



Sustainable GeoHeritage Tourism: Bridging GeoHeritage and Culture Through the UNESCO Global Geopark Framework

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Abstract

The declaration of 2017 as the International Year of Sustainable Tourism for Development by the United Nations General Assembly heightens the significance and importance of tourism for the advancement of the universal 2030 Agenda for Sustainable Development. In the context of sustainable tourism, the framework of Global Geoparks would be well-placed in maximising the potential of geoheritage in fostering economic prosperity and social inclusiveness while at the same time, promoting peace and understanding through a mutual exchange of the richness, diversity and inherent value of nature and culture of the people. The interconnectedness between a geoheritage and the biocultural landscape in which it situates is manifested in the intertwinement of the day-to-day lives of the local communities and their interdependence with their land and the surrounding environment. This chapter illustrates the inextricable link between a geoheritage site and the local customs, practice, culture and way of life of a biocultural landscape, i.e., the Langkawi Geopark Community where the community is actively engaged in articulating their respective perspectives and dimensions of their interactions with their natural environment. The inclusive and participatory process, supported by the local authorities and all relevant stakeholders via an enabling governance framework, empowers the local communities where they are given an opportunity to exercise ownership over the decision-making process in charting the direction of a geoheritage conservation and the manner in which they could contribute towards the promotion of sustainable tourism. The bottom-up approach allows the co-generation of knowledge and more importantly, to instil

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in them a sense of pride that they are part of the Geopark community, which is instrumental in ensuring the viability and success of a Geopark as a geotourism attraction.

Keywords

Biocultural landscape · Cultural heritage · Custodian · Langkawi Global Geopark · Sustainable geotourism

6.1 Introduction

The 2030 Agenda for Sustainable Development adopted by the United Nations General Assembly (UNGA) on 25 September 2015 re-emphasised the importance of the sustainability of the planet in enabling social and economic development where it expressly declared that one of the ways to sustainably manage the planet's natural resources for sustainable development is sustainable tourism, which should be promoted.

In fact, the United Nations General Assembly had previously adopted Resolution 69/233 on 19 December 2014 that specifically addressed the 'promotion of sustainable tourism, including ecotourism, for poverty eradication and environment protection' that identified sustainable tourism as a 'cross-cutting activity that can contribute to the fight against poverty, the protection of the environment and the promotion of sustainable development', particularly for the promotion of 'rural development and better living conditions for sustainable rural populations' (UNGA 2015).

It is apt to link tourism with development given that the travel and tourism industry has an interest in the selling of 'the environment, both physical and human, as its product' (Murphy and Price 2005). There is solid evidence that supported the nexus between tourism and economic development, where it is increasingly recognised that the tourism industry contributes significantly towards the world economy. The World Travel and Tourism Council (WTTC)'s latest research, which was conducted in conjunction with Oxford Economics, revealed that the travel and tourism industry contributed to a total of 10.2% of the world's Gross Domestic Product (GDP) in 2016, which amounted to approximately US \$7.6 trillion, and kept 292 million people in employment (WTTC n.d., unpublished).

The economic impact of travel and tourism to the world was broadly defined by the WTTC to include direct, indirect and induced impacts (WTTC 2017). According to WTTC (2017), the direct impacts of travel and tourism to the economy of a country could be seen through two perspectives, namely the impacts on commodities, which include accommodation, transportation, entertainment and attractions and their relative industries such as the accommodation services, food and beverage services, retail trade, transportation services, as well as cultural, sports and recreational services where the direct sources of funding came from domestic spending by residents, businesses, visitor exports and the spending of governments on travel and tourism.

In addition, the wider impacts of travel and tourism on the economy, which encompass indirect and induced contributions of travel and tourism towards the total contribution of the sector are calculated by WTTC in its 2017 Report. The 2017 Report elaborated that the increase in travel and tourism activities will indirectly lead to:

- Higher domestic purchases of goods and services by sectors directly connected to travel and tourism.
- An increase in investment spending such as the procurement of new aircrafts or the construction of new hotels.
- Higher collective expenditure of the government for the promotion of travel and tourism activities for the benefits of the community at large such as the tightening of security services especially in resort and attraction areas (WTTC 2017).

The direct and indirect economic contributions of the travel and tourism sector would induce the direct and indirect spending of employees involved in the sector on food and beverages, recreation, clothing, housing and household goods, which contributed towards the economic development of the area where travel and tourism activities are robust.

Although economic prosperity lies at the forefront of tourism, the importance of tourism, which is essentially an activity that encourages inter-cultural dialogue and exchange, to a certain extent, goes beyond economic development. Despite some scepticism raised on the role of tourism in enhancing peace (Var and Ap 1998), tourism has increasingly been seen as an instrument that could play a pivotal role in catalysing human interaction that advances ‘understanding, tolerance and solidarity among all civilisations, peoples and culture’ (UNGA 1999). Increased human interaction through tourism, where exchanges took place between peoples from different geographical and socio-cultural background on the site of a travel destination or a place of attraction, could lead to the cultivation of spiritual and cultural understandings and respects among and between peoples (UNWTO 2011), which is fundamental to the fostering of a culture of peace.

Having shown the important nexus between tourism and economic development, and substantiating the perception that sustainable tourism would be a viable vehicle towards achieving the Sustainable Development Goals (SDGs), with particular attention drawn to the contribution of tourism in spurring economic growth, it is timely to discuss the role of international platforms, in the context of the present chapter, the United Nations Educational, Scientific, and Cultural Organisation (UNESCO) Global Geopark Programme, in spearheading sustainable tourism through geoheritage tourism that contributes towards sustainable development. The chapter will first introduce the model of geoheritage tourism promoted by UNESCO Global Geopark as an innovative alternative mode of income generation and economic growth, demonstrated through the case study of Langkawi Global Geopark as an apt example of a biocultural landscape. Highlighting the importance of community participation in ensuring the success of a geotourism destination, the chapter seeks to articulate the inextricable link between Langkawi Global Geopark

as a geoheritage tourism destination, and the local customs, practice, culture and way of life of the Langkawi Geopark Community through the construction of a community-oriented, and community-led narrative of cultural heritage particular to the Langkawi Island—a UNESCO Global Geopark.

6.2 Langkawi Global Geopark

The Island of Langkawi (Fig. 6.1), once known as the ‘Isle of Legends’ (Abdul Razak 2010), was under-developed for many years until it was accorded a duty-free status in 1987 (Hashim et al. 2011). Since then, the island underwent rapid development and in a short span of 20 years, the sleepy fishermen village transformed into a busy tourist town with hotels, infrastructures and facilities built across the island in support of the burgeoning travel and tourism industry. Apart from shopping, tourists from the country and beyond flocked to the Langkawi Island for various events such as the Royal Langkawi International Regatta, the KFC Langkawi International Regatta Perdana, the international cycling race, *Le Tour de Langkawi*, the Langkawi International Maritime and Aerospace Exhibition (LIMA), the Tuba Trail Run, the Langkawi International Ironman Triathlon and many more (Naturally Langkawi 2017).

The Langkawi Tourism Blueprint, launched by then Malaysia’s Prime Minister in 2012 had outlined a short-term action plan that aimed to boost the island’s travel and tourism industry (Mohd Yusof et al. 2014) by highlighting the Island’s natural and cultural attractions, up from the ridges of Mt. Machinchang where tourists could have an expansive, panoramic view, from the cable car, of the forest canopy of tropical virgin forests, down to the coral reefs found at the Payar Island Marine Park, nicely wrapped up with local myth, legend and folklores, most notably—of the poignant blessing of Princess Mambang Sari who laid the body of her baby who died after 7 days after birth to rest at the Lake of the Pregnant Maiden; the tragic death of



Fig. 6.1 The Island of Langkawi—the ‘Isle of Legends’ is located at the northern part of Malaysian peninsular

the beautiful Mahsuri, killed by her own ceremonial sword; and the ferocious fight of clashing pots and pans between the two feuding giants, Mat Chinchang and Mat Raya (Abdul Aziz and Ong 2011). Equipped with the mystical allure of beautiful maiden, princess, giants and all things magical, the unique geological landscape that is of outstanding universal value, beautiful beaches and exceedingly rich biological diversity endemic to the Island (Mohamad and Ahmad 2010), Langkawi Island has all it takes to be among the top ten best island and eco-tourism destinations.

Extensive investment was made in commercialising the travel and tourism industry of the Langkawi Island in order to promote the Island as a premier tourism destination in the region (Ong and Halim 2011). However, this raises concern over the mounting pressure exerted on the natural resources of the Island due to a large-scale construction of infrastructures and the spike in population brought forth by the flood of tourists visiting the Island, where mass tourism leveraging on the existing natural and cultural advantages without a careful study of the Island's carrying capacity may jeopardise the integrity of vulnerable bio-geo heritages and the conservation of the Island's natural resources as a whole (Ali and Unjah 2011). The rapid economic growth brought about by the avalanche of tourists coming to the Island and the subsequent mushrooming of facilities and infrastructures that usher in an even greater number of tourists to the Island do not spare the Island of the negative side effects resulted from the unchecked development—the damage to the environment due to pollution and the lack of an effective waste management system that is capable of catering to the escalating number of tourists—all of which compromise the ability of the Island's natural capacity to cope and accommodate such interferences (Hashim et al. 2011).

Moreover, the development of the Island, intensely focused on enabling and facilitating the travel and tourism industry, has so far concentrated only in areas that attract most tourists—the iconic places of attraction that are most visited, among others, the Kuah Town famous for its duty free shops and cheap souvenirs; the Mahsuri Tomb in memory of the legendary Mahsuri that put a curse on the Island for seven generations; the beautiful Chenang Beach along the coast and the Lake of the Pregnant Maiden (Mohd Ayob et al. 2013), while some areas of the Island remained under-developed where the majority of the population at these areas are still relatively poor, being marginalised from the rapid development unlike the other more popular areas (Hashim et al. 2011), whereby the 'trickle-down effect of growth that benefits and reaches poor and vulnerable groups takes time and effort due to the degree of accessibility of groups to resources, social and physical infrastructures and inadequate achievement in education and technical skills' (Abdul Halim et al. 2011).

Bearing in mind the importance of an inclusive economic development, and the urgent need to safeguard and conserve the integrity of the island's ecosystem in line with a global aspiration towards achieving sustainable development, the UNESCO Global Geopark Programme presented an exceptionally suitable paradigm in charting a sustainable development of the Island, especially when the Island is endowed with:

- a complete Palaeozoic geological succession incorporating the oldest rocks and fossils in the region, best preserved sedimentary structures and fossils, best sedimentological and palaeontological evidences for affiliation with Gondwana land; and
- the most beautiful island karst landscape in the region featuring unique hills, ridges, islands and pinnacles, beautiful caves, tunnels and arches and the magnificent rare mangrove associated with limestone bedrock (Leman et al. 2007).

The Global Geopark approach, defined to encompass a territory that comprises ‘a certain number of geological heritage sites’ of any scale, or ‘a mosaic of geological entities of special scientific importance, rarity or beauty, representative of an area and its geological history, events or processes’, which is not ‘solely be of geological significance but also of ecological, archaeological, historical or cultural value’, and more importantly, a delimited territory large enough to ‘serve local economic development’ gave greater emphasis on the interactions between socio-economic and cultural development and the conservation of the natural environment (Abdul Aziz et al. 2011; Leman et al. 2007). Abdul Halim et al. (2011) cited Kilim Geoforest park as an example of a pilot project that adopts the Geopark paradigm with the aim of improving local livelihoods, especially through the provision of innovative job opportunities for the local people, for example, creating opportunities for fishermen to participate in the tourism industry by becoming boatmen and nature guides, while at the same time, continue to fish in a manner conducive to the sustainability of the resource. By bringing more tourists to the existing natural assets located in the under-developed areas of the Langkawi Global Geopark such as the Wang Buluh and Wang Lebah caves on Tuba Island through the various geotourism initiatives under the Geopark paradigm, these under-developed areas could be made more accessible and in return, be able to enjoy the many benefits that a Geopark brings (Abdul Halim et al. 2011).

The underpinning philosophy of the Geopark initiative that advocated for the protection and sustainable development of geological heritage and geodiversity added a new dimension to existing paradigms of conservation where the potential for interactions between socio-economic and cultural development is highlighted in parallel with the conservation of the natural environment (Hashim et al. 2011). The balanced approach also resonates well with the aim of both the Federal and Kedah State governments to leverage on the potential of Langkawi Island as a world-class tourist destination in spearheading economic growth in the region through tourism (Ong and Halim 2011). The three-pronged approach of conservation, education and geotourism, laid down in the six criteria incorporated in the framework of the UNESCO Global Geopark Programme—size and setting; management and local involvement; economic development; education; protection and conservation; and last but not least, a global network, which should be satisfied in order to be granted the recognition as a geopark, ensures a sustainable development of the Langkawi Island (Abdul Aziz et al. 2011), while at the same time plays to the strength of the Island that is already renown as one of the most sought after tourism destination in the region.

When the whole of Langkawi's 99 islands amounting to a total land area of 478 km² was granted the status of Global Geopark Network (GGN), and endorsed by UNESCO in June 2007, the first in Malaysia and Southeast Asia subsequent to the concerted effort of the Malaysian Geological Heritage Group who had worked tirelessly in unveiling the geological secrets of Langkawi and the active advocacy in promotion of the unique and internationally significant geological features found on the Island (Ali and Unjah 2011), with the support of the Board of the Langkawi Development Authority (LADA) and the Kedah State government (Leman et al. 2007), it was found evident that the establishment of an enabling governance architecture that brings all relevant stakeholders together would be instrumental to the effective management of the Geopark was recognised (Abdul Aziz et al. 2011). In fact, the existence of a management plan 'designed for sustainable socio-economic development and demonstrate methods for conserving and enhancing geological heritage with broadening environmental issues' that is proposed jointly by 'public authorities, local communities and private interests acting together' is instrumental to the application for and recognition of a Global Geopark.

Taking into consideration that geoparks and land are one and the same, it serves both theoretical and practical purposes that the existing legal framework governing land use planning would be the most appropriate starting point in designing a governance architecture that is capable of capturing all the aspects and components entailed in the effective management of a geopark (Aziz et al. 2011). According to Aziz et al. (2011), in order to satisfy the requisites stipulated under the Operational Guidelines for UNESCO Global Geoparks, the existing regulatory mechanisms for land use planning provided under the relevant national legislations could be interpreted in a manner that enables the effective management of the geopark that seeks to balance conservation and development through the four 'building blocks' of:

- Boundary demarcation (the relevant legislations being the National Land Code 1965 and the Town and Country Planning Act 1976).
- Designation of authoritative body/institution (apart from the two legislations mentioned above, the Ministerial Functions Act 1969).
- Measures that drive sustainable tourism and sustainable economic development (the Lembaga Pembangunan Langkawi Act 1990 and the Town and Country Planning Act 1976).
- Regulatory mechanisms that effect the conservation of the geological, biological and cultural heritage and area (the Town and Country Planning Act 1976, the National Land Code 1965, if necessary, the Land Acquisition Act 1960 (revised 1992), the National Forestry Act 1984, as well as the National Heritage Act 2005).

By drawing together the salient aspects crucial to the effective management of a geopark, land use planning could serve as a 'powerful means to seek to recognise boundaries, set out "controls" to facilitate conservation and "guide" development, advocate sustainable tourism and economic development as well as ensure heritage

is protected, conserved and served as means to educate and inculcate a sense of place' (Aziz et al. 2011), and ultimately, achieve the overarching aim of sustainable development by leveraging on the paradigm of geotourism advocated under the UNESCO Global Geopark Programme. More importantly, the management plan should be structured on a governance platform that is facilitative of a decision-making process participated effectively by local communities, private interests, all relevant stakeholders and interested parties, which demonstrates 'respect, encouragement and protection of local cultural values' for the proper management of a UNESCO Global Geopark, and in the present case, the Langkawi Global Geopark (Ong et al. 2010).

6.3 Methodology: Articulating the Nature-Culture Linkage from the Bottom-Up

At this juncture, it is pertinent to reiterate the demand imposes on the governance architecture established for the management of a UNESCO Global Geopark. The geopark paradigm requires the incorporation of a bottom-up approach (Operational Guidelines for UNESCO Global Geoparks, Paragraph 1) that sufficiently reflects the spirit of inclusion, participation and equity, whereby processes and procedures that encourage participation and engagement of local authorities, all relevant stakeholders, interested parties and the society at large in relation to the management of the geopark should be established. The Operational Guidelines for UNESCO Global Geoparks, attached to the UNESCO Statutes of the International Geoscience and Geoparks Programme, made explicit that in order to be accorded the status of a UNESCO Global Geopark, the geopark must be 'managed with a holistic concept of protection, education, research and sustainable development' by

a management body having legal existence recognised under national legislation . . . that is appropriately equipped to adequately address the area of the UNESCO Global Geopark in its entirety (Paragraph 3 on the Criteria for UNESCO Global Geoparks).

The Operational Guidelines, under the same Paragraph, further provide that the management of the Geopark should be sufficiently represented by all relevant local and regional actors and authorities and allow for the active involvement of 'local communities and indigenous peoples as key stakeholders in the Geopark' through a co-management plan that incorporates local and indigenous knowledge alongside science, which was drafted and implemented to serve 'the social and economic needs of local populations, protects the landscape in which they live and conserves their cultural identity'.

The requirement to ascertain the linkages between socio-economic and cultural development with the conservation of natural heritages through geotourism is articulated in Category 1.3 of the Self-Evaluation Form for Aspiring UNESCO Global Geoparks on Natural and Cultural Heritage where the applicant states are asked to self-evaluate their efforts to promote the links between geological heritage

and other natural and cultural sites within the Geopark, including public awareness, capacity building and education programmes that communicate and disseminate geo-scientific knowledge and environmental needs and concepts (Abdul Aziz et al. 2011). The Self-Evaluation Form requests for:

- Details for the interpretation, communication and education programmes that were implemented in order to achieve the objective of promoting and maintaining the relevant natural and cultural heritage (Sub-Category I.3 of the Self-Evaluation Form for Aspiring UNESCO Global Geoparks).
- Details regarding the management structure organised for the effective management of Global Geoparks, especially the existence of initiatives or working groups that discuss the promotion of natural and cultural heritage (Category II of the Self-Evaluation Form for Aspiring UNESCO Global Geoparks).
- Details of research, information, education and other scientific activities on Earth Science within the Geopark territory, and in general the operationalisation of education programmes concerning the Geopark in the area (Category III of the Self-Evaluation Form for Aspiring UNESCO Global Geoparks).

Keeping in view that the geopark approach aspires towards a knowledge-based sustainable geotourism that is inclusive and people-oriented (Leman et al. 2007), it is incumbent to review the self-evaluation criteria stipulated under the Self-Evaluation Form for Aspiring UNESCO Global Geoparks, particularly Categories I (I.3), II and III from a bottom up perspective. Instead of a scientists-led, top-down interpretation, communication and education of matters relating to a UNESCO Global Geopark that were translated into a process of ‘informing and educating’ the people about the salient concepts and knowledge of geo-science and the environment (which could be patronising at times), the scientists assume a facilitative role in soliciting the perspectives of the Geopark Community—the Geoparkians as to how they could contribute towards the interpretation of the nature-cultural linkage, and how they could play a role in communicating and educating the community (themselves) and others, of the local knowledge on the Geopark (Hashim and Abdul Aziz 2013). This aspect of community-led, bottom-up social learning, alongside the sciences, contributes towards the strengthening of the nature-culture linkage characteristics of the Geopark paradigm.

This process of community-oriented engagement allows the bilateral flow of information and knowledge, and at the same time, empowers the community in reinstating their identity and ownership vis-à-vis the geopark. Connecting a place with the identity of the society through an inclusive and participatory development process—from planning, implementing, to monitoring—is instrumental in inculcating pride and a sense of belonging within the community to the area. This feeling of ownership, togetherness and belonging ultimately leads to a wider acceptance of the UNESCO Global Geopark Programme by the people as a means to promote sustainable geotourism for sustainable development (Farsani et al. 2012).

Armed with this objective to further define the linkage between nature and culture within the framework of the UNESCO Global Geopark, a research team from the

National University of Malaysia set out to identify the key custodians of the cultural heritage of Langkawi Global Geopark and at the same time, map out the cultural heritage of the Island. The research endeavours to understand how the Geopark Community defines ‘cultural heritage’, in what way and how they identify themselves within the context of Langkawi as a UNESCO Global Geopark. The research built upon the ongoing effort to ascertain, understand and document both the natural and cultural heritage of Langkawi that has started formally since 2003 by the team of researchers at the Langkawi Research Centre. The underpinning philosophy in the charting of the research is, ‘Making the Past Present for the Future’ (Hashim et al. 2013) with its central focus on the peoples and their heritage, and the value common to, and shared among, the Langkawi Islanders (Hashim and Abdul Aziz 2013). Their work had made important contributions towards fulfilling the criteria and standards imposed in order to be accorded the status of Global Geopark, and the drafting of the Langkawi Geopark Management Plans.

The present research improves on the previous research by directing the scope of research to the unravelling of the implicit dimension of the people’s cultural heritage, where the research seeks to profile the types of cultural heritage, both tangible and intangible, in the three *mukims* (sub-districts) of the Island, namely Padang Mat Sirat, Bohor and Ulu Melaka, and to identify the relevant custodians of these cultural heritage. The research had identified several categories of tangible and intangible cultural heritage found in Langkawi Island. The tangible cultural heritage ascertained is preliminary placed under the themes of traditional village (*kampung tradisi*), historical sites, house of prayers (*rumah beribadat*), traditional craft and livelihood and craft, whereas the intangible cultural heritage found in the Island of Langkawi could be placed under the themes of food, traditional medicine, custom and culture, traditional games and the art of self-defence, performing arts, fine arts, and languages and writing.

This chapter presents a narrative of cultural heritage constructed from the outcomes and findings obtained from the interviews and focused group discussions with the artisan, Mr. Dun bin Chin, the custodian of one of the most prominent local cultural heritage in the Island of Langkawi—the building of Malay traditional house, the *rumah Melayu*. The Malay traditional house was chosen because it embodies both the tangible aspect of a cultural heritage—the house itself, and the intangible dimension of the cultural heritage, which are the skills, knowledge and craftsmanship involved in the building of the house. More importantly, since house is so instrumental to a society, the ways and manner in which a house is constructed will reveal not only the preference of people at that time, but also the customs, practices, culture and way of life of the people who reside in a house that could have been built by them and their neighbours who lived nearby.¹ The narrative seeks to illustrate

¹The symbolic representation of what a house means to a culture was eloquently described in the questions that Janet Carsten (1997, p. 33) posed in her book, *The Heat of the Hearth. The Process of Kinship in a Malay Fishing Community*.

“What is it that gives the house in Langkawi its significance? What makes a house a house? Is it its spatial layout, its physical structure as a building, the rituals which are enacted in it and which are

how a bottom-up process provides a different perspective in which the criteria stated in the evaluation document of geopark, especially those that were specifically raised above, could be construed in a manner that is more conducive to the identification and the promotion of interlinkages between natural and cultural heritage, where cultural heritage is not viewed as a dimension complementary to the natural heritage, but instead, be treated as the soul that makes the place, and gives life, identity, characteristics to a place, which makes the place unique.

6.4 A Narrative of *Pak Don*: The Custodian of the Cultural Heritage of Traditional House Building

Mr. Dun bin Chin, or *Pak Don*, was born in Langkawi in 1946. He is a master of all trades, well-known in the community as the wood artisan who builds Malay traditional houses (the *rumah Melayu*). He was commissioned to build a *rumah Melayu* by the cousin of the Sultan of the State of Kedah in 2011, which took him a year to complete the commission. In addition, *Pak Don* is adept at all sorts of woodcrafts where he crafts the sheaths (*sarung*) that cover traditional Malay knives (the *golok*) and makes traditional toys such as the spinning top (*gasing*). Apart from woodcrafts, *Pak Don* is also renowned for the production of *nira*, the palm juice of a coconut tree that is well-known for properties beneficial to health, which could be also be processed into various types of sweetmeat, including palm syrup or honey, and palm sugar (*gula Melaka*).

In realising the inextricable link between tangible and intangible cultural heritage, the construction of the traditional Malay house would be an excellent starting point for the study of what cultural heritage means from a community's perspective, and how the promotion and maintenance of the link between natural and cultural heritage could be achieved. Reiterating the centrality of a house to the Malay community, and the symbolic representation of a traditional Malay house of traditional Malay culture and lifestyle, the research team decides to document the whole process of building a traditional Malay house from scratch, and to ascertain the intangible dimension of the cultural heritage embedded in the construction of the traditional Malay house in order to study the relations between the tangible and intangible dimension of a cultural heritage. This exercise is important to gain a deeper understanding of the different facets of cultural heritage, and whether a cultural heritage would cease to be a 'heritage' if the values, beliefs, worldview, way of life, in short, the 'culture' that were embedded in the heritage, are lost.

For these reasons, the team of researchers placed a request to *Pak Don* to construct a 'miniature' *rumah Melayu* to learn about the philosophy behind the architecture and spatial arrangement and design of the house in order to fully understand the concepts adopted, and the processes and skills entailed in the

part of the process of building? Or the social significance of the house an aspect of the quality and types of relations of the people who live within it and of the activities which they engage in there?"



Fig. 6.2 The ‘miniature’ of a traditional Malay house, with *Pak Don*, its creator, looking at it fondly (Photo by SA Halim)

construction of a *rumah Melayu*. To everybody’s amazement, which left us all in awe of the mastery of the craft and workmanship, *Pak Don* built the traditional Malay house with the blue plan all inside his head, including how much materials are needed. He took his time in designing how the house could be constructed, the size, outlets for ventilation, the overall structure and the building processes, in particular when the order of the construction of the miniature house would have to be reversed due to the reduction in scale. Instead of building the *rumah Melayu* from the outside in, he would have to build it inside out as the house would be too tiny to be worked on after the external structure is built. Apart from the main structure, *Pak Don* completed the accessories to the house as well, where he designed and made the mould for the cement stilts supporting the *rumah Melayu* and carved and engraved the fences, the windows and other various parts of the *rumah Melayu* that is traditionally ornamented. A picture of the *rumah Melayu* is shown below in Fig. 6.2.

It took *Pak Don* a bit more than half a year to complete the house. After the miniature house was built, *Pak Don* explained the various dimensions regarding each structure and spatial arrangement of the house, and how he constructed it. Since the miniature will be used as a teaching material, apart from being showcased as an item on exhibition for everybody who came to the Langkawi Research Centre, *Pak Don* incorporated the evolution in the trends of how *rumah Melayu* is built over the years into the design and construction of the *rumah Melayu*. He showed the differences between the first generation and second generation of *rumah Melayu*, and the theory of ‘expansion’ in the traditional way of building the *rumah Melayu*.

First to be built would be the mother house (*rumah ibu*) with a raised platform (*serambi*) slightly lower than the living room extended out from the mother house, a living room, and a bedroom, followed by the kitchen (*rumah dapur*) which is attached to the mother house. More 'houses' ('*rumah*') will be built to accommodate more needs or more people in the house, without changing the structure of the main house.

Together with his wife Azizah, lovingly known as *Che Tipah*, they laboured over every detail of the miniature house, from whether the roof should be made from wood or the traditional roofing material—the *nipah* tree leaves; the drainage system over the kitchen top made from bamboo (*para buang*); the airy loft over the kitchen for keeping freshly made Malays cakes (*kuih-muih*), known as '*para kuih*', which sometimes, serves as a hiding place for the unmarried maiden of the house to take a sneak look at the prospective beau who came to visit her parents to ask for her hands of marriage; a little bed (known as '*getar*') for the newly weds' room (*bilik pengantin*) at the back of the house; down to the tiniest interior features of tiny pink curtains hanging up on the little window and plaited pandanus leaves mats (*tikar*) covering the floor. They even managed to find an old pot ('*belanga*') completed with a ladle that are traditionally placed at the side of the staircase leading up to the house for the family or guests to wash their feet before they go up the stairs.

Pak Don and *Che Tipah* explained the purposes for each room and how the rooms are put to use; they elaborated the functionality of each feature of the interior design of the *rumah Melayu* and spiced up their explanations with tales and anecdotes that came from their experience. By learning and gaining more understanding about the structure and features of the *rumah Melayu*, the more we learn about the day-to-day lives of the people of Langkawi once upon a time, the values they hold dear, the social matrix at that time, the evolution of needs and preference and many more facets of human lives that we had chosen to forget or discard when we embrace development and modernisation.

Pak Don informed the team of researchers that, after determining how much wood and other raw materials sourced from the nearby Mountain Raya that he would need for the *rumah Melayu*, he would wait until he has enough demand for wood and other forest produce that justify the cutting down a tree or other types of vegetation, such as bamboo in the mountain. Unless and until he secured sufficient demand, for example, wood, he would not cut down a tree in order not to waste any part of the tree. 'Take only what is needed, and waste nothing'—sustainability at its core—is the underlying motto of *Pak Don* in executing his creation. Each timber and plank is put to good use. The design of the *rumah Melayu* is simple and yet functional, and at the same time, aesthetically pleasing, with intricate carvings and engravings serving as ornaments for the house.

The *rumah Melayu* is more than a tangible cultural heritage object that we could express our awe, or for us to marvel at the level of mastery and skills demonstrated in its construction. It is a physical manifestation of identity, custom, culture and way of life adopted and practised by the people who lived in the *rumah Melayu*. The intangible dimension of cultural heritage, in particular, the respect they had towards nature, and the cautious manner in which they treat their biological and geological

heritage, the knowledge they had about their surroundings and the skills they had acquired across the generations, are invaluable and priceless, and should be preserved and pass on to the future generations at all cost. As the research unfolds, it slowly unveils the local community's perspectives of the interactions with their natural environment, reflected in the local customs, practice, culture and way of life, which indirectly illustrates the inextricable link between a geoheritage site and the Langkawi Geopark Community.

The active communication of the geopark paradigm, by the community themselves and facilitated by the researchers under the research project rekindles the importance of the protection and conservation of natural and cultural heritage for the promotion of sustainable tourism that could elevate the socio-economic well-being of the Langkawi community. The various mechanisms deployed under the umbrella of UNESCO Global Geopark to uphold, strengthen and promote the principle of the protection and conservation, education and the sustainable development of the natural and cultural heritage of man, which forms the bedrock of the spirit of 'kawi' (*semangat kawi*)—a root word of 'Langkawi', a term coined to represent the 'spirit of the eagle' (*lang* for *helang*, another root word for Langkawi) that is of a reddish brown colour ('*kawi*')—shared among the local community and the stakeholders who are involved in the development of Langkawi (Ong et al. 2010).²

6.5 Demonstrating the Natural-Cultural Linkage Through the Narrative of *Pak Don*, the Cultural Heritage Custodian of Langkawi Global Geopark

Referring to Section 3 of Category I (1.3) on Natural and Cultural Heritage of the self-evaluation form for Global Geoparks that stipulates for the criterion of promoting and maintaining natural and cultural heritage, Section 3.1 requested for details that demonstrates the promotion of the links between geological heritage sites and

²The excerpt of the original writing of the authors on the 'kawi' spirit (*semangat kawi*) is:

“'Kawi', salah satu kata asas dalam kata penuh 'Langkawi' dikatakan merujuk kepada sejenis batu berwarna 'merah' yang terdapat di Langkawi. 'Lang,' kata asas kedua, merujuk kepada helang, yang banyak terdapat di Langkawi. Helang melambangkan semangat membuat sesuatu berdasarkan tujuan yang jelas dan tepat pada sasaran. Justeru, tajuk Makala hini, 'menjejak semangat 'kawi': Langkawi sebagai Geopark,' cuba menjelajahi semangat helang yang juga berwarna seperti kawi (merah-kecoklatan) dalam kalangan komuniti tempatan dan golongan yang terlibat dalam pembangunan Langkawi, agar segala sumber geo, bio dan budaya di Langkawi dilindungi dan dipulihara.”

(Translation: 'Kawi' is a basic word in the full term of 'Langkawi' that was said to have referred to a type of rock that is of the colour 'red' found in Langkawi. 'Lang' is the second basic word, which referred to eagle that could be found aplenty in Langkawi. Eagles represent the passion to do something that is based on a clear purpose and right on target. Hence, the title of the paper, 'tracing the spirit of 'kawi': Langkawi as a Geopark,' attempts to revisits the spirit of the eagle that is also of a reddish-brown colour (the colour of 'kawi') amongst the local community and the group of people who are involved in the development of Langkawi, so that all the geo, bio and cultural resources in Langkawi could be protected and conserved).

Table 6.1 Sch. 1 Category III (geology and landscape) 1.3 Natural and cultural heritage of the self-evaluation form

I. Geology and landscape	
1.3 Natural and cultural heritage	
1	Natural rank
1.1	International designation in part of the Geopark territory (except World Heritage Sites and Biosphere Reserves)
1.2	National designation in part of the Geopark territory
1.3	Regional designation in part of the Geopark territory
1.4	Local designation in part of the Geopark territory
2	Cultural rank
2.1	International designation in part of the Geopark territory
2.3	Regional designation in part of the Geopark territory
2.4	Local designation in part of the Geopark territory
3	Promotion and maintenance of natural and cultural heritage
3.1	Promotion of the links between Geological Heritage sites and the existing Natural and Cultural sites within the Geopark
3.2	Interpretation
3.3	Communication
3.4	Education programmes

the existing natural and cultural sites within the geopark. Category I (1.3) on Natural and Cultural Heritage of the self-evaluation form for Global Geoparks is reproduced in Sch. 1 (Table 6.1).

Prior to the satisfaction of this criterion, it is incumbent to ascertain and identify the existing natural and cultural sites that are connected to a geological heritage site. Although the classification of what constitutes a geological heritage site, a natural site and a cultural site is somehow artificial for the biological, geological and cultural triad is indivisible, being situated in the environment that itself forms a unitary whole, the profiling and mapping of a custodian, based on the place where the custodian resides permanently, could provide us with an idea as to where a 'cultural site' for an intangible cultural heritage could be in order to meet the requirements stated in the self-evaluation form.

The research conducted by the team of researcher from The National University of Malaysia, or Universiti Kebangsaan Malaysia (UKM) as it is commonly known profiled and mapped where a custodian stayed and identify the area as a cultural site for the purpose of studying a link between the three types of heritages. Instead of a top-down, conventional science-led determination of where and how the linkage is formed, the research initiated a bottom-up approach where the custodians themselves were given the opportunity to paint a picture of how they, as the custodian of a cultural heritage, are connected to the geological and natural heritage surrounding and instrumental to the practice of a cultural heritage. The narrative of *Pak Don* demonstrated that an inextricable relationship between the building of a *rumah Melayu*, the natural materials used in the construction of the *rumah*, such as the

wood, bamboo, pandanus leaves and *nipah* from the mountain. The manner and processes in which the *rumah* is built will have an impact on the sustainability of the resource where a culture of sustainability would be translated into a sustainable use of resource. As such, the link between geological heritage sites and the natural and cultural sites, especially an intangible cultural heritage, could be demonstrated through the performance of the activity that applies the said intangible cultural heritage, which is, in the present case, the knowledge and skills involved in the building of the *rumah Melayu*, and the art and craft of woodworking.

If interpretation under section 3.2 of Category I (1.3) on Natural and Cultural Heritage of the Self-Evaluation form (refer to Sch. 1) is interpreted to encompass the interpretation not just of the geological heritage, but also other natural and cultural heritage that are connected to the geological heritage, then, the role of interpretation need not be played by just the scientist and the authorities. The present case had sufficiently showed that the custodian would be in a better place to interpret the cultural heritage of the building of a Malay traditional house, especially when he is the person who understands most the significance of the heritage item or object, e.g., the Malay traditional house that encapsulates the way of life of the Malay community in Langkawi, and the values embedded in the house—from the no-waste policy in the construction of the house, to the importance placed on cleanliness evident from the use of a pot beneath the stairs to allow the guests and family members going to the house to wash their feet before entering the house.

As the custodian, *Pak Don* elaborated all aspects of the traditional Malay house, the life of the people who used to reside in time unfolds before the eyes of the listeners. We seemed to relive the lives of the ancestors, and in some way, strengthens our understanding about who we are, and the identity that characterises our worldview and beliefs. In this context, the satisfaction of section 3.2 Category I (1.3) on Natural and Cultural Heritage of the self-evaluation form (presented in Sch. 1) for Global Geoparks need not come just from the scientific experts. Instead, a suitable platform should be given to the custodian of a cultural heritage to interpret a cultural heritage for the purpose of promoting the link between geological heritage and natural and cultural heritage.

Likewise, communication as stated under section 3.3 Category I (1.3) on Natural and Cultural Heritage of the self-evaluation form (presented in Sch. 1) could be civilian-led as well. When the miniature *rumah Melayu* was built, words travelled. People from all over the country came to take a look at the miniature. The heightened attention drawn by the miniature house would be a perfect opportunity for the communication of the cultural heritage, and at the same time, introduces and exposes the visitors to the rich and outstanding geological and biological heritage of Langkawi Global Geopark. Instead of an authority or scientific expert-led process of communication, a civilian-led, bottom-up communication of a cultural heritage could be undertaken, and perhaps, expands the potential and breath in which the requirement of ‘communication’ under section 3.3 (Category I (1.3) on Natural and Cultural Heritage of the self-evaluation form for Global Geoparks) is satisfied.

If *Pak Don* could be invited to conduct lectures and workshops on Malay culture and woodcraft on a regular basis and be incorporated formally into the curriculum of

primary, secondary and tertiary education systems, the requirement of establishing education programmes regarding natural and cultural heritage, and the link between them as stipulated under section 3.4 (Category I (1.3) on Natural and Cultural Heritage of the self-evaluation form for Global Geoparks as outlined in Sch. 1) could be achieved by enabling the participation of the custodian in the leading and design of educational programmes that do not only interpret a cultural heritage and communicate to others about it, but could also form part of the educational programmes organised for the promotion of the links between the three types of heritage.

A civilian-led, bottom-up approach could be applied in the satisfaction of the criteria laid down under Category III on Information and Environmental Education as outlined in the Self-Evaluation Form. The main sections of Category III are:

1. Research, information and education scientific activity in Earth sciences within the territory
2. Do you operate programmes of environmental education in your Geopark area?
3. What kind of educational materials exist?
4. What kind of published information is available in your Geopark area?
5. Geology provision for school groups
6. Education—Guides
7. What kind of information do you provide to educational groups to encourage them to visit your area?
8. Do you use the internet for school programmes? What kind of service do you provide?

In addition to the stipulations of research, information and education scientific activity in Earth sciences within the territory in section 1, the operation of programmes of environmental education in the geopark area in section 2 and geology provision for school groups in section 5, all of which are found in Category III of the Self-Evaluation form, perhaps the determination of whether a Global Geopark status should be accorded to an applicant country should perhaps, provide for an informal mode of information dissemination and environmental education that is initiated from the grassroot.

In furtherance of this proposal, recognition should be given to grassroots efforts that disseminate and share information and knowledge about the environment that are not limited to just geological sciences. A comprehensive evaluation of Category III is important in realising the aspiration of the Geopark framework to advocate social inclusion that brings all the relevant parties on board. In order to do so, the criteria stipulated under Category III, which focus on Information and Environmental Education should also acknowledge civilian-led initiatives, educational programmes and other research, information and educational activities on the three types of heritages and the linkage between them in promotion of a more inclusive and participatory process provided under the Geopark framework.

It is important that the management structure for the management of Global Geoparks as outlined in Category II of the Self-Evaluation Form specifically

provides for mechanisms that support and enable a participatory, bottom-up approach. As stated in section 3.8 of Category II, the establishment of community links should be formalised and executed through the support of legal instruments that impose the obligation of the authorities to involve and engage the community actively in all decision-making matters regarding the management of a Global Geopark, in the present case, the Langkawi Global Geopark. The governance architecture presented in the second part of the chapter explains the four building blocks for the effective management of the Langkawi Global Geopark, especially the third building block of—‘measures that drive sustainable tourism and sustainable economic development (the Lembaga Pembangunan Langkawi Act 1990 and the Town and Country Planning Act 1976)’—that provides for the establishment of an appropriate platform that facilitates and enables public participation. Instead of providing for ‘measures that drive sustainable tourism and sustainable economic development’, the building block should also stipulate for measures *developed jointly by the authorities and all relevant parties, including but not limited to local communities, relevant stakeholders and other interested parties* that drive sustainable tourism and sustainable economic development under the Geopark framework.

One of the unexpected outcome of the adoption of the UNESCO Global Geopark Programme by the State of Kedah for the effective management of Langkawi Global Geopark would be the catalytic role that the programme played in enabling the observation of a principle of international environmental law that imposes an obligation on the state to ensure the participation of the public in the decision-making process on any matters that has an environmental implication, be it direct or indirect (Lee 2012). A specific requirement that demands the taking into account of ‘community links’ in the devise of a management structure for the effective management of a geopark as stated under section 3.8 of Category II would compel the authorities and policy makers to perform their obligation under this specification in order to attain the status of a UNESCO Global Geopark, and by doing so, forces the country to satisfy its obligation under international environmental law.

The observation of the obligation to ensure public participation in environmental decision-making has a far-reaching effect. It promotes legitimacy, transparency and accountability in decision-making. More importantly, by enabling the participation of the public in the decision-making process, it confers upon them a sense of ownership and belonging to the process and the decision-made, which generates a wider acceptance of decisions made over the management of geopark and ultimately ensures the success of the management of a geopark. By drawing the example from the narrative on *Pak Don*, the custodian of cultural heritage in, among others, the building of traditional Malay house and other woodcraft from the Island of the reddish-brown eagle—the Langkawi Global Geopark, it could be demonstrated that a civilian-led, bottom-up approach is equally effective and capable in articulating the link between natural and cultural heritage, and subsequently, supports the promotion and maintenance of the link thereof.

This chapter endeavours to propose an alternative interpretation of the UNESCO Global Geopark framework embodied in the Operational Guidelines as manifested in the criteria enumerated under the self-evaluation form, which furthers the promotion

of a linkage between natural and cultural heritage, and in addition, realises the potential of the geopark framework as an appropriate platform that aspires to:

- [create a geopark that was initiated by the] local communities/authorities with a strong commitment to developing and implementing a management plan that meets the community and economic needs of the local population while protecting the landscape in which they live;
- Involve public authorities, local communities, private interests and both research and educational bodies, in the running of the geopark and its regional economic and cultural development plan and activities. This cooperation shall stimulate discussion and encourage partnerships between the different groups having a vested interest in the area and motivate and mobilise local authorities and the local population and
- [Carry out] sustainable tourism and other economic activities within a geopark [successfully with the cooperation of] local communities. Tourism activities have to be specially conceived to match local conditions and the natural and cultural character of a territory and must fully respect the traditions of the local populace. Demonstrable respect, encouragement and protection of local cultural values is a crucial part of the sustainable development effort (Ong et al. 2010).

Following the proposal advocated for the articulation of the link between natural and cultural heritage spearheaded by the custodians and the civilians, which modifies the essentially top-down, authorities or scientific experts-led paradigm of the geopark approach, the chapter seeks to argue that a geopark could also be deemed to be successful not just by measuring the number of tourists who flocked to the island to look at the magnificent geological landscape found on the island, and by so doing, generates income for the local community; but also by measuring the number of tourists who flocked to the Island to observe the beautiful traditional Malay house (among other cultural and natural heritage objects), and at the same time, be exposed to the magnificent geological heritage that could be found on the Island, which similarly, generates income to the local communities and improves the socio-economic conditions of the local population.

6.6 Conclusion

The chapter presents the opportunity provided by the Global Geopark Programme in enabling a platform that allows the incorporation of the '*kawi*' spirit (*semangat kawi*), a shared commitment, principle and value of the Langkawi Geopark community towards the protection and conservation of the natural and cultural heritage of the Langkawi Global Geopark, while at the same time, benefits from improved socio-economic conditions brought forth by the geotourism industry. The various mechanisms stipulated under the geopark framework in promotion of a more robust geotourism industry empower the geopark community to exercise more ownership in the decision-making process in charting the direction of growth of the Langkawi Global Geopark. The potential of the Global Geopark Programme in bringing geoheritage and the society together in the same bandwagon towards sustainable development, where sustainable geotourism is touted as the innovative product that

could improve socio-economic conditions of the geopark community, is illustrated through a purposive, civilian-led, bottom-up interpretation of the requirements stipulated under Category I, Sub-Category 1.3(3), and Category III of the Self Evaluation Document that specifically address the various aspects relevant to the promotion of the links between geological heritage sites and the existing natural and cultural sites within the Geopark, and the educational dimension in relation to the development of a knowledge-based geotourism industry, within the context of the Langkawi Global Geopark.

It is noteworthy that the partnership between science and society advocated under the Global Geopark Programme stimulates the bilateral flow of information and knowledge between the scientists and the community. The participatory process promotes social inclusiveness, which is crucial in facilitating a sense of ownership and belonging—that the local community, all relevant stakeholders and other interested parties—are part of, and belonged to the Langkawi Global Geopark. The feeling of ‘we belong together’ is instrumental in ensuring a wider acceptance of the geopark paradigm by the community that determines the viability and success of the Langkawi Global Geopark as a geotourism attraction. More importantly, the feeling of ownership in the development process through sustainable geotourism could be fostered in the process of public education, awareness raising and capacity building where the geopark framework provides a platform for social learning that instils in the community of the geopark (the Geoparkians) a sense of pride that they live in an area endowed with unsurpassable geological, ecological, archaeological, historical and cultural heritages of outstanding universal value, and ignites their desire to protect and conserve Langkawi Global Geopark’s precious natural and cultural heritage.

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