

DEBT-FOR-NATURE SWAPS AND PROTECTED AREA TOURISM IN COASTAL AND MARINE ENVIRONMENTS: A SYMBIOTIC RELATIONSHIP FOR DEVELOPING COUNTRIES

Brijesh Thapa

*Department of Recreation, Parks and Tourism
University of Florida
(U.S.A.)*

Vinod Sasidharan

*Department of Recreation, Parks, and Tourism
San Diego State University
(U.S.A.)*

Abstract: *Debt-for-nature swap involves a mechanism of exchange in which a certain amount of the debtor's foreign debt is cancelled or forgiven, in return for local currency from the debtor government to be invested in domestic environmental projects, notably designation and management of protected areas. Swaps' objectives are to reduce the debt burden, protect the environment, and aid in sustainable development programs to generate local jobs and income, which in turn can be facilitated by protected area tourism in coastal and marine environments. However, each swap should have site-specific agreements, monitoring/enforcement programs, and most importantly, should involve locals/community in decision-making.*

Keywords: *Debt-for-nature swap, environmental protection, sustainable development programs*

Introduction

Developing countries that are coastal and insular in nature largely depend on marine environments for food and income (fisheries resources), as well as generation of foreign exchange (coastal and marine tourism) to supplement and/or assist with the balance of trade payments and foreign debt. Although the consumptive dependency is evident, however, the resources are not managed in an efficient manner to allow for sustainability. The coastal zones have been

subjugated to major environmental impacts (degradation), as an overwhelming majority of the population inhabits the region. Some of the known direct impacts attributed to humans are overfishing, ocean dumping, poisoning of marine organisms, wetlands removal, coastal deforestation, dynamiting of coral reefs, harvesting of endangered species, and habitat alteration through the construction of breakwaters, seal walls, dykes, etc. (Agardy, 1990). Based upon these impacts, and also due to the dire need to sustain the present resources, developing countries (coastal and insular) have adopted the western model of resource protection via the creation of parks, protected areas and marine sanctuaries. The protected area concept has gained widespread acceptance and participation within the last 25 years (Mitchell and Barborak, 1991), and with the growing public consensus on environmentalism, creation of more protected areas can be expected. However, creation of protected areas is an expensive ordeal for developing countries as they lack the financial resources to effectively monitor and enforce regulations of the protected areas. Also, creation of sanctuaries and protected areas come at a price as the extractive properties of coastal and marine environments are heavily utilized for export commodities to generate foreign currency to assist with the payments of insurmountable foreign debts which is estimated to be USD\$ 2.2 trillion (Human Development Report, 1999). Additionally, two

critical elements (key ingredients to achieve success in meeting the objectives of the protected area), community-based decision-making and permitting multiple uses are usually lacking (Gilman, 1997).

Concomitantly, in an effort to combat the debt and environmental crisis in developing countries, Lovejoy introduced the debt-for-nature swap concept (Lovejoy, 1984). This stepwise process involves a mechanism of exchange in which a certain amount of the debtor's foreign debt is cancelled or forgiven, in return for local currency from the debtor government to be invested in domestic environmental projects. The projects may include conservation and natural resource management, designation and management of protected areas, increase in funds for National Parks, park personnel training, and environmental education programs and activities (Thapa, 1998). Swaps can be bilateral (between two governments), or in most cases trilateral (aided by an INGO-International Non-Governmental Organization). Also, the INGO must have a local contact with a domestic non-governmental environmental organization in the debtor country to be responsible for the administration and operational facilitation of the project (Environment Bulletin, 1996).

The first swap (1987) between Conservation International (US-INGO) and Bolivia involved cancellation of \$650,000 Bolivian foreign debt in exchange for \$100,000 worth of local currency that was to be marshaled towards protection of the Beni Biosphere. Since then, it is reported that in excess of \$1.5 billion in transactions has been involved among 19+ countries and is expected to increase. The participants have been Costa Rica, Philippines, Madagascar and Poland, however countries in Central and South America have benefited the most (Deacon and Murphy, 1997). Although, nature swaps do not provide a major dent in developing countries' foreign debt, however, various achievements have been accomplished. For example, debt-for-nature swaps have aided in the creation of pro-

tected areas, national parks and biospheres; financially assisted (over USD\$100 million) in strengthening the capacities of underfunded local environmental conservation organizations in promoting sustainable management of natural resources; and a sense of awareness about environmental protection has been instilled (Thapa, 1998). The purpose of this paper is to outline the debt-for-nature swap process and its positive relationship with protected area tourism in developing nations. Additionally, the applicability to marine and coastal environments will be discussed.

Debt-for-Nature Swap: An Overview of the Process

Certain procedures are to be followed during a debt-for-nature swap process. The initial step is for the sponsoring INGO (*most active in swaps* - Conservation International, The World Wildlife Fund for Nature & Conservation, and the Nature Conservancy) is to establish a dialogue with the debtor country, and eventually gain approval from the principal players of the debtor country (government, central bank and a domestic NGO). Once approval is met, negotiations occur and eventually mutual agreements are reached in terms of funding potential projects and the mechanism of funding. In such situations, the debtor country usually indicates what areas for swap intentions should be considered, and can also regulate the amount of the swap investments. The sponsoring agency (INGO) normally locates a potential donor, which may include governments, banks, organizations and private foundations (Greener, 1991; Sadler, 1990). The international secondary debt markets for second-hand debts are also investigated for discount levels. The secondary market for bad debt originated in 1982 as a resort for lending agencies to salvage or minimize their losses. Debt could be bought for deep discounts; for example, a USD\$10 million debt could be bought for USD\$5 million (Mahony, 1992). However, when a match is

met, the sponsoring agency will buy the discounted debt, or receive it as a donation from banks and governments, or receive money from foundations to buy the discounted debt in exchange for investment of local currency by the debtor country in the stated environmental project. Local funding can also be issued by the debtor country in the form of issuing currency or bonds, in which the interests from the bonds is used for daily operations. As indicated earlier, the coordination and daily operations of the project are normally undertaken by a domestic NGO and/or institutions mutually agreed to by both parties (Dogse and von Droste, 1990; Greener, 1991; Sadler, 1990).

Swaps and Protected Area Tourism

Debt-for-nature swaps have been responsible for the creation and/or addition of protected areas in countries where swaps have been undertaken. For example, Costa Rica has been actively involved in swap practices to protect its natural environment. It is a leading country, in terms of conservation, and 12% of its total land mass is designated as national parks or protected biological reserves. The country has been proactive and has been able to get US & European INGOs, and private foundations to aid in reforestation and/or park projects via swap practices. Between 1988 and 1990, USD\$ 10 million was generated in donations to help retire the face value of USD\$ 69 million of the country's foreign debt (Page, 1990). Simultaneously, this has enabled Costa Rica to raise USD\$ 33 million in local currency bonds, which support projects such as parks and protected areas, reforestation, etc. Although this represented a retirement of about 5% or more to the overall debt burden, it was still a positive experience in terms of both debt reduction and environmental protection (Page, 1990).

Along with the promotion of sustainable use of natural resources, swaps have the inherent possibility of creating jobs and income in

remote regions via protected area tourism (Moran, 1992; Wagner, 1990). The majority of the protected areas created through swaps have incorporated nature-based tourism/ecotourism and other forms of environmental and culturally based tourism. Nature based tourism has experienced a 10% to 30% increase per year, which is about two to five times faster than the growth rate for tourism in general (Wight, 1996). Also, "environmental awareness" is becoming the collective consensus among the general populace in developed countries; so, protected areas in developing countries can anticipate an influx of nature-based tourists or ecotourists. Costa Rica has benefited environmentally and economically, as it is one of the world's most coveted ecotourism destinations with the majority of their visitors visiting protected areas.

Debt-for-nature swaps is a potential plausible strategy for developing countries who are proactive in environmental issues, and can achieve some degree of success, like Costa Rica's tourism earnings from National Parks and Reserves. Brown (1998: 76) remarks that swaps are likely to activate investment in international tourism via "park restoration, sustainable wildlife preservation and forest protection". Moreover, in the context of the African continent, Brown (1998) further states that swaps that help create protected areas/parks would increase the influx of tourists, thereby simultaneously increasing foreign exchange earnings. However, involvement and creation of local jobs should be major components of each swap as local commitments and trust is mandatory to ensure success in meeting the objectives of the swaps. For example, in the Ghana swap, Conservation International is looking at alternative income producing opportunities such as local guides and locally operated camping lodges for village residents who reside within the vicinity of the park as a way to prevent poaching (Brown, 1998). These positive economic measures can lead to increased support for the protected areas with which they are associated.

Swaps and Protected Area Tourism in Coastal and Marine Environments

The position of marine and coastal regions at the interface of land and sea increases the susceptibility and vulnerability of the natural resources to development activities, especially tourism development activities in islands and coastal destinations. It should be understood that environmental impacts in islands and coastal regions are not limited to tourism development (including water-based recreational activities) alone, but extends to overall economic development (development of coastal cities and harbors, agriculture, fishing, coastal 'protection'). Since economic development has been dependent on the tourism sector, the roots of environmental problems faced by marine and coastal regions can often be traced to their respective expanding tourism industries. Considering the fact that the natural environment of the marine and coastal zones is the principal attraction, policies, enactments and administrative fabric related to tourism planning in these regions often prioritize the amelioration of tourism's direct negative (environmental) impacts on the islands' natural resource base.

In some islands of the Caribbean, Pacific and Mediterranean regions (for example, Fiji and the Lesser Antilles), natural resource managers, planners, and policymakers advocate the integration of tourism within the framework of macro-scale comprehensive and pro-active multiple use planning (and zoning) for accommodating all resource users and, thereby avoiding resource conflicts in areas where coastal populations are on the rise (Agardy, 1990; Thorsell and Wells, 1990). Furthermore, the national governments of some islands destinations, for example, Jamaica (Pattullo, 1996) and Mykonos (Stott, 1993), have attempted to integrate traditional and community-based coastal and marine resource management methods into contemporary multi-agency tourism management pro-

grams while identifying sustainable ways of utilizing their marine and coastal resources.

Despite stringent controls, trained guides and reef etiquette postings, marine parks particularly suffering from heavy traffic (and escalating demand levels) in the Caribbean are experiencing cumulative degradation through mounting damage to coral from divers, snorkelers and careless anchor dragging (Albuquerque and McElroy, 1995: 27). In the case of the Molokini Marine Life Conservation District in the Pacific, a combination of nearly a complete lack of management, over-zealous marketing of the destination, and increased tourist activity in general, has contributed to the desecration of the pristine marine environment and ecosystem despite the establishment of regulations to conserve and protect the unique marine resource at Molokini Shoals (Gaffney, 1990: 180). Although unsatisfactory experiences from alternative tourism projects are widespread, some regions (e.g., the Galapagos Islands and the Lesser Antilles) have successfully integrated tourism into their marine and coastal protection, preservation and conservation strategies (Agardy, 1990).

Marine Protected Areas (MPAs) are emerging and have been established all over the world, notably in the Caribbean (Pendleton, 1993; Widfeldt, 1993) and the Pacific (Holthus and Thomas, 1990; Pearsall, 1993) with the objective of promoting alternative nature tourism and demonstrating co-existence between conservation and development, and to avoid the dangers of mainstream tourism. During the last twenty years, governments of the Pacific Islands have attempted to establish protected areas, in response to the dwindling natural resources from overuse and misuse of coastal systems and in recognition of the limits of growth on islands, and the negative impacts to the coastal zones from anthropogenic (including tourism) activities (Gilman, 1997: 59). Similarly, in 1987, the Turks and Caicos government identified 32 marine and terrestrial sites for future designation as national parks, nature reserves, sanctuaries, and his-

torical sites for the protection of habitats (pristine reef complexes, large tidal flats, and nesting seabird colonies) and endangered species (green turtle, humpback whale, and Kirtland's warbler) from the threats of tourism boom and land development (Mitchell and Barborak, 1991: 113). However, the challenges faced by government officials in their attempts to develop a new National Park system, included "dependence of economy on foreign aids and funds, lack of trained personnel, inadequate infrastructure, relative locational inaccessibility and remoteness of many sites, accumulating stress on specific sites (especially popular coral reef dive sites), small-scale supply of public utilities, and a lack of environmental awareness in the islands" (Mitchell and Barborak, 1991: 113).

Overall, integrated approaches to tourism resource planning and policy-making incorporate elements of environment-oriented coastal management and conservation strategies, zoning schemes (including marine protected area/sanctuary/park designation), carrying capacity (limits of acceptable change) determination, multiple use planning, multi-agency (including community) involvement and tourist-oriented environmentally-compatible marina planning. These approaches echo the growing awareness regarding the need for multi-level coastal and marine resource management and tourism development strategies among planners, developers and policy makers of countries that are coastal and insular. Also, local involvement via community based planning is vital for the success of potential Marine Protected Areas. Moreover, site specific standard monitoring and enforcement programs are essential to meet the objectives of the Marine Protected Areas.

However, the complex mixture of approaches needed to effectively plan and manage the marine and coastal resources requires human and financial resources, which is inherently lacking in almost every developing country that are coastal and insular. Most debt-for-nature swaps tend to target funding environmental projects that

pertain to conservation and natural resources management with emphasis on designation, enforcement and management of protected areas. In addition, programs that promote environmental awareness are also supported. The funds generated by debt for nature swaps usually do not substitute government funding for environmental projects but are utilized for environmental projects that have been identified by the debtor government as requiring addressing but is unable to provide the respective funding (Greener, 1991; Thapa, 1998). Since debt-for-nature swaps have largely been employed for terrestrial projects, it is imperative that marine and coastal regions should subscribe to this process. For example, a debt-for-nature swap program funded by the WWF helped to organize a community based marine resource management plan in San Salvador Island, Philippines (Christie, White and Buhat, 1994).

Conclusion

Swaps are beneficial tools for developing countries that want to protect their coastal and marine environments, as well as provide a source of income and employment (protected area tourism) to locals living in the interior or within the vicinity of the proposed protected area. Protected area tourism is a viable route to rejuvenate or jump-start a local economy. However, each swap should have site-specific agreements, monitoring/enforcement programs, and most importantly, should involve locals/community in decision-making. Also, depending upon the coastal and marine resource being protected, multiple uses should be encouraged (system of zones and buffer zones), as locals need to have alternatives if their livelihoods are at stake. There is a positive relationship between debt-for-nature swaps and protected area tourism, in which swaps are employed as a sustainable development tool facilitated by protected area tourism. Swaps' objectives are to reduce the debt burden, protect the environment, and aid in sustainable development

programs to generate local jobs and income, which in turn can be facilitated by protected area tourism. Tourism and Marine Protected Areas have a beneficial symbiosis, in which a Marine Protected Area provides experiences for tourists, while the revenue generated (for example, through entrance fees) aids in the daily operation and maintenance of the protected area. Additionally locals are employed, and the local economy is positively impacted in remote regions. Most importantly, swaps should be employed as a sustainable development tool facilitated by protected area tourism in coastal and marine environments.

References

- Agardy, M.T. (1990). Integrating tourism in multiple use planning for coastal and marine protected areas. *In: Proceedings of the 1990 Congress on Coastal and Marine Tourism*. Miller, M.L. and Auyong, J. (eds.). National Coastal Resources Research & Development Institute, Newport, OR. pp. 204-210.
- Albuquerque, K. (1995). Alternative tourism and sustainability. *In: Island Tourism: Management Principles and Practice*. Conlin, M. V. and Baum, T. (eds.). Chichester: Wiley.
- Brown, D. (1998). Debt-funded environmental swaps in Africa: Vehicles for tourism development. *Journal of Sustainable Tourism*, 6(1): 69-79.
- Christie, P., White, A., and Buhat, D. (1994). Community-based coral reef management on San Salvador Island, the Philippines. *Society and Natural Resources*, 7: 103-117.
- Deacon, R.T. and Murphy, P. (1997). The structure of an environmental transaction: The debt-for-nature swaps. *Land Economics*, 73(1): 1-24.
- Dogse, P., and von Droste, B. (1990). *Debt-for-Nature Exchanges and Biosphere Reserves: Experiences and Potential*. MAB Digest 6. United Nations Educational, Scientific and Cultural Organization (UNESCO), Paris.
- Environment Bulletin (1996). Bulgarian-Swiss debt for environment swap. Vol. 7(4). URL: <<http://www.esd.worldbank.org/html/esd/env/publicat/bulletin/bltnv7n4/text.htm>>
- Gaffney, R. (1990). Did protection result in desecration? A history of the Molokini Marine Life Conservation District. *In: Proceedings of the 1990 Congress on Coastal and Marine Tourism*. Miller, M. L. and J. Auyong (eds.). National Coastal Resources Research and Development Institute, Newport, OR. pp. 180-183.
- Gilman, E.L. (1997). Community based and multiple purpose protected areas: A model to select and manage protected areas with lessons from the Pacific Islands. *Coastal Management*, 25: 59-91.
- Greener, L.P. (1991). Debt for nature swaps in Latin American countries: The enforcement dilemma. *Connecticut Journal of International Law*, 7: 123-180.
- Holthus, P. F. and Thomas, P. (1990). Marine protected areas and tourism development in the South Pacific. *In: Proceedings of the 1990 Congress on Coastal and Marine Tourism*. Miller, M. L. and J. Auyong (eds), National Coastal Resources Research and Development Institute, Newport, OR. pp. 211-215.
- Human Development Report (1999). Globalization with a Human Face. United Nations Development Programme (UNDP). URL: <<http://www.undp.org.np/keydoc/nh/dr98/contents.html>>
- Lovejoy, T.E. (1984, October 4). Aid debtor nations' ecology. *The New York Times*, New York.
- Mahony, R. (1992). Debt-for-Nature Swaps: Who really benefits? *The Ecologist*, 22 (3): 97-103.
- Moran, Katy. (1992). Debt-for-Nature Swaps: A response to debt and deforestation in developing countries? *In: Development or Destruction*. T.E. Downing (ed.). West View Press. pp. 305-316.
- Mitchell, B.A. and Barborak, J.R. (1991). Developing coastal park systems in the tropics: Planning in the Turks and Cai-

- cos Islands. *Coastal Management*, 19: 113-134.
- Page, Diana. (1990). Debt-for-Nature Swaps: Experience gained, lessons learned. *International Environmental Affairs*, 1(4): 275-288.
- Pattullo, P. (1996). *Last Resorts: The cost of tourism in the Caribbean*. Cassell, London.
- Pearsall, S. (1993). Terrestrial coastal environments and tourism in Western Samoa. *In: Tourism vs. Environment: The Case for Coastal Areas*. P. P. Wong (ed.) Kluwer Academic Publishers, Netherlands. pp. 33-53.
- Pendleton, L. (1994). Environmental quality and recreation demand in a Caribbean coral reef. *Coastal Management*, 22: 399-404.
- Sadler, Robert M. (1990). Debt-for-Nature Swaps: Assessing the future. *Journal of Contemporary Health Law and Policy*, 6: 319-341.
- Stott, M. (1993). Tourism development and the need for community action in Mykonos, Greece. *In: Sustainable Tourism in Islands and Small States: Issues and Policies*. L. Briguglio, B. Archer, J. Jafari and G. Wall (eds). Pinter (Cassell imprint), London. pp. 281-305.
- Thapa, B. (1998). Debt-for-nature swaps: An overview. *International Journal of Sustainable Development & World Ecology*, 5(1998): 249-262.
- Thorsell, J., and Wells, S. (1990). A global overview of tourism activities in coastal and marine parks. *In: Proceedings of the 1990 Congress on Coastal and Marine Tourism*. Miller, M.L. and Auyong, J. (eds.), National Coastal Resources Research and Development Institute, Newport, OR. pp. 221-224.
- Wagner, Rodney B. (1990). Doing more with Debt-for-Nature Swaps. *International Environmental Affairs*, 2(2): 160-166.
- Widfelt, A. (1993). Alternative Development Strategies and Tourism in Caribbean Microstates. *In: Sustainable Tourism in Islands and Small States: Case Studies*. L. Briguglio, B. Archer, J. Jafari and G. Wall (eds.). Pinter (Cassell imprint). London. pp. 147-161.
- Wight, P. (1996). North American Ecotourists: Market profile and trip characteristics. *Journal of Travel Research*, 24(4): 2-10.

