

**Challenges of Building Co-management Arrangements
for Management of the Protected Areas System
in the Turks and Caicos Islands:
Example of the Princess Alexandra National Park**

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ABSTRACT

Management of Protected Areas in the Turks and Caicos Islands has undergone numerous institutional changes in its quest to develop into a self-financing and integrated system. Established in 1987, the Princess Alexandra National Park was the country's first protected area, and the Government of the Turks and Caicos Islands further expanded this number by 32 in 1992. The responsibility for the system of protected areas has been transferred among several related Government Departments over the past 14 years, each with its limitations. In 1998, management of the Princess Alexandra National Park, along with two other marine parks was devolved to a separate entity through the Coastal Resource Management Project. Jointly sponsored by the Governments of the United Kingdom and Turks and Caicos Islands, the primary objective of the Project is 'to adopt and implement sustainable management mechanisms for designated national parks and marine protected areas for the benefit of a wide range of stakeholders'. Embodying the principle of co-management, the CRMP is developing a number of partnerships in managing the marine parks and has delegated responsibility of some activities to other organizations. The process of developing co-management institutions however, has not been the *modus operandi* in the Islands resulting in multiple challenges. Co-management becomes more of a constraint in the face of non-cohesive communities and an unsustainable process of building ownership of the resource among key stakeholders. Therefore, the Government and other stakeholders are learning that in order for co-management to work, there must be clear agreements of roles and responsibilities of managing parties, a climate of cooperation, respect and transparency, and perhaps, most importantly, well defined benefits to key stakeholder groups.

KEY WORDS: Co-management, Marine Protected Areas, Turks and Caicos Islands

INTRODUCTION

Description of the Islands

The Turks and Caicos Islands is a small archipelago of low-lying islands located at the southeastern tip of the Bahamas platform, lying approximately 400 km SE of Florida, USA and 125 km North of Haiti. The Country comprises two groups of islands, the Turks Islands and the Caicos Islands, which are separated by a 30 km, and 2200 m deep Turks Islands Passage. Grand Turk, Salt Cay and a number of cays make up the Turks Islands. The Caicos Islands comprise six main islands: East, West, South, North, and Middle Caicos, and Providenciales, the first two islands being uninhabited. The islands have a total landmass of approximately 500km² and are completely surrounded by abyssal oceanic depths (Figure 1). The islands are geologically young, made up mainly oolitic limestone (Wanless and Dravis, 1989); the climate is arid, with an annual average rainfall of about 45mm and a temperature range from 25° C to 29°C.

Still a British Crown Colony, the Country is governed by an Executive Council, consisting of three *ex officio* members and six appointed by the governor from the elected Legislative Council.

Ecology of the Islands

The most valuable assets to the TCI are its natural resources, which have been widely surveyed by Operation Raleigh, 1986 - 1987 and Cobham Resource Consultants (1988). The wetland areas are extensive, comprising mostly fresh and saltwater marshes, mangroves, inter tidal flats and ponds. Terrestrial vegetation is sparse due primarily to low rainfall, poor soils and rocky terrains. The majority of the vegetation throughout the islands is xerophytic, consisting largely of low shrubs and cacti.

The marine area is rich and varied (Operation Raleigh 1990). Patch and fringing reefs align most of the margins of the Caicos Platform and the Turks Banks. The Banks have supported a thriving fishery, particularly the spiny lobster (*Panulirus argus*) and the queen conch (*Strombus gigas*), for the past 40 years.

Healthy seagrass beds and mangrove colonies complete the coastal ecosystems in many areas. Other important coastal and marine resources include huge stretches of carbonate beaches, turtles, whales and bottle-nosed dolphins. The largest terrestrial animal is the rock iguana, *Cyclura carinata* surveyed by Gerber (1995). Other endemic reptiles include snakes and lizards. A large number of migratory and resident birds have been recorded for the islands. In 1993, Bradley recorded 190 species, the majority of which were migrant.

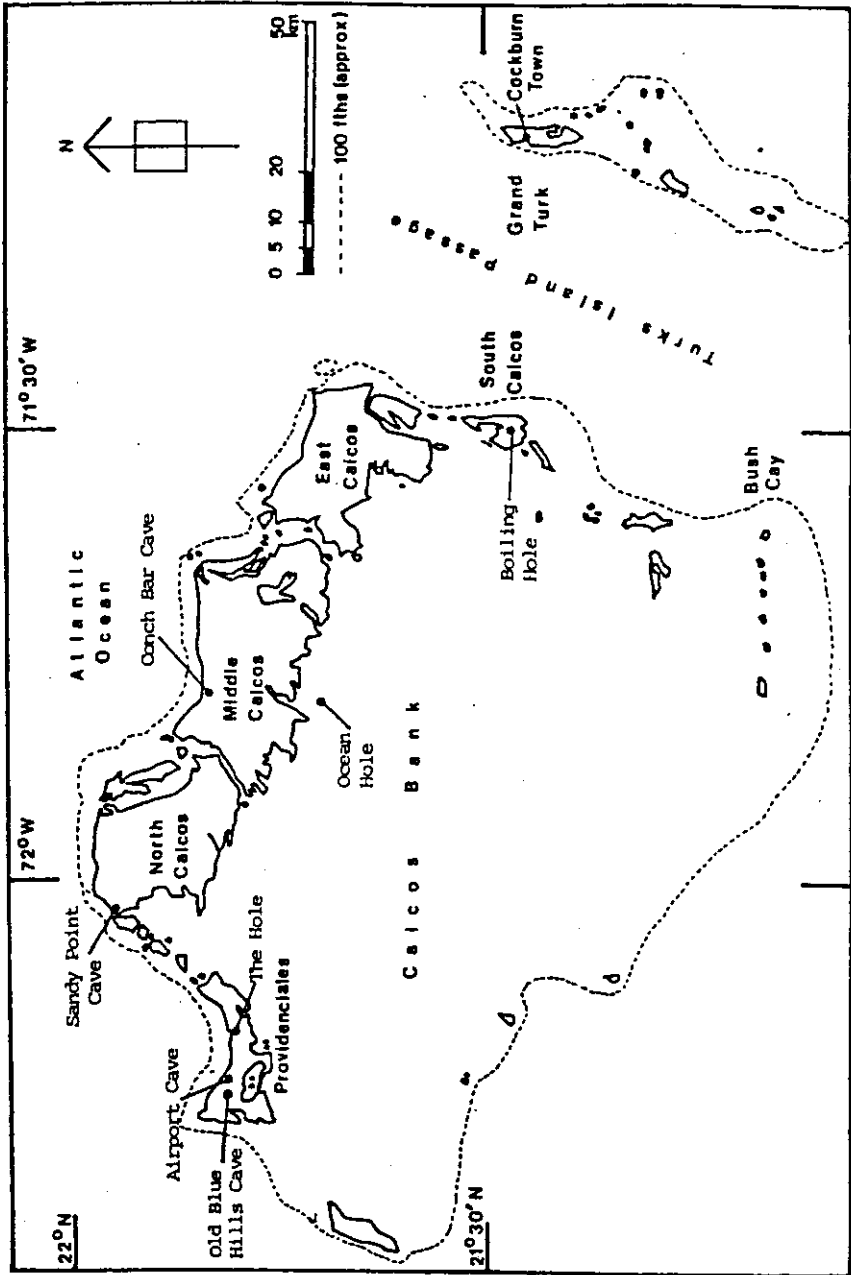


Figure 1. Map of the Turks and Caicos Islands

BACKGROUND

The Protected Areas System

The idea to set aside areas for protection of the natural environment was advanced from the early 1960s when scientific work was being undertaken on the conch fisheries; however, the first protected area was not legally designated until 1988 (Garland, 1996). Eventually the Protected Areas System was established in 1992 under the National Parks Order, which legally designated 33 protected areas separated into four categories. There are 11 national parks, 11 nature reserves, 7 historical sites and 4 Sanctuaries (Table 1).

Table 1. Designated protected areas under the Protected Areas System

Categories of Protected Areas
National Parks - are open to the public for recreational use, including camping, fishing and sailing; infrastructure development to facilitate enjoyment by the public is also permitted.
Nature Reserves - are areas managed for activities such as agriculture, arboriculture, sporting and recreational purposes subject to appropriate regulations
Historical Sites - are designated to protect objects of historical interest, and may be a part of a national park, nature reserve or sanctuary. Depending on their location, they are subject to regulations of that category of protected areas.
Sanctuaries - are defined as areas of natural ecology, which should be managed to prevent outside disturbance by humans. These areas are designed mainly for protection of sensitive habitats, and entry is by permit only.

The protected areas system covers an area of 705 km², a substantial area in relation to the total land area, which is only 500 km². The protected areas are distributed throughout the main islands and offshore cays. Some areas are mainly terrestrial, while others are purely marine. A substantial part of the Protected Areas System has been designated as a wetland area and some underwater 17th Century wrecks have been designated as historical sites.

Evolving Management Capacity

The protected areas system has encountered frequent institutional changes over the years in developing an integrated system for management. These changes included several portfolio rearrangements, with at least five different Ministers and

six different Permanent Secretaries. Detailed by Garland (1995), a Department of Environment and National Heritage (DENH) was established in 1988 as a sub-unit of the Department of Physical Planning. Three years later, the unit separated from the Planning Department to form the first full Department, the Department of Environment, Heritage and Parks (DEHP). Supported by a vibrant National Parks Advisory Committee, the DEHP was successful in getting the National Parks Regulations (1992) enacted, management plans prepared for the marine parks in Providenciales and West Caicos, and a Business Plan which outlined a self-financing system to sustain management of the Protected Areas System. Despite considerable progress, the DEHP lacked the financial and human capacity (Wood 1993) to effectively manage protected areas. Consequently, management activities were limited to the procurement of mooring buoys and periodic surveillance in the marine parks, dependent solely on the availability of the Fisheries Patrol Vessel. Attention on the protected areas further subsided in 1995 when the Government implemented a Civil Service Reform Exercise and the DEHP merged with the Fisheries Department to form the Department of Environment and Coastal Resources (DECR). The new DECR lost three former staff of the DEHP and protected areas management became subsumed by fisheries priorities (Figure 2.).

Hereinafter, proposals for capital funding to implement the management plans were presented in the country policy dialogue between the Governments of the TCI and the United Kingdom for three consecutive years. The UK Government agreed that aid funding to the Protected Areas System was contingent on the implementation of a self-financing system to sustain management activities when project funds were expended. In 1998, the Government of the Turks and Caicos Islands established the Conservation Fund under the Appropriation Ordinance. The Conservation Fund is supported by an increase of 1% of the accommodation tax. The Coastal Resource Management Project was subsequently approved in the same year.

The Coastal Resource Management Project

The Coastal Resource Management Project, funded by the UK Department for International Development (DFID) has provided approximately US\$1.8 million for the management of the system of protected areas in the TCI.

The CRMP is now in its third year of operation and employs ten staff members. The staff complement comprises the Project Manager, a Chief Parks Warden, five Park Wardens and a Scientific Monitoring Officer. A Technical Cooperation Officer (TCO) fills the position of Co-management Adviser and the Project contracts the Turks and Caicos National Trust (TCNT) to hire an Environmental Education Officer. To date the CRMP has been successful in achieving three of its five outputs:

- i) Management Plans for key protected areas,
- ii) Implementation of a Public Awareness Programme in collaboration with the TCNT,
- iii) Preparation of an Action Plan for extending management throughout the system of Protected Areas

- iv) Construction of a National Environmental, and
- v) Establishment of the National Parks Service.

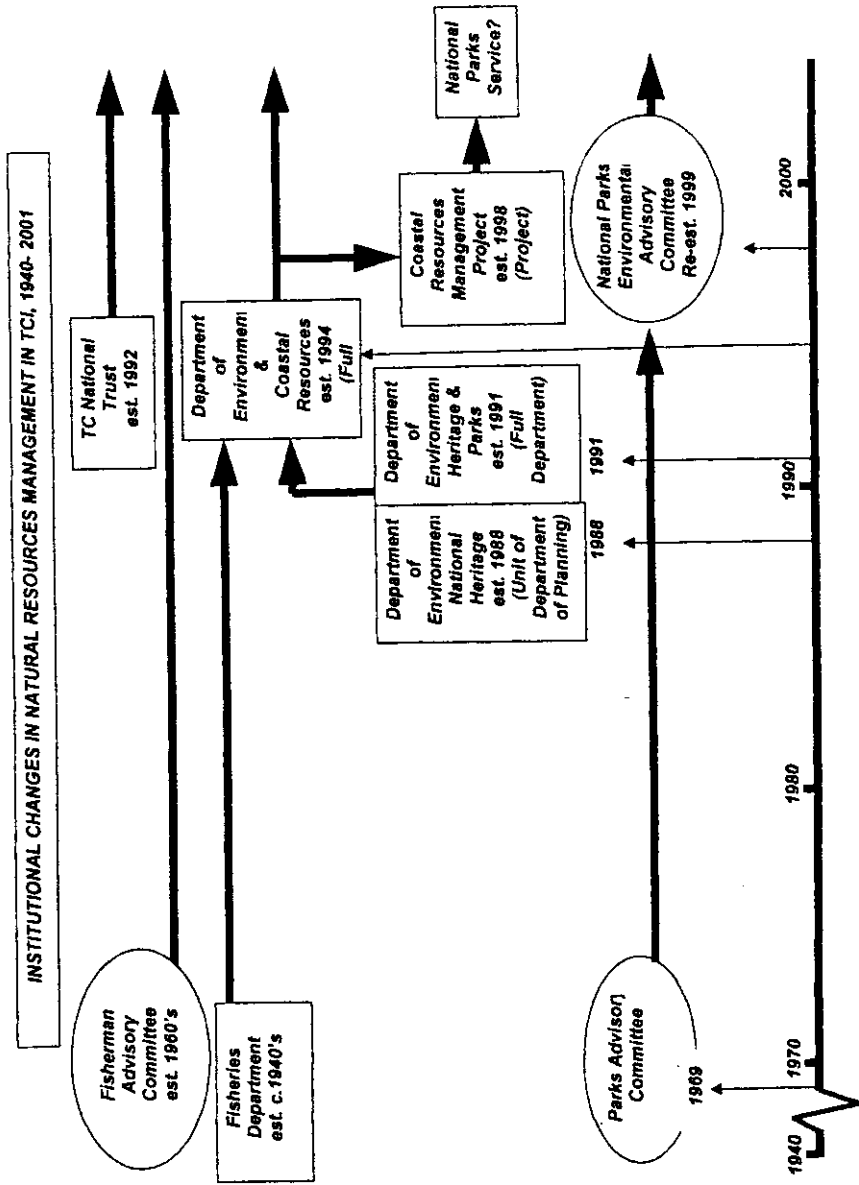


Figure 2. Institutional changes in natural resources management in TCI, 1940 - 2001

The CRMP also establishes a National Parks Environmental Advisory Committee (NPEAC) to discuss and advise the Project Manager/National Parks Director on the implementation of "park management programmes, public awareness programmes, opportunities for co-management options, selection and approval of micro-projects, and other environmental issues affecting the National Parks System". The NPEAC comprises representatives from the Hotel and Tourism Association, Watersports Association, Turks and Caicos National Trust, the Rotary Club, the Ministry of Natural Resources and the DECR.

This case study focuses primarily on the Princess Alexandra (Land and Sea) National Park as it was the first park established. In addition, the park displays many of the environmental problems and issues in tropical coastal areas. More importantly, the PANP has been the focal point for many of the activities in relation to co-management.

PRINCESS ALEXANDRA NATIONAL PARK

The Princess Alexandra National Park was the first legally established marine national park having been designated on March 4th, 1988. The Princess Alexandra National Park is located on the north coast of Providenciales and covers an area of 6,532 acres. The Princess Alexandra Nature Reserve is located within the Princess Alexandra National Park and comprises the entire land area of Little Water Cay, Mangrove Cay and Donna Cay (Figure 4.).

Ecology

Vegetation is limited to the shoreline areas of the PANP, as the boundary of the park extends only up to the high water mark. Wood 2000 classified this peripheral vegetation into two types of communities: Strand Dune Community, (*sea oats and herbaceous scrubs*) and Coastal Coppice Communities (*black torch, seven-year apple and sea grapes*). Mangrove communities comprising black, red and white mangroves are the dominant vegetation in the Princess Alexandra Nature Reserve. Several species of resident and migrant birds perch in the PANP including the brown pelican (*Pelecanus occidentalis*), ruddy turnstone (*Arenaria interpres*), osprey (*Pandion haliaetus*) and stilt sandpiper (*Calidris himantopus*) (Wood 2000). The rock iguanas (*Cyclura carinata*) and several species of lizards are the main terrestrial fauna.

The primary coastal and marine habitats are seagrass meadows, coral reef systems, and beaches and low dunes. Seagrass beds consist mainly of turtle grass (*Thalassia testudinum*), manatee grass (*Syringodium filiforme*) and sponges. Biannual surveys of the seagrass meadows by the CRMP show *Thalassia testudinum* as the dominant species of Sea grass. The reef systems in the PANP have been described by Wanless and Dravis (1989), and Operation Raleigh (1990). An almost continuous barrier reef extends along the boundary of the park, which is dominated

by massive colonies of Elkhorn coral (*Acropora palmata*) along the reef crest. Intermittent patch reefs are dispersed throughout the back reef lagoon.

The PANP is bordered on its southern side by some nine miles of continuous beach. The beach sand is derived mostly of foraminifer sands (Wanless and Dravis, 1989) and varies in width up to 100ft from the low water mark to the line of vegetation. Profile data on the beaches along the PANP proves that the beaches and sand dunes are very dynamic and in some places unstable. Consequently, serious erosion is occurring on the northeastern tip of the park, primarily due to hurricane induced changes in the 1980s.

Social Context and Ecological Sustainability

Landuse surrounding the PANP has recently been recorded by Homer (2000). The PANP is bordered by the Bight Community, one of the oldest communities in Providenciales, along with Grace Bay and Leeward Sub-divisions. While the entire island of Providenciales was transformed from an island of mainly subsistence fishing communities to one of high tourism development, the Bight Community has been mostly impacted. High land prices, slumps created by the influx of immigrant workers, and pollution of ground water are some of the most conspicuous impacts.

Fueled by the construction of the first major hotel, Club Med in 1980 and an international airport in 1984, tourism mushroomed on the island of Providenciales over the last two decades. As a result, between the Bight and Grace Bay some 20 hotels and approximately 1700 bed capacity, with numerous support industries, formed the basis of the islands' tourism economy.

The socio-economic impacts of tourism development on the island of Providenciales are well documented by Hinds 1993. The boom tourism development has led to a rapid social change with significant immigration of investors from North America and Europe and migrant labor predominantly from Haiti, Dominican Republic and Jamaica. A recent Standard of Living Assessment Report (2000) recorded 42 different nationalities residing in Providenciales. The high turn over of residents, diverse cultures, new communities and young institutions, with few historic ties, social links and obligations present significant challenges to co-management. Turks and Caicos Islanders on Providenciales are themselves drawn from the six inhabited islands. Attracted by economic opportunities and newfound wealth there is a significant gap between the residents and the protected areas.

Like all common property resources, the PANP is vulnerable to over exploitation. Needless to say, various studies carried out to assess the ecological sustainability in face of the irrepressible development suggest that the resources are under threat (Cobham Resource Consultants 1988; Operation Raleigh 1990; Hinds 1993). Activities such as illegal fishing, beach loss from erosion, pollution from landbased sources, and reef destruction as a result of irresponsible divers, boat users and snorkelers are common. A co-management approach is now being developed to address these multi-faceted issues.

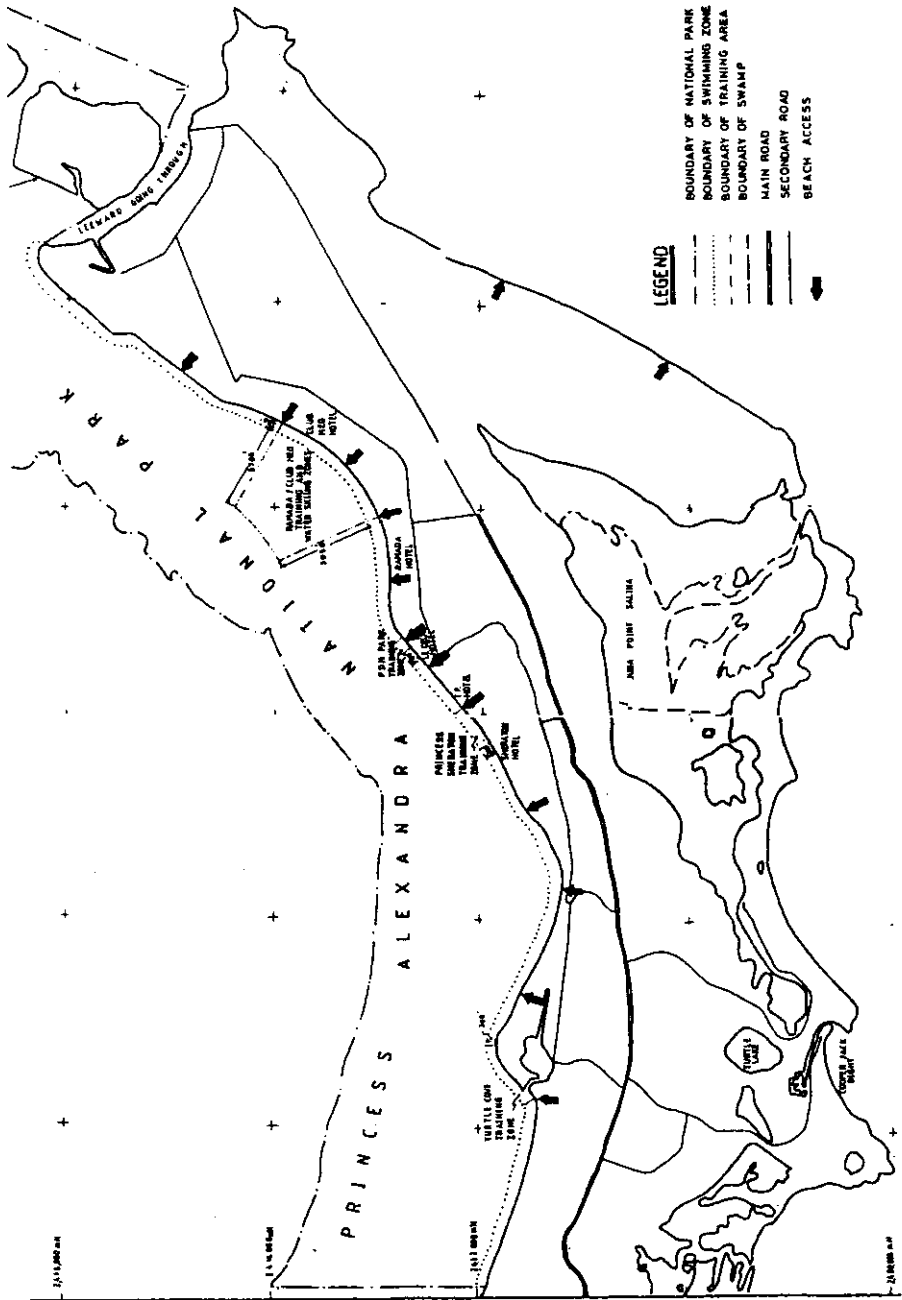


Figure 3. Map of the Princess Alexandra National Park

CO-MANAGEMENT

Co-management arose as a response to exclusionist protected areas policies worldwide and is a growing trend in resource management. Built on the theories of common property resources (Berkes et al. 1998, Ostrom et al. 1999), co-management recognizes that users have the potential and ability to collectively regulate and manage a common property resource. According to Berkes 1998 “the co-management solution stands on two basic assumptions. First, that local people need to have a stake in conservation and management. Second, that partnership of government agencies with local communities and other resource users is essential.”

While a number of authors have attempted to define Co-management, as summarized by Berkes et al. (1998), this paper borrows the general definition coined by Barzetti (1993), “Co-management is the sharing of management responsibility”. This definition is especially suited for Providenciales, where “the involvement of ‘communities’ in protected areas management means more than a group of people who share a common place of residence, but is expanded to include people who share a common function or link, such as the business community or tourists or a religious or kinship group”. Barzetti (1993) described these groups as stakeholders, or people with an interest in protected areas.

History of Local Co-management Efforts

The principles of participatory management have been promoted in resource management from the establishment of a National Parks Advisory Committee in 1969 and a Fisheries Advisory Committee in 1966. One bold and admirable collaborative arrangement sanctioned by the Government was the creation of the National Trust Ordinance in 1992. The Ordinance creates the Turks and Caicos National Trust, a non-profit, non-governmental organization to assist the government in developing and implementing conservation initiatives.

The development of co-management in protected areas has, however, been greatly influenced by external partners, particularly funding partners. For example, the UK White Paper, which was recently signed by its Overseas Territories, states as one of its guiding principles ‘to consult openly with interested parties on decisions affecting the environment’. More directly related to the TCI protected areas system is the Coastal Resource Management Project, which itself has as an underlying theme - participation and co-management.

Collaborative arrangements in resource management began during the early 1980s with the development of a mooring buoy system. These initiatives developed out of concern for the safety of recreational diving and for the protection of the coral reefs (Wood 1993a). In 1988, under the auspices of the Protection of Reefs and Islands from Degradation and Exploitation (PRIDE), a partnership was coined whereby the Government bore the cost of dive moorings, and PRIDE, co-ordinated their installment. Complete maintenance of the mooring buoy system was transferred to the Watersports Association following its creation in 1989, however, the government continues to finance most of the equipment. This participatory arrangement continued throughout the life of the DEHP and into the DECR.

Although this system existed for many years, it was not organized and maintenance to the buoys was sporadic and selective. In addition, no proper systems were established by the various departments to monitor the effectiveness of this partnership arrangement.

More formal co-management arrangements in the protected areas system began in 1996 when management responsibilities for Little Water Cay, part of the Princess Alexandra Nature Reserve, was transferred to the Turks and Caicos National Trust. A Memorandum of Agreement, which formalized the arrangement provided for the National Trust to: construct broad walks on the Little Water Cay; co-ordinate training and meetings with stakeholders; conduct a feral animal program; and establish and administer a revenue generation programme. In return, the DECR was responsible for enforcement of the National Parks Regulations (1992) and enforcement of the ticketing and fee collection system. This joint venture is still in existence today and has improved over the years.

The CRMP and Co-management

The CRMP's Arrangement — Inherent in the CRMP is the principle of participatory management. This is reflected in the overall goal of the CRMP, which is “to adopt and implement sustainable management mechanisms for designated national parks and marine protected areas for the benefit of a wide range of stakeholders”. While some co-management arrangements have been formally outlined in the CRMP memorandum, others have developed informally. The complex partnership arrangement outlined in the CRMP Memorandum (2000) makes the CRMP itself a cooperative arrangement. For example, the Project provided for the high-cost capital items in the parks including signs, buoys, vehicle, boat and staff for key protected areas in Providenciales and West Caicos. The CRMP has also implemented several management programmes, including data collection, patrols and surveillance, user surveys, outreach and maintenance. The DECR has retained all regulatory and enforcement functions of the areas and currently retains management responsibility for the protected areas in Grand Turk, South, North and Middle Caicos and the off shore Cays. In addition, management of several historical sites has been devolved to the National Trust. Unfortunately, this arrangement was not accompanied with clear operational procedures for staff of the different entities. Consequently, from the onset of the CRMP there was considerable conflict over roles, rights and responsibility. The establishment of the NPEAC is also an attempt at institutionalizing co-management, evident by its composition and its intended mode of operation.

The Public Awareness Programme — Several co-management arrangements are incorporated within the CRMP. Firstly, the CRMP contracts the TCNT to implement public awareness programmes on the protected areas in the communities and schools throughout the Turks and Caicos Islands. This arrangement is sanctioned by a Memorandum between the Government and the TCNT, which

provides for the CRMP to finance the salary for an Environmental Education Officer, public awareness programmes and core support to TCNT on an annual basis. In return, the TCNT has the responsibility to design, organize, and co-ordinate public awareness programmes to promote and educate the public on the protected areas system. The public awareness programme is now in operation, but it has suffered several setbacks during start-up due to the absence of proper guidelines for contracting staff through a non-governmental body and the lack of clarity on the qualifications, experience and full duties of the person recruited.

The MicroProjects Programme — A Small Grants Programme, locally known as the Micro-projects Programme, is one of the main vehicles of the CRMP, designed to develop partnerships in managing the natural environment. The Micro-projects Programme provides the opportunity for private individuals, local groups, local organizations, and others to become involved in the management of the natural, historical and cultural resources of the Turks and Caicos Islands. The Programme was launched in August 2000 and is funded by 20% of the Conservation Fund. The Micro-project programme became fully operational in April of this year following the appointment of a new National Parks Environmental Advisory Committee and the recruitment of two part-time staff to co-ordinate activities under the Programme. Subsequently, four projects were approved in September, however, implementation was delayed due to confusion over procedures for disbursements of funds from the Conservation Fund to the recipients.

The Water Quality Monitoring Programme — The CRMP has also sought to develop collaborative arrangements in implementing day to day management activities. For example, a water quality-monitoring programme to address potential land-based pollution on the Princess Alexandra National Park was initiated in 1999. Spearheaded by the former Resource Monitoring Adviser and a Consultant, the team comprised representatives from the Department of Environmental Health, Environment and Coastal Resources, CRMP and the Water and Sewerage Board. The team effectively operated for a period of ten months - sampling groundwater, natural runoff, effluent from wastewater treatment facilities, and finally the marine area. The data was analyzed locally and internationally, and the results were presented to senior decision-makers, including the Executive Council. The team has identified a number of threats to the water quality in Providenciales, and hopes to gain government support in taking action against perpetrators.

The Mooring Buoy Programme — The mooring buoys system, is another area where the CRMP has aimed to maintain the partnership arrangements, originally developed under the former departments. Since commencement of the CRMP in 1998, the staff has assumed complete responsibility for the procurement and installation of dive moorings, demarcation buoys and regulatory buoys in the marine parks in Providenciales and West Caicos. The staff has also been afforded local and

international training to support this management activity. While the system is more organized, input from the dive and watersports operators had significantly subsided. This is primarily due to the constant institutional changes in the PAS, and secondarily as a result of the lack of cohesiveness within the watersports sector. Consequently, the CRMP is now supporting efforts to revive user motivation in the system.

The Access Lanes — Some co-management arrangements have also informally developed around the PANP. For example, there are eleven official access lanes to the PANP. hotel and condominium developers, after 1995, were mandated by the Planning Department to landscape and beautify the access lane alongside their properties during construction. The developers complied, and have also assumed responsibility for their maintenance. Signage for the access lanes were procured under the CRMP, and at least one access lane has been developed by the Rotary Club, which is equipped with recreational facilities for children. Several hoteliers who have invested in upgrading and maintaining the access lanes alongside their property now use the access as extra parking lot for their establishments, in addition many of the landscapes are designed in a manner that portrays the access lane as a continuation of the hotel or condominium development. These actions are met with serious resentment from locals, who often feel unwelcome to the beach or the park.

CONSTRAINTS AND SETBACKS WITH CO-MANAGEMENT

Co-management is presently restricted between the CRMP and organized groups due to the demographic composition of communities in Providenciales. There are three main communities in Providenciales based on geophysical boundaries; however, since the early nineties a number of sub-communities emerged primarily due to factors of race, and ethnic background. The Communities are not all homogenous entities but divided along the lines of class or immigration status. One aspect of social fragmentation of the community is the marginalization of those persons from economically improvised countries such as Haiti and the Dominican Republic. Such people are isolated and under represented in formal community institutions, hence their voices are seldom heard.

Co-management and participatory management have not generally been the *modus operandi* of government bodies. Consequently, there is a reluctance and lack of support when initiating partnership arrangements and a lack of initiative to facilitate genuine commitment to participatory management. There is a lack of timely and consistent communication among all parties, especially the sharing of critical information by implementing partners. There is generally an absence of operating procedures and protocols for establishing co-management arrangements, resulting in undue delays, and confusion. Such conflict obstructs progress and implementation of programmes.

Partnership arrangements in general have been negatively impacted from the constant institutional changes and the high turn over of staff and senior decision-makers, and programmes and projects started by one organization are discontinued or ignored by another. The participatory agenda has been strongly driven from the outside, not actually being aware of the limited in-house capacity.

LESSONS LEARNT

In order for co-management to work:

- i) Externally driven agendas are not always practical to the existing context and can do more harm than good. 'It is like fitting a square in a round peg'.
- ii) Co-partners must be clear, from the onset, of their roles and responsibilities in any co-management arrangement. Consequently there must be a system of recourse when persons overstep their boundary.
- iii) Collaborative arrangements will collapse in the absence of proper reporting and monitoring systems.
- iv) Established guidelines and procedures are needed before initiating any partnership arrangement.
- v) People must have a desire to participate.
- vi) Adequate staff are needed to follow-up on collaborative arrangements already initiated, to ensure continuity.
- vii) There must be clear lines of communication and a flow of information and feedback must be maintain at all levels.
- viii) There must be support for the process at all levels, from Senior Decision makers to the stakeholder with the least influence.

CONCLUSION

Tourism is the economic mainstay of the TCI, which is based on the natural environment. Therefore, protection of the natural resource base is vital to the economic sustainability of the TCI. Several participatory and co-management initiatives have developed in the PAS in the TCI but have also met with challenges. While there are some extremist views on both sides of the collaboration spectrum, we should aim to find the appropriate arrangement for the situation. Some would argue that it is the Government's responsibility to ensure that the environment is properly managed, while others are of the view that participation offers a democratic and bottom-up planning process, thus gaining wide support for the process. For Providenciales, the situation supports the debate that "participation tends to elicit the participation of the most visible, high income, and mostly educated, while the least powerful and marginal, are by their nature, likely to be least visible" (Foell, 2000). It is therefore important to creatively design management programmes to encourage participation, yet at the same time recognize that in some situation more direct management might be appropriate.

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