Cay Conservation and the Tobago House of Assembly; following in the footsteps of a previous project, the “Tobago Coastal Ecosystem Mapping Project “ which also gathered baseline and monitoring data on various marine ecosystems in Tobago (GEF-SGP T&T and BRT 2008).

Prior to the BRT project, primary and secondary students in the Speyside community had elementary knowledge of the marine environment and very little exposure to environmental education (Kelly Ann Mannette 2005). Mannette (2005) further states that both teachers and students alike thought that environmental awareness was not adequately taught at the primary and secondary levels, and that this was essential to encourage behavioural change towards the sustainable use and protection of their marine resources. Objectives of the BRT project aimed to solve this problem in schools and the wider community by; enhancing community awareness of marine ecology and coastal zone management through a broad range of educational activities, building local capacity to support livelihood needs, and promoting community participation in the execution of marine management plans (GEF-SGP T&T and BRT 2008).

During a 1 year period from October 2008 to September 2009, the BRT project goals were largely met and several challenges were overcome as the community became more aware of ways in which the coral reefs could be protected and sustainably used. After completion, a group of residents emerged who were interested in continuing project objectives and community goals, later forming their own registered Community Based Organisation (CBO) called the Speyside Eco-Marine Park Rangers





(SEMPR). This group subsequently embarked on a regional initiative on increasing environmental awareness with the project “My Island My Community: Increasing Awareness and Changing Attitudes and Behaviours on Climate change and Environment in Tobago” (which would hereafter be referred to as the “SEMPR project”).

In retrospect, the measure of success of the BRT project extends far beyond the outlined objectives and goals formulated in the project proposal in 2008, as achievements could ultimately be seen in the offshoot activities of the SEMPR. This paper therefore examines the situations which evoked such outstanding accomplishments within the BRT project, the challenges encountered, solutions formulated and the best practices applied which lead to the evolution of a more environmentally sensitive community and the formation of the SEMPR.

#### Method:

Projects files of the Trinidad and Tobago Global Environment Facility - Small Grants Programme (GEF-SGP) provided most information for the 2 case studies. Files contained proposals, progress reports, and agendas. More detailed information on the dynamics and activities of the grantee organisations were sourced from their websites, in addition to e-mails, phone calls and Skype conversations with their members. The final report of the BRT Project was also an invaluable source of information together with discussions held at GEF-SGP bi-monthly National Steering Committee meetings. Referred papers were identified through a search in the SciVerse ScieneDirect database with keywords pertaining to conservation, coral reefs and community-based efforts. Lectures from the Climate Change Diplomacy course offered by the DiploFoundation, Malta also served as a source of information.

#### Results and Discussion:

##### Top-down vs. bottom-up approach

One of the most evident best practices in the BRT project was the focus placed on community





participation, the integration of this in project objectives, and methods in which they were executed. The project centred on a bottom-up approach after consecutive failures and challenges were presented by a top-down approach attempting to establish the Speyside Marine Area as a restricted area with legal status and enforced management plans (GEF-SGP T&T and BRT 2008).

The lack of central governmental support conferred a situation with room for the BRT project to address certain inherent advantages when working at the grassroots level. Top-down approaches usually set pre-determined project goals which are rigid, frequently leaving no room for leeway; as compared to the bottom-up approach where local expert knowledge enhances interactions between donors, researchers and partners in the development of flexible, feasible project objectives and community goals (Mark S. Reed, Evan D.G. Fraser, and Andrew J. Dougill 2006; Katharina Höne, Jovan Kurbalija, and Christiaan Sys 2010). By so doing, there is usually a more contextualised understanding of local issues (Mark S. Reed, Evan D.G. Fraser, and Andrew J. Dougill 2006), and the potential for replication at the national level is much higher as the response of businesses and people to innovative policies could be first measured and analysed on a small scale (Nicholas Lutsey and Daniel Sperling 2008; Katharina Höne, Jovan Kurbalija, and Christiaan Sys 2010). The BRT project therefore took a strategic approach by heavily involving the Speyside community within all goals and objectives in the pursuit of a holistic “ridge to reef” campaign which aimed to tackle the myriad of environmental problems affecting the coral reefs.

It was, however, evident that the prospect of eliciting a top-down approach was not ruled out. Further into the BRT project, the Buccoo Reef Trust worked alongside the Tobago House of Assembly’s Department of Natural Resources and the Environment to develop a biodiversity workshop targeting tour guides and students of the Speyside High School. Such involvement with local government would have given recognition to the project and exposure to higher level authorities about issues faced in Speyside.





### Capacity building

Throughout the BRT project, special emphasis was placed on educational and training programmes which built local capacity to support livelihood needs as well as the aspirations of community members (Hyacinth Armstrong et al. 2009). A total of 80 persons partook in capacity building and training programmes; 15 females, 35 males and 40 children (GEF-SGP T&T and BRT 2008).

The strategy of coupling community participation together with capacity building has been previously shown to result in an encouraging situation where residents are empowered to not only to achieve sustainability goals, but facilitate management decision making and community-led planning processes (Mark S. Reed, Evan D.G. Fraser, and Andrew J. Dougill 2006). In turn, this leads to ownership of the project and the perpetuation of project goals which ensure the preservation of environmentally sensitive areas, with particular regard to income generating activities. In this case, the Coral Cay Conservation (CCC) scholarship programme and various training opportunities helped to solidify a marine-related career for eco-tour guides while enhancing the quality of tours (Hyacinth Armstrong et al. 2009). Educational activities such as marine lectures held in the community alerted both residents and tourists to the dangers of over-exploitation, unsustainable use of the reef, and unsuitable anthropogenic activities such as pollution and deforestation which were negatively impacting on the health of marine ecosystems (GEF-SGP T&T and BRT 2008). By so doing, the project increased the chance that livelihoods would be upheld in a sustainable manner in the long-term for eco-tour guides, fishermen, hoteliers and the like who depend on the reef.

### Scholarship and Training Programmes

The most notable capacity building initiative in the project was the CCC Scholarship Programme under which 15 Reef Conservation scholars, 7 Reef Check scholars and 27 Coastal Zone Management scholars were trained; 7 of which were from Speyside (Hyacinth Armstrong et al. 2009). The programme also offered PADI Advanced Open Water certification which 5 Speyside







community members successfully completed (GEF-SGP T&T and BRT 2008; Hyacinth Armstrong et al. 2009).

Several best practices were identified regarding the implementation of this training programme. Firstly, other external sources of funding were solicited, together with the forging of partnerships with various organisations to secure and support programme execution. Partners and supporters included various departments in the THA, Non-Governmental Organisations (NGOs) such as Environment Tobago, nearby hotels and businesses, as well as the private sector (Hyacinth Armstrong et al. 2009).

Another best practice involved the type of training programme used for reef monitoring and the selection of participants who were trained. Both local dive operators and the THA Department of Marine Resources and Fisheries took part in the programme which was facilitated by the BRT's Coastal and Marine Management and Education in the South Eastern Caribbean Project (GEF-SGP T&T and BRT 2008). This resulted in the involvement of 2 persons associated with the BRT project, one operator from Speyside and a CCC project scientist, in addition to Tobago's local government body into the Reef Check monitoring protocol. By so doing, a long term coral reef monitoring programme in Tobago was guaranteed as the health of the Speyside coral reef ecosystem would be ascertained not only by community members but scientists and governing bodies. Further to this, there were distinct advantages with the Reef Check programme being "Train the Trainer" (T3); meaning that the aforementioned operator and scientist would have been, in turn, able to train other local dive operators, project staff and community members (Hyacinth Armstrong et al. 2009). T3 workshops have been used in Caribbean communities before to enable greater participation of local communities and enhance the capacity of participants in the sustainable management of resources in watersheds and coastal zones (GEF-IWCAM 2011). T3 also proves to be an effective method to disseminate knowledge as seen in studies where it was the preferred method of education for public health preparedness in Maine (Rebecca A. Orfaly et al. 2005); and was found to be just as effective as expert





trainer modalities in the prevention of noise-induced hearing loss (Maggie Trabeau et al. 2008).

The greatest challenge the CCC Scholarship Programme faced was the inability of residents to participate on a full-time basis (Hyacinth Armstrong et al. 2009); and likely due to family and work obligations. The solution offered to this dilemma was the development of a “flexible” scholarship programme which was adaptable enough to allow scholars to complete the equivalent of 2 weeks training at times of their convenience over an unlimited period of time (Hyacinth Armstrong et al. 2009). This allowed 5 community members to benefit from the programme and successfully complete their PADI Open Water Certifications (Hyacinth Armstrong et al. 2009). It is noteworthy that the late Peter Trotman, former president of the Speyside Eco-Marine Park Rangers (SEMPR) who was instrumental in the group’s creation, opted to take the “flexible” scholarship option. Should the scholarship not have catered to such needs of residents, the programme may have been rendered useless and the formation of the SEMPR comes into question.

When implementing such community-based project activities, it is especially important to identify with residents and realise the need for adaptable project activities which can accommodate their needs. Project outcomes ultimately depend on the behavioural changes of individuals in a community (Nicholas Lutsey and Daniel Sperling 2008) and their exclusion from capacity building exercises may be to the detriment of environmentally sensitive areas.

### **Disruptive environmental conditions**

Environmental conditions posed one of the main challenges in the data collection aspect of the BRT project when unexpected heavy swells severely damaged the survey vessel used for gathering data from the coral reefs (GEF-SGP T&T and BRT 2008). This situation was overcome by budget shifts in the GEF- SGP funding which allowed for the rental of another boat and the completion of surveys in the allotted time (GEF-SGP T&T and BRT 2008).





As with several instances of work in the field, environmental conditions can become very unpredictable and back-up plans or provisions should be made for worst-case scenarios. It is important to take as many preventative measures as possible to ensure the safety of staff and equipment considering the erratic nature of storms, floods and other dangers, particularly those in marine environments such as rip-tides, under-tows and strong currents.

### Reserved community participation

From the BRT project file and final report, it was emphasised that despite efforts to engage all ages of the Speyside community, there was reserved participation in project activities from persons in the 18-30 age bracket. Cynicism, apathy and distrust were also detected among residents during the first stages of the project (Hyacinth Armstrong et al. 2009). The main reasons for this were; the fate of similar past projects which were promised but never delivered, a lack of understanding project objectives, and failure to quickly recognise ways in which the project could be beneficial to livelihoods in the community (GEF-SGP T&T and BRT 2008).

This challenge was overcome by using face-to-face strategies such as a targeted walk around over a period of 3 days, with the assistance of a local community activist who was an avid supporter of the BRT project (GEF-SGP T&T and BRT 2008; Hyacinth Armstrong et al. 2009). Trust should never be underestimated as this, along with continuity and community consensus has been documented to be an essential part of engaging community-based organisations in conservation, data collection and educational activities (Annette Muehlig-Hoffmann 2008). Additionally, Muehlig-Hoffman (2008) highlights the value of liaisons with reputable and respected community members when stating that environmental challenges can only be met when there is a very strong bond between them and external agencies. Thereafter, community engagement and volunteerism has potential to bestow a number of benefits such as engendering ownership of the project among participants, the creation of a more effective, sustainable project, and the incorporation of local knowledge and priorities into



project implementation and design (Mane Tadesvosyan and Lusine Hakobyan 2010).

The success of this strategy whereby key influential local community members were used to encourage other residents was evident, as after the walk-around approximately 20 individuals in the 18-30 age bracket expressed interest in getting more involved (Hyacinth Armstrong et al. 2009). At the end of the project, it was reported that there was a total of 450 participants or beneficiaries in the Speyside community; 100 females, 100 males and 200 children (GEF-SGP T&T and BRT 2008). Additionally, Armstrong et al. (2009) states in the final report that as a direct result of project staff making concerted efforts to liaise with the village council, hoteliers, dive and reef tour operators to meet project objectives, community needs were eventually met. This in turn, prompted a group of individuals interested in becoming an official CBO, the SEMPR, which would continue working towards environmental conservation and sustainable development after BRT project completion in 2009. In a similar case study regarding community-based marine resource management in Fiji it was found that; respected and supported community leadership is a key factor, and focus placed on traditional authority is crucial as their influences, knowledge and characters increase the effectiveness of management responsibility delegation (Annette Muehlig-Hoffmann 2008).

However, it must be explicitly expressed that such a strategy should only be employed when funding and follow up activities promised to the communities will be delivered with 100% certainty. Effects of using the aforementioned strategy in the absence of dedicated funds and proper project management can yield devastating effects upon a community; making it harder for partnering agencies and donors to prove their commitment. This is especially true for projects dealing with rare, threatened or sensitive ecosystems and community members in the lower income bracket which depend on their exploitation for livelihoods.





Another significant challenge regarding acceptance of the BRT project and participation was the maintenance of constant contact with the Speyside community due to the 1 hour travel time and lack of transportation to the project site (GEF-SGP T&T and BRT 2008). This, coupled with minimal project staff, necessitated a greater time period to forge bonds and build trust within the community and advance project objectives. Suggestions made in the BRT final report to remedy such a situation are to establish a dedicated presence by living in the community or through very regular engagements (Hyacinth Armstrong et al. 2009). Only by so doing, could non-community members understand the dynamics which could best drive initiatives to promote project objectives (GEF-SGP T&T and BRT 2008).

Despite problems with transport and visits, local community activities were successful in achieving awareness. Midway through the project, a community march was organised with the theme “With care and pride, we protect the reefs of Speyside” with 50 participants (GEF-SGP T&T and BRT 2008). Although in a community comprising of 1,046 persons (GEF-SGP T&T and BRT 2008), 50 may seem like a insignificant amount, a few is all it takes to start a movement and disseminate best practices regarding environmental conservation. Throughout the year of the project, activities took the form of marine science lectures delivered on evenings at the Speyside community centre, a biodiversity workshop, educational activities targeted to school children and a Speyside Awareness Week which incorporated beach and underwater cleanups, a family fun day and an art competition (GEF-SGP T&T and BRT 2008).

These activities, akin to local authority events described by Wood (2005), have been shown to elicit positive responses from attendees mainly because they encourage spending time as a family, cultural improvement, bringing the community together, bringing about investment, civic pride and community development. Therefore impacts of these events planned by the BRT would have potential to regenerate the community as well as demonstrate real social inclusion and economic benefits (Emma H. Wood 2005), and, in particular for the Speyside community, increased visibility for funding.





### Involvement of school children

The heavy involvement of school children in educational programmes during the BRT project helped to fulfil the need for environmental education outlined by Mannette (2005). This was thought to be crucial to community development and for residents to understand the effects of their actions on marine resources (Kelly Ann Mannette 2005). Targeting school children was a 2-fold best practice employed which inspired a legacy for environmental concern at a young age, and had potential to influence change and environmentally sound behaviours in parents, siblings and other family members, especially within the 18-30 year old age bracket. Various studies have documented the transmission of values from child to parent in an active, passive or reciprocal fashion; whereby programmes designed for children, such as Head Start (health and nutrition), yields significant changes in their parents' behaviours and choices (Ariel Knafo and Neta Galansky 2008; P. David Pearson, Michael L. Kamil, and Barr 2000).

A total of 200 students in the Speyside area were impacted in some manner through various educational activities both in the classroom and through extra-curricular activities (GEF-SGP T&T and BRT 2008). Regarding academics, the BRT collaborated with teachers of the Speyside High School, to integrate a Coral Reef Education Package into the Caribbean Examination Council's science syllabi (Hyacinth Armstrong et al. 2009). In this way, not only was material on coral reefs and sustainable development disseminated to a large body of students, but it was necessary for them to internalise and learn it in order to obtain a passing grade for their CXC Ordinary Level Certificate.

Out of the classroom, 18 teenagers participated in field trips and attended lectures at a 4 day Sea, Sun and Science marine experience programme held during Easter holidays, and a Summer Science Seminar day camp run during the July-August vacation catered for children aged 5 - 12 years (GEF-SGP T&T and BRT 2008). 18 teenagers also benefitted from a biodiversity workshop developed and implemented by the BRT project team and the THA's Department of Natural Resources and the





Environment (Hyacinth Armstrong et al. 2009). Together with 6 tour guides, the workshop enhanced their knowledge of biodiversity laws of Trinidad and Tobago and trained them on identification of the various species of flora and fauna (Hyacinth Armstrong et al. 2009).

Such a strategy of incorporating environmental awareness in both extracurricular activities and academics proved to be successful in prompting change, engaging students in scholarly activity, and promoting environmental awareness. This was compounded in the interest expressed by the Speyside High School's UNESCO club to create a biodiversity guide of the coral reef ecosystem with information acquired from the biodiversity workshop (Hyacinth Armstrong et al. 2009). Moreover, the engagement of students in scholarly activity has potential to fuel aspirations, relay success in academics and in turn, increase income earning potential. This was especially evident in the final report where several students expressed wishes to pursue a marine related career (Hyacinth Armstrong et al. 2009).

It proves to be ever-more important in rural areas to engage children in scholarly activity as there may be a high propensity for school drops-out in order to start income earning activities such as farming, or to collect resources such as fuel and water (Secretariat of the Convention on Biological Diversity 2009). It is evident that the BRT project's influences on the education system was a multi-faceted approach which inspired environmental protection, and led to social, economic and academic benefits in the short and long term.

### **BRT Project Closure**

Upon closure of the BRT project, laments were made by both the community and implementing organisation (BRT) on the lack of time for project activities and the community to fully prosper to their true potential (GEF-SGP T&T and BRT 2008). This was compounded by the recommendation made in the final report which emphasised that community based targeted engagement, training and



nurturing requires a minimum of 3-5 years to become a reality (Hyacinth Armstrong et al. 2009). It can therefore be determined from the BRT project that inadequate timelines within such a venture, particularly one which has acquired a small grant, can be a significant challenge.

With 5 residents having a strong interest in continuing BRT project objectives, the remainder of GEF-SGP funds totalling TT\$8,851.00 were re-aligned to support the community's own group to ensure the sustainable use, management and protection of the Speyside reefs (Hyacinth Armstrong et al. 2009; GEF-SGP T&T and BRT 2008). The issue of apathy and cynicism apparent at the start of the BRT project had clearly been replaced with an established trust with the BRT and GEF-SGP; moreover, the Speyside residents themselves were defining project goals. The community interest and initiative, especially of these 5 persons, together with the knowledge, capacity and skills acquired from scholarships and training programmes prompted the formation of the CBO, the Speyside Eco-Marine Park Rangers. This confirms the theory that the more engaged and powerful the local commitment is, down to the individual level, the more likely it is that actual change will occur to promote long term progress (Nicholas Lutsey and Daniel Sperling 2008).

#### **Speyside Eco-Marine Park Rangers (SEMPR)**

In 2010, the SEMPR embarked on a new project called My Island My Community (SEMPR project), a 12 country initiative funded by the GEF-SGP and several other national and international funding agencies (GEF-SGP T&T and SEMPR 2010). The project was communications-based comprising; a regional radio soap opera, a regional radio call in programme and a national My Community campaign to build public awareness, and encourage widespread behaviour change regarding sustainable development and climate change adaptation (Speyside Eco-Marine Park Rangers b 2010). The SEMPR project also included the development of a website to facilitate learning exchanges and showcase ongoing development (GEF-SGP T&T and SEMPR 2010).







Like the BRT project, the need for training and educational opportunities was a high priority and SEMPR members participated in several capacity building workshops on both a local and regional level to further the group's advancement. Institutional memory which proves to be integral for the growth, existence and preservation of a group and its ideals, was shown to be sufficiently developed before a time of crisis in the month of December 2010. After the sudden passing away of the group's instrumental president, Peter Trotman at that time, the group grieved, however managed to cope with the loss and after a period of time, activities continued and momentum was restored.

It is noteworthy that some best practices employed in the BRT project, such as communication and knowledge sharing, were being replicated, and to a larger extent. This alludes to the benefit of mentorship, in this case, provided by members of the Buccoo Reef Trust and Keith Gibson, a PhD Researcher in the Faculty of Environmental Design at the University of Calgary, Canada (Keith Gibson 2011). The effect was clearly seen in the expansion of the "Ridge to Reef" approach into the SEMPR project activities; most notably the creation of a carnival band where 35 masqueraders wore costumes reflecting this environmental concept (Barry Lovelace 2011). Not only was this successful in terms of participation, but nationally as they placed 4<sup>th</sup> out of 12 bands in Tobago's medium category (Barry Lovelace 2011). By employing a strategy of "mainstreaming" sustainable development and coral reef conservation, the SEMPR raised awareness on critical environmental issues to the wider community in the island. Although efforts have not succeeded in attaining legal status for the Speyside Marine Area as a restricted area, marine park or protected area, the SEMPR continue to lobby for this. They still work towards achieving a top-down approach with the Government of Trinidad and Tobago and advocate the execution of management plans for the reefs to ensure its sustainable use and protection.

An esteemed measure of success can be clearly seen in the Speyside community with the graduation of project scope and outreach from a sub-national to regional level of activity on issues related to





environmental awareness, coral reef conservation and climate change. It validates that the best practices implemented in the BRT project, together with solutions taken to overcome various challenges, were successful to such a large extent that many were replicated in the SEMPR project.

### **Sustainability Indicators**

Although the Reef Check protocol serves the purpose for ecological monitoring, there is a need to establish indicators for other aspects of the Speyside community. Number of tours, income changes and standard of living represent just some of the data which is crucial to measure project success, giving a holistic perspective of the true impact of the BRT project and the SEMPR which evolved from it. Such documentation and monitoring should not be underestimated as they may play a critical role when conformance has to be made for inevitable socio-economic and environmental change as time progresses.

In light of this, Reed et al. (2006) recommend the use of sustainability indicators to adjust management strategies and sustainability goals, as well as the more comprehensive “adaptive learning process for sustainability indicator development and application”. Added benefits of adopting these practices lie in increased opportunities for social learning, communication, perspective sharing and the integration of both bottom-up and top-down approaches (Mark S. Reed, Evan D.G. Fraser, and Andrew J. Dougill 2006).

### **Conclusion:**

In projects which rely on community members for successful ideals and policies to be implemented, the roadmap to commitment often starts with sharing knowledge and instilling confidence. Community empowerment and ownership, consecutive achievements regardless of size, together with continuous capacity building will significantly contribute to the extension of project activities and socio-economic transformation, even after funding is over.





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#### Declaration of Interest:

The views expressed in this publication are those of the authors. They do not necessarily represent the views of the organisations or governments mentioned, the Global Environment Facility or the United Nations Development Programme.

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