Comparative Case Studies in the Sustainability of Marine-Based Ecotourism: Ogasawara Whale-Watching and Queensland Indo-Pacific Humpback Dolphin*

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This paper is intended as a scope paper for the comparative study of eco-tourism in Queensland, Australia and Japan based on: The Indo-Pacific Humpback Dolphin Watch in Queensland as well as the Ogasawara Whale-watching Association in Japan. Three particular aspects of the concept underlying successful eco-tourism initiatives will be emphasized in the paper: involvement of local associations, defined rights of access to the eco-tourism resource, and the role of the state in supporting eco-tourism initiatives.

Keywords: eco-tourism, whale watching, resources

INTRODUCTION

Garrod, Wilson, and Bruce (2003, p. 1) attempted to define marine ecotourism through an eclectic lens by acknowledging the variety of perspectives on the term. But they argued that the majority of the preferred definitions focused on effective and suitable management of natural resources necessary for marine eco-tourism without denigrating their integrity. This basic, yet broad and all-encompassing, explanation serves as the working definition for this essay, which is concerned less with definition debates and more focused on learning from effective policy management through leading marine eco-tourism case studies.

Some economic figures, statistics, and information about the size and makeup of the local marine-based eco-tourism sectors in the empirical case studies may be helpful. According to the important empirical case studies on Mon Repos and Hervey Bay in southeast Queensland, the typical per day expenses of visitors who watch both whales and sea turtles in these areas are A$24.88 for Bundaberg, A$10.57 for Mon Repos, and Hervey Bay A$125.97 which is far more in amount due to the fact that whale-watching entrance charges alone is A$70 per non-minor adult visitor (Wilson & Tisdell, 2001). As for the national figure, according to Harriott (2002, p. 9), the total worth of marine-based tourism in Australia is in excess of A$1 billion annually,
which is the value of commercial fishing industry multiplied by a factor of four. The study was aided by the Australian state’s Cooperative Research Centres Program.

As for Ogasawara, when the number of whale watchers increased from 10,992 in 1991 to 55,192 in 1994, revenues went up from US$371,000 to US$3.3 million. Accordingly, as early as the mid-1990s, this was cited as one of the most rapidly-expanding eco-tourism activity globally (Hoyt, 1995, p. 30). In terms of the size of Ogasawara’s marine-based ecotourism industry, the economic size of the whale-watching industry surrounding the use of the natural resource of whales near the turn of the 21st century was 436 million yen (Ichiki, 2003).

LITERATURE REVIEW

Paul Forestell’s (1993) earlier writing on marine-based eco-tourism proposed a parsimonious and basic framework for analyzing cognitive responses to the sights found in the industry: (1) pre-contact (education necessary to prepare visitors in minimization of impact on the environment); (2) contact (what to do when one makes contact and how to comprehend the initial stimulus and response); and (3) post-contact (after visual contact, comparative frames of references to contrast the experience with previous interactions with the marine environment). This essay is concerned mostly with Phase 1, which appears to be crucial for systemic planning in uses of natural resources for eco-tourism. An important primary document in studying Australia’s sea-based eco-tourism is the Queensland Ecotourism Plan 2003-2008, which lays out the road ahead for the industry in the state of Queensland. Of significance to the paper, this blueprint prioritizes and supports the argument of the need for greater cooperation between state organizations and the private sector (Queensland Government, 2002, p. 8). This is supplemented by information on the Indo-Pacific humpback dolphin by The State of Queensland (Department of Environment and Resource Management) 2012, specifically on the Indo-Pacific humpback dolphin.

The publication, “Good practices inventory: Nature tourism promoted by the Whale-watching Association, Ogasawara National Park” is an important policy advisory published by The Institute for Global Environmental Strategies [IGES] (n.d.) which is set up and funded by the Japanese government for this purpose in 1998. It therefore provides some glimpses of ideas circulated as policy options. Shifting from a policy understanding at a national perspective to local area expert knowledge perspective, Nanyan Guo’s (2009) research published in the multidisciplinary area studies journal Japan Focus is an informative article with visual details of the Ogasawara Islands’ biodiversity. Because the research was supported by the Ogasawara Wildlife Research Society and the Institute of Boninology, the interpretation of its biodiversity coincides with local expert knowledge. Comparatively more quantitative in analysis, as a representative of the Ogasawara Whale-watching Association & Bonin Ecotourism Commission, Shigeo Ichiki’s (2003) article represents local area knowledge advocacy. It is perhaps one of the most detailed accounts of the tourism potential of the Ogasawara island region. It also contains a number of statistical data crucial for this paper. For the future development of this scope paper, Ichiki’s (2003) paper will be a useful model for fieldwork purposes. A possible limitation of Ichiki’s reading is that it can benefit from more updated work, having been written a number of years back.

THE QUEENSLAND CASE STUDY – THE INDO-PACIFIC HUMPBACK DOLPHIN

Australia is the world’s pioneering state to formulate and put into action an ecotourism strategy on a national scale (Eagles, n.d.). As the host of almost 1/3 of Australia’s World Heritage sites (5 out of 14), a rapidly expanding eco-tourism sector and a policy desire to become a model eco-tourism destination (Queensland
Government, 2002), Queensland’s marine ecotourism through the case study and example of the Indo-Pacific humpback dolphin is utilized in this paper. According to the Queensland Government (2010), the Indo-Pacific humpback dolphin (scientific name Sousa chinensis) is a “near threatened” (defined in the Queensland Nature Conservation Act 1992) species that are found in Indian and Western Pacific Oceans, east African to Arabian Seas, Bay of Bengal, south China, Thailand, Indonesia, and the northern part of Australia (Queensland Government, 2010).

In the Australian Queensland marine ecotourism case study, according to the Queensland Government (2010), dangers to the Indo-Pacific humpback dolphin may encompass the removal and damage to the maritime space where they live, noise-related pollution, human interference with their activities accidentally being caught by fishermen (and recreational fishing) as well as industrial pollution, and the associated presence of viruses and bacteria.

There are some similarities with the challenges that whales faced in their habitats. For example, the maritime vessels of whale-watchers generate excessive sounds that intimidate or confuse whales, negatively impacting on their daily activities such as eating and looking after their babies (Neves-Graca, 2004). More similarities can be spotted when the challenges that whales faced are detailed below in the Japanese case study of Ogasawara.

According to Hugues-Dit-Ciles, Findlay, Glegg, and Richards (2004), Australia has been protecting natural resources through the introduction of restrictive measures. Hugues-Dit-Ciles, Findlay, Glegg, and Richards (2004) point out that these measures included conditional access to certain vehicles near maritime areas, controlling the quantity of incoming tourists, as well as other longer-term measures such as educational initiatives.

Education may be relevant to both locals and foreign participants (including those with shared nationalities with the local community but from a different geographical region as well as tourists from foreign countries) in eco-tourism. Educational initiatives may be important to accommodate future generations of tourists, including eco-tourists who are likely to differ from traditional tourists by being more proactive in participating in local activities, go for unique experiences as opposed to opulent spending, and have individualized custom-made experiences rather than standardized packaged tours.

In contrast to the Australian case, through her Azores case study, Neves-Graca (2004) noted that human activities, such as economic competition to lure and attract tourists through offers of better and nearer views of whales and dolphins in order to compete for a share of a small number of tourists (capped by the availability of seats on the air transportation to Lajes do Pico in Azores), interfered with the lives of the whales by getting too proximate to the creatures. Boat engines generated high pitched noises that interfered with the whales’ sound emissions for navigation, disrupted their rest or feeding activities for their young, resulting in the whales’ attempt to avoid the boats (Neves-Graca, 2004).

Another example of disputes is over access to a natural resource such as the Lajance Ocean. Neves-Graca (2004) noted that Lajes do Pico villagers based their legitimacy to access whale-watching in this area on historical origins, longer precedents of understanding the whales better, and a desire to pass on these rights of access to their offspring. Neves-Graca (2004) noted that such claims conflicted with others from nearby islands like the Neptuno and Faial, making it harder for regional cooperation. Eventually, market forces motivated rival companies to combine their resources and work amongst themselves for consolidated marketing for Azorean whale-watching activities because, failing to do this may cause tourists to leave for other locations with better deals or slicker marketing campaigns (Neves-Graca, 2004).

To avoid the sort of conflicts highlighted above, the Australian Queensland’s government recommended possible measures to minimize
disruptions and dangers to the dolphins. In terms of policy, the government recommended maintaining sufficient food supply for the dolphins and avoiding their accidental trapping by fishermen and their boats (Queensland Government, 2010). Another policy recommendation is anti-pollution measures into their marine-based habitat and more studies/research to find out about the demographic, environmental, and biological needs and makeup of the dolphins (Queensland Government, 2010). As for other individual users of the same maritime space, such as tourists, the Queensland government recommends avoidance of proximity to the dolphins, releasing loud sounds and other forms of harassment, littering trash or toxic substances into locations that lead to waterways, emptying household cats’ litter (contains parasites lethal to dolphins that live near shorelines) into waterways that may lead to the seas (Queensland Government, 2010).

JAPANESE CASE STUDY - OGASAWARA

While the Queensland case study serves as a leading example of regional government initiatives to protect marine resources for eco-tourism, Japan’s Ogasawara case study is an important example of profitable marine-based eco-tourism that demonstrates the importance of cooperation and collaboration between local authorities and local community associations. As a resource-scarce economy, Japan is dependent on sustainable use of resources for its continued economic growth, especially in emerging, trendy, and new industries like eco-tourism.³ Japan’s Ogasawara Islands whale-watching is a model of sustainable marine-based eco-tourism activity that is also profitable. Figures from Ogasawara Whale-watching Association (OWA) indicated that the presence of one whale and one Ogasawara flying fox draw in 550,000 yen (approximately US$6666) and 63,000 yen (approximately US$764) respectively of tourist revenue annually. Up until July 2004, revenues and profits generated by whale and dolphin-observation tours totaled 436 million yen (approximately US$5 million) (Guo, 2009).

The profitability of the Ogasawara example is underlined by strong institutional development and recognition of its positive attributes. The Ogasawara whale-watching activity serves as a global benchmark in this instance, deriving its credentials from the following track record: it was chosen as one of the candidates supported by Japan for the World Heritage site status in 2003; the OWA established in 1989 is an inaugural model of an institution with voluntary regulations compliance; and a “Natural Monument” of Japan (Asia-Pacific Environmental Innovation Strategy Project – Research on Innovative and Strategic Policy Options [APEIS/RISPO], 2004).

The institutional success of the Ogasawara whale-watching activity is also the result of cooperation between local and national authorities. Guo (2009) noted that, in the Ogasawara case, local authorities worked with the national government to impose entry ban, restrict entry to sites, and provide training to guides from July 2002. In terms of public infrastructure, the national government carried out infrastructural development with an eye on the special status of the Ogasawara location while the local authorities initiated alternative renewable energy sessions and installed related technologies in public buildings. Guo (2009) also found that, in terms of marketing, publicity, and positive image creation, starting from 2004, the national government elevated Ogasawara to a model region to highlight eco-tourism and supported its efforts for resources survey, tourism institutional development, initiation of eco-tours, personnel training, and regulatory formulation.

Through the Japanese example, the government has an important, positive, and decisive role in the development of eco-tourism resources through the monetary, social, and environmental benefits that both economies and their local communities have derived in the two case studies, including the three main categories of: generation of local income, sustainability of natural resources, and positive image-making for national authorities.
Procedurally, Japan has embarked on a “scientific” and systematic approach towards ecotourism industry development. Japan initiating viability research first and then utilized smaller locations in the 1990s as micro-studies and laboratory for observations and studies in the goal of transforming it into a best practice unit before implementing any nation-wide initiatives (Wang, Heo, Yamada, & Hwang, 2009).

According to the 2003 report titled Declaration of Commitments to Development of an Eco-Oriented Nation drafted by the Industrial Structure Council of the Ministry of Economy, Trade and Industry [METI] (as cited by Sutton, 2008) in his article, environmentally-related green businesses total 1.36 million and expected to rise to 1.7 million. With such important statistical significance and implications, businesses have become major stakeholders in industries like eco-tourism.

The legislation that guides Japan’s ecotourism development is the Ecotourism Promotion Law 2008 that gives a distinct mandate for the eco-tourism industry to conserve environmental and cultural assets within the parameters of local communitarian needs pertaining to tourism (Yabuta, 2008). According to Wang et al. (2009), Japan was the first Northeast Asian country to institute legislation specific to the eco-tourism industry. It may serve as a model for others in the region. At the local level, institutionally, the law facilitates the formation of a local community council that include stakeholders like non-governmental organizations, property owners, local units involved with marketing and promotion of the sites, and working professionals who collectively design eco-tourism industrial plans while agreeing upon limitations of tourist activities to the extent that it protects local resources (Yabuta, 2008).

Historically, Japanese sustainability concepts and awareness may have arisen from the perceived failures of Japan’s centrally-planned tourist industry during the bubble period (sometimes characterized as the period between 1985 with the Plaza Accord to early 1990s with the sharp decline in estate prices) and the Resort Law of 1987 that serves as counter examples to eco-tourism that should instead be based on harmony and cooperative ventures with local communities (Yabuta, 2008). In addition, there appears to be additional non-policy related elements and considerations in Japanese perspectives on sustainable marine eco-tourism, centered on the concept of *wa* (harmony) and also Shintoist precepts of nature. This interpretation contains a sense of social responsibility by environmental industries towards the preservation of cultural and natural elements often associated with religious elements (Yabuta, 2008). It is a debt-based perspective (debt owed towards nature and traditions) (Yabuta, 2008) that goes beyond profitability considerations and local community-authorities relations.

While Japan’s Ogasawara is an important model for study, there may be some possible limitations imposed by local conditions that have to be taken into consideration. For example, in Shigeo Ichiki’s (2003) study of eco-tourism in Ogasawara Islands, he pointed out that eco-tourism in smaller island units that are relatively isolated like Ogasawara Islands may likely experience smoother implementation than the bigger Honshu island units in Japan because of the ease of restricting the number of tourists and also the extent of their activities on the island.

**CONCLUSION**

In conclusion, three important aspects are reiterated: participation of local associations and bodies, carefully and clearly defined rights of access to the ecotourism resource, and the role of the state as an actor in supporting eco-tourism initiatives. The Ogasawara Whale-watching Association is perhaps the most notable local body managing the marine-based eco-tourism activity founded in March 1989 to oversee this activity and disseminate knowledge through newsletters, commissioned studies, whale-marking, museum/ multimedia corners, operations, and seminars.
Outside the society, they communicate with interest individuals (about 300 of them) outside the islands while working closely with the ship navigators, shops providing services to visitors, and local residents (OWA, n.d.).

In the Queensland case study, the Queensland government is a good example of a regional/local authority, which effectively governed the whale natural resources quickly capitalized on this resource in 1997 systematically and extensively. The methodologies and techniques used to work closer with the private sector and other stakeholders in the activity include: (1) manuals designed to help the iron triangle of local government + private sector + local people to implement model solutions; (2) backing up an Accreditation Program for best practices; and (3) funding instructor seminars state-wide (Queensland Government, 2002).

Clearly-defined rights are managed by “natural area managers (NAMs)” in the Queensland case. The NAMs refer to a group of people drawn from government and businesses who are given the mandate to oversee both overland and marine resources for eco-tourism, organize dialogues with other parties, design the blueprint regulating future use, work on the principles of resource use, and work on training programs (Queensland Government, 2002). In the Ogasawara case, the enforcement of local laws in 1973 is at the core of access rights by governing issues like prevention of owners discarding unused vehicles in forested and natural areas, and in 1998 adding ethical clauses to regulate the keeping of feline creatures (Ichiki, 2003). These local laws complement national laws that automatically arise when a location like Ogasawara Islands (83% of the islands) is designated as “National Park”, which help protect natural creatures and virgin untouched spaces (Ichiki, 2003). Both NAMs in Queensland and local/national legislations in Ogasawara islands would not be possible without local/national government support, enforcement, and funding. The role of the state is therefore essential as a major stakeholder in the eco-tourism projects.

In both the Queensland and Ogasawara case studies, there is a conscious attempt to apportion power, authority, and control between local and central authorities. Both regarded harmonized co-existence between the two levels of authority as being essentially important for optimal usage of marine-based eco-tourism resources. In terms of trends, greater use of technologies may be anticipated in the future to achieve optimal use of marine eco-tourism resources. For example, to handle the anticipated larger numbers of tourists (both extra-regional and intra-regional) and manage their expectations in unique experiences, education on how to protect resources while providing unique, green, and natural eco-adventure tours may be important and also accessible online for an internet-savvy global class of eco-tourists.

For its conclusion, this essay proposes the need for a major policy initiative/study that may not be adequately addressed in current major studies of the subject matter—that of the aging populations of Asia Pacific and its impact on marine eco-tourism. The aging population issue is a double-edged sword. More elderly senior citizens are likely to have free time to engage in eco-tourism and other forms of tourism but it also means that they are likely to require more infrastructure help and service assistance when they are travelling (Lindberg, Furze, Staff, & Black, 1997). There may not be enough studies at the point of this writing to pinpoint how the aging population and its impact on state revenues, medically-related economic burdens, and how overall impact on spending activities will affect eco-tourism. The issue is likely to have much larger macroeconomic impact beyond a balance between only two factors of free time and infrastructural needs.

Trend-spotting is always a tricky business. However, judging from existing studies on preferences detectable amongst the elderly, preparations can be made to augment marine-eco-tourism opportunities based on those trends. One area is highlighted below as a possible potential direction for further detailed studies and consideration in future policy initiatives.
The idea that aging populations may have greater reverence, preference, or inclinations towards preserving cultures and traditions (particularly in the Asia Pacific) may mean that the cultural aspects of eco-tourism may rise in importance vis-a-vis the ecological aspects.

The collaborative project between the World Tourism Organization and the Hong Kong Polytechnic University (2006) is indicative of this, mentioned as part of an overall trend-spotting project in tourism in the Asia-Pacific in general. A specific study for marine-based eco-tourism may be useful, given the delicate eco-systems of water-based environments and challenging access for elderly tourists. It was one of the primary motivations for revising the definition of ecotourism in Queensland with the inclusion of the element of “appreciation and understanding of...cultural heritage...” (Queensland Government, 2002, p. 5). The cultural aspect is likely to increase in importance and see a greater integration with the goals of nature preservation of eco-tourism itself.

NOTES

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2 This point was included in my working paper in progress titled Learning from Japan: A economic-historical study of eco-tourism in Northeast Asia.

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14 This point was included in my working paper in progress titled Learning from Japan: A economic-historical study of eco-tourism in Northeast Asia.

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