

Chapter 2

Ecotourism and Biopiracy: A Legal Perspective on the Sustainability of Tourism Destination in Malaysia

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Abstract Malaysia has the potential to become one of the top destinations for ecotourism, because it is one of the world's 12 mega diversity hotspots. Ecotourism is a growing niche market within the larger travel industry, with the potential of being an important sustainable development tools. However, without proper regulatory control, ecotourism may facilitate biopiracy. The issue of ecotourism and biopiracy has been the subject of major debates. Biopiracy, if not properly remedied, is detrimental to the interest of Malaysia over its genetic resources and traditional knowledge. The main purpose of this study is to examine the various legal issues pertaining to ecotourism and biopiracy in connection with sustainability of tourism destination in Malaysia, looking in particular at the roles played by the international and national laws.

Keywords Ecotourism • Biopiracy • Genetic resources • Traditional knowledge

Introduction

The United Nation World Tourism Organisation (UNWTO) defines sustainable tourism as “Tourism which leads to management of all resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity and life support systems” (UNWTO 2002). Ecotourism is a subcategory of sustainable tourism. However, there is no single definition of ecotourism. According to The International Ecotourism Society (TIES), ecotourism covers all travels to natural areas that conserve the environment, contributing at the same time to the welfare of

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the local people. Ceballos-Lascurain (1996) describes ecotourism as “traveling to relatively undisturbed or uncontaminated natural areas with the specific objectives of studying, admiring and enjoying the scenery and its wild plants and animals, as well as any existing cultural manifestations (both past and present) found in these areas”.

Third World Network (TWN) points out that in any event, governments and other concerned parties should be alerted and seriously ponder the question whether it is wise to indiscriminately promote tourism forms that facilitate the stealing and smuggling of local biological resources and traditional knowledge (TK), before necessary legal frameworks and administrative mechanisms are in place to effectively combat abuses and exploitation (TWN 2002). Since Malaysia is positioning itself as a globally competitive ecotourism destination, this inevitably calls for an urgent review of its policies and environmental legislation pertaining to sustainable ecotourism and biopiracy.

Ecotourism in Malaysia

An Overview

Malaysia is identified as one of the world's 12 mega biological diversity areas. Covering almost 60 % of land mass, Malaysia's tropical rainforests are millions of years old and they are home to an incredibly diverse array of flora and fauna. This tropical forest is a wealth of genetic resources, with an estimated of 15,000 species of flowering plants, 286 species of mammals, 150,000 species of invertebrates and 4000 species of fishes (Tourism Malaysia (TDC) 2008).

Malaysia offers tourists a range of activities in which they may engage to experience and fully appreciate the ecotourism experience such as caving, hiking, jungle trekking, white water rafting, rock climbing, bird watching, diving and river cruising. The Malaysian National Tourism Policy (NTP) was formulated in 1992 by the then Ministry of Culture, Arts and Tourism (MOCAT) to develop the tourism industry. The NTP incorporated necessary guidelines for tourism destination development and ecotourism, has been identified as one of the sustainable tourism form in this plan.

Since ecotourism supports local economies, the National Ecotourism Plan was prepared in 1996 by the Worldwide Fund for Nature Malaysia (WWF Malaysia) for MOCAT. It contains strategies and guidelines for the development and management of ecotourism in Malaysia. In 2004, the MOCAT was split to facilitate the establishment of a separate ministry responsible solely for matters related to tourism, i.e. the Ministry of Tourism (Hamzah 2004).

Malaysia has a significant stake for harnessing the potential of biotechnology and bioprospecting for achieving sustainable economic development. However, countries with valuable assets of genetic resources and TK are at risk because there

are concerns that the substances from the genetic resources and TK are being used and patented by third parties, with few or none of the benefits being shared with the original TK-holders and without their prior informed consent (Twarog and Kapoor 2004).

Regulating Ecotourism

The International Regime

The ecotourism international regime gained momentum in the early 1990s due to the establishment of TIES in 1990. This was followed by the 1992 United Nations Rio Earth Summit (Rio Declaration on Environment and Development) where 178 countries signed a number of environmental initiatives including Agenda 21 which is a comprehensive plan of action to be taken globally, nationally and locally. The Convention on Biological Diversity (CBD) 1992 offers decision-makers guidance on ecotourism where its three main objectives are the conservation of biological diversity, the sustainable use of its components of biological diversity and the fair and equitable sharing of the benefits arising out of utilisation of genetic resources.

In 1997 the Berlin Declaration on Sustainable Tourism gave an important baseline for ecotourism and point No. 16 of this declaration stated that:

Tourism should be restricted, and where necessary prevented, in ecologically and culturally sensitive areas.

In response to concerns that many species were becoming endangered because of international trade, hence, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) was entered into force in 1975. This convention is particularly important to ecotourism because it has made the industry much more sustainable.

Principle 4 of the UN Rio Declaration on Environment and Development mentioned that “in order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it”. The Rio Declaration indicates that the sustainable development of the environment shall be integrated with other development processes. Most importantly, based on the concept of sustainable development, ecotourism should not only protect genetic resources but it should also accommodate and meets the human rights aspect to promote and to protect all resources of human being such as economic, social and cultural integrity.

However, according to Simon (1999), the current legal framework is a patchwork of agreements and treaties that concern trade more than tourism and are often in conflicts. She argues that although international bodies such as United Nations Environment Programme (UNEP) and the World Travel and Tourism Council (WTTC) are moving towards a unified set of guidelines, their implementation will remain problematic due to a lack of systematic measurement and enforcement.

The UN had declared 2002 as the International Year of Ecotourism (IYE). However, critics argue that the UN proclamation of 2002 as the IYE has created a major debate because as already noted, the growing awareness that the ecotourism industry is not as benign as initially believed (TWN 2002). It has been argued that in many studies conducted around the world, ecotourism falls short of the ideals inherent in the principles it promotes conservation of nature and cultures, benefits to local people and local participation.

The Malaysian Ecotourism Policy and Legal Regime

The tourism planning organisation in Malaysia is complex and influenced by the three-tier form of government, i.e. Federal government, State government and Local Authorities (Hamzah 2004). Malaysia is one of the implementer countries of Agenda 21. Chapter 28 of the Agenda 21 clearly binds the local authority to take lead in the implementation of the guidelines and strategies for stakeholders' participation in sustainable tourism development.

Since tourism is a Federal affair hence the overall policy planning is carried out by the Ministry of Tourism. It is important to note that the Secretary General of the Ministry of Tourism is given the responsibility for licensing and enforcement of all matters relating to tourism under the Tourism Industry Act 1992. Section 34 of the Act allows the Minister to make such regulations as he/she may consider expedient for the purpose of the Act. Under this section the following regulations have been made:

- Tourism Industry (Compounding of Offences) Regulations 1992;
- Tourism Industry (Tour Operating Business and Travel Agency Business) Regulations 1991;
- Tourism Industry (Licensing and Control of Tourist Guides) Regulations 1991; and
- Tourism Industry (Licensing of Tourism Training Institution) Regulations 1994.

In East Malaysia, the Sabah Tourism Promotion Corporation is established under the Sabah Tourism Promotion Corporation Enactment 1981. Unfortunately, this legislation has no specific reference to the role of ecotourism or nature-based tourism. In Sarawak, the Sarawak Tourism Board Ordinance was enacted in 1994. In 1995 the Sarawak Tourism Board was established whose functions and responsibilities are similar to those of the Malaysia Tourism Promotion Board and Sabah Tourism Promotion Corporation.

Malaysian government has taken various actions to protect the natural environment and its indigenous people. The Aboriginal Peoples Act 1954 is one of the earliest legislation that has a definite impact on ecotourism. It basically takes the international concept of sustainable development with human rights and nationalises it. Under the National Land Code 1965 it is possible for State governments to

reserve land for many different purposes, and this power has been exercised for matters relevant to ecotourism.

A prominent law passed in 1974 to prevent and control pollution and land degradation is the Environmental Quality Act. This law indirectly supports the government's policy on sustainable tourism and legality of ecotourism by way of setting down policies through which the environment can be developed and protected. In Peninsular Malaysia, the National Parks Act 1980 strengthens sustainable ecotourism by providing for the establishment and control of National Parks to preserve and protect wild life, plant life and objects of geological, archaeological, historical and ethnological and other scientific and scenic interest.

The Fisheries Act 1985 provides for the conservation, management and development of maritime and estuarine fishing and fisheries, marine turtles and riverine fishing. This Act is particularly important to ecotourism as activities such as scuba diving, underwater photography and snorkelling are often carried out in marine parks. In addition, the Fisheries (Prohibited Areas) Regulations 1994 declares five areas to be fisheries prohibited areas where no collection of shells, mollusks and corals is allowed, and where a license must be obtained in order to enter the area to kill or capture any fish.

Under its obligation as a signatory to the CBD, Malaysia launched its National Policy on Biological Diversity on 16 April 1998 with the aim to conserve Malaysia's biological diversity and to ensure that its components are utilised in a sustainable manner for the continued progress and socio-economic development of the nation. In 2010, the Wildlife Conservation Act was enacted to replace the 38-year-old Protection of Wild Life Act 1972. This latest Wildlife Act provides significantly higher penalties and mandatory jail terms for wildlife crime. The Act widens the list of agencies empowered to enforce wildlife laws by including Police and Customs officers and it protects more species of wildlife. Unfortunately, this Act is only applicable for the protection and conservation of wildlife in Peninsular Malaysia and the Federal Territory of Labuan. Also in 2010, the International Trade in Endangered Species Act 2008 came into force which has a positive impact on sustainable ecotourism in Malaysia.

Ecotourism or Biopiracy?

There is evidence that a growing number of the Northern-based pharmaceutical corporations, biotechnology companies and their intermediaries are stalking the forests, fields and waters of the developing world often posing as tourists for the purpose of developing patented rare genetic traits of biological riches and indigenous knowledge (ETC Group 1995).

However, proponents for biotechnology argue that the contention that biopiracy is a problem that is rather unsound. Previous research by the Australian APEC Study Centre revealed no instances of the forcible, illegal removal of genetic resources in any jurisdiction. In addition, it did not reveal substantial cases of

biopiracy nor “any instance of highly profitable returns from a product developed via the acquisition of genetic resources from developing countries” (Asia-Pacific Economic Cooperation (APEC), 2009). It has been argued that most allegations of biopiracy are so thoroughly riddled with inconsistencies and outright lies that the entire genre, pending further clarification, must be consigned to the realm of “rural” legend (Chen 2006).

Nevertheless, at the 1998 World Travel Mart in London, the World Customs Organization (WCO) warned that this unprecedented illegal global trade in flora and fauna has resulted in vast damages and economic losses (TWN 1999). The WCO in cooperation with the CITES recognised the linkages between tourism and the escalating theft and smuggling in flora and fauna and produced a brochure to raise awareness on this matter (TWN 2002). WCO officials pointed out that customs authorities as well as the travel and tourism industry need to be fully educated on how much damage the illicit biotrade can do to societies, cultures and the environment. According to TWN, despite all warnings, it has been argued that tourism policy-makers, the industry and large conservation organisations tend to ignore this burning issue, probably out of fear that the exposure of these illegal activities in connection with (eco) tourism can create image problems and hurt the funding of projects.

Some famous examples of biopiracy cases which operate through application of patents to genetic resources and TK are as follows:

1. Rosy Periwinkle, a plant native to Madagascar but widely introduced to other tropical countries has long been cultivated for herbal and traditional medicine to treat diabetes, malaria and Hodgkin’s disease. Western pharmaceutical companies have begun extracting substances from the plant to treat leukaemia. Accusations of biopiracy have arisen because patents have been placed on these substances, with no compensation paid to indigenous communities.
2. The Neem tree is a major component of traditional Hindu medicine (Ayurveda), and is often prescribed for skin-related conditions. In 1995, US patent office granted patent on an antifungal agent from the seeds of the Neem Tree. The patent was eventually overturned in 2005 after the Indian government responded to a widespread outcry and initiated legal action.

It has been argued that between 25 % and 50 % of current prescription pharmaceuticals come from plants, either directly or through modifications by biochemical methods, and the value of drugs to the U.S. pharmaceutical industry coming from plant species is estimated at over 30 billion USD per year (Zakrzewski 2002).

Regulating Biopiracy

The International Regime

The three conventions that are most relevant when speaking of biopiracy are the CBD, Nagoya Protocol and Trade-Related Aspects of Intellectual Property Rights

(TRIPS). The preamble of the CBD states that traditional knowledge, innovations and practices are of importance to the conservation of biological diversity and that indigenous and local communities have a close and traditional dependence on biological resources. The two most important articles in the CBD that are relevant in controlling biopiracy are Article 3 and Article 8(j). Article 3 recognises the sovereign rights states have in accordance with the Charter of the United Nations and the principle of international law, “the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of area beyond the limits of national jurisdiction”. Article 8(j) of the CBD states that signatory states should respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities.

The adoption of Nagoya Protocol on Access and Benefit Sharing (ABS) in October 2010 reaffirms that genetic resources are subject to national sovereignty and offers the opportunity to recognise the rights of indigenous and local communities over their genetic resources and associated TK.

As regards the TRIPS Agreement 1994, its main aim is to give intellectual property rights (IPRs) to inventors through patents. Article 27.1 provides that “patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application”. Article 27.2 allows Members to exclude from patentability inventions in order to “protect human, animal or plant life or health or to avoid serious prejudices to the environment”. However, developing countries are apprehensive that the TRIPS is merely an exploitative mechanism employed to patent indigenous biological material (Abott 1996–1997).

Towards Biopiracy Law in Malaysia

Since it has been argued that there are linkages between ecotourism and biopiracy, the big question is whether the Malaysian environmental laws are adequate in protecting biological resources and TK from biopiracy? Indeed, Malaysia is actively involved in negotiations related to the development of the international regime on ABS. Malaysia aims to have a national law on ABS in place to implement the provisions of Article 15 of the CBD (which deals with access to genetic resources) and the related provisions in the Nagoya Protocol. This will further strengthen Malaysia’s ability to deal with emerging issues in biodiversity, alongside the Biosafety Act which was passed in 2007. However, the Biosafety Act which seeks to protect biological diversity from the potential risks posed by living modified organisms is silent on the subject of ABS and TK.

Although no national ABS law currently exists, however, under Section 4 of the Forestry Act 1984, the State Forestry Director is empowered by the State Authority to control the removal of plants or resources from the forest. In addition, under

Section 34 of the Act, researchers have to apply for a license in order to carry out research activities in a permanent forest reserve. The Sarawak state government is the first country in the Federation of Malaysia to adopt access legislation of plant genetic resources in the form of the Sarawak Biodiversity (Access, Collection and Research) Regulations 1998, which is in line with the CBD. Interest and value in having ABS in Sabah are somewhat evident in the provisions of the Sabah Biodiversity Enactment 2000 (SBE 2000). Available resources to formulate and implement its ABS system lie in the SBE 2000, its institutional elements (Sabah Biodiversity Council/Sabah Biodiversity Centre) and Biodiversity Centre Fund. Their proactive positions determined by the fact that some of Malaysia's richest biodiversity are found in these two states.

Shortcomings

The CBD is the key mechanism for promoting international cooperation on protecting nature. It is the first convention to establish the sovereign right of a state over its natural resources and access to those resources (Bautista 2007). Yet the US with its dynamic leadership in conserving global biodiversity has yet to ratify the treaty. Snape (2010) argues that now more than ever, the engagement and leadership of the US is necessary to protect biological diversity and the natural services enjoyed by Americans and others throughout the world. Indeed, the CBD's effectiveness and the urgent cause of stemming the ongoing high rate of global biodiversity loss both suffer from the lack of official involvement and support from the US (Snape 2010).

Some critics argue that there is a potential conflict between the CBD and the TRIPS Agreement (McManis 1998; Tejera 1999). Indeed the TRIPS Agreement is not only in conflict with the CBD but also with the Nagoya Protocol. The CBD and Nagoya Protocol are concerning environment and peoples' right and the TRIPS Agreement are concerning commercial rights. According to the CBD and Nagoya Protocol, countries have the right to regulate access to biological resources and TK, and to determine benefit sharing arrangements. The TRIPS Agreement has no provision for patent holder to share benefits with communities in countries of origin. TRIPS enables persons or institutions to patent a country's biological resources outside the country of origin and arguably this facilitates the conditions for misappropriation of ownership or rights over living organism. In TRIPS there is no provision to obtain prior informed consent unlike the CBD and the Nagoya Protocol to check against misappropriation or biopiracy. According to Shiva, the TRIPS Agreement is a globalisation of U.S. style patent laws which encourage the patenting of centuries old indigenous knowledge as "novel invention" (Raj 1999).

In Malaysia, the preventive environmental measures in the forms of laws and regulations have occasionally been said to be sufficient in regulating sustainable ecotourism. However, sustainability criteria in ecotourism activities, which are instrumental for containing its potential adverse impacts, are not clearly defined at

the national levels. According to some critics, because such criteria are not legally established, it may be more difficult to (i) guarantee the optimal conservation of the natural environment, which is a precondition for the development of ecotourism and to (ii) assess the liability of ecotourism operators in cases of environmental and social damages (Garcia et al. 2004).

Malaysia is not a party to the Nagoya Protocol. Its ABS Bill is still in a draft form and it has not yet become law. The above-mentioned Sabah Biodiversity Enactment 2000 and the Sarawak Biodiversity (Access, Collection and Research) Regulations 1998 standing alone may not be sufficient to effectively regulate biological diversity prospecting and exploitation of genetic resources and TK. This is regrettable as there are significant benefits to the harmonisation of access legislation among the other states in the federation. Without a proper national ABS legislation that clearly spells out the right to decide who gains access to the country's genetic resources and TK, the monetary and non-monetary terms of benefit sharing, stake in ownership over final product, inclusion of Certificate of Origin by User and certificate of having obtained PIC from local authorities, illicit bioprospecting or biopiracy would not be easily countered (Sham 2010).

However, the greatest challenge in implementing environmental regulations as regards to ecotourism and biopiracy in Malaysia is stemming from the complexities of the Federal Constitution. Regulatory control on ecotourism and biopiracy may not be effective with autonomous states like Sabah and Sarawak in East Malaysia where, the relationship between the powers and responsibilities of the Federal and State government in environmental matters is already a very loose and complex one. Indeed, the *Bakun Dam* case places significant restriction on the federal government to regulate environmental matters in the various Malaysian states in future. In the same context, another challenging factor is to create legally protected areas and ensure proper supervision of the existing ones to guarantee that the limits and specific uses of such areas are respected.

Untrained, inefficient and insufficient personnel are obstacles for the adequate supervision and management of natural areas where ecotourism can ideally operate. Since ecotourism in Malaysia operates in remote and rural places, the areas not properly supervised or under any form of legal protection, are likely to be negatively impacted by activity such as biopiracy.

Conclusion

As already noted, according to some critics, there are serious grounds for concern over the accelerating process of ecotourism and its implication on the environment especially in relation to biopiracy. Indeed, there are some valid reasons why the Malaysian Government should be interested in these recent developments and trends and to come out with some strategic planning policy to face these challenges.

Currently Malaysia does not have national law on ABS. Without a comprehensive ABS regulation, biopiracy can be threatening to the conservation of genetic resources and TK. In answering the above question of whether Malaysia has adequate law to protect its biological resources and TK from biopiracy, the answer is a NO. Hence, specific regulation dealing with the diverse economic aspects of biopiracy must be clearly established, at regional and national levels before indiscriminately promoting ecotourism.

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