

RECONCILING TOURISM AND THE ENVIRONMENT: A TASK FOR INTERNATIONAL ENVIRONMENTAL LAW?

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INTRODUCTION

Tourists have been visiting Goa since the 1960s.¹ Located on the south west coast of India, the state of Goa encompasses more than eighty

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1. The Mandrekar Family, *Tourism in Goa*, <http://www.anandaproject.org/mandrekarfamily/tourismingoa.html> (last visited Dec. 6, 2007). The Ananda Project, which operates an ecotourism project, is an Indian-based organization that “aims to help local communities regain their self-reliance and return to a sustainable way of life.” Avnish Katoch, *The Ananda Project* (Jan. 11, 2006), <http://himachal.us/2006/01/11> (last visited Dec. 6, 2007). A great deal of literature provides an introduction to the political history of Goa. See, e.g., Pritam T. Merani, *The Goa Dispute*, 14 J. PUB. L. 142 (1965) (discussing the history of Goa in a political context); Oliveira Salazar, *Goa and the Indian Union: the Portuguese View*, 34 FOREIGN AFF. 418 (1956) (discussing the political history that drew attention to Goa); Quency Wright, *The Goa Incident*, 56 AM. J. INT’L L. 617 (1962) (explaining the

kilometers of sandy beaches with inland areas boasting huge expanses of paddy fields, coconut plantations, market villages, and the western Ghat Mountains.² The environmental diversity, climate, and expansive beaches provide an obvious draw for domestic and international tourists alike.

The particularly relaxed atmosphere of the people and natural surroundings made it a paradise for backpackers during the 1960s who “were more or less able to adapt to the local way of life, eating local food and living in simple accommodation.”³ As a result, the impact on the environment from these tourists during the 1960s and 1970s was minimal. However, as the reputation of Goa’s natural resources became more widely known, tourist numbers began to escalate. By the middle of the 1980s, charter flights were arriving in Goa and with them “a new breed of tourist who had money and demanded western amenities. This quickly caught the attention of foreign investors and tour companies, who wasted no time in building hotels, swimming pools, and even golf courses to meet the tourists’ growing expectations and demands.”⁴

The result was (now, at least) predictable. The marine environment suffered a substantial loss of mangroves due to land reclamation for development, which resulted in erosion and exposing coastal banks to storm surges.⁵ Overfishing and inappropriate catch methods led to a steady decrease in fish stocks and diversity, while “land reclamations, the extraction of sand, [and] the construction of jetties” in areas of tourism development aggravated coastal erosion.⁶ Moreover, recreation facilities and activities have contributed to overall environmental degradation: swimming pools and golf courses monopolize vital local water supplies; motor boats damage and pollute shallow coastal waters; beach accommodation frequently lacks sufficient sewage facilities or refuse collection, which, together with beach litter, results in further pollution of

military takeover of Goa by India in 1961). *See generally* Case Concerning the Right of Passage Over Indian Territory (Port. v. India), 1960 I.C.J. 6, 24–27 (Apr. 12) (“[R]estrictions imposed by India . . . on the passage to enclaves of Portuguese agents . . . by its concern not to assist the extension to the enclaves of the reign of terror brought into being in Goa by the Portuguese authorities.”).

2. For an overview of tourism in Goa, see David Wilson, *Paradoxes of Tourism in Goa*, 24 ANNALS OF TOURISM RES. 52, 52–53 (1996).

3. The Mandrekar Family, *supra* note 1.

4. *Id.*

5. *See* KALIDAS SAWKAR ET AL., TOURISM AND THE ENVIRONMENT: CASE STUDIES ON GOA, INDIA AND THE MALDIVES 8–10 (1998) (discussing the environmental impacts of removing mangroves in Goa).

6. *Id.* at 10.

coastal waters.⁷ Although tourism in Goa is concentrated predominately in coastal areas, the construction of more advanced transportation systems (primarily in the form of airports and railway) and an increase in motor vehicle use has also contributed to localized atmospheric pollution.⁸

The result of such extensive tourism development has had two key impacts. First, the experience of tourists visiting Goa today is clearly different to those of tourists forty years ago due to the rapid (and mostly unregulated) development of the Goan tourism industry and the subsequent pollution and degradation of the local environment. Second, tourists (and the tourism industry) relocate to new areas that have yet to undergo such intensive development, effectively seeking an environment similar to Goa in the 1960s. This impact is less easily rectified. Once visitors have departed in search of their new pristine holiday destination, Goa is left to contend with the environmental degradation and pollution created by the tourism industry. This is especially problematic for developing countries that lack the requisite financial and technological resources to facilitate environmental recovery or establish precautionary frameworks and infrastructure with a view to prevention. Perhaps of greatest concern, however, is the fact that the story of Goa is in no way unique. Similar degradation by the tourism industry continues to be replicated in numerous environments around the world.

So, what are the options for Goa and the plethora of other natural environments around the world that are adversely affected by tourism development? And do any institutional frameworks or international legal structures exist that are able to manage and regulate these activities in order to prevent further degradation to the global natural environment? Tourism activities inevitably provoke arguments regarding the balance and reconciliation of economic, environmental, cultural, social, and ethical concerns. While all of these interests have important and independent value, the scope of this article is restricted to the environmental impacts of tourism. Chiefly, this Article examines recent efforts to redress the current imbalance and considers the likelihood of achieving environmentally sustainable tourism.

7. *Id.* at 11–12; see, e.g., Scott D. Hubbard, *Everything Old is New Again*, 84 MICH B.J. 28, 29 (2005) (“Golf courses commonly use 1,000 to 4,000 [gallons per day (gpd)], per acre, with courses averaging 20 to 120 acres (a midrange of about 400,000 gpd).”).

8. KALIDAS, *supra* note 5, at 12.

I. TOURISM AND THE ENVIRONMENT: AN INTRODUCTION TO THE RELATIONSHIP

The relationship between tourism and the natural environment is a complex one. The numerous activities that collectively constitute tourism now represent the world's largest industry.⁹ However, while tourism is largely dependent on the natural environment for its continuing survival, the ongoing development of the tourism industry often consumes and degrades the very same natural resources upon which it depends. Popular tourism locations frequently emerge as a result of the particular characteristics of the natural environment. It is widely recognized that when tourists choose a holiday destination, local environmental conditions act as the predominant influence.¹⁰ That is, the primary resources of a location, such as natural scenery, cultural heritage, or wildlife, coupled with favorable climatic conditions provide the main draw when choosing a destination.¹¹ Thus, both the continuation and future development of the tourism industry are inextricably dependent on the sustainability of the natural environment.¹²

The relationship between the tourism industry and the environment has been categorized into one of three different types of associations to explain how each relates to one another.¹³ During the very early stages of the relationship, tourism and the environment simply coexist. Both pursue individual goals and thereby maintain minimal interaction.¹⁴ However, as either tourism development or environmental awareness develops or expands in scope, the relationship is forced to enter a new association of

9. DAVID A. FENNEL, *ECOTOURISM: AN INTRODUCTION* 162 (1999). The term tourism may include transportation services, accommodation facilities, travel agents, tour operators, tourist attractions, eating facilities, and merchandise production, which collectively constitute tourism and represent an international industry. The Secretary-General, *Report of the Secretary-General on Sustainable Development of Tourism*, ¶ 4, delivered to the U.N. Econ. & Soc. Council [ECOSOC], U.N. Doc. E/CN.17/2001/PC/21 (Feb. 3, 2001) (stating that tourism "integrates a wide range of economic activities"). For statistical information on the international tourism industry, see WORLD TOURISM ORG., *Y.B. OF TOURISM STATISTICS: DATA 2001-2005* (2007).

10. E. Cater & B. Goodall, *Must Tourism Destroy its Resource Base?*, in ENVIRONMENTAL ISSUES IN THE 1990s, at 311, 312 (A.M. Mannion & S.R. Bowlby eds., 1992).

11. *Id.*; WORLD TOURISM ORGANIZATION ET AL., *AGENDA 21 FOR THE TRAVEL AND TOURISM INDUSTRY: TOWARDS ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT* 45 (1995). Note that cultural heritage and man-made features may also create a further attraction for tourists, for example; the Great Wall of China, the Egyptian Pyramids, Vatican City, the Acropolis in Athens, and India's Taj Mahal.

12. *See, e.g.*, Andrew Holden, *Investigating Trekkers Attitudes to the Environment of Annapurna, Nepal*, 24 TOURISM MGMT. 341 (2003) ("Tourism is dependent upon the perception of the environment of a destination as being desirable.").

13. Gerardo Budowski, *Tourism and Environmental Conservation: Conflict, Coexistence, or Symbiosis?*, 3 ENVTL. CONSERVATION 27, 27 (1976).

14. *Id.*

either conflict or symbiosis.¹⁵ Conflict generally arises when the tourism industry expands rapidly, resulting in the consumption or degradation of the natural environment and encroachment on the local communities.¹⁶ The alternative option is a state of symbiosis where both tourism and the environment exist in a mutually beneficial relationship.¹⁷ A symbiotic relationship potentially provides significant benefits for both elements. The tourism industry undertakes the sustainable utilization of natural resources (ideally in a non-consumptive manner such as nature or wildlife viewing) while simultaneously generating revenue, part of which can be redirected towards the protection and restoration of the same natural environment.¹⁸ However, the relationship between tourism and the environment most often develops into one of conflict that results in a turbulent association.¹⁹

In determining the potential impact of tourism activities on the environment, it has been suggested that the particular evolutionary stages of tourism development often correlate to the level of damage sustained by that local environment.²⁰ In areas where relatively few people travel the environmental impact often remains low. Such visitors are frequently more inclined to accept local conditions and adapt to the surroundings.²¹ Conversely, when large numbers of tourists visit an area on chartered or package-type excursions, the environmental impacts are comparatively greater as these tourists often expect comfortable western-style amenities, which place greater pressure on local communities and natural resources.²²

Such environmental damage created by the tourism industry occurs on two levels.²³ First, the primary natural resource responsible for attracting tourists to the area is highly susceptible to degradation from an influx of people utilizing and consuming the entity. This can be illustrated with the example of a beach which, when inundated with tourists, risks increased degradation from litter, pollution from motor boats, damage to the local

15. *Id.*

16. *Id.*

17. *Id.*

18. *Id.*

19. *Id.*

20. Robert Prosser, *The Ethics of Tourism, in THE ENVIRONMENT IN QUESTION: ETHICS AND GLOBAL ISSUES* 37, 41 (David Cooper & Joy Palmer eds., 1992).

21. See *The Madrekar Family*, *supra* note 1 (explaining how backpackers in the 1960s were "able to adapt to the local way of life").

22. See LUCIA DE STEFANO, WORLD WILDLIFE FUND, *FRESHWATER AND TOURISM IN THE MEDITERRANEAN* 10 (2004) ("A tourist staying in a hotel uses on average one-third more water than local inhabitants . . . [while] the annual water consumption of a golf course is . . . equivalent to that of a city of 12,000 inhabitants.").

23. See Cater & Goodall, *supra* note 10, at 312 (explaining damages to primary and secondary resources).

biodiversity and habitats from overfishing, and sand dune erosion.²⁴ The other level on which tourism impacts the environment relates to the plethora of secondary resources that facilitate a tourist's visit to the primary resource. To enable people to visit a beach, at a minimum, there must be transportation services, accommodation, and eating and waste disposal facilities. Additional entertainment and shopping facilities, along with add-on tourist excursions and activities, increase visitation. These secondary resources impose a considerable threat to the environment. The development of such facilities is often located in areas harboring sensitive ecosystems such as coastlines, mountains, and historic monuments.

Nevertheless, in some cases tourism can offer conservation benefits by working in harmony with environmental protection. This can be illustrated where the protection of wildlife resources is undertaken for the purpose of attracting nature-based tourist activities. National parks in southern Africa strive to ensure the conservation of wildlife responsible for attracting tourists and revenue into the region.²⁵ As a result, a proportion of this revenue is redirected back into conservation programs to ensure the sustainability of the natural resources, and moreover, the sustainability of that revenue.²⁶ Similarly, money generated by tourism has also been used to rehabilitate historic sites and transform derelict areas into new tourist facilities.²⁷

However, this symbiotic relationship between tourism and the environment is fundamentally reliant upon the ability of natural resources to attract tourist revenue, which may then be used to facilitate conservation. While this relationship offers many obvious advantages for the protection of wildlife and the natural environment, it effectively is limited to natural resources judged by tourists to be worthy of preservation.²⁸ Thus, a distinctly anthropocentric attitude is evident. Elements of the natural environment accorded protection by tourism revenue are restricted to

24. See SAWKAR, *supra* note 5, at 8–13 (discussing the environmental impacts of tourism on beaches). Similarly, Peru's Machu Picchu has experienced significant environmental degradation over recent years. See Robin Emmott, *Tourism Boom Threatens Peru's Machu Picchu*, WORLD ENV'T NEWS Nov. 28, 2003, <http://www.planetark.com/avantgo/dailynewsstory.cfm?newsid=22960> ("Some 1,500 tourists walk the 500 year old, 40 mile Inca trail every day, eroding the trail's stone staircases and granite terraces.").

25. ALISTER MATHIESON & GEOFFREY WALL, *TOURISM: ECONOMIC, PHYSICAL AND SOCIAL IMPACTS* 99 (1992).

26. *Id.*

27. *Id.* at 96.

28. It is much easier to generate revenue via tourism for the conservation of aesthetically attractive ecosystems and species (such as beaches, lagoons, mountains, giant pandas, cetaceans, big cats and so on), compared to the less glamorous elements of the natural environment (for example wetlands, insects, and predator species).

resources deemed to be of value to humanity, usually either for aesthetic or practical reasons, with the consequent neglect of many other integral aspects of the biosphere.²⁹ As such, tourism can be a useful stimulus for conservation, but it should be utilized in conjunction with additional measures to ensure all aspects of the ecosystem are accorded sufficient protection.

II. THE CONCEPT OF SUSTAINABLE TOURISM

Since its inception during the early 1900s, the tourism industry has flourished and diversified in response to technological developments and the varying trends and priorities of tourists, industries, and the environmental climate. The more recent emergence of sustainable tourism terminology signified an important development in the relationship between the natural environment and the tourism industry. Given the wide application of the sustainable development concept, generally defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs,”³⁰ it was inevitable that such a framework would be applied to the tourism industry, which demonstrates extensive potential for environmental degradation.³¹ Although much discussion has been undertaken on what sustainable tourism might specifically constitute, definitions have typically been vague and therefore difficult to apply in a practical sense.³²

29. See, e.g., ALEXANDER GILLESPIE, *INTERNATIONAL ENVIRONMENTAL LAW, POLICY AND ETHICS* 19–27 (1997) (discussing self interest justification for according environmental protection).

30. WORLD COMM’N ON ENV’T AND DEV., *OUR COMMON FUTURE* 43 (1987). For an introduction to the sustainable development concept, see ALAN BOYLE & DAVID FREESTONE, *Preface to INTERNATIONAL LAW AND SUSTAINABLE DEVELOPMENT* (Alan Boyle & David Freestone eds., 1999) (“[T]he essays collected here explore how the endorsement of sustainable development at the 1992 Rio Conference on Environment and Development has influenced and changed international law”); Philippe Sands, *International Law in the Field of Sustainable Development*, 65 *BRITISH Y.B. OF INT’L L.* 303 (1994); Ulrich Beyerlin, *The Concept of Sustainable Development*, in *ENFORCING ENVIRONMENTAL STANDARDS: ECONOMIC MECHANISMS AS VIABLE MEANS?* 95, 95–121 (Rüdiger Wolfrum ed., 1996) (discussing sustainable development in the international law context).

31. The idea of applying sustainable development to the tourism industry is often credited to the seminal work, JOST KRIPPENDORF, *THE HOLIDAY MAKERS: UNDERSTANDING THE IMPACT OF LEISURE AND TRAVEL* 1–3 (Vera Andrassy trans., 1987). For a theoretical background to sustainable tourism, see LESLEY A. FRANCE, *Introduction to THE EARTHSCAN READER IN SUSTAINABLE TOURISM* 1, 11–15 (Lesley France ed., 1997).

32. Axel Marx, *Towards Sustainability? The Case of Tourism and the EU*, 6 *EURO. ENVTL. L. REV.* 181, 181–82 (1997); Hansruedi Müller, *The Thorny Path to Sustainable Tourism Development*, in *THE EARTHSCAN READER IN SUSTAINABLE TOURISM* 29, 29–35 (Lesley France ed., 1997); Peter E. Murphy, *Tourism and Sustainable Development*, in *GLOBAL TOURISM: THE NEXT DECADE* 274, 275 (William F. Theobald ed., 1994) (“[A]rticulation of the issues and options needs to be undertaken[]

The World Tourism Organization (UNWTO)³³ integrated the ideas of sustainable development and tourism by formally adopting a conceptual definition for “sustainable development of tourism” that reconciles the environmental, economic, and socio-cultural aspects of tourism by establishing a suitable balance between the three dimensions that should guarantee the long-term sustainability of tourism.³⁴ First, the UNWTO notes the need for sustainable tourism to “[m]ake optimal use of environmental resources that constitute a key element in tourism development, maintaining essential ecological processes and helping to conserve natural heritage and biodiversity.”³⁵ In this case, the UNWTO appears to be recognizing the environmental impacts of tourism activities and acknowledging the dependent relationship tourism has on the natural environment. In order to be effective, this must include not only the physical impacts, such as the utilization of natural resources and the pollution occurring as a direct result of tourist activities, but also the subtle ecological imbalances and habitat destruction or relocation which may additionally occur.³⁶ Thus, sustainable tourism must ensure the ongoing sustainability of the natural environment and its biological diversity.

Second, the UNWTO requires that sustainable tourism “respect the socio-cultural authenticity of host communities, conserve their built and living cultural heritage and traditional values, and contribute to inter-cultural understanding and tolerance.”³⁷ The sustainability of social and cultural traditions (the experience of which is deemed fundamental to many

before the concept of sustainable development can move from a mental state to a physical and economic reality.”); Zhenhua Liu, *Sustainable Tourism Development: A Critique*, 11 J. SUSTAINABLE TOURISM 459, 460–61 (2003); Karen Woodward, *Loving the Environment to Death: Can Law Protect the Environment from the Leisure Threat?*, 5 EURO. ENVTL. L. REV. 148, 149–50 (1996).

33. The World Tourism Organization (UNWTO) was formed as an intergovernmental organization in 1970 after formerly existing as the technical nongovernmental International Union of Official Travel Organizations (IUOTO). World Tourism Organization, <http://www.world-tourism.org/> (last visited Oct. 18, 2007). Located in Madrid, Spain, the UNWTO became an executing agency of the United Nations Development Programme (UNDP) in 1976, before establishing a formal cooperation agreement with the United Nations in the following year. *Id.* The UNWTO currently has approximately 150 member states and more than 300 affiliate members, including local government bodies, private sector representatives, tourism associations, and educational institutions. *Id.* In 2003 the UNWTO became a specialized agency of the United Nations. *Id.*

34. Although termed a *definition*, the UNWTO provides something more akin to an *explanation* of sustainable tourism, describing, among other things, what is required and how sustainable tourism should operate.

35. World Tourism Organization, *Sustainable Development of Tourism Concepts & Definitions*, at para. 1, http://www.world-tourism.org/frameset/frame_sustainable.html (follow “Concepts & Definitions” hyperlink) (last visited Dec. 3, 2007) [hereinafter UNWTO Concepts & Definitions].

36. MATHIESON & WALL, *supra* note 25, at 94–95.

37. UNWTO Concepts & Definitions, *supra* note 35, para. 2.

tourists) faces similar issues to those confronting the environment.³⁸ The sustainability of local cultures is threatened as communities in many developing countries commonly view tourism as a solution to poverty, albeit as a trade-off for the loss of local tradition and indigenous identity.³⁹ This can occur in a multitude of ways, including the loss of authenticity, adapting to tourists demands, and commodification of ethnic rites and festivals.⁴⁰

Third, the UNWTO definition stipulates that sustainable tourism must “ensure viable, long-term economic operations, providing socio-economic benefits to all stakeholders that are fairly distributed, including stable employment and income-earning opportunities and social services to host communities, and contributing to poverty alleviation.”⁴¹ This dimension is all the more significant given that tourism activities now represent one of the world’s most lucrative industries.⁴²

However, the methods for assessing the economic sustainability of a tourism operation vary greatly compared with the standards required for other assessment criteria. Economic sustainability is based predominately on making tourist activities as affordable as possible in order to increase revenue generation. Thus, what is deemed to be a sustainable level of tourism based upon economic assessment criteria may prove to be entirely unsustainable in environmental terms.

This can be illustrated by the economic leakage principle common to many tourist destinations located in developing countries.⁴³ Where expenditure can be attributed to tourism within a local community, the

38. For example, the significance of social and cultural traditions can be seen to be degraded in some respects as a result of overpopularization by the tourism industry as “attractions.” The nine-day festival in Pamplona, Spain, which includes the “running of the bulls,” honors the City’s patron saint, San Fermín. Similarly, La Tomatina (the tomato throwing festival), in Buñol, Spain honors the Town’s patron saint, San Luis Bertràn, and the Virgin Mary. Both festivals are now renowned international tourist events.

39. See Lisa Mastny, *Redirecting International Tourism*, in STATE OF THE WORLD 2002: PROGRESS TOWARDS A SUSTAINABLE SOCIETY 101, 105–09 (Linda Starke ed., 2002).

40. Following the recent proliferation of tourism projects in Lacanjà Chansayab, Mexico, the Lacandon community admit that “they only wear their traditional clothes because trainers sent by the tourism ministry insisted that tourists would prefer to see them so dressed” Anne Vigna, *Les Charlatans du Tourisme Vert* [The Charlatans of Green Tourism], LE MONDE DIPLOMATIQUE, July 2006, available at <http://www.monde-diplomatique.fe/2006/07/vigna/13608> (author’s trans).

41. UNWTO Concepts & Definitions, *supra* note 35, para. 3.

42. See UNWTO, TOURISM HIGHLIGHTS 2007, at 4 (estimating worldwide receipts amounting to \$733 billion in 2006), available at http://unwto.org/facts/eng/pdf/highlights/highlights_07_eng_hr.pdf.

43. See Mastny, *supra* note 39, at 106–07; Robert F. Prosser, *The Ethics of Tourism*, in THE ENVIRONMENT IN QUESTION: ETHICS AND GLOBAL ISSUES 37, 43–45 (David E. Cooper & Joy A. Palmer eds., 1992) (“Where tourism is controlled by foreign companies, the ‘leakage’ of tourism-generated income may be as high as 80 percent . . .”).

leakage is the portion of that revenue which leaves the community by way of taxes, profits, wages, imports, and the like. Estimates suggest that high leakage (from seventy to eighty percent of expenditures) is common in some developing countries, leaving local communities with a fraction of the total revenue generated by tourism activities.⁴⁴

The UNWTO recognizes how each of these three dimensions are to be reconciled in order to achieve sustainable tourism. Notably, the “informed participation of all relevant stakeholders, as well as strong political leadership to ensure wide participation and consensus building” is required, along with the “constant monitoring of impacts” in order to enable the introduction of “necessary preventive and/or corrective measures whenever necessary.”⁴⁵ However, the concept of sustainable tourism is capable of interpretation and manipulation by various disciplines. While the UNWTO definition has enjoyed wide international endorsement, there remains a significant level of ambiguity and scope for differing interpretations.

III. ECOTOURISM: ENVIRONMENTALLY SUSTAINABLE TOURISM?

In recognizing that sustainable tourism is largely a compromise between environmental, economic, and social priorities, the concept of ecotourism initially presents itself as a solution to these competing interests by providing an alternative: environmentally sustainable tourism.⁴⁶ To date there remains an absence of any universal definition for the concept of ecotourism. Instead, an ad hoc approach has been adopted in order to identify the boundaries of the concept. The UNWTO neglects to provide a definition, but instead offers a number of distinguishable characteristics of ecotourism⁴⁷ similar to those proffered by the United Nations Environment

44. Economic Impacts of Tourism, UNEP Tourism, <http://www.unep-tie.org/pc/tourism/sustainable/economic.htm> (last visited Oct. 22, 2007).

45. UNWTO Concepts & Definitions, *supra* note 35, para. 4.

46. For a general discussion on how ecotourism has been approached by the international community, see MEGAN E. WOOD, *ECOTOURISM: PRINCIPLES, PRACTICES & POLICIES FOR SUSTAINABILITY* (2002); LeGene Quesenberry, *Ecotourism: A Hyperbolic Sustainable Development Technique*, 9 DICK. J. ENVTL. L. & POL'Y 473 (2001); FRANCE, *supra* note 31, at 11–15; ERLET CATER, *Introduction to ECOTOURISM: A SUSTAINABLE OPTION?* 3–17 (Erlet Cater & Gwen Lowman eds., John Wiley & Sons Ltd. 1995) (1994); Donald E. Hawkins, *Ecotourism: Opportunities for Developing Countries*, in *GLOBAL TOURISM: THE NEXT DECADE* (William F. Theobald ed., 1994).

47. The UNWTO identifies the main characteristics of ecotourism as being nature-based travel where the main motivation is the observation and appreciation of nature. Ecotourism incorporates educational features, and is often undertaken in small groups, which minimizes the negative natural and socio-cultural impacts and supports the protection of natural areas. UNWTO-UNEP Concept Paper, *International Year of Ecotourism 2002*, <http://www.world-tourism.org/sustainable/ITYE/WTO-UNEP-Concept-Paper.htm>.

Programme (UNEP).⁴⁸ Both emphasize features such as small-scale, nature-based tourism with an educational element, contributing to conservation and including the participation of local communities. However, a specific definition for ecotourism has been concluded in two other fora. First, the International Ecotourism Society (TIES)⁴⁹ claims ecotourism is “responsible travel to natural areas that conserves the environment and sustains the well being of local people.”⁵⁰ Second, the World Conservation Union (IUCN) states that ecotourism is:

environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy and appreciate nature (and any accompanying cultural features—both past and present) that promotes conservation, has low visitor impact, and provides for beneficially active socio-economic involvement of local populations.⁵¹

Accordingly, while there is no single definitive explanation of ecotourism, the essence of the concept can be identified as a responsible form of travel prioritized by the sustainability of the environment and local cultures, while incorporating an educational learning experience with an emphasis on small-scale participation, including local ownership and involvement.

Based on this understanding, ecotourism must implicitly incorporate notions of sustainable tourism in order to ensure long-term sustainability for the benefit of future generations.⁵² Conversely, sustainable tourism does not necessarily encapsulate the value of ecotourism, but rather, represents the attempted reconciliation of environmental, economic, and social considerations. While such an approach would appear to acknowledge the value of ecotourism as a conservation strategy far beyond the concept of

48. UNEP identifies the basic elements of ecotourism as contributing to the conservation of biodiversity, sustaining the well-being of local people, involving responsible action by tourists, requiring the lowest consumption of non-renewable resources, and emphasizing local participation. About Ecotourism, UNEP Tourism, <http://www.unep.fr/pc/tourism/ecotourism/home.htm> (last visited Oct. 15, 2007); WOOD, *supra* note 46, at 14.

49. The International Ecotourism Society (TIES), an international nonprofit organization, has “1,600 members in 110 countries, whose mission is to make ecotourism a viable tool for local conservation and sustainable development.” Lapa Rios, http://www.laparios.com/ecotourism_society/TC1.html (last visited Sept. 20, 2007).

50. The International Ecotourism Society, <http://www.ecotourism.org> (follow “About Ecotourism” hyperlink; then follow “Definitions and Principles” hyperlink) (last visited Sept. 2, 2007).

51. HÉCTOR CEBALLOS-LASCURÁIN, TOURISM, ECOTOURISM, AND PROTECTED AREAS 20 (1996).

52. For a discussion on the difference between ecotourism and sustainable tourism, see *id.*; WOOD, *supra* note 46, at 12–13; The International Ecotourism Society, *supra* note 50.

sustainable tourism, there are problems with employing ecotourism terminology.

One major challenge facing the concept of ecotourism is the confusion as to whether activities represent a product or a principle.⁵³ The commercial characteristics of the tourism industry mean that while ecotourism can be identified as a conservation concept, it may also be recognized as a niche market segment of the tourism industry effectively diluting the environmental credibility and value of the concept.⁵⁴ The nature of the tourism industry means that a wide range of tourist operators, from multinational airlines and hotel chains to local one-person service providers, can identify their enterprise as an ecotourism operation, consequently aligning their business with the principles and standards attributed to the ecotourism concept.⁵⁵

This act of “greenwashing” by tourist operators can be traced back to the popularization of nature-based tourism, where any activity associated with nature or wilderness-orientated travel was similarly labeled nature tourism, implying the incorporation of conservation principles.⁵⁶ Thus, a fundamental obstacle to effective employment of ecotourism terminology is that while a certain standard of conservation and behavior is now associated with the concept, there is in fact limited responsibility acknowledged in respect to the accompanying sustainability objectives and principles.⁵⁷ While sustainable tourism may not prioritize environmental concerns to the same extent as ecotourism, there is a clearer and more coherent understanding of the sustainable tourism concept in definitional terms. Moreover, its foundation in the law and policy of sustainable development creates a solid preexisting framework within which to develop and shape tourism activities.

53. CATER, *supra* note 46, at 3–5.

54. See P. Wight, *Environmentally Responsible Marketing of Tourism*, in ECOTOURISM: A SUSTAINABLE OPTION? 39, 41–43 (Erlet Cater & Gwen Lowman eds., 1995) (regarding ecotourism as a market segment and marketing tool); Hawkins, *supra* note 46, at 263–64.

55. See generally Alexander C. O’Neill, *What Globalization Means for Ecotourism: Managing Globalization’s Impacts on Ecotourism in Developing Countries*, 9 IND. J. GLOBAL LEGAL STUD. 501 (2002) (discussing the impact of globalization on ecotourism).

56. See, e.g., David Hoch & Robert Franz, *Eco-Porn Versus the Constitution: Commercial Speech and the Regulation of Environmental Advertising*, 58 ALB. L. REV. 441, 441 (1994) (“Names for the relatively new marketing phenomenon of making unsubstantiated or false environmental claims in advertising range from ‘green-collar marketing’ and ‘greenwash’ to the derogatory but arguably more accurate ‘greensleeze’ and ‘eco-pornography.’”).

57. Ecotourism can be seen to have had a positive environmental and social impact in parts of Latin America. See Marla Kerr, *Ecotourism: Alleviating the Negative Effects of Deforestation on Indigenous Peoples in Latin America*, 14 COLO. J. INT’L ENVTL. L. & POL’Y 355, 355 (2003) (“The ecotourism program has helped bring the Huaorani’s vulnerability to the encroaching oil industry into the international limelight.”).

The concept of ecotourism was acknowledged and provided with further impetus following the United Nations declaration that 2002 is the International Year of Ecotourism (IYE).⁵⁸ The result of this UN-sponsored occasion was a number of regional preparatory conferences on ecotourism issues, culminating in the inaugural 2002 World Ecotourism Summit.⁵⁹ Attended by delegates from governments, private businesses, trade associations, nongovernmental organizations, international organizations, and academic institutions, the Summit concluded a non-negotiated, multi-stakeholder dialogue outlining a set of recommendations for the development of ecotourism activities in the context of sustainable development (the Quebec Declaration on Ecotourism).⁶⁰ Identifying the main participants in the ecotourism sector, the Quebec Declaration makes a series of recommendations to each group outlining how ecotourism should be managed and developed in future years.⁶¹ While the Quebec Declaration employs many of the principles found within the greater sustainable development philosophy,⁶² critics still consider the IYE largely to be the promotion of ecotourism as an exploitable niche market (mass-nature tourism) and a tool for further development of the industry.⁶³

58. U.N. Econ. & Soc. Council Res. 1998/40, at 67, Substantive Sess., Supp. No. 1, U.N. Doc. E/1998/98 (July 30, 1998). The IYE does not prescribe a specific definition for "ecotourism" but instead draws on earlier definitions concluded by other bodies and highlights the main characteristics of the ecotourism concept. G.A. Res., 53 U.N. Doc. A/RES/53/200 (Dec. 15, 1998); see also UNWTO-UNEP Concept Paper, International Year of Ecotourism 2002, <http://www.world-tourism.org/sustainable/IYE/WTO-UNEP-Concept-Paper.htm> ("Recognising its global importance, the United Nations designated the year 2002 as the International Year of Ecotourism, and its Commission on Sustainable Development requested international agencies, governments and the private sector to undertake supportive activities.").

59. Luis Vivanco, *Escaping From Reality*, ECOLOGIST, Mar. 2002, at 29.

60. The Quebec Declaration on Ecotourism, <http://www.gdrc.org/uem/eco-tour/quebec-declaration.pdf> (last visited Nov. 16, 2007).

61. Numbered recommendations are made to national, regional, and local governments (1 to 19), the private sector (20 to 33), non-governmental organizations, community-based associations, academic, and research institutions (34 to 37), inter-governmental organizations, international financial institutions, and development assistance agencies (38 to 45), local and indigenous communities (46 to 47), and the World Summit on Sustainable Development (48 to 49). *Id.* at 3–9.

62. For example, sustainable use, environmental impact assessment, polluter pays, participation, and cooperation, are principles employed by the Quebec Declaration. *Id.* at 2–4.

63. Vivanco, *supra* note 59, at 26; Mastny, *supra* note 39, at 116–17.

IV. THE REGULATION OF TOURISM BY INTERNATIONAL ENVIRONMENTAL LAW

The term “international environmental law” has now been in wide circulation for more than twenty years.⁶⁴ But what exactly does this topic encompass? The scope of international environmental law conceivably extends to the international legal regulation of any aspect of the “environment,” which is defined as “the conditions under which any person or thing lives or is developed . . . [or] . . . the sum-total of influences which modify and determine the development of life or character.”⁶⁵ This definition has received little by way of further explanation in subsequent environmental declarations,⁶⁶ resulting in a wide range of topics being grouped within international environmental law including: the control of waste; hazardous substances and nuclear energy; the protection of the atmosphere and outer space; and the conservation of the marine environment and biological diversity.⁶⁷ This broad range of environmental topics provides, perhaps, an ideal standpoint from which to consider the regulation of the tourism industry given the vast and varied impacts tourism activities have on the natural environment.

As a global phenomenon, tourism embraces activities occurring within global, regional, and transboundary contexts, as well as within national boundaries.⁶⁸ As such, in order to be truly effective tourism regulation must

64. See PHILIPPE SANDS, *PRINCIPLES OF INTERNATIONAL ENVIRONMENTAL LAW* 25 (2d ed. 2003) (“Modern international environmental law can be traced directly to international legal developments which took place in the second half of the nineteenth century.”).

65. 5 *OXFORD ENGLISH DICTIONARY* 315 (2d ed. 1989).

66. Neither the Declaration of the United Nations Conference on the Human Environment, nor the Rio Declaration on Environment and Development offer a particularly helpful description of what the “environment” constitutes. See The United Nations Conference on the Human Environment, June 5–16, 1972, U.N. Doc A/CONF.48/14/Rev.1 [hereinafter Stockholm Declaration]; The United Nations Conference on Environment and Development, Rio de Janeiro, June 3–14, 1992, *Rio Declaration on Environment and Development*, A/CONF.151/26 (Vol. I) (Aug. 12, 1992) [hereinafter Rio Declaration].

67. A glance at the table of contents of any general textbook on international environmental law reveals many of these topics. *E.g.*, SANDS, *supra* note 64; PATRICIA BIRNIE & ALAN BOYLE, *INTERNATIONAL LAW AND THE ENVIRONMENT* (2d ed. 2002).

68. Consider, for example, climate change. While levels of greenhouse gas emissions can be attributed to individual states, the problem of climate change remains global, owing to, among others, the impacts of state behavior transcending national boundaries (for example, the effects of carbon sinks or deforestation may be felt in other states), the inability of one state (or even a group of states) to effectively address and correct the problem, and the indivisible nature of the atmosphere. By its very nature, tourism contributes to climate change by increasing demands on transportation (especially aviation) and promoting the industrial development of tourism infrastructure, both of which result in the accelerated emission of greenhouse gases. In a situation such as this, a national or regional regulatory approach does not offer a sufficiently comprehensive regime by which to successfully address the global nature of the problem.

be approached from an international perspective and accordingly, addressed by the international legal system.⁶⁹

Before specifically examining how international environmental law might regulate the tourism industry, it is worth first making a few preliminary observations as to how the international legal system might be applied to various participants within the tourism industry. International environmental law contains a substantial body of rules and principles devoted to the protection of the global environment.⁷⁰ Given the recognition of environmental issues by the international legal system and the link between tourism and environmental degradation, public international law appears, *prima facie*, to be a suitable vehicle for the regulation of tourism activities where there exists an environmental threat. One contrary argument which may be raised is that international environmental law is primarily concerned with establishing substantive rights and obligations applicable to states (traditionally the dominant or exclusive subjects of public international law), whereas tourism represents the activities of several different entities (for example: individual tourists, tour operators, local communities, and interest groups) who have traditionally not been accorded international personality. Consequently, this may undermine the suitability of international environmental law for this task.

This argument can be refuted on two main grounds. First, there exist a whole host of traditional and developing principles of international law that are relevant to environmental protection, in addition to the primary substantive obligations and rights of states. For example, international law has a constitutional role in providing a mechanism for negotiating international rules and standards, settling disputes, promoting cooperation,

69. Specific attempts to regulate tourism activities have mainly taken place at the local level. See, e.g., Tourism Act, 2000, RT I 2000/95/607, Estonia, amended by RT I 2004/18/131; RT I 2003/88/594, RT I 2002/63/387, available at http://www.mkm.ee/failid/Tourism_Act_consolidated_text_March_2004_doc; Myanmar Tourism Law 1990, The State Law and Order Restoration Council Law No. 13/90, available at http://www.blc-burma.org/html/Myanmar%20Law/ir_e_m190_13.htm; Resource Management Act 1991, 1991 S.N.Z. No. 69, available at [http://www.legislation.govt.nz/browse_vw.asp?content-set=pal_statutes\(N.Z.\)](http://www.legislation.govt.nz/browse_vw.asp?content-set=pal_statutes(N.Z.)). Some regional agreements are in effect, for example, the 1998 Tourism Protocol, (Bled, Slov., Oct. 16, 1998), to the Convention on the Protection of the Alps, Nov. 7, 1991, 31 I.L.M. 767.

70. For a discussion on the structure and nature of public international law see I OPPENHEIM'S INTERNATIONAL LAW 3-16 (Robert Jennings & Arthur Watts eds., 9th ed. 1992) (1905); Phillip Allott, *The Concept of International Law*, 10 EUR. J. INT'L L. 31, 31-50 (1999); ROSALYN HIGGINS, PROBLEMS AND PROCESS: INTERNATIONAL LAW AND HOW WE USE IT 1 (1994). For an outline of the evolution of the international legal system see MALCOLM N. SHAW, INTERNATIONAL LAW 1-42 (5th ed. 2003); MARTTI KOSKENNIEMI, THE GENTLE CIVILISER OF NATIONS: THE RISE AND FALL OF INTERNATIONAL LAW 1870-1960 (2001); Leo Gross, *The Peace of Westphalia, 1648-1948*, 42 AM. J. INT'L L. 20 (1948).

and overseeing correct implementation and compliance,⁷¹ which may serve to bring private sector actors indirectly within the scope of the system.⁷² Furthermore, international law can, in some ways, be seen to operate in a similar way to national laws by establishing regulatory systems for environmental protection. Where national measures are in place, international regimes coordinate and harmonize the various national standards.

Traditionally, international rules existed primarily in the form of treaties or customary law, but there now exists an increasing prevalence of “soft-law” instruments within public international law.⁷³ As a result, the international legal system can be viewed as a framework and coordination mechanism for global, regional, transboundary, and national regulation in respect to a specific international issue.⁷⁴ Secondly, and more generally, there have been major changes in perspective regarding personality and participation within the international legal community, which has resulted in legal rules and principles bearing directly upon participants other than states.⁷⁵ Now, the modern reality of international law sees many non-state

71. See, e.g., Christian Tomuschat, *International Law as the Constitution of Mankind*, in INTERNATIONAL LAW ON THE EVE OF THE TWENTY-FIRST CENTURY: VIEWS FROM THE INTERNATIONAL LAW COMMISSION 37 (1997) (discussing international law as a constitution).

72. Many actors that traditionally do not participate within international law may indirectly play some role in the wider context of the international legal system. For example, private sector actors may be involved in the negotiation and promotion of an international instrument, or similarly, in ensuring implementation and enforcement of international standards at national or regional levels.

73. For a general explanation on the sources of international law, see SHAW, *supra* note 70, at 65–119; IAN BROWNLIE, *PRINCIPLES OF PUBLIC INTERNATIONAL LAW* 3 (6th ed. 2003); V.D. DEGAN, *SOURCES OF INTERNATIONAL LAW* 237–40 (1997) (discussing international soft law); G. M. Danilenko, *Law-Making in the International Community*, in 15 *DEVELOPMENTS IN INTERNATIONAL LAW* 30–43 (1993) (discussing art. 38(1) of the Statute of the International Court of Justice as “the basic norm about sources”). For a comparison with a non-traditional approach to identifying the sources of international law see HIGGINS, *supra* note 70, at 18–38 (“[I]nternational law has to be identified by reference to what actors (most often states), often without benefit of pronouncement by the International Court of Justice, believe normative in their relations with each other.”).

74. For example, Part XII of the 1982 Law of the Sea Convention (UNCLOS) recognizes the issue of marine pollution and sets out basic standards to which states should adhere. United Nations Convention on the Law of the Seas pt. XII, Dec. 10, 1982, 1883 U.N.T.S. 397 [hereinafter UNCLOS]. However, much of the substance and institutional support is established at the regional level—primarily under the United Nations Environmental Programme (UNEP) Regional Seas Programme, which coordinates the development and implementation of regional conventions and action plans, each of which is tailored to address the specific characteristics of an individual marine environment. United Nations Environmental Programme: Regional Seas Programme, <http://www.unep.org/regionalseas/About/default.asp> (last visited Sept. 5, 2007).

75. E.g., HIGGINS, *supra* note 70, at 46–54 (“International organizations may be participants in the international legal system in a variety of senses.”); Phillippe J. Sands, *The Environment, Community and International Law*, 30 *HARV. INT’L L.J.* 393, 394 (1989) (“[T]he political reality that non-governmental organizations are important participants in international society ought to be given legal expression.”).

actors involved in all stages of the international legal process. Both international and non-governmental organizations are becoming increasingly active in the research and drafting of international agreements, as well as acting as watchdogs to ensure compliance.⁷⁶ Furthermore, individuals are increasingly being held accountable, especially in terms of international criminal responsibility.⁷⁷ Therefore, an approach that considers international law as a “normative system,”⁷⁸ whereby the various participants undertake different roles as part of the legal process, more accurately reflects the current personality of public international law.

Recognizing the role played by participants other than states within the international legal system is especially important in the context of environmental protection. The state-based view of international law is centered on the doctrine of the sovereignty and equality of states.⁷⁹ Similarly, the most fundamental principle of international environmental law recognizes that states enjoy the sovereign right to exploit their own resources, but must not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction.⁸⁰ However, there are certain natural resources which are considered to be of such global value that they transcend the traditional notions of state sovereignty by restricting the degree of freedom exercisable by the state.⁸¹ In such situations the

76. For example, the drafting of the 1971 Ramsar Convention on Wetlands was motivated by the International Waterfowl and Wetlands Research Bureau. Convention on Wetlands of International Importance Especially as Waterfowl Habitat art. 2, Feb. 2, 1971, T.I.A.S. No. 1084, 996 U.N.T.S. 245 (amended 1982 & 1987), available at http://www.ramsar.org/key_conv_e.htm [hereinafter Ramsar Convention]. For a detailed overview on this point, see G.V.T. MATTHEWS, THE RAMSAR CONVENTION ON WETLANDS: ITS HISTORY AND DEVELOPMENT (Erika Luthi ed., 1993), available at http://www.ramsar.org/Lib/Lb_history.htm.

77. See, for example, the jurisdiction of the International Criminal Court; The Rome Statute for the International Criminal Court, July 17, 1998, U.N. Doc. A/Conf.183/9; International Criminal Court, Jurisdiction and Admissibility, http://www.icc-cpi.int/about/ataglance/jurisdiction_admissibility.html (last visited Dec. 4, 2007); the International Criminal Tribunal for the Former Yugoslavia, <http://www.un.org/icty/glance-e/index.htm> (select “General Information” at left) (last visited Dec. 4, 2007); and the International Criminal Tribunal for Rwanda, <http://69.94.11.53/default.htm> (follow “About the Tribunal” hyperlink at left, then follow “General Information”) (last visited Dec. 4, 2007).

78. HIGGINS, *supra* note 70, at 1.

79. BROWNLIE, *supra* note 73, at 289.

80. Stockholm Declaration, *supra* note 66, Principle 21; Rio Declaration, *supra* note 66, Principle 2; see also NICO SCHRIJVER, SOVEREIGNTY OVER NATURAL RESOURCES 1 (1997) (discussing the principle of permanent sovereignty).

81. Note that the concept of state sovereignty is not entirely transcended. Convention for the Protection of the World Cultural and Natural Heritage art. 6, Nov. 16, 1972, 27 U.S.T. 37, 11 I.L.M. 1358, available at <http://whc.unesco.org/archive/convention-en.pdf> [hereinafter World Heritage Convention]; Convention on Biological Diversity art. 4, June 5, 1992, 31 I.L.M. 818 (entered into force Dec. 29, 1993) [hereinafter CBD]; see also Ramsar Convention, *supra* note 76, art. 2 (“The inclusion of a wetland in the List does not prejudice the exclusive sovereign rights of the Contracting Party in whose territory the wetland is situated.”).

preservation of natural resources occurs by reference to international conservation standards and by making these matters the topic of global attention.⁸² World Heritage Sites offer a classic example of such a situation. For instance, Peru's Machu Picchu has been identified as possessing special international significance and accordingly, the conservation of the site is regulated in part by international agreement.⁸³ A further reason that the state-orientated approach does not offer an effective framework for international environmental protection is that environmental issues do not fit neatly within sovereign boundaries. Environmental pollution occurs with no respect for state borders and, as such, requires all participants of the international community to contribute towards the prevention and management of polluting activities, thereby deconstructing traditional notions of state sovereignty.

Finally, the diversity of participation within the tourism industry means that, in order for international law to operate in a truly comprehensive way, this form of regulation should also ideally extend beyond states to other participants, such as individual tourists, multinational tour companies, international tourism organizations, and civil society in general. There is now increasing support for the proposition that other participants within the international legal system may also, in some circumstances, possess legal personality in international law.⁸⁴ Indeed these participants play an increasingly significant role in the regulation of the tourism industry for the purposes of environmental protection.

The next section of this article examines and critiques aspects of current international environmental law that contribute to the regulation of the tourism industry. While there are many aspects of international environmental law that could, in general terms, be interpreted as being applicable to tourism,⁸⁵ this analysis is concerned with those aspects that

82. See BIRNIE & BOYLE, *supra* note 67, at 97–99, 137–43, for an introduction to the concept of “common concern,” and to distinguish this concept from that of common property, common heritage, and shared natural resources.

83. United Nations Educational, Scientific and Cultural Org. [UNESCO], World Heritage Comm., Convention Concerning the Protection of the World Cultural and Natural Heritage, *Report of the Rapporteur*, 9, U.N. Doc. SC/83/CONF.009/8 (1983), available at <http://whc.unesco.org/archive/repcom83.htm#274>. For other illustrations, see CBD, *supra* note 81, pmb1. (conservation of biological diversity); Convention on International Trade in Endangered Species of Wild Flora and Fauna pmb1, Mar. 3, 1973, 27 U.S.T. 1087, 993 U.N.T.S. 234 (entered into force July 1, 1975) (amended June 22, 1979) [hereinafter CITES] (“[P]rotection of certain species of wild fauna and flora against over-exploitation through international trade.”).

84. *E.g.*, HIGGINS, *supra* note 70, at 47–48 (“[T]he courts of the United Kingdom found that the International Tin Council (ITC) had legal personality. . . .”).

85. General principles of international environmental law (for example preventative principle, cooperation, precautionary principle, polluter-pays principle, principle of common but differentiated

directly recognize and address the tourism-environment relationship. International agreements that have acknowledged but have yet to develop the impacts and inter-relationship of tourism activities have been largely omitted in this case.⁸⁶

V. GENERAL PROVISIONS FOR BIODIVERSITY CONSERVATION

“The concept of biological diversity, or biodiversity [is understood to encompass] the diversity of ecosystems, the diversity of species, and the genetic diversity within species.”⁸⁷ Threats to biodiversity are predominately derived from human activities, such as habitat destruction (from agriculture and industrial development) and resource consumption (from hunting, collection, and exploitation). Moreover the indirect ecological consequences of many of these threats are equally as devastating for associated biodiversity components where, for example, “the destruction and loss of habitats and species . . . [threaten] . . . the ability of ecosystems to purify water, regenerate soil, protect watersheds, regulate temperature, recycle nutrients and waste, and maintain the atmosphere.”⁸⁸ Accordingly, an ecosystem approach to conservation is considered most effective in respect of the regulation and management of biodiversity, in order to ensure that both direct and indirect ecological consequences are addressed.

Many of the general global provisions regarding the conservation of biological diversity are established in the 1992 U.N. Convention on

responsibilities and so on) may well be relevant and applicable to tourism activities, but are largely excluded from this discussion.

86. See, e.g., World Heritage Convention, *supra* note 81 (illustrating goals to protect natural and cultural sites that are often also major tourist attractions such as Australia’s Great Barrier Reef, the historic sanctuary of Machu Picchu in Peru, India’s Taj Mahal, and Yellowstone National Park in America). Although the relationship between tourism and world heritage has been recognized, there has been little development to date in this direction. Similarly, the 1971 Convention on Wetlands of International Importance especially as Waterfowl Habitat recognizes the recreational value of many of its designated sites (for example, Spain’s Doñana National Park, the Etosha Pan in Namibia, and New Zealand’s Farewell Spit), yet this agreement currently offers little guidance in how tourism should be managed and regulated. See Ramsar Convention, *supra* note 76.

87. See MICHAEL BOWMAN, *The Nature, Development and Philosophical Foundations of Biodiversity Concept in International Law*, in INTERNATIONAL LAW AND THE CONSERVATION OF BIOLOGICAL DIVERSITY 5, 5 (Michael Bowman & Catherine Redgwell eds., 1996); P. VAN HEINSBERGEN, INTERNATIONAL LEGAL PROTECTION OF WILD FAUNA AND FLORA 197 (1997) (“The concept is explained as an all embracing term for the degree of nature’s variety”). This understanding of biodiversity was also one adopted by Article 2 of the Convention on Biological Diversity. CBD, *supra* note 81, art. 2.

88. SANDS, *supra* note 64, at 549.

Biological Diversity (CBD).⁸⁹ The objective of the 190 state parties⁹⁰ to the CBD is “the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.”⁹¹ The Convention defines the term “biological diversity” very widely and, in fact, extends its scope to include biological resources, biotechnology, and genetic material.⁹² The general obligations under the CBD include international cooperation with respect to areas beyond national jurisdiction⁹³ and the development (or adaptation) of “national strategies . . . for the conservation and sustainable use of biological diversity.”⁹⁴ More specific responsibilities within the Convention include the requirement that each state identify and monitor components of biodiversity (important for its conservation and sustainable use)⁹⁵ and the establishment of “protected areas . . . where special measures need to be taken to conserve biological diversity.”⁹⁶

While state parties are obliged to adhere to the general conservation measures, it is the Convention’s adoption of the “sustainable use” principle that is of particular interest.⁹⁷ The link between tourism and biodiversity has been identified by the CBD subsidiary body on Scientific, Technical and Technological Advice (“SBSTTA”), which focuses on tourism as one example of sustainable use.⁹⁸ While the SBSTTA highlights the potential environmental and socio-economic impacts on biological diversity from tourism, it most notably advocates the CBD as a “framework for the development of policy options for sustainable tourism, which would

89. For a discussion on the Convention see, for example, SECRETARIAT OF THE CONVENTION ON BIOLOGICAL DIVERSITY, HANDBOOK OF THE CONVENTION ON BIOLOGICAL DIVERSITY INCLUDING ITS CARTAGENA PROTOCOL ON BIOSAFETY, at xxiii–xxxv (3d. ed. 2005); Désirée M. McGraw, *The CBD—Key Characteristics and Implications for Implementation*, 11 REV. EUR. CMTY & INT’L ENVTL. L. 17 (2002); ALAN E. BOYLE, THE RIO CONVENTION ON BIOLOGICAL DIVERSITY 33–50 (Michael Bowman & Catherine Redgwell eds., 1996).

90. Convention on Biological Diversity, List of Parties, <http://www.cbd.int/convention/parties/list.shtml> (last visited Dec. 4, 2007).

91. CBD, *supra* note 81, art. 1.

92. *Id.* art. 2.

93. *Id.* art. 5.

94. *Id.* art. 6.

95. *Id.* art. 7.

96. *Id.* art. 8.

97. Article 2 of the Convention explains that “sustainable use involves the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.” *Id.* art. 2.

98. Convention on Biological Diversity, U. N. Env’t Programme [UNEP], Subsidiary Body on Scientific, Technical and Technological Advice, *Development of Approaches and Practices for the Sustainable Use of Biological Resources, Including Tourism*, ¶ 14–29, UNEP/CBD/SBSTTA/4/11 (Feb. 17, 1999), available at <http://www.cbd.int/doc/meeting.aspx?mtg=sbstta-04>.

promote the conservation and sustainable use of biological diversity.”⁹⁹ In considering the CBD as an ideal framework from which to address tourism, the SBSTTA adopts the three objectives of the CBD—specifically the conservation of biodiversity, the sustainable use of its components, and the fair and equitable sharing of the benefits—as the guiding principles for sustainable tourism. The CBD Guidelines on Biodiversity and Tourism Development (CBD Guidelines) were subsequently drafted in order to specifically apply the provisions of the CBD to the sustainable development and management of tourism activities.¹⁰⁰

The CBD Guidelines identify a multi-stakeholder management procedure from which ten steps for the management of sustainable tourism and biodiversity are outlined; these include obtaining baseline information and identifying goals, ensuring impact assessment and management, implementation, monitoring, and adaptive management.¹⁰¹ The focus of these guidelines—coordinated policy-making, development planning and management—is reflected by the requirement for national strategies and implementation by government bodies. While the legal nature of the guidelines is clearly nonbinding, the context of their approval at the meeting of the Conference of Parties and the simultaneous proposal for a user’s manual, glossary, and clearing-house mechanism to promote, collect, and disseminate information, clearly demonstrates that these Guidelines are intended for practical application by the CBD state parties.¹⁰²

Although much of the substance within the CBD Guidelines appears generalized and potentially lacks any onerous international commitment, the guidelines are designed as a framework to be adopted and implemented at the national level, thereby recognizing and accommodating the particular characteristics of various countries and tourism trends. Similar to many other international agreements, the CBD framework reflects a compromise whereby the imposition of less strict provisions is netted against the wide agreement of participants and flexibility in terms of application.

Perhaps most importantly, state parties to the CBD have recognized the significant impact tourism has on the various forms of biodiversity. Consequently, the Convention can be seen to operate on two levels. First, a majority of the rights and obligations set out in the CBD can be transferred

99. *Id.* ¶ 73.

100. Secretariat of the CBD, *Guidelines On Biodiversity and Tourism Development 1* (2004), available at <http://www.cbd.int/doc/publications/tou-gdl-en.pdf> [hereinafter CBD Guidelines].

101. *Id.* ¶¶ 11–82.

102. A user’s manual on the CBD Guidelines on Biodiversity and Tourism Development has been drafted and opened to governments, relevant international organizations and other stakeholders for comments. CBD Guidelines, *supra* note 100.

directly to the tourism industry where the majority of activities are undertaken in an environment with highly vulnerable biodiversity. Second, the institutional framework created by the Convention allows for the further exploration and development of associated issues, such as tourism, thereby harnessing the collective will of participating states. The CBD is one of the most widely ratified international environmental agreements; this means that its institutional bodies have an important role in the dissemination of information to participating states in addition to the development and implementation of associated guidelines and programs.

VI. INTERNATIONAL TRADE IN SPECIES

The nature of the international wildlife trade is diverse with plant and animal species (including products such as exotic leather goods, food, tourist souvenirs, and medicine), now worth billions of dollars annually. In promoting the protection of certain species against over-exploitation through international trade, the Convention on International Trade in Endangered Species (CITES)¹⁰³ recognizes, *inter alia*, the recreational value of wild flora and fauna.¹⁰⁴ CITES operates by assigning different species to one of the three appendices to the Convention, each of which is afforded a different level of protection.¹⁰⁵

The tourism industry is closely linked with issues surrounding international wildlife trade: revenue from wildlife-related tourism continues to increase as tourists seek out the wilderness and unspoiled environment as part of their tourism experience. While tourism potentially offers many

103. CITES, *supra* note 83. For a discussion on the development and operation of CITES, see Peter H. Sand, *Whither CITES?: The Evolution of a Treaty Regime in the Borderland of Trade and Environment*, 8 EUR. J. INT'L L. 29 (1997) (addressing the "CITES regime" and its impacts on international law and sustainable development); WILLEM WUNSTEKERS, *THE EVOLUTION OF CITES: A REFERENCE TO THE CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA* 15-18 (CITES Secretariat ed., 7th ed. 2003); SIMON LYSER, *INTERNATIONAL WILDLIFE LAW: AN ANALYSIS OF INTERNATIONAL TREATIES CONCERNED WITH THE CONSERVATION OF WILDLIFE* 239-76 (1985).

104. CITES, *supra* note 83, *pmbi*.

105. Species listed in Appendix I include those "threatened with extinction which are or may be affected by trade" for which commercial trade is prohibited. *Id.* art. II. Appendix II includes those species which, although not necessarily now threatened with extinction, may become so unless strict regulation is imposed; trade is allowed in respect to Appendix II species only where the "export will not be detrimental to the survival of that species" and the "specimen was not obtained in contravention of the relevant law." *Id.* art. III. Species listed in Appendix III are those identified as being subject to national regulation in order to prevent or restrict exploitation, and requiring international cooperation to control trade. *Id.* art. V. Trade in these species is allowable in accordance with a (less stringent) permitting system, although for many species, an Appendix III classification is a temporary measure until upgraded to an Appendix II classification. *Id.*

benefits for the preservation of wildlife by way of public education and conservation-orientated revenue generation, it can also be seen to threaten protectionist measures established in CITES. As a result, the relationship between tourism and wildlife trade is inextricably linked. This was illustrated in 2000, when Kenya opposed the joint proposal of Botswana, Namibia, South Africa, and Zimbabwe to lift the CITES ban on ivory trade. While population numbers of elephant had recovered in some South African countries, Kenya claimed that reopening ivory trade would result in increased poaching and thereby threaten its tourism industry.¹⁰⁶ Something of a compromise was achieved in 2002 where Botswana, Namibia, and South Africa were allowed to sell a limited and strictly controlled amount of their registered ivory, although Kenya and India remain opposed to ivory being available for sale.¹⁰⁷ The link recognized between ivory trade and tourism is vital for countries such as Kenya where tourism ranks first in terms of foreign currency earnings.

Trophy hunting remains a draw for many tourists visiting parts of Africa.¹⁰⁸ Hunting safaris generally operate by charging a daily hunting rate together with an additional “trophy fee” for different species, including amongst many others, buffalo, rhino, elephant, lion, and leopard.¹⁰⁹ There are a number of exceptions to the regulation of trade under CITES, including “specimens that are personal or household effects.”¹¹⁰ However, tourist souvenirs obtained outside the owner’s state of usual residence are not included in this exception and, therefore, must comply with the permitting requirements.¹¹¹ Under the provisions of CITES, trade in

106. *Summary of the Eleventh Conference of the Parties to Convention on International Trade in Endangered Species of Wild Fauna and Flora*, EARTH NEGOTIATIONS BULL. (Int’l Inst. Sustainable Dev., Winnipeg, Man., Can.), Apr. 24, 2000, at 1, available at <http://www.iisd.ca/vol21/enb2111e.html>; Simon Robinson, *Dying for Ivory*, TIME MAG., Apr. 17, 2000, at 44.

107. Resolution on Trade in Elephant Specimens, CITES, Conf. 10.10 (June 1997), available at <http://www.cites.org/eng/res/all/10/E10-10R14.pdf>.

108. Similar tourism operations exist in Norway for seal hunting. *Going Anywhere Nice this Year?*, BBC NEWS, Oct. 8, 2004, available at <http://news.bbc.co.uk/1/hi/magazine/3713360.stm>.

109. The African Sky Safaris company, for example, quotes trophy fees for each individual species in US dollars on their website at <http://www.africanskyhunting.co.za/pricelist.html>.

110. CITES, *supra* note 83, art. VII(3) (stating exemption of Personal and Household Effects); Resolution on Control of Trade in Personal and Household Effects, CITES, Conf. 13.7 (Oct. 1997) [hereinafter Control of Trade in Personal and Household Effects] (allowing for the export/import without permit of: caviar (up to 250 grams per person); rainsticks (up to three per person); specimens of crocodilian species (up to four per person); and queen couch shells (up to three per person)).

111. Resolution on Control of Trade in Tourist Souvenir Specimens, CITES, Conf. 10.6 (June 1997), available at <http://www.cites.org/eng/res/10/10-06.shtml>. This applies to specimens of Appendix I species that are souvenirs being imported by a person returning to his State of usual residence, and specimens of Appendix II species that are souvenirs being imported by a person returning to his State of usual residence if the specimens were taken from the wild in a State requiring the prior grant of export permits before the export of such specimens). *Id.*

hunting trophies of species listed under Appendix I is only permitted where accompanied by import and export permits confirming that the "exportation of the hunting trophy is not detrimental to the survival of the species."¹¹² Accordingly, any hunting trophy obtained, for example, in South Africa and intended for transport back to the tourist's home country must be accompanied by the relevant CITES permits. Moreover, in the case of some species, quotas have been set by the CITES Conference of the Parties (COP) for the number of hunting trophies allowed for each particular country.¹¹³

CITES has also directly addressed the control of trade in tourist souvenir specimens by way of a COP resolution.¹¹⁴ The Resolution recognizes that derivatives of Appendix I and II species continue to be widely sold as tourist souvenir specimens at international airports, duty free areas, and other places catering to largely international travelers. Furthermore, export permits are frequently not required by exporting countries. As such, the Resolution urges states to comply with the trade regulations set out in CITES and prohibits the sale of Appendix I tourist souvenir specimens in areas beyond customs control points, such as duty-free shops, seaports, and international departure areas.

Finally, the importance of public education and the provision of accessible information in places of international departure is recognized and recommended as a method of informing travelers about CITES and their legal responsibilities relating to the import and export of wildlife specimens. Subsequently, tourism activities involving the hunting or purchase of wildlife specimens have been comprehensively addressed by the CITES framework, and specific controls and regulations have been put in place regarding these tourist activities. While inevitable problems remain with ensuring compliance and enforcement, CITES remains one of the more developed and substantive responses from the international legal community currently in place.

112. Resolution on Trade in Hunting Trophies of Species Listed in Appendix I, CITES, Conf. 2.11 (March 1979), available at <http://www.cites.org/eng/res/all/02/E02-11R09.pdf>.

113. A detailed list of export quotas has been published by CITES, available at <http://www.cites.org/eng/resources/quotas/index.shtml>. Special quota systems have been developed for trade in leopard hunting trophies and skins for personal use; trade in live specimens of cheetah and hunting trophies; markhor hunting trophies; and trade in ivory from African elephants. See WIJNSTEKERS, *supra* note 103, at 391 ("The establishment of quota systems . . . is probably the most effective tool for the regulation of international trade in world fauna and flora currently available.")

114. Control of Trade in Personal and Household Effects, *supra* note 110 (recalling Resolution Conf. 4.12). For a discussion on this resolution see WIJNSTEKERS, *supra* note 103, at 143-50.

VII. MARINE MAMMALS

The conservation of cetaceans has traditionally centered on the regulation of the global whaling industry as whales have been exploited as a natural resource since the early thirteenth century.¹¹⁵ It is only in more recent years that the link between marine mammals and tourism has become evident with the development and expansion of the international whalewatching industry. Extending to all marine mammals, the term “whale watching” is described as “[t]he non-consumptive use of whales in which the animals are approached from vessels, with an intent to obtain visual contact in their natural environment” for recreation, scientific, educational, and publicity reasons.¹¹⁶

Whalewatching, as a commercial tourism activity, is now estimated to be a one billion dollar industry (US\$), with more than nine million participants per year in eighty seven countries and territories.¹¹⁷ There are more than eighty species of cetaceans included in whalewatching operations,¹¹⁸ and although the activity can take place from land-based or aerial platforms, it is boat-based tourism that is the most common, with seventy-two percent of tourists choosing to view whales in this way.¹¹⁹ There have been numerous studies undertaken on the potential effects of whalewatching on cetaceans, with results indicating that—as with any wildlife viewing activities—unregulated industries threaten normal cetacean behavioral patterns by intrusive human interaction.¹²⁰ With a rapid

115. See, e.g., Anthony D’Amato & Sudhir K. Chopra, *Whales: Their Emerging Right to Life*, 85 AM. J. INT’L L. 21, 22 (1991) (“This essay examines the history, and argues for the presentation, of a broadening international consciousness about whaling . . .”).

116. CAROLE CARLSON, A REVIEW OF WHALE WATCH GUIDELINES AND REGULATIONS AROUND THE WORLD 77 (2007), available at http://www.iwcoffice.org/_documents/conservation/WWREGSApril1207.pdf; see also ERICH HOYT, WHALE WATCHING 2001: WORLDWIDE TOURISM NUMBERS, EXPENDITURES, AND EXPANDING SOCIOECONOMIC BENEFITS 3 (2001) (defining “whale watching” as “tours by boat, air or from land, formal or informal, with at least some commercial aspect, to see, swim with, and/or listen to any of the some 83 species of whales, dolphins and porpoises”).

117. HOYT, *supra* note 116, at 146.

118. The most common focal species for whalewatching are humpback whales, gray whales, northern and southern right whales, blue whales, minke whales, sperm whales, short-finned pilot whales, orcas, and bottlenose dolphins. Two of these (the blue and the northern right whales) are classified as endangered species, while two others (humpback and southern right whales) are considered vulnerable. *Id.* at 146–47; see also IUCN Red List of Threatened Species, <http://www.iucnredlist.org> (offering a searchable database).

119. *Id.* at 147.

120. E.g., Rob Williams, Andrew W. Trites & David E. Bain, *Behavioral Responses of Killer Whales (Orcinus Orca) to Whale-Watching Boats: Opportunistic Observations and Experimental Approaches*, 256 J. ZOOL. LOND. 255, 268 (2002).

growth in the number of whale watchers worldwide,¹²¹ this industry is clearly one that deserves the attention of the international community in order to ensure that tourism is undertaken in an environmentally sustainable manner.

One of the fastest growing whalewatching industries is located in Iceland.¹²² Tourism currently represents one of the main economic industries for Iceland and as such, the increasing number of whalewatching activities makes an important contribution to the country's economy. However, debate now surrounds the future of the whalewatching industry in light of Iceland's decision to resume "sustainable whaling," after a fourteen year hiatus following the worldwide moratorium on whaling that came into effect in 1989.¹²³ Previously, concerns had been raised regarding the impact on local tourism as Iceland had undertaken limited whaling under the guise of scientific research, but this latest move fuels fear within the tourism industry that tourists may boycott the island in protest to its resumption of whaling, thereby crippling the lucrative whalewatching business.¹²⁴ Moreover, estimates attribute the "direct value of whalewatching in Iceland at \$8 million a year, while whaling yielded only \$3–4 million per year" before the moratorium took effect in 1989.¹²⁵ Thus, not only does the tourism industry need to ensure its own activities are environmentally

121. During the 1990s there was an average annual increase of more than ten percent. HOYT, *supra* note 116, at 12.

122. Iceland experienced an extraordinary annual growth rate of 250% from the mid to late 1990s. HOYT, *supra* note 116, at 70–72.

123. News Release, Humane Soc'y of the United States, U.S. Threatens Trade Sanctions After Iceland's First Whale Kill in 14 Years (Aug. 8, 2003), http://www.hsus.org/marine_mammals/marine_mammals_news/us_threatens_trade_sanctions_after_icelands_first_whale_kill_in_14_years.html; Declaration by the Icelandic Ministry of Fisheries, Iceland Decides to Resume Sustainable Whaling (Oct. 17, 2006), available at <http://eng.sjavarutvegsraduneyti.is/news-and-articles/nr/1300>. The Moratorium was introduced by International Whaling Commission, International Convention for the Regulation of Whaling, 1946: Schedule, § 10(e), at 8 (June 2006), available at <http://www.iwcoffice.org/commission/schedule.htm>; see International Whaling Convention, *Resolution on Whaling Under Special Permit*, at 1, IWC Res. 2003-2 (2003) [hereinafter IWC Res 2003-2] (permitting Iceland to kill 250 whales (100 minke, 100 fin and 50 sei whales) per year for two years in a Special Permit whaling operation); Audbjorg Olafsdottir, *Iceland Stops Whale-Hunting Quotas After Low Demand*, ENVTL. NEWS NETWORK, Aug. 24, 2007, available at <http://www.reuters.com/article/environmentNews/idUSL2460655320070825> ("Iceland will not issue new whale-hunting quotas until market demand increases and it gets an export license from Japan.").

124. Alister Doyle, *Tourism Worries for Iceland over Whaling*, PLANET ARK, Oct. 28, 2003, available at <http://www.planetark.com/avantgo/dailynewsstory.cfm?newsid=22670>; Alex Kirby, *Iceland Tourism Chief Warns Whalers*, BBC NEWS, Apr. 7, 2003, available at <http://news.bbc.co.uk/go/pr/ft/1/hi/sci/tech/2917267.stm>.

125. Sigga Hagalin, *In Iceland Whales May Be Worth More Alive than Dead*, PLANET ARK, Jun. 28, 2002, available at <http://www.planetark.com/avantgo/dailynewsstory.cfm?newsid=16625>.

sustainable, but the impact of Iceland's whaling activities must also be considered in order to determine what contributory effect it may have.¹²⁶

Whales have been the topic of international conservation efforts since the 1930s,¹²⁷ although early attempts were largely superseded by the 1946 International Convention for the Regulation of Whaling (IWC).¹²⁸ While the objective of the IWC is to "provide for the proper conservation of whale stocks and thus make possible the orderly development of the whaling industry,"¹²⁹ much debate surrounds the conflicting ideologies regarding the initial purpose of the Convention to sustain the whaling industry and the modern preservationist approach currently advocated by much of the international community.¹³⁰ Accordingly, pressure has been exerted on the IWC by both pro- and anti-whaling states in respect to its mandate to establish conservation-based policy.¹³¹ While the text of the IWC is restricted to the subject of conserving whale stocks, it has facilitated considerable scientific research and provides guidance to states in respect to

126. For a discussion on the relationship between whaling and whalewatching see, for example, Erich Hoyt & Glen T. Hvenegaard, *A Review of Whale-Watching and Whaling with Applications for the Caribbean*, 30 COASTAL MGMT. 381 (2002).

127. The first whaling treaty was the 1931 Convention for the Regulation of Whaling. LYSTER, *supra* note 103, at 17.

128. *Id.* at 120; IWC Res 2003-2, *supra* note 123. For further discussion on the IWC, which was established under the Convention, see Gregory Rose & Sandra Crane, *The Evolution of International Whaling Law*, in GREENING INTERNATIONAL LAW (Philippe Sands ed., 1993) ("[T]his chapter aims to provide an understanding of the challenges facing the IWC in its attempts to 'manage whale stocks' today."); Pat W. Birnie, *International Legal Issues in the Management and Protection of the Whale: A Review of Four Decades of Experience*, 29 NAT. RESOURCES J. 903 (1989) (describing legal issues in the international regulation of whaling).

129. International Convention for the Regulation of Whaling, pmbl., Dec. 2, 1946, 62 Stat. 1716, 161 U.N.T.S. 72 [hereinafter ICRW].

130. Nicholas Schoon, *Britian Says Whaling Is Immoral*, LONDON INDEP., May 9, 1996, available at http://www.Findarticles.com/p/articles/mi_qn4158/is_19960509/ai_n14044834; see The Berlin Initiative on Strengthening the Conservation Agenda of the International Whaling Comm., IWC Res. 2003-1 (2003) ("[T]he interests of the nations of the world in safeguarding for future generations the great natural resources represented by whale stocks.").

131. See, e.g., William C.G. Burns, *The Berlin Initiative on Strengthening the Conservation Agenda of the International Whaling Commission: Toward a New Era for Cetaceans?*, 6 J. WILDLIFE L. & POL'Y 255, 275 (2003) (predicting a turf battle between pro-whaling nations and the IWC's Conservation Committee). For example, to support its pro-whaling stance, Japan has attempted to recruit new members to join the IWC. *Id.*; Adrienne M. Ruffle, Note, *Resurrecting the International Whaling Commission: Suggestions to Strengthen the Conservation Effort*, 27 BROOK. J. INT'L L. 639, 639 (2002); Sarah Suhre, *Misguided Morality: The Repercussions of the International Whaling Commission's Shift from a Policy of Regulation to One of Preservation*, 12 GEO. INT'L ENVTL. L. REV. 305, 306 (1999); William Burns, *The International Whaling Commission and the Future of Cetaceans: Problems and Prospects*, 8 COLO. J. INT'L ENVTL. L. & POL'Y 31 (1997); Judith Berger-Eforo, *Sanctuary for the Whales: Will this be the Demise of the International Whaling Commission or a Viable Strategy for the Twenty-first Century?*, 8 PACE INT'L L. REV. 439, 439 (1996).

whale-killing methods and associated welfare issues,¹³² small cetaceans,¹³³ whale sanctuaries,¹³⁴ conservation issues,¹³⁵ and whalewatching activities.

A relatively new development in the work of the IWC is its involvement in whalewatching as a sustainable use of cetacean resources. The IWC established a working group on whalewatching and called upon state parties “to undertake a preliminary assessment . . . of whalewatching activities in their respective countries.”¹³⁶ In acknowledging that the “regulation of whalewatching is a matter for the responsible coastal state, rather than for the Commission,”¹³⁷ the Working Group (under advice from the Scientific Committee) created the General Principles for Whalewatching, which were subsequently adopted by the Commission in 1996.¹³⁸ The IWC General Principles for Whalewatching outline three aspects of the tourism activity to be accorded specific attention.¹³⁹ First, states must manage the development of whalewatching to minimize the risk of adverse impacts by, inter alia, employing the precautionary principle in respect to evolving whalewatching operations¹⁴⁰ and implementing measures to regulate the variable aspects of the industry.¹⁴¹ Secondly, platforms (the vessels from which tourists view whales) must be designed, maintained, and operated in such a way as to minimize the risk of adverse effects on cetaceans.¹⁴² Finally, tourist operators should “allow cetaceans to

132. INT’L WHALING COMM’N, REPORT OF THE WORKSHOP ON WHALE KILLING METHODS AND ASSOCIATED WELFARE ISSUES, Annex E (2003).

133. The status of small cetaceans under the Convention remains uncertain since the term “whale” is not defined by the Convention. ICRW, *supra* note 129, art. 2.

134. International Convention for the Regulation of Whaling, 1946: Schedule, *supra* note 123, § 7.

135. See, IWC Res. 2003-2, *supra* note 123, at 1 (establishing a Conservation Committee to strengthen the conservation agenda of the IWC).

136. IWC, *IWC Resolution on Whalewatching*, at subsec. (a), IWC Res. 1993-9 (1993).

137. IWC, *IWC Resolution on Whalewatching*, para. 4, IWC Res. 1994-14 (1994).

138. IWC, *IWC Resolution on Whalewatching*, para. 11, IWC Res. 1996-2 (1996); see also IWC, *General Principles for Whalewatching* (1996), <http://www.iwcoffice.org/conservation/wguidelines.htm>.

139. *General Principles for Whalewatching*, *supra* note 138.

140. *Id.* § 1(iii). While the term “precautionary principle” is not specifically used in the General Principles for Whalewatching, the IWC recognizes the “need for *precautionary measures* to ensure that the continuing development and expected expansion of whalewatching activities do not adversely affect cetacean populations, individual animals, or their environment, or significantly increase the risk to the survival or ecological functioning of such populations.” IWC Res. 1996-2, *supra* note 138 (emphasis added).

141. *General Principles for Whalewatching*, *supra* note 138, § 1(i) (including “platform numbers and size, activity, frequency and length of exposure in encounters with individual and groups of whales”).

142. This point is especially important in respect of disturbances from noise, as cetaceans respond in different ways “to low and high frequency sounds, relative sound intensity or rapid changes in sound.” *Id.* § 2(ii); Karen N. Scott, *International Regulation of Undersea Noise*, 53 INT’L & COMP.

control the nature and duration of ‘interactions.’”¹⁴³ The IWC Principles of Whalewatching provide a basis from which states have developed individual regulations and management procedures, which build on and substantiate the standards set out by the Commission. Some thirty countries have implemented national whalewatching guidelines or regulations for tourist operators.¹⁴⁴ Australia has adopted a particularly comprehensive set of guidelines for cetacean observation that outline the operational requirements of vessels and aircraft (including how to approach cetaceans), the avoidance of noise, and rules regarding feeding, touching, and swimming with cetaceans.¹⁴⁵

International environmental law has offered an indirect, yet apparently extensive and relatively successful, solution to the problem posed by tourism in respect of marine mammals. While the IWC offers very little by way of inherent conservation priorities, the infrastructure established to support this international agreement, the Commission, the Scientific Committee, and additional working groups, has harnessed the political will of member states and implemented international regulations of whalewatching in response to the expanding tourism industry. As with the legal initiatives introduced by CITES, there will inevitably remain challenges in terms of ensuring compliance and enforcement, especially given the involvement of private-sector entities. However, the comparatively extensive implementation of regulatory standards into national systems and coordinated enthusiasm at the international level demonstrates an emerging trend in terms of the environmental regulation of tourist activities.

VIII. MARINE POLLUTION

Tourism activities pose a real and significant threat to the global marine environment. The sources from which marine pollution can occur have been well documented, and many of them may be associated to varying

L.Q. 287, 288 (2004) (“Cetaceans are believed to be highly sensitive to sound and are tremendously vocal.”).

143. *General Principles for Whalewatching*, *supra* note 138, § 3. This requires operators to be aware of aspects such as the speed and angle of approach, the distance between the platform and cetaceans, sudden changes in speed, direction or noise, and the placing of a platform between mother and calf pairs so as to separate a group.

144. See CARLSON, *supra* note 116 (describing the regulations and guidelines of countries around the world).

145. DEP’T OF THE ENV’T AND WATER RES., AUSTRALIA, AUSTRALIAN NATIONAL GUIDELINES FOR WHALE AND DOLPHIN WATCHING (2005), available at <http://www.environment.gov.au/coasts/publications/pubs/whale-watching-guidelines-2005.pdf>.

degrees with tourism activities.¹⁴⁶ However, of most immediate relevance to the tourism industry is pollution from land-based sources and vessel-sourced pollution.¹⁴⁷ The Law of the Sea Convention (UNCLOS) covers a multitude of issues relating to the use of the ocean and the management of the sea's resources,¹⁴⁸ with many of its provisions regarding maritime navigation and territorial sea limits being equally applicable to tourism activities.¹⁴⁹ While UNCLOS does establish rights and obligations in respect of environmental marine protection,¹⁵⁰ the legal nature of this it is largely qualified and there are no substantive obligations imposed or quantifiable rights conferred on state parties.¹⁵¹ Instead, UNCLOS incorporates what are now regarded as the generally accepted international rules and standards in respect of marine pollution. The provisions of more specialized agreements (such as MARPOL, OSPAR and the Regional Seas Conventions) impose more detailed obligations.¹⁵² Thus, while UNCLOS outlines the common standards in respect of the marine environment. The impact of tourism has been recognized and addressed by more specialized agreements, which impose management regimes, development strategies, and pollution requirements on state parties.

146. See R.R. CHURCHILL & A.V. LOWE, *THE LAW OF THE SEA* 242, 241–87 (1999) (“There are four main sources of marine pollution: shipping, dumping, sea-bed activities and land activities.”); The Secretary-General, *Report of the Secretary-General on Protection and Preservation of the Marine Environment*, ¶ 38, delivered to the General Assembly, U.N. Doc. A/44/461 (Sept. 18, 1989); Group of Experts on Scientific Aspects of Marine Environmental Protection [GESAMP], United Nations Environmental Programme [UNEP], *A Sea of Troubles* 22–24 (2001) (describing marine pollution as a result of tourism activities).

147. It has been estimated that marine pollution can be attributed to twelve percent from shipping, ten percent from dumping, one percent from sea-bed activities, forty-four percent from land-based sources, and thirty-three percent from the atmosphere (much of which originates from land-based activities). GESAMP, UNEP, *Reports and Studies No. 39, The State of the Marine Environment* 88 (1990) [hereinafter *Reports and Studies No. 39*].

148. For discussions on the operation of the Law of the Sea, see I-VI M. NORDQUIST ET AL., *UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982: A COMMENTARY* (1985–2002); *LAW OF THE SEA: THE COMMON HERITAGE AND EMERGING CHALLENGES* (H. Scheiber ed., 2000); EDWARD DUNCAN BROWN, *THE INTERNATIONAL LAW OF THE SEA* (1994); I-II D. O’CONNELL, *THE INTERNATIONAL LAW OF THE SEA* (I.A. Schreiber ed., 1982–1984).

149. See UNCLOS, *supra* note 74, arts. 19–20 (regarding provisions on innocent passage), art. 56 (regarding rights, jurisdiction and duties of the coastal state in the exclusive economic zone), art. 94 (regarding duties of the flag state).

150. UNCLOS, *supra* note 74, pt. XII.

151. *Id.* For a discussion on the negotiation of Part XII of the Convention, see NORDQUIST, *supra* note 148, at 35.

152. See, e.g., Alan E. Boyle, *Marine Pollution under the Law of the Sea Convention*, 79 AM. J. INT’L L. 347, 347–372 (1985) (“[I]t is only a general framework of powers and duties, not a code of specific standards for particular forms of pollution.”).

A. Land-Based Marine Pollution

One form of pollution regulation with significant relevance to the tourism industry is marine pollution from land-based sources, which also includes atmospheric pollution from land activities. Land-based sources constitute the largest source of marine pollution.¹⁵³ These pollutants include: sewage, industrial waste, agricultural runoff, water from power stations, vehicle exhaust, and fumes from domestic and industrial chimneys.

The tourism industry's contribution to land-based marine pollution is significant and takes place in a number of ways. One result of developing tourism infrastructure, such as hotel complexes, commercial developments, and water-sport activities, is an increase in waste production levels. Waste from the tourism industry may take the form of inadequately treated wastewater; fertilizers and pesticides used on golf courses, gardens, and recreational grounds; oil spills from marine leisure craft; air pollution from the burning of fossil fuels (especially prominent in many forms of tourism transportation); and litter.¹⁵⁴

International regulation of land-based marine pollution is limited by notions of state sovereignty because pollutants are sourced from within national boundaries.¹⁵⁵ UNCLOS imposes a general obligation on states to "prevent, reduce and control pollution of the marine environment from land-based sources, including rivers, estuaries, pipelines and outfall structures," but provides no detail on how this should be achieved.¹⁵⁶ One example of where the issue receives more comprehensive coverage at the regional level is the 1992 Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention).¹⁵⁷ Parties to

153. *Reports and Studies No. 39*, *supra* note 147, at 88.

154. OSPAR Commission, *OSPAR Background Document on Tourism*, § 2.1.3–2.2 (2003), available at http://www.ospar.org/documents/dbase/publications/p00184_Background%20document%20on%20tourism.pdf [*Background Document on Tourism*].

155. See, e.g., Thomas A. Mensah, *The International Legal Regime for the Protection and Preservation of the Marine Environment from Land-based Sources of Pollution*, in *INTERNATIONAL LAW AND SUSTAINABLE DEVELOPMENT* 297–324 (Alan Boyle & David Freestone eds., 1999); CHURCHILL & LOWE, *supra* note 146, at 277–78 ("Although pollution from land is the most important source of marine pollution, it is the source in respect of which least international legislative action has so far been taken.").

156. UNCLOS, *supra* note 74, art. 207(1). The Convention only adds that states "shall endeavour to establish global and regional rules and standards" in order to achieve this objective. *Id.* art. 207(4). Article 213 adds that states shall adopt laws to ensure enforcement in respect of land-based marine pollution. *Id.* art. 213.

157. The 1992 OSPAR Convention incorporates and replaces the 1974 Paris Convention on the Prevention of Marine Pollution from Land-Based Sources and the 1972 Oslo Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft. Note also that the UNEP Regional Seas Programme would clearly extend to tourism based development and activities, although there is

this Convention are required to “prevent and eliminate pollution from land-based sources,”¹⁵⁸ using the “best available techniques for point sources, and the best environmental practice for point and diffuse sources.”¹⁵⁹ Accordingly, parties to the OSPAR Convention¹⁶⁰ are under an international obligation to address pollution from land-based sources which would include pollution occurring as a result of tourism.

In 2003 the OSPAR Commission¹⁶¹ issued the *Background Document on Tourism (Background Document)*, which examines “the impact of tourism on the marine environment, its species, habitats, and biological diversity.”¹⁶² The study recognizes tourism as one of the world’s fastest growing industries, while acknowledging the great variety and fragility of the coastal environment. A number of the negative environmental impacts of tourism in coastal zones are highlighted.¹⁶³

Next, the *Background Document* suggests measures for managing environmental impacts, identifying existing actions related to sustainable tourism in coastal zones, and recommending that an integrated coastal zone management strategy (ICZM) be implemented in relation to tourism.¹⁶⁴ Considered a “tool for the achievement of sustainable development in coastal zones,” the ICZM embodies a set of general principles, many of which are already in common use within international environmental law.¹⁶⁵ In light of this, the OSPAR Commission makes a number of recommendations. Of particular importance is the control of coastal tourism development, including the implementation of planning and development strategies; the monitoring and combating of pollution; raising environmental awareness via campaigns, training programs and documentation; and the use of economic instruments and incentives to promote sustainable tourism.¹⁶⁶ The *Background Document on Tourism*

little specific attention paid to the tourism industry itself. For an overview of the UNEP Regional Seas Programme see, for example, P. Akiwumi & T. Melvasalo, *UNEP’s Regional Seas Programme: Approach, Experience and Future Plans*, 22 MARINE POL’Y 229, 229–34 (1998).

158. OSPAR Commission, *Convention for the Protection of the Marine Environment of the North-East Atlantic*, art. 3 (1992).

159. *Id.* Annex 1, art. 1. Note the term “land-based sources” is defined at article 1(e).

160. A list of the sixteen contracting parties and the seventeen governmental organizations with observer status can be found at <http://www.ospar.org/eng/html/cp/welcome.html>.

161. The Commission is the governing body of the OSPAR Convention.

162. *Background Document on Tourism*, *supra* note 154, at 4.

163. Note that the *Background Document on Tourism* also identifies some positive impacts of tourism, including “revenue creation for the maintenance of natural areas,” “environmental awareness raising,” and “alternative employment.” *Id.* § 2.2.

164. *Id.* § 3.

165. ICZM incorporates, among others, the precautionary principle, monitoring, localized solutions, participation, cooperation, and the adoption of a combination of instruments. *Id.* § 3.

166. *Id.* § 5.

offers a clear example of a scenario where an international treaty has established initial standards for state parties to consent to and then further developed more specific and substantive guidance on relevant issues through the Convention's structural framework. Although the *Background Document* is not legally binding on parties, it provides valuable guidance, management plans, and conservation strategies for addressing the problem of tourism-generated, land-based, marine-pollution activities in the Northeast Atlantic.

Land-based pollution occurring from the discharge of sewage and garbage into the marine environment is a serious threat to, among many other things, local coral reefs and their biodiversity. The discharge of sewage, waste materials, garbage, and silting from construction work has resulted in significant reef degradation in Kaneohe Bay, on the island of Oahu, Hawaii. A "large, shallow embayment with restricted water circulation that was once known for its flourishing coral reefs," Kaneohe Bay suffered "total destruction of the coral reef communities in two-thirds of the bay" as a direct result of urbanization and tourism development.¹⁶⁷ In situations such as these, the effective regulation of tourism development and management of subsequent recreational activities makes a significant contribution to the avoidance of environmental degradation.

B. Vessel-Sourced Marine Pollution

A second type of marine pollution, which is aggravated by the tourism industry, originates from vessels. The operation of cruise ships alone generates an enormous volume of waste while accommodating an estimated ten million passengers per year, more than seventy percent of which are from the United States.¹⁶⁸ A typical cruise ship carrying 3000 passengers

167. JAMES NYBAKKEN & JAMES WILLARD, *MARINE BIOLOGY: AN ECOLOGICAL APPROACH* 478–80 (5th ed. 2001); see also AUSTIN ET AL., *THE EXPLOITATION OF CORAL REEFS* 19–23 (Rupert Ormond & Angela Douglas eds., 1996) (discussing the effect of tourism on coral reefs).

168. John G.C. Kester, *Cruise Tourism*, 9 *TOURISM ECON.* 337, 337–40 (2002). For further statistics on the operation of cruise ships, see ROSS A. KLEIN, *CRUISE SHIP BLUES: THE UNDERSIDE OF THE CRUISE INDUSTRY* 2 (2002); World Tourism Organization [UNWTO], *Worldwide Cruise Ship Activity* (2003). For a discussion on cruise ships and marine pollution, see Andrew Schulkin, *Safe Harbors: Crafting an International Solution to Cruise Ship Pollution*, 15 *GEO. INT'L ENVTL. L. REV.* 105 (2002); LINDA NOWLAN & INES KWAN, *WEST COAST ENVTL. LAW, CRUISE CONTROL—REGULATING CRUISE SHIP POLLUTION ON THE PACIFIC COAST OF CANADA* (2001), available at <http://www.wcel.org/wcelpub/2001/13536.pdf>; Oceana, *Contamination by Cruise Ships*, available at http://www.oceana.org/fileadmin/oceana/uploads/europe/reports/cruise_ships_eng.pdf.

and crew can generate up to 130,000 liters of human waste (sewage)¹⁶⁹ and over one million liters of gray water¹⁷⁰ every day. The United States Environmental Protection Agency estimates that there are more than 230 cruise ships currently operating worldwide.¹⁷¹ Combined with the discharge of approximately 37,000 gallons of oily bilge water, 30,000 gallons of sewage, and 25,000 gallons of gray water each day, a cruise ship has the potential to generate copious quantities of polluting waste.¹⁷²

While there are a number of international treaties that address the issue of marine pollution from vessels,¹⁷³ the 1973 International Convention for the Prevention of Pollution from Ships (MARPOL) is of most relevance to tourism.¹⁷⁴ The text of the MARPOL Convention contains the main body of the agreement, which is then supplemented by six technical annexes detailing the regulations for the prevention of various types of marine pollution.¹⁷⁵ MARPOL imposes a general obligation on state parties to “prevent the pollution of the marine environment by the discharge of harmful substances” or effluents containing specific substances.¹⁷⁶ Of particular interest to the tourism industry are the annexes on the prevention

169. Robert J. Kwortnik, *Carnival Cruise Lines: Burnishing the Brand*, 47 CORNELL Q., 286, 288 (2006); Mark Townsend, *Cruise Ships Must Clean Up Their Act*, THE OBSERVER, Mar. 28, 2004, available at <http://www.guardian.co.uk/travel/2004/mar/28/travelnews.boatingholidays>.

170. Grey water includes non-sewage waste water from sources such as sinks, showers, laundries, and dishwashers. Oasis Design, Grey Water Central, <http://www.oasisdesign.net/greywater/index.htm> (last visited Sept. 20, 2007).

171. E envt. Prot. Agency, Cruise Ship Water Discharges, http://www.epa.gov/owow/oceans/cruise_ships (last visited Oct. 18, 2007).

172. KLEIN, *supra* note 168, at 90; *see also* Schulkin, *supra* note 168, at 108–09 (“[I]n a one week trip, a typical cruise ship generates approximately 50 tons of garbage, one million gallons of gray water, 210,000 gallons of sewage, and 25,000 gallons of oil wastewater each week.”). Note that estimates vary depending on the source and method of data collection. The figures provided here represent an overall average indication of the data available.

173. International Convention on Oil Pollution Preparedness, Response and Cooperation, Nov. 30, 1990, Sen. Treaty Doc. 102–11, 1891 U.N.T.S. 78 (recognizing the danger of marine pollution); Oslo Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft, Feb. 1972, 932 U.N.T.S. 3 (recognizing pollution from dumping); International Convention for the Safety of Life at Sea art. 3, Nov. 1, 1974, 32 U.S.T. 47, 1184 U.N.T.S. 276 (concerning the safety of ships); Convention on the International Regulations for Preventing Collisions at Sea, Oct. 20, 1972, 28 U.S.T. 3459, 1050 U.N.T.S. 16, (discussing obligations of captains to prevent collisions); International Convention on Civil Liability for Oil Pollution Damage, Nov. 29, 1969, 26 U.S.T. 765, 973 U.N.T.S. 3 (concerning pollution from oil spills).

174. The Convention was amended in 1978 and entered into force in 1983. International Convention for the Prevention of Pollution from Ships, Nov. 2, 1973, T.I.A.S. No. 10561, 1340 U.N.T.S. 184; Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, Feb. 17, 1978, 1340 U.N.T.S. 184 [hereinafter MARPOL].

175. MARPOL, *supra* note 174, Annex 1.

176. *Id.* art. 1.

of sewage, garbage, and air pollution.¹⁷⁷ In terms of sewage,¹⁷⁸ ships must be equipped with an acceptable sewage management system (such as a sewage treatment plant, a sewage comminuting and disinfecting system, or a sewage holding tank) where the discharge of sewage is prohibited except where the correct treatment has taken place and is disposed of at the requisite distance from land.¹⁷⁹ The disposal of garbage¹⁸⁰ at sea is regulated by reference to the type of garbage and the distance of the ship from the nearest land. The disposal of garbage in special areas, which tend also to be popular tourist destinations, is largely prohibited.¹⁸¹ Finally, air pollution from ships is regulated by setting limits on sulfur oxide and nitrogen oxide emissions from ship exhausts and prohibiting deliberate emissions of ozone depleting substances.¹⁸² Notably, the provisions of the MARPOL Convention must be applied by states not only to their own ships, but also to violations within their jurisdiction.

Increasingly, cruise ships are receiving fines for causing environmental damage, most often as a result of illegal discharges into the ocean.¹⁸³ The Norwegian Cruise Line company pleaded guilty to circumventing the oily water separator, thereby allowing oily bilge to be discharged directly into the sea on numerous occasions from 1997 to 2000. The company was fined \$1.5 million, while the individuals responsible for falsifying log books in an attempt to conceal the dumping of waste oil are being prosecuted in the United States, each facing imprisonment terms of up to fifteen years if convicted.¹⁸⁴ Nevertheless, concerns remain that many cruise ships are not complying with legal regulations and, as with many other areas of

177. *Id.* Annex I–VI. Note that Annex III regulates the prevention of pollution by harmful substances in packaged form, but is not directly relevant to the present discussion on tourism. *Id.* Annex III.

178. *Id.* Reg. 3, Annex IV, at 256 (“Sewage includes waste from toilets, drainage from medical premises, drainage from spaces containing living animals, and waste waters when mixed with the drainage above.”).

179. *Id.*

180. “Garbage includes all kinds of victual, domestic and operational waste (excluding fresh fish) generated during the normal operation of the ship and liable to be disposed of continuously or periodically.” *Id.* Reg. 1(1), Annex V.

181. *Id.* Reg. 5, Annex V, at 264.

182. *Id.* Annex VI.

183. See Cruisejunkie Home Page, <http://www.cruisejunkie.com/> (last visited Sept. 13, 2007) (summarizing environmental fines in relation to cruise ships).

184. *Cruise Ships Employees Charged in Waste Oil Dumping Probe*, CNN.COM, Dec. 19, 2003, <http://cnnstudentnews.cnn.com/2003/US/South/12/19/cruise.dumping.ap/>; Press Release, U.S. Dep’t of Justice, Norwegian Cruise Line Admits to Environmental Crime (July 31, 2002), http://www.usdoj.gov/opa/pr/2002/July/02_enrd_441.htm. For additional information, see *United States v. Norwegian Cruise Line, Ltd.*, No.01-0244–CIV, 2001 WL 34677399 (S.D. Fla. 2001).

environmental regulation, it is inevitably difficult for (substantive and appropriate) penalties to be successfully applied.¹⁸⁵

IX. THE ANTARCTIC ENVIRONMENT

Especially vulnerable due to its sensitive ecosystems, Antarctica is another aspect of the natural environment to have received increased attention in recent years on account of a proliferation of tourist numbers. The majority of the approximately 26,000 tourists to visit Antarctica during the 2005–2006 season did so by cruise ship. A typical itinerary includes visits to penguin colonies, scientific stations, and historic sites, along with excursions to view native wildlife on and around the continent.¹⁸⁶ As a result, tourists generally visit the Antarctic region as part of a self-contained cruise expedition where all facilities are provided on board the ship. Up to 100 people are taken to shore for one to three hours at variable intervals.¹⁸⁷

Both land-based and vessel-sourced marine pollution have been addressed in the context of the Antarctic environment, the legal regulation of which is the subject of the Antarctic Treaty System (ATS).¹⁸⁸ The core

185. See, e.g., Schulkin, *supra* note 168, at 116–18 (discussing the inconsistency among regulations, which may add to the difficulty of complying with regulations); Stephen Thomas, *State Regulation of Cruise Ship Pollution: Alaska's Commercial Passenger Vessel Compliance Program as a Model for Florida*, 13 J. TRANSNATIONAL L. & POL'Y 533, 534 (2004) (citing examples of cruise ships not complying with regulations); Laura K. S. Welles, Comment, *Due to Loopholes in the Clean Water Act, What Can a State Do To Combat Cruise Ship Discharge of Sewage and Gray Water*, 9 OCEAN & COASTAL L.J. 99, 102 (2004) (discussing cruise ship discharge).

186. For statistics on tourism numbers visiting Antarctica see the INTERNATIONAL ASSOCIATION OF ANTARCTICA TOUR OPERATORS (IAATO), <http://www.iaato.org/> (last visited Sept. 25, 2007). For an introduction to Antarctic tourism, see THOMAS BAUER TOURISM IN ANTARCTICA: OPPORTUNITIES, CONSTRAINTS AND FUTURE PROSPECTS (2001); Mike G. Richardson, *Regulating Tourism in the Antarctic: Issues of Environment & Jurisdiction*, in IMPLEMENTING THE ENVIRONMENTAL PROTECTION REGIME FOR THE ANTARCTIC, 71, 71–72 (Davor Vidas ed., 2000); Robert K. Headland, *Historical Development of Antarctic Tourism*, 21 ANNALS TOURISM RES. 269 (1994); and Nigel Wace, *Antarctica: A New Tourist Destination*, APPLIED GEOGRAPHY 327, 327 (1990) (“The scenic beauty and wildlife attractions of Antarctica, in conjunction with its remoteness, have encouraged the growth of tourism in the region.”).

187. INTERNATIONAL ASSOCIATION OF ANTARCTICA TOUR OPERATIONS, *Scope of Antarctic Tourism—A Background Presentation*, available at http://www.iaato.org/tourism_overview.html. Note that a small but increasing minority are now looking for other activities in Antarctica, including sky diving, climbing, surfing, diving, and ski walking.

188. The ATS is comprised of the 1959 Antarctic Treaty; 1964 Agreed Measures for the Conservation of Antarctic Fauna and Flora; 1972 Convention on the Conservation of Antarctic Seals; 1980 Convention for the Conservation of Antarctic Marine Living Resources; 1988 Convention on the Regulation of Antarctic Mineral Resource Activities; and 1991 Environment Protocol to the Antarctic Treaty. Antarctic Treaty Secretariat, Antarctic Treaty System, <http://www.ats.aq> (select “Antarctic Treaty” at left, then select “Treaty”). For background and discussion on this series, see generally CHRISTOPHER C. JOYNER, GOVERNING THE FROZEN COMMONS: THE ANTARCTIC REGIME AND

substantive provisions regarding protection of the Antarctic environment are contained within the 1991 Protocol on Environmental Protection to the Antarctic Treaty.¹⁸⁹ The main text of the Protocol outlines basic overarching environmental principles which are then supplemented by six specialist annexes.¹⁹⁰ Although there has been some debate regarding the inclusion of an annex on tourism, the idea has never reached fruition and, accordingly, tourism activities in the Antarctic Treaty area¹⁹¹ have been specifically recognized as being subject to the general environmental principles of the Protocol.¹⁹²

In respect to pollution of the Antarctic environment from land-based sources, activities must comply with the environmental principles of the Protocol.¹⁹³ In particular, activities in the Antarctic Treaty area must be planned and conducted so as to limit adverse impacts on the environment,¹⁹⁴ and avoid significant adverse effects on water quality and significant changes in the glacial or marine environments.¹⁹⁵ Moreover, Annex III of the Protocol on waste disposal and waste management applies to “activities undertaken in the Antarctic Treaty area pursuant to scientific research programmes, tourism and all other governmental and non-governmental

ENVIRONMENTAL PROTECTION 54, 54–82 (1998); GOVERNING THE ANTARCTIC: THE EFFECTIVENESS AND LEGITIMACY OF THE ANTARCTIC TREATY SYSTEM (Olav Schram Stokke & Davor Vidas eds., 1996); Alfred Van Der Essen, *The Origin of the Antarctic System*, in INTERNATIONAL LAW FOR ANTARCTICA 17 (Francesco Francioni & Tullio Scovazzi, eds., 2d ed. 1996); A. WATTS, INTERNATIONAL LAW AND THE ANTARCTIC TREATY SYSTEM (1992); Donald R. Rothwell, *The Antarctic Treaty: 1961–1991 and Beyond*, 14 SYDNEY L. REV. 62 (1992).

189. For discussions on the 1991 Protocol on Environmental Protection to the Antarctic Treaty, see generally Kevin Wood, *The Uncertain Fate of the Madrid Protocol to the Antarctic Treaty in the Maritime Area*, 34(2) OCEAN DEV. & INT’L L. 139 (2003); Donald R. Rothwell, *Polar Environmental Protection and International Law: the 1991 Antarctic Protocol*, 11 EUR. J. OF INT’L L. 591 (2000); Catherine Redgwell, *Environmental Protection in Antarctica: the 1991 Protocol* 43 INT’L & COMP. L. Q. 599 (1994); Christopher C. Joyner, *The 1991 Madrid Environmental Protocol: Rethinking the World Park Status for Antarctica*, 1 REV. OF EUR. COMMUNITY & INT’L ENVTL. L. 328, 331 (1992); S.K.N. Blay, *New Trends in the Protection of the Antarctic Environment: The 1991 Madrid Protocol*, 86 AM. J. INT’L L. 377 (1992).

190. Protocol on Environmental Protection to the Antarctic Treaty, Oct. 4, 1991, S. Treaty Doc. No. 102–22, 30 ILM 1455 [hereinafter 1991 Antarctic Protocol]. Article 3 sets out the Environmental Principles and the six annexes, added later, cover environmental impact assessment, conservation of fauna and flora, waste disposal and management, marine pollution, area protection and management, and liability arising from environmental emergencies. *Id.* art. 3, Annexes I–VI.

191. The Treaty area encompasses the area south of sixty degrees South Latitude. Antarctic Treaty art. VI, Dec. 1, 1959, 12 U.S.T. 794, 402 U.N.T.S. 71, available at <http://sedac.ciesin.org/entri/texts/acrc/at.txt.html>.

192. *E.g.*, Redgwell, *supra* note 189, at 632–33; Peter Beck, *Regulating One of the Last Tourism Frontiers: Antarctica*, 10 APPLIED GEOGRAPHY 343 (1990).

193. 1991 Antarctic Protocol, *supra* note 190, art. 3(4).

194. *Id.* art. 3(2)(a).

195. *Id.* art. 3(2)(b)(ii)–(iii).

activities.”¹⁹⁶ However, as Antarctica lacks the level of development and infrastructure commonly associated with coastal tourism destinations—there are no hotels or tourism facilities on the continent¹⁹⁷—the particular environmental threats from land-based marine pollution created by, for example, commercial development activities, sewage outfalls, or waste disposal, do not exist. Thus, land-based marine pollution attributable to the Antarctic tourism industry is most likely to come from discarded litter while tourists are on-shore, or pollution from the introduction of foreign diseases into the Antarctic environment.¹⁹⁸

While the Environmental Protocol is of only general application to tourism-generated, land-based marine pollution, its treatment of vessel-sourced pollution is considerably more comprehensive. Shipping accidents in the polar environment have particularly devastating consequences due to the sensitive nature of the ecosystem.¹⁹⁹ Thus, legal regulation must anticipate not only standard operational discharge from ships, but also the threat posed by maritime accidents.

The Environmental Protocol has a specific Annex on the Prevention of Marine Pollution that is to be read in addition to the general environmental provisions set out in the main body of the Protocol.²⁰⁰ The Annex essentially aims to introduce to the Antarctic environment similar standards as those established in MARPOL.²⁰¹ The discharge of oil,²⁰² noxious liquid

196. 1991 Antarctic Protocol, *supra* note 190, Annex III, art. 1(1). Note however that the type of waste targeted by the Annex is largely orientated towards that created by scientific research stations. (For example article 2 outlines provisions for waste disposal by removal for, inter alia, radio-active materials, electrical batteries, fuel, and wastes containing harmful levels of heavy metals).

197. Note that there have been some initiatives to satisfy tourists' increasing consumer demands, such as a souvenir t-shirt shop on King George Island and the installation of two ATM machines at McMurdo Station. Woodruff A. Polk, *Welcome to the Hotel Antarctica*, 12 EMORY INT'L L. REV. 1401-02 (1998).

198. For a study on the bacteria which still occurs when tourists travel on Antarctica soil despite disinfection attempts, see C. Curry et al., *Could Tourists Transmit Infectious Agents in Antarctica?*, (June 2001) (study assessing threat of tourist activities to Antarctic wildlife) (on file with VJEL).

199. In 1989 the *Exxon Valdez* disaster in Prince William Sound, Alaska resulted in nearly 11 million gallons of crude oil spilling into the Arctic environment, while the *Bahia Paraiso* sank off Palmer Station, on the Antarctic Peninsula, releasing around 250,000 gallons of diesel fuel and other petroleum products into the surrounding area. Mary Canmann, *Antarctic Oil Spills of 1989: A Review of the Application of the Antarctic Treaty and the New Law of the Sea to the Antarctic Environment*, 1 COLO. J. INT'L ENVTL. L. & POL'Y 211 (1990); see also David Shaw, *The Exxon Valdez Oil-Spill: Ecological and Social Consequences*, 19 ENVTL. CONSERVATION 253 (1992) (discussing long term consequences of the *Exxon Valdez* oil spill for coastal communities).

200. 1991 Antarctic Protocol, *supra* note 190, Annex IV.

201. Donald R. Rothwell, *Polar Environmental Protection and International Law: The 1991 Antarctic Protocol*, 11 EUR. J. INT'L L. 591, 605 (2000).

202. 1991 Antarctic Protocol, *supra* note 190, Annex IV art. 3(1) (stating that the discharge of oil or oily mixture is only permitted where in accordance with Annex I of MARPOL).

substances,²⁰³ garbage,²⁰⁴ and sewage²⁰⁵ is prohibited, although loopholes exist within the Annex for exploitation.²⁰⁶

Moreover, Antarctica has been accorded “special area” status in respect of Annexes I and V of MARPOL, which effectively prohibits the discharge of the most polluting substances in the area.²⁰⁷ The importance of these marine pollution provisions becomes apparent when the extent of the Antarctic cruise industry is exposed. Approximately eighty-five percent of visitors to Antarctica during the 2005–2006 season were cruise ship passengers, the vast majority of visitors landed on sites located on the Antarctic Peninsula, thereby significantly consolidating the number of vessels in one area.²⁰⁸ With the carrying capacity of some ships in the Antarctic now exceeding 1000 passengers, the same vessel pollution issues that face standard cruise ships, such as sewage, grey water, garbage, and chemical waste disposal, are similarly prevalent in the sensitive Antarctic environment.²⁰⁹

The highlight of any trip to Antarctica commonly involves time ashore, where passengers are able to physically “stand on the Antarctic continent,” photograph the wild flora and fauna, and explore the local environment.²¹⁰ However, such landings also represent potentially high-risk activities for the Antarctic environment as tourists threaten to damage vegetation, import

203. *Id.* art. 4.

204. *Id.* art. 5.

205. *Id.*

206. *Id.* art. 3(2)(a)(i) (exempting oil discharged as a result of damage to a ship where all reasonable precautions have been taken); art. 5(5)(a) (exempting “the escape of garbage resulting from damage to a ship or its equipment provided all reasonable precautions have been taken”); art. 6(1) (exempting discharge of untreated sewage “within twelve nautical miles of land or ice shelves” if “it would unduly impair Antarctic operations”); art. 7(1) (exempting from Annex IV of the Protocol “cases of emergency relating to the safety of a ship and those on board or saving life at sea”); art. 11(1) (exempting “any warship, naval auxiliary or other ship owned or operated by a State and used, for the time being, only on government non-commercial service”).

207. The 1990 MARPOL amendments entered into force on March 17, 1992. International Convention for the Prevention of Pollution from Ships, amends. Annexes I & V, Nov. 1990, available at http://www.imo.org/Conventions/contents.asp?doc_id=678&topic_id=258#23.

208. For details and tourism statistics, see the International Association of Antarctica Tour Operators (IAATO) website at http://www.iaato.org/tourism_stats.html (last visited Sept. 13, 2007).

209. Alarming, in January 2007 Princess Cruises’ *Golden Princess* plans a maiden voyage to Antarctica carrying around 3,800 passengers and crew. Nick Squires, *Liner Takes Tourist Hordes to Antarctica*, THE TELEGRAPH, Sept. 5, 2006, available at <http://www.telegraph.co.uk/news/main.jhtml?xml=/news/2006/09/05/wcruise05.xml>.

210. Many Antarctic tour operators follow the “Linblad” pattern of tourist management when making landings. Usually no more than 100 passengers are allowed ashore at once where they are “usually free to wander from their parties, but required to keep off glaciers, avoid climbing and other hazardous pursuits, and stay within easy reach of the embarkation point.” B. Stonehouse, *Ecotourism in Antarctica*, in ECOTOURISM: A SUSTAINABLE OPTION? 202 (Erlet Cater & Gwen Lowman eds., 1995).

disease, discard litter, or interfere with wildlife. All of these activities have the potential to negatively impact the Antarctic ecosystem and local habitats, thereby threatening the sustainability of flora and fauna. This is especially relevant for popular landing sites, such as many of those on the Antarctic Peninsula, which may receive tourists “every second or third day throughout the summer by successive cruise ships.”²¹¹ For example, Whalers Bay on Deception Island received 13,749 tourist visitors throughout the 2005-06 season²¹² with most of those tourists going ashore.²¹³ Of the five Annexes to the Antarctic Treaty’s Environmental Protocol, two focus on the conservation of biodiversity and habitat preservation in respect to tourism activities: Annex II on the Conservation of Flora and Fauna, and Annex V on Area Protection.²¹⁴

Annex II²¹⁵ effectively prevents tourists taking “souvenirs” from Antarctica in the form of wild fauna and flora, although the qualification attached to the taking of native plants—the action must significantly affect the local distribution or abundance—creates a potentially significant loophole.²¹⁶ In an attempt to prevent disturbances of concentrations of birds and seals, “harmful interference”²¹⁷ of Antarctic’s native flora and fauna is prohibited.²¹⁸ Although these provisions are equally applicable to both

211. *Id.* at 202–04.

212. The Antarctic tourist season usually lasts for five months, from November to March. IAATO, http://www.iaato.org/tourism_stats.html (last visited Sept. 13, 2007).

213. Activities for landed tourists at Whalers Bay included small boat landing, walking, kayaking, remote underwater vehicle, ship cruise, scuba diving, station visit, and small boat cruising. *Id.*

214. The 1980 Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) also recognizes the importance of safeguarding the environment and protecting the integrity of the ecosystem of the seas surrounding Antarctica. However, this Convention was concluded primarily in response to the conservation of krill, in recognizing its vital role in the Antarctic food-chain and greater eco-system. Thus, it is of little relevance to the tourism industry. For an overview of the Convention, see, for example, Nakib Nasrullah, *The Convention on the Conservation of Antarctic Marine Living Resources: A Critical Review*, 41 INDIAN J. OF INT’L L. 111 (2001) (“With the adoption of [CCAMLR], the Contracting Parties aimed to establish a Regime for waters around Antarctica.” (alteration in original)); WATTS, *supra* note 188, at 215–21 (linking the creation of the Convention to the exploitation of krill); Mathew Howard, *The Convention on the Conservation of Antarctic Marine Living Resources: A Five Year Review*, 38 INT’L & COMP. L.Q. 104 (1989) (discussing the operation of the CCAMLR); CCAMLR, <http://www.ccamlr.org> (last visited Sept. 5, 2007).

215. Annex II replaces the Agreed Measures for the Conservation of Antarctic Fauna and Flora concluded in 1964 by the Antarctic Treaty States. MARPOL, *supra* note 174, Annex II. For a discussion on the Agreed Measures, see WATTS, *supra* note 188, at 255–61; JEFFREY MYHRE, *THE ANTARCTIC TREATY SYSTEM: POLITICS, LAW AND DIPLOMACY*, 47–65 (1986).

216. 1991 Antarctic Protocol, *supra* note 190, art. 3.

217. The term includes the use of helicopters or vehicles, including small vessels such as zodiac boats, and the willful disturbances of breeding or molting birds by persons on foot. *Id.*

218. *Id.* Furthermore, the significant damage to native plants by landing aircraft, driving vehicles, or walking on them is similarly prohibited. *Id.* art. 1(h)(v), Annex II.

scientific staff and tourists, the restrictions should establish a clear benchmark for the behavior of tourists during Antarctic site visits. Annex V of the Environmental Protocol deals with area protection and management of sites in Antarctica. Consolidating earlier conservation attempts,²¹⁹ the Annex allows for the “designation of Antarctic Specially Protected Areas (ASPAs) or Antarctic Specially Managed Areas (ASMA), where activities can be prohibited, restricted or managed.”²²⁰ While an ASPA can be designated to protect areas of “outstanding environmental, scientific, historic, aesthetic or wilderness values,” where entry is prohibited, except with a valid permit,²²¹ a permit is not required for entry to an ASMA, which may be designated to “assist in the planning and co ordination of activities, avoid possible conflicts, improve co operation between parties or minimize environmental impacts.”²²²

One area in Antarctica to be designated an ASPA is Deception Island in the South Shetland Islands off the Antarctic Peninsula.²²³ The relevant management plan outlines the five sites on the Island that constitute the specially protected area and recommends that tourists be excluded and entry limited to research scientists.²²⁴ In terms of tourism, Deception Island, an active volcano in which ships must cruise through a narrow passage to enter its flooded caldera, is one of the most popular places to land tourists. Visitors are able to explore a derelict Norwegian whaling station, remains of the British Operation Tabarin war base, the distinctive native fauna and flora, and enjoy a swim in the volcanic hot pools. The designation of sites on Deception Island, in accordance with the Environmental Protocol, thereby regulates the activities of Antarctic tourism by restricting the areas in which tourists may visit under the management plan. While there are more than sixty designated ASPAs there are currently only four areas recognized as ASMA under Annex V.²²⁵

In addition to the legal obligations described above, there also exists a voluntary member organization, the International Association of Antarctica

219. The 1964 Agreed Measures for Conservation of Antarctic Fauna and Flora were developed as Annex II of the Protocol. NEW ZEALAND ANTARCTIC INSTITUTE, ROSS SEA REGION 2.12 (Emma J. Waterhouse ed., 2001).

220. 1991 Antarctic Protocol, *supra* note 190, Annex V art. 2.

221. *Id.* Annex V arts. 3(1),(4).

222. *Id.* Annex V art. 4.

223. Committee for Environmental Protection, <http://cep.ats.aq/cep/apa/aspas/sites/aspas140/summary.html> (last visited Sept. 13, 2007).

224. ANTARCTIC TREATY NATIONS, MANAGEMENT PLAN FOR ANTARCTIC SPECIALLY PROTECTED AREA NO. 140: PARTS OF DECEPTION ISLAND, SOUTH SHETLAND ISLANDS (2005), *available at* <http://www.deceptionisland.aq/>.

225. For details on current designated ASPAs see Committee for Environmental Protection, <http://cep.ats.aq/cep/> (last visited Sept. 13, 2007).

Tours Operators (IAATO), which establishes guidelines and operational procedures for tour operator members.²²⁶ The Association endorses the provisions set down in the ATS, and provides further elaboration on more specific procedures.²²⁷ In particular, IAATO provides “guidance for those organizing and conducting tourism and non-governmental activities in the Antarctic,” including details on procedures to be undertaken prior to departure, behavior while in the Antarctic Treaty area, and post-visit reporting requirements.²²⁸ Before departure, tour operators must provide advance notice to the competent national authority of the planned activities, conduct environmental assessments, provide the necessary information regarding waste management and marine pollution, and obtain any entry permits required by the Environmental Protocol.²²⁹ On completion of the visit, operators must then submit an Antarctic post-visit report to the competent national authority outlining details of expedition members, the sites visited, and the activities undertaken.²³⁰ While the IAATO is a voluntary member organization, it offers valuable guidance and support for Antarctic tour operators and demonstrates a notable level of persuasion in affecting compliance by industry participants.

The legal framework surrounding the regulation and management of the Antarctic environment is largely well developed. There has been an evolving system of environmental management for Antarctica in place now for a number of decades which has facilitated the recognition of, and response to, contemporary issues facing the continent such as tourism. Enforcement and compliance remain problematic in a region that lacks national sovereignty structures and responsibilities. However, the particularly fragile nature of the Antarctic environment and the “self-interest factor” involved for many industry participants appear to make effective substitutes. In terms of international environmental law responding to the pressures created by the tourism industry, Antarctica provides an encouraging case study for consideration.

226. The IAATO is a “member organization founded in 1991 to advocate, promote and practice safe and environmentally responsible private-sector travel to the Antarctic.” IAATO, *supra* note 186.

227. *Id.* at <http://www.iaato.org/operational.html> (last visited Sept. 13, 2007) (listing operational procedure documents for Antarctica tours).

228. See ANTARCTIC TREATY CONSULTIVE, REPORT OF THE INTERNATIONAL ASSOCIATION OF ANTARCTIC TOUR OPERATORS 2005–06, at 1, 9 (implementing Recommendation XVIII–1).

229. *Id.* at 8.

230. IAATO, *supra* note 186 (follow “Operational Procedures” hyperlink, then follow “2007–08 Post Visit Site Report Form” hyperlink) (last visited Sept. 13, 2007).

X. CLIMATE CHANGE

The relationship between tourism and climate change has now been acknowledged on numerous occasions.²³¹ The direct impacts of climate change on tourism are made apparent by increasing temperatures, rising sea levels, increased precipitation, and an elevated snow line, among others, while the indirect impacts include conflict over water resources, health effects, and impacts on the built environment.²³² Small island states, commonly heavily reliant on tourism, provide one of the most obvious examples of an environment threatened by climate change as beach erosion, high sea levels, damage from sea surges and storms, and reduced water supply contribute to those islands' environmental problems.²³³ Moreover, the tourism industry is highly dependent on fossil fuels and is thus responsible for contributing a significant volume of greenhouse gas emissions.²³⁴

Climate change has been addressed, in general terms, by the 1992 Framework Convention on Climate Change (UNFCCC) and its 1997 Kyoto Protocol.²³⁵ The ultimate objective of the UNFCCC is to achieve the

231. See generally World Tourism Organization, Proceedings of the First International Conference on Climate Change and Tourism, Djerba, Tunisia, April 9–11, 2003, *Climate Change and Tourism*, available at <http://www.world-tourism.org/sustainable/climate/final-report.pdf>. [hereinafter World Tourism Organization Report]; CLIMATE CHANGE CAMPAIGN, TOURISM & CLIMATE CHANGE, A WWF TOURISM ISSUE PAPER (2001), available at http://www.wwf.org.uk/filelibrary/pdf/tourism_and_climate_change.pdf; David Viner & Susan Becken, *Climate Change Mitigation Policies and the Global Tourism Industry*, 2003 CLIMATE CHANGE MANAGEMENT 12; PROCEEDINGS OF THE FIRST INTERNATIONAL WORKSHOP ON CLIMATE, TOURISM AND RECREATION (A. Matzarakis & C. de Freitas eds., 2001), available at <http://www.mif.uni-freiburg.de/isb/>.

232. Martin Hickman, *Mass Tourism and Climate Change Could Lead to Destruction of World's Wonders*, INDEPENDENT, Sept. 22, 2006, at 28, available at 2006 WLNR 16427355. Note that climate change may be considered to provide a benefit for tourism; some countries are enjoying warmer climatic conditions more favorable to the tourism industry.

233. Alexander Gillespie, *Small Island States in the Face of Climate Change: The End of the Line in International Environmental Responsibility*, 22 UCLA J. ENVTL. L. & POL'Y 107 (2003). Also note the impact of climate change on the Maldives, where the highest point of the islands is just eight feet above sea level. A one degree rise in temperature would kill the coral reef, exposing the islands to the ocean. Rory Ross, *Splash Out in Style*, INDEPENDENT, Feb. 21, 2004, at 10, 11.

234. For example, domestic and international tourism in France now accounts for seven to eight percent of the country's total road transport emissions. World Tourism Organization Report, *supra* note 231, at 36.

235. For an overview of the international legal framework addressing climate change, see Daniel Bodansky, *The UN Framework Convention on Climate Change: A Commentary*, 18 YALE J. INT'L L. 451, 453–55 (1993); Philippe Sands, *The United Nations Framework Convention on Climate Change*, 1 REV. EUR. CMTY. & INT'L ENVTL. L. 270 (1992); Duncan French, *1997 Kyoto Protocol to the 1992 UN Framework Convention on Climate Change*, 10 J. ENVTL. L. 227 (1998); Farhana Yamin, *The Kyoto Protocol: Origins, Assessment and Future Challenges*, 7 REV. EUR. COMMUNITY & INT'L ENVTL. L. 113 (1998).

“stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.”²³⁶ All state parties are required to satisfy general commitments (taking into consideration their common but differentiated responsibilities),²³⁷ while developed states (those in Annex I) are called upon to make additional commitments to limit anthropogenic emissions of greenhouse gases with the aim of returning to their 1990 emission levels.²³⁸ The Kyoto Protocol then aims to strengthen commitments for developed state parties by setting “quantified limitation and reduction objectives within specified time-frames” for anthropogenic emissions.²³⁹ Moreover, the Protocol establishes various mechanisms and techniques to aid states in reaching their reduction targets.²⁴⁰

The World Tourism Organization acknowledged the link between climate change and tourism in 2003 by convening the first international conference on the relationship,²⁴¹ providing an opportunity for tourism participants and scientists to “exchange views on the consequences, opportunities and risks presented to the tourism sector as a result of changes in the world’s climate.”²⁴² The conference participants²⁴³ (perhaps somewhat predictably) reiterated the scientific uncertainties surrounding global climate change and recognized the two-way relationship between

236. United Nations Framework Convention on Climate Change, art. 2 (1992) U.N. Doc. A/AC.237/18 [hereinafter UNFCCC].

237. *Id.* art. 4(1). General commitments include the development of national inventories of anthropogenic emissions, programmes containing measures to mitigate climate change, technologies to manage anthropogenic emissions of greenhouse gases, and general principles of cooperation and integration.

238. *Id.* art. 4(2).

239. U.N. Conference of the Parties, Framework Convention on Climate Change, Berlin, F.R.G., Mar. 28–Apr. 7, 1995, *Report of the Conference of the Parties on its First Session*, Decision 1/CP.1 para. 2(a) [hereinafter Berlin Mandate].

240. For an overview of Kyoto’s flexibility mechanisms (joint implementation, the clean development mechanism and emissions trading) see, for example, Fanny Missfeldt, *Flexibility Mechanisms: Which Path To Take After Kyoto?*, 7 REV. EUR. COMMUNITY & INT’L ENVTL. L. 128 (1998); Jacob Werksman, *The Clean Development Mechanism: Unwrapping the ‘Kyoto Surprise’*, 7 REV. EUR. COMTY & INT’L ENVTL. L. 147 (1998).

241. The Conference was held in Djerba, Tunisia from April 9–11 2003. The 1st International Conference on Climate Change and Tourism, Djerba, Tunis., Apr. 9–11, 2003, *Climate Change and Tourism*, available at <http://www.world-tourism.org/sustainable/climate/final-report.pdf> [hereinafter Djerba Conference].

242. World Tourism Organization Report, *supra* note 231, at 5.

243. Djerba Conference, *supra* note 241, at 5 (“The Conference brought together over 140 delegates from some 45 countries, drawn from representatives of the scientific community, various United Nations agencies, the tourism industry, NGOs, national tourism offices, national and local governments.”).

tourism and climate change.²⁴⁴ The resulting Djerba Declaration on Tourism and Climate Change (Djerba Declaration) addresses this relationship and urges governments to subscribe to “all relevant intergovernmental and multilateral agreements, especially the Kyoto Protocol” to prevent this phenomenon from spreading further or accelerating.²⁴⁵ In addition to promoting the standard environmental requirements of further research, financial support, technical assistance, awareness, and information exchange,²⁴⁶ the Djerba Declaration encourages participants within the tourism industry to “adjust their activities, using more energy-efficient and cleaner technologies and logistics, in order to minimize as much as possible their contribution to climate change.”²⁴⁷ Despite its non legally-binding status and largely non-contentious principles, the Djerba Declaration offers an important framework within which global, national, and regional organizations can address the relationship between tourism and climate change, and implement appropriate structures for the regulation and management of the tourism industry.

In addition to efforts made on the international level, the UNWTO has also introduced specific initiatives for countries experiencing particular difficulties in respect to climate change, in order to develop and demonstrate adaptation policies and techniques at beach destinations and coastal ecosystems.²⁴⁸ Initial proposals on climate change adaptation in tourism for Fiji and the Maldives have been approved by the Global Environmental Facility.²⁴⁹ Clearly, while climate change poses the most immediate threat to small island developing states, it remains inevitable that tourism will both further facilitate and suffer the impacts of unbridled climate change development in the foreseeable future.

A significant aspect of tourism, and reportedly one of the fastest growing contributions to global greenhouse gas emissions, is the aviation industry.²⁵⁰ An integral part of the global tourism industry, “air transport

244. World Tourism Organization Report, *supra* note 231, at 7–8. The two-way relationship between tourism and climate change is explained as tourism’s “adverse impact on the environment” and climate change’s “direct impact on many tourism destinations.” *Id.* at 8.

245. Djerba Conference, *supra* note 241, ¶ 1.

246. *Id.* ¶¶ 2, 3, 7–9.

247. *Id.* ¶ 5.

248. UNWTO Climate Change and Tourism Initiative, <http://www.world-tourism.org/sustainable/climate.htm> (last visited Oct. 27, 2007).

249. *Id.*

250. See, e.g., Susanne Becken, *Tourism and Transport: The Sustainability Dilemma*, 14 J. SUSTAINABLE TOURISM 113, 113 (2006) (stating that increasing greenhouse gas emissions by the aviation industry is a result of the tourist industry demand on airline travel).

has been estimated to be between two and four times more polluting per passenger carried than road transport.”²⁵¹ The impact of aviation on the global atmosphere has been explored by the Intergovernmental Panel on Climate Change (IPCC) and its findings have subsequently been adopted by the International Civil Aviation Organisation (ICAO).²⁵²

The ICAO was established by the 1944 Chicago Convention on International Civil Aviation (Chicago Convention).²⁵³ Although much of the Chicago Convention sets out the boundaries for civil aviation law, a number of international standards and recommended practices are outlined in the various Annexes to the Chicago Convention, including one that focuses on environmental protection.²⁵⁴ In 2001 the ICAO Assembly adopted Resolution A33-7, recognizing the environmental impact of civil aviation on the atmosphere and reinforcing the objectives of the Climate Change Convention and Kyoto Protocol.²⁵⁵ The Resolution requests the ICAO Council to continue to study policy options to limit or reduce the environmental impact of aircraft engine emissions and calls for special emphasis to be placed on the “use of technical solutions while continuing its consideration of market-based measures, and taking into account potential implications for developing as well as developed countries.”²⁵⁶ Furthermore, the Kyoto Protocol specifically recognizes the significance of aircraft engine emissions by requiring Annex I parties to limit or reduce emissions of greenhouse gases from aviation (and marine) bunker fuels by working through the ICAO.²⁵⁷

The projected growth of aviation and its subsequent role in climate change, has been identified and addressed within international law.²⁵⁸ Much relies on technological advancement of the aviation industry to reduce the quantity and improve the quality of aircraft engine emissions and

251. World Tourism Organization Report, *supra* note 231, at 36.

252. AVIATION AND THE GLOBAL ATMOSPHERE (J.Penner et al. eds., 1999).

253. For a general discussion on the Convention, see, for example, I.H. PH. DIEDERIKS-VERSCHOOR, AN INTRODUCTION TO AIR LAW 9–58 (7th ed. 2001).

254. Annex 16 to the ICA Convention outlines environmental protections, incorporating aircraft noise (vol. I) and aircraft engine emissions (vol. II). Convention on International Civil Aviation, 1971.

255. A33–7: Consolidated Statement of Continuing ICAO Policies and Practices Related to Environmental Protection, Oct. 2001, available at <http://www.icao.int/icao/en/env/a33-7.htm>.

256. *Id.* app. H.

257. Kyoto Protocol to the United Nations Framework Convention on Climate Change art. 2(2), Dec. 10, 1997, 37 I.L.M. 32, available at http://unfccc.int/kyoto_protocol/items/2830.php. Note there is some uncertainty as to how the treatment of domestic and international aviation under the UNFCCC process should be managed. See Int’l Civil Aviation Org. [ICAO], *Statement to the 9th Session of the Conference of the Parties to the UNFCCC*, Milan, Dec. 2003, available at <http://www.icao.int/icao/en/env/cop9.PDF>.

258. Penner et al., *supra* note 252, at 4–6.

consequently, the associated environmental impact. States, international organizations, and scientific bodies are encouraged to continue research into this area, with a view to minimizing climatic change.²⁵⁹ In this sense, the aviation industry, which plays a significant role within tourism, is being shaped and influenced by elements of international environmental law.

CONCLUDING COMMENTS

The tourism debate has now clearly established itself within the international environmental legal system. In recognizing the vast, and in many cases irreversible, damage the tourism industry inflicts upon the natural environment, the international legal system has responded and addressed many of the problematic aspects of tourism, albeit in a somewhat ad hoc fashion. In many cases, existing international agreements provide a framework for the further development of rules and guidelines targeting specific issues or problem areas, such as tourism. In this way, although there may not be any specific legal obligation established, “soft-law” tourism initiatives are able to capitalize on the momentum, coordination, and resources of a pre-existing agreement and current state participation.

This perhaps represents an approach better suited to the regulation of tourism activities rather than attempts to coordinate a new, single international agreement addressing the tourism-environment conflict. Factors including the vast scope of activities and the various participants involved in the tourism industry mean that a single international agreement is unlikely to be an effective control mechanism for regulating tourism.

However, an approach that harnesses pre-existing agreements and conservation efforts would allow for tourism problems to be addressed effectively and efficiently without the logistical, funding, and resourcing challenges commonly faced when creating a new international regime. While this approach offers many valuable and promising characteristics there is clearly a need for greater central coordination in order to capitalize on the largely independent initiatives developing in the international arena. In this respect, there is capacity for further development of the World Tourism Organization, especially given its new role as a specialized agency of the UN.

259. The UK has launched a discussion round on “Aviation and the Environment: Using Economic Instruments.” Daniel Morrissey, *UK Says Aviation Industry Should Pay Pollution Costs*, PLANET ARK, Mar. 17, 2003, available at <http://www.planetark.com/dailynewsstory.cfm/newsid/20183/newsDate/17-Mar-2003/story.htm>.

Nevertheless, while there remains potential for further development, the above critique indicates international environmental law has responded with some success to the tourism-environment debate and, confirms, in this case at least, the responsive and malleable nature of the international legal system.