

# THE GEOPARK AS A POTENTIAL TOOL FOR ALLEVIATING COMMUNITY MARGINALITY

A case study of Langkawi Geopark, Malaysia

SHARINA ABDUL HALIM

Universiti Kebangsaan Malaysia <sharinahalim@gmail.com>

IBRAHIM KOMOO

Universiti Kebangsaan Malaysia <ikomoo@yahoo.com>

HOOD SALLEH

Universiti Kebangsaan Malaysia <hood@ukm.my>

MUSTAFFA OMAR

Universiti Kebangsaan Malaysia <momar@ukm.my>

## Abstract

This study has three main purposes. The first is to examine the planning and implementation processes involved in Langkawi's development - particularly since its establishment as an international tourist destination - providing a brief account of the stages of its development from a duty-free island (1987) to Global Geopark (2007). The second purpose is to identify Langkawi's degree of marginality in terms of its livelihood assets, particularly its human, social and financial capital. The third focus of study addresses the issue of whether Geopark status has the potential to enhance livelihoods and the sustainability of island communities. Case studies of three locations on Langkawi (Padang Mat Sirat, Kilim and Pulau Tuba) are used to illustrate marginalisation in different types of locality. The results confirm that at local levels, the trickle-down effect of growth that benefits and reaches poor and vulnerable groups takes time due to the degree of accessibility of groups to resources, social and physical infrastructures and achievement in education and technical skills. In fact, the unemployment rate was significantly high for these areas, especially for Pulau Tuba due to its location off the main island. Regarding local participation based on types of employment, the results confirm little movement in terms of upward mobility. Hence, investment efforts, either by government or the private sector, are needed to revive the present economic activities with diversified concepts that are appropriate for the local community. The challenge to ensure effective participation and sustainability is a multifaceted one which requires commitment from individuals, the community and development agencies such as LADA and the District Office, to channel suitable socio-economic-driven projects to improve local livelihoods and to encourage bottom-up participation among locals by empowering them in the development and planning processes.

## Keywords

Sustainable livelihood, tourism, geopark, community development, social marginality

## Introduction

While some islands are major metropolitan centres in their own right (eg Manhattan, Singapore, Penang etc.) and others are home to intensive populations with active economies (eg Okinawa, Taiwan, Oahu), many are constrained by remoteness and underdevelopment. Islanders resident on many remote islands have limited livelihood opportunities and limited prospects of socio-economic development. Studies on island economies and island livelihoods have shown that the situation is more complicated than on continental mainlands; for instance, islands' coastal environments are particularly sensitive and limited in their natural resources (Jackson, 2006). As a result, many island communities are attempting to transition from socio-economic activities based upon fisheries and agriculture to tourism-based activities (Bass and Dalal-Clayton, 1995).

Tourism has been identified as an important factor in many contemporary island economies (Royle, 2008). With comparatively advantageous effects in income and employment generation, tourism is seen as an option for enhancing rural lifestyle and for inducing positive changes in the distribution of income in underprivileged regions (Liu, 2006). This was the situation for Langkawi Island, formerly known as a quiet fishing community, which has recently turned into a significant tourist destination. The transition was triggered by its inception as a duty-free zone in 1987 through the establishment of a federal authority development agency known as the Langkawi Development Authority.

This article analyses island community marginality based on two aspects: 1) livelihood assets (human, social and financial capital); and 2) levels of local participation that are influenced by the degree of accessibility to the centre of development activities. Understanding the current livelihood activities and assets of a local community provides the best guide to how their livelihoods can be made more productive and sustainable (Helmore and Singh, 2001). According to Chambers and Conway:

*A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets, while not undermining the natural resource base. (1991: 6)*

The process of socio-economic development in Langkawi, as illustrated in Figure 1, indicates the state of transition from a primarily agricultural and fisheries based economy to a tourism-based one that involves local entrepreneurship and recreational and nature-orientated tourism activities. However, it is important to emphasise that tourism activities are incorporated into the existing mix of livelihood strategies to enrich (rather than replace) the means by which the local community may be sustained.

In essence, the livelihood concept promotes understanding of human development through integrated environmental, social and economic issues in a holistic framework. Examining marginality through the livelihood approach also reveals the resources that local communities currently control as well as knowledge and skills that they already have. Hence, levels of local participation can be illuminated through understanding the livelihood assets that articulate their capabilities for survival and to improve their standards of living.

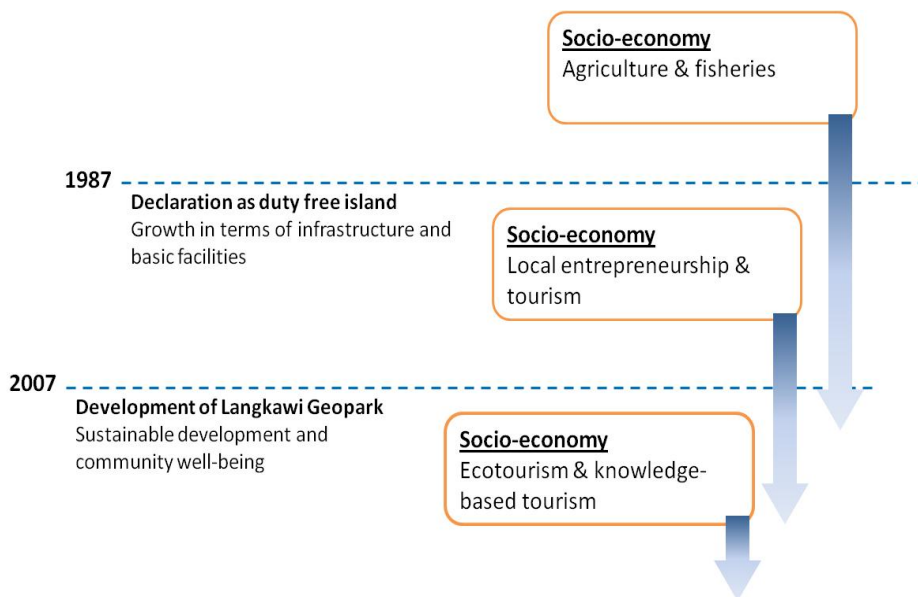


Figure 1 - Processes of socio-economic development in Langkawi

### I. From Fishing Villages, to Tourist Destination, to Global Geopark

Langkawi Geopark, Malaysia's first established geopark, is located in the far northwestern corner of peninsular Malaysia (Figure 2). Located in the State of Kedah, Langkawi Geopark is unique in the sense that it comprises 104 islands that formed the legendary Langkawi archipelago.

The establishment of the Langkawi Development Authority (LADA) has brought systematic development to the islands and transformed them into the present day modern tourist destination (Leman et al, 2007), a process 'jump-started' by the declaration of Langkawi as a duty free island in 1987. Blessed with a richness of geological features, biodiversity and cultural resources, Langkawi is one of Malaysia's premier tourism destinations. In 2006, the Kedah State Government, with the assistance of LADA and the National University of Malaysia (UKM) geo-heritage researchers, declared the island as a state-owned geopark in order to enable it to seek recognition from UNESCO. This initiative represented a concerted attempt to ensure the conservation of Langkawi's natural resources, as well the enhancement of local community livelihoods, in the midst of a period of rapid tourism development. Twenty years after the inception of Langkawi as a duty free zone, the island gained further recognition from UNESCO and was announced as Malaysia's (and Southeast Asia's) first Global Geopark in June 2007. This acknowledgement increased the motivation of LADA, local development agencies and communities to ensure that development on the island is carried out in a sustainable manner.

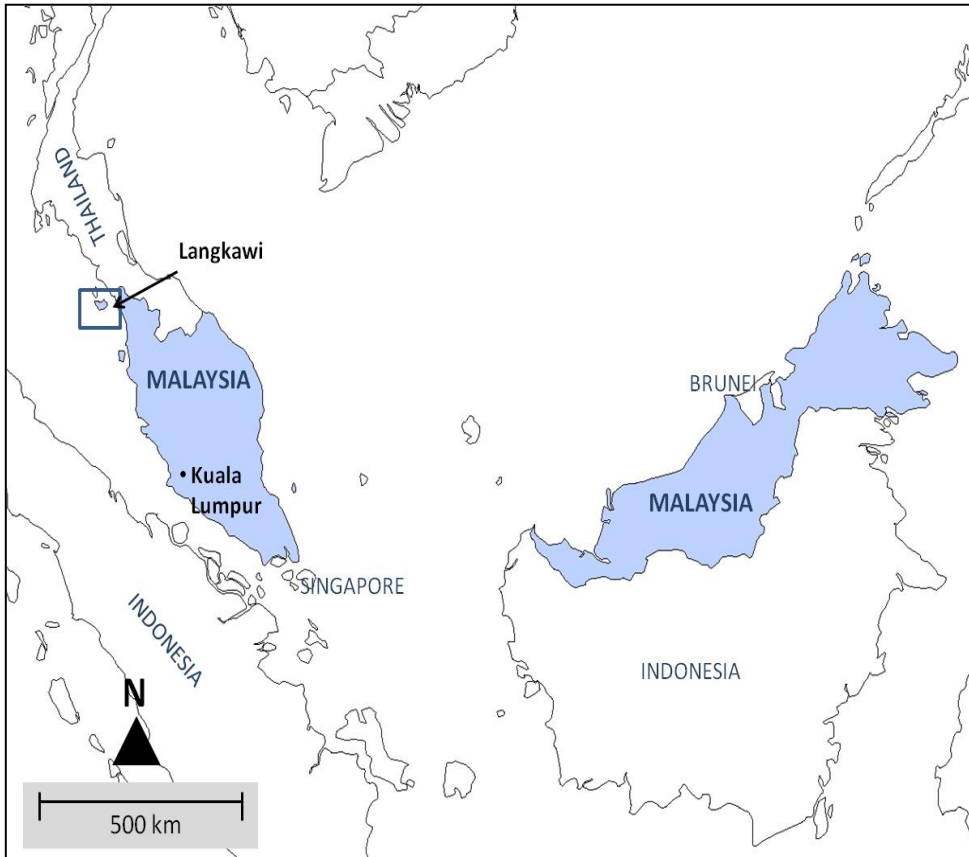


Figure 2 – Map of Langkawi Geopark and surrounding areas of Malaysia, Thailand and Indonesia

The development of Langkawi Geopark comprises of three main components, as illustrated in Figure 3. These components consist of conservation, tourism and societal well-being. Similar to other conservation efforts, such as World Heritage Sites, protected areas and parks; the feasibility and success of a geopark will only be realised if local communities benefit from its establishment and participate in building harmony between people and nature (Anyaku and Martin, 2003). Thus, geoparks' management plans give emphasis to inclusive elements, particularly in engaging local community involvement in conservation efforts to take ownership of resources and locations that are deemed to contribute positively to their better living (McKeever, 2009). In this sense, geoparks could be identified as one process amongst many for achieving the goals of sustainable development. They promote a holistic way of integrating conservation initiatives that take into consideration elements of sustainable resource utilisation, provision of infrastructure and local socio-economic development, as well as well-being (Figure 3).

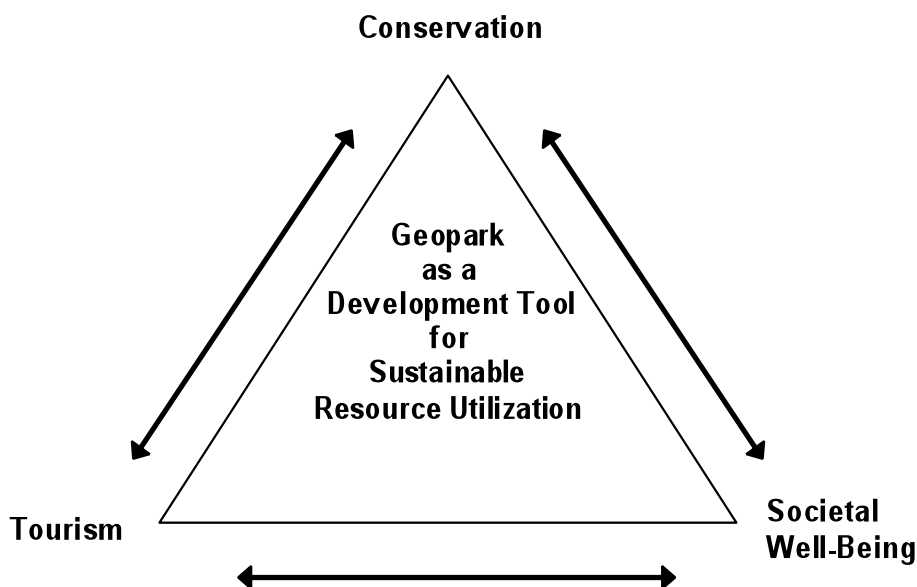


Figure 3 – The Geopark and its main components

## 2. Basic Concepts of Marginality

There are many interpretations and perceptions of the meaning of the terms 'marginality' and 'marginal regions' (Cullen and Pretes, 2000). In this article, in order to illuminate the situation faced by the Langkawi island community, interpretations and understandings of marginality are based on economic and social constructions. The traditional view of interpreting a marginal region, as observed from the economic position, indicates that a region is deemed marginal when it is located at a significant distance from markets; is dependent on primary resources; has a small and sparse population; and is not politically or economically autonomous. The literature on marginal regions by scholars often adopts a centre/periphery model to analyse marginal regions (Terluin, 2003; Wanmali and Islam, 1995). In this model, the centre is a non-marginal region that is surrounded by a marginal 'periphery'. In a way, the characteristics of islands adhere to the marginal region description. As Bass and Dalal-Clayton (1995) illustrate, the remoteness of islands, and particularly their geographic isolation within and between countries, can significantly limit economies of scale.

In order for an island community to achieve its development potential, marginality should be understood in both 'hard' and 'soft' terms. Viewing its marginality as a social construction links the economic concept of marginal regions to a broader concept of marginality. In this regard, social construction perceives marginality as a power relationship between a group viewing itself as the 'centre', and minorities and non-members as marginal or 'others'. It is never solely an economic phenomenon. For example, Hudson (2005) notes that the cultural dimension of marginality derives from the 'cognitive lock-in' situation; and during periods of economic downturn it is possible that:

*the regional economy becomes stuck in established practices and ideas, and networks of embeddedness...that no longer yield increasing returns, and may*

*even induce negative externalities. The 'strong ties' that were previously a source of cumulative economic success becomes a source of weakness. (Martin and Sunley, 2006: 416)*

The constraints facing such islands are often highlighted, such as their size, insularity, limited market diversification and restricted access to external capital (Commonwealth Secretariat et al, 2000). Even though many islands are still in intrinsically isolated places, Cambers (2006) emphasised that most of them are part of island groups and chains and can be accessed via air or sea transport. These same characteristics of marginalisation and isolation could provide significant advantages too; for instance, as Bass and Dalal-Clayton (1995) note, in the face of such vulnerabilities the presence of traditional and/or community-based "subsistence affluence" systems of production are important and, may be sustainable in the face of many island constraints.

Defining 'others' as marginal is relevant to island contexts due to the high exposure of island ecologies, economies and societies to external influences and the low capacity for adjustment in relatively small, resource-poor islands. Such island characteristics, consisting of vulnerability, remoteness, isolation and economic dependency are fundamental parameters for small island development. As Ferguson notes:

*When we say marginal, we must always ask, marginal to what? But this question is difficult to answer. The place from which power is exercised is often a hidden place. When we try to pin it down, the center always appears to be somewhere else. Yet we know that this phantom center, elusive as it is, exerts a real, undeniable power over the whole social framework of our culture, and over the ways we think about. (1990: 9)*

As Shils (1975) observes, there is a centre and periphery within a community that impinges in various ways on those who live within the ecological domain in which the society exists and which is constituted through its relationship to this central zone. Therefore, in order to understand marginality, one needs to take into consideration whose perspectives matter, particularly when the centre/periphery model is used in assessing marginality. Responding to these observations, the next sections of this article present the research setting for the project the researcher-authors have undertaken, examine livelihoods and ways of bridging marginality, and propose a way forward.

### 3. Research Setting

The research drawn on in this article is based on several periods of fieldwork in Kilim, Pulau Tuba and Padang Mat Sirat between 2004 and 2007. These localities are the setting for examining livelihood assets and local participation in Langkawi's socio-economic activities. In addition, information was also collected in association with scientific expeditions held in the study locations. The expeditions were organised by the Langkawi Research Centre (PPL), of the National University of Malaysia (UKM). The main objective of the scientific expeditions was to establish an information database and to enrich knowledge on the island in three main areas, namely in terms of socio-economy and cultural heritage, biology and marine environments, and geological landscapes. They have served as important academic exercises designed to provide guidelines and supportive material in assisting sustainable planning and policy making on the island.

Geographically, Padang Mat Sirat and Kilim are situated on the main island of Langkawi, while Pulau Tuba is situated off the main island (Figure 4). In Padang Mat Sirat, research covered a total of 378 households (1,818 individuals from four villages); in Kilim, seven villages (505 households) with a population of 2,264; and on Pulau Tuba, research covered sixteen villages (437 households, 1,890 individuals). Research material was gathered using quantitative and qualitative methods. Data was collected in two phases – the second phase allowing the checking of data from the earlier phase and the filling of gaps. Data was collected through quantitative semi-structured questionnaire-based interviews, in order to conduct needs assessment on demography, socio-economic status, ownership and assets. The coding and analysis of questionnaire-based interviews were carried out using SPSS statistical software. Observation and in-depth interviews with local leaders and key informants, such as the Village Security and Safety Council (JKKK), entrepreneurs, a women’s group, influential elders and district officers were also used. Two main questions were posed in order to illuminate the situation: what type of participation was observed? And are the locals ready, given their capacity and capability, to take up the challenge of living in conditions of mainstream development?

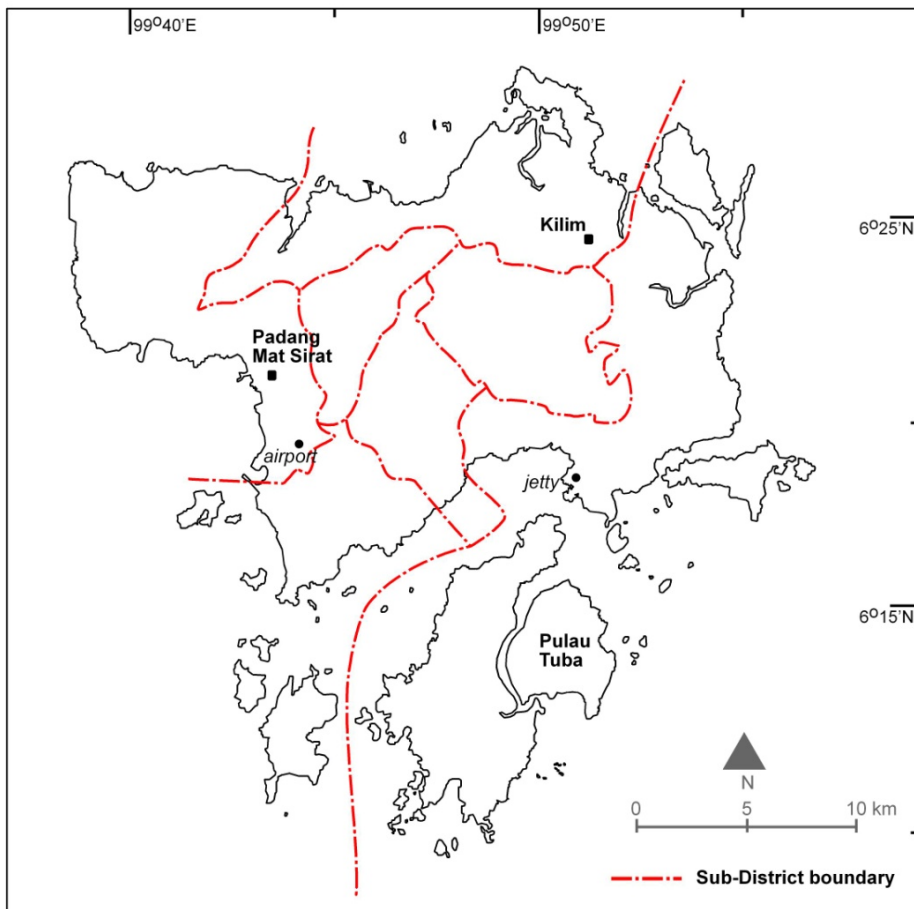


Figure 4 - Map of Langkawi Island showing the three localities addressed in the article

The study examined the degree of marginalisation of Langkawi’s livelihood assets, particularly with regard to human, social, physical and financial capital. Livelihood assets and local participation in socio-economic activities are discussed based on types of employment, unemployment rate, educational attainment, level of skills attainment and average household income. Analysis of findings in Kilim, Pulau Tuba and Padang Mat Sirat are compared to demonstrate any similarities or differences of situation between the main island and the other smaller islands.

In this section, the working age-group population (15-64 years old) will be discussed. Working age-group population is defined as productive population of 15-64 years old (Department of Statistics Malaysia, 2008). Langkawi’s working age-group population was estimated at 44,571 in the year 2000. For Padang Mat Sirat, the estimated working age-group population was 1,142, Kilim 1,348 and Pulau Tuba 1,120 (Table 1).

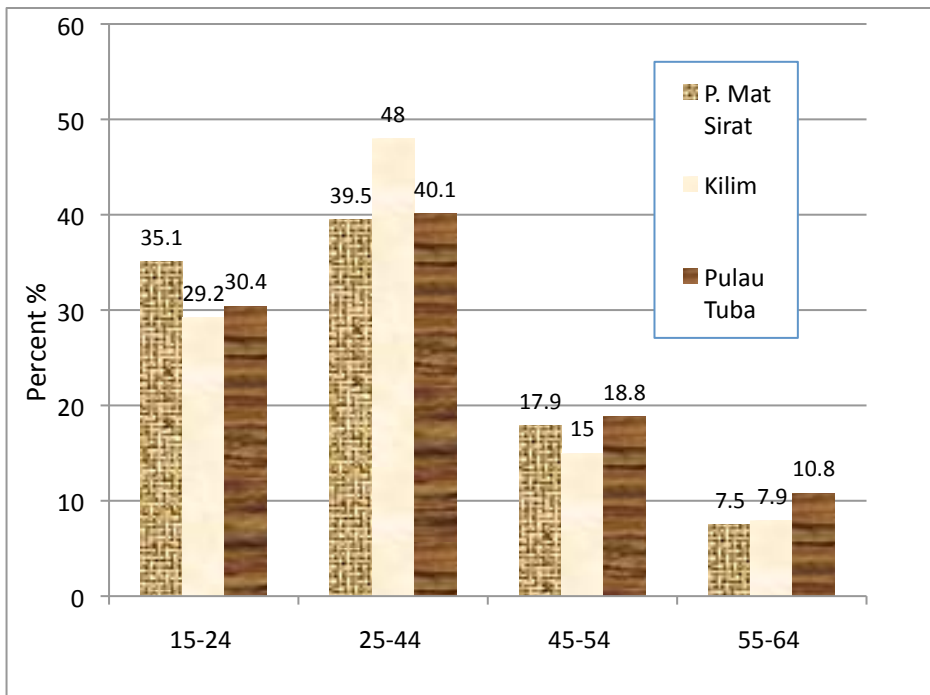


Figure 5 - Working age-group population (in percentages)

#### 4.1. Livelihood assets: Human Capital

##### a. Educational attainment

In Padang Mat Sirat and Kilim, 60.9% and 55.6% of the population, respectively, have completed secondary education as their highest education attainment, while in Pulau Tuba, 59.1% completed primary education as their highest education attainment (Table 1). Based on observation and interviews from these three locations, improvement in educational



attainment was evident in age-cohort respondents born in 1980-1990, most of whom have completed their formal education. However, the incidence of those who have not received any formal education is more prevalent for respondents in the age-cohort born in 1960 and below. Another sign of improvement in educational attainment was also observed with regard to tertiary education (ie college and university) enrolment for respondents in the age cohort of those born in 1980-1990, even with a relatively small percentage. As shown in Table 1, 7.4% respondents in Padang Mat Sirat have received tertiary education as compared to 5.8% in Kilim and 1.8% in Pulau Tuba.

	Did not attend school	Primary	Secondary	College/ University	Others	Total
<b>Padang Mat Sirat</b>						
Total	5.3	26.0	60.9	7.4	0.3	100 (n=1142)
Men	3.6	25.4	64.8	6.2	0	100 (n=532)
Women	6.9	26.6	57.5	8.5	0.5	100 (n=610)
<b>Kilim</b>						
Total	4.7	34.0	55.6	5.8	0	100 (n=1348)
Men	2.8	33.4	59.3	4.5	0	100 (n=644)
Women	6.4	34.5	52.1	7.0	0	100 (n=704)
<b>Pulau Tuba</b>						
Total	8.3	59.1	30.6	1.8	0.2	100 (n=624)
Men	7.9	62.4	28.2	1.2	0.2	100 (n=471)
Women	9.8	49.0	37.9	3.3	0	100 (n=153)

Table 1 Educational attainment in three different localities

b. Type of skills documented

Human capital represents the skills, knowledge, ability to labour and good health that together enable people to pursue different livelihood strategies and to achieve their livelihood objectives. Identifying and understanding the level and type of skills available in the local population assists relevant agencies and authorities to ensure development plans brought into their areas are suitable according to the readiness, capacity and capability of the community. As shown in Table 2, literacy is clearly valued as the highest skill attained in Padang Mat Sirat (94.7%), Kilim (97.3%) and Pulau Tuba (79.1%). Malaysia has made enormous strides in its education system over the past years with the current adult literacy rate at around 92% (Tenth Malaysia Plan, 2010). The high percentage also implies a high

level of literacy achieved as a result of a reliable primary education system (EFA UNESCO, 2000). The term ‘literacy’, as used by UNESCO, refers to the ability to read and write with understanding. However, for the purpose of the study a proxy indicator for literacy was used that includes ‘has reading ability’ or ‘can read’, ‘has formal education’, or ‘has at least some form of informal education’. The level of educational attainment has improved particularly for Padang Mat Sirat and Kilim. For Padang Mat Sirat and Pulau Tuba, agricultural based activities were the second ranked skill, while in Kilim, fluency in other languages was second highest, with 29.8%, and third was agricultural activities with 17.9%.

Type of skill	Padang Mat Sirat (n=584)	Kilim (n=704)	Pulau Tuba (n=153)
Literacy	94.7	97.3	79.1
Fluent in other languages	26.5	29.8	4.6
Arts and crafts	13.4	16.3	6.5
Agriculture	33.7	17.9	34
Technical/vocational	17.5	2.3	-
Entrepreneurial	12.2	5.9	8.5
Tourism-based activities	3.9	1.8	3.3
Others	0.5	0.14	0.7

Table 2 - Type of skills observed at three different localities

#### 4.2 Livelihood assets: Social capital

Social capital has been defined in a number of different ways (Putman, 1995a; Coleman, 1988; Bourdieu, 1985 etc.). Following Putnam, one of the most well-known proponents of the term, social capital is defined as the “features of social organisation such as networks, norms, and trust that facilitate co-ordination and co-operation for mutual benefit” (Putnam, 1995a: 66). Putnam has also identified those forms of social capital that relate to civic engagement as “people’s connection with the life of their community” (1995b: 665), focusing on formal networks such as membership in neighbourhood associations, choral societies, sports clubs etc.

In Langkawi, forms of social capital can be observed through social networks that give people access to information and contacts that can potentially help them (eg income generation opportunities and sources of social support). Table 3 briefly illustrates forms of social capital based on five types of social networks: socio-economic, education, religion, politics and unity-based. It was observed that these social networks provide a platform for a local community to instil trust and a sense of belonging through their participation in networks and the existence of support within them.

During interview session with respondents, when asked if they were members of any of the formal social networks mentioned in Table 3, almost all participants responded that they were members of at least one type of network stated. One of the characteristics of island communities is ‘togetherness’ and the passion to protect traditional values on Langkawi is manifest, for instance the commitment to *semangat gotong royong* – the joint bearing of burdens resulting from social events like weddings, safety matters, funeral and religious

affairs etc. Participation in these formal social networks can be seen as an extension and institutionalisation of the cultural values embedded within islanders' everyday lives. The importance of *semangat gotong royong* in Langkawi is similar to the practice in Indonesia identified by Geertz:

*An enormous inventory of highly specific and often quite intricate institutions for effecting cooperation in work, politics, and personal relations alike, vaguely gathered under culturally charged and fairly well indefinable value-images - rukun ("mutual adjustment"), gotong royong ("joint bearing of burdens"), tolong-menolong ("reciprocal assistance") - governs social interaction with a force as sovereign as it is subdued. (1983: 211)*

<b>Types of organisations</b>	<b>Organisations</b>
<b>Socio-economic-based</b>	Micro-credit scheme ( <i>Amanah Ikhtiar Malaysia</i> ) Community-based resource management (CBRM) Women's Economic Group One village One Product Initiatives
<b>Education-based</b>	KEMAS for pre-school children Parents and Teachers association
<b>Religious-based</b>	Funeral fund Mosque or Musholah Committee
<b>Political-based</b>	Village Safety and Development Committee (JKKK)
<b>Unity-based</b>	Visionary Village Movement (GDW) RELA Rukun Tetangga

Table 3 - Forms of social capital-based organisations

In a sense, the activities carried out together create an environment of altruism and obligation, a social environment where people cooperate to achieve ends, creating a web of social trust and stability. An example of this is apparent in the form of the group capacity encountered in the study sites that involves collective initiatives through rotating savings and loan groups known as *main kutu*. In Indonesia, a similar concept is called *arisan*. *Main kutu* constitutes a form of bonding social capital that mostly acts as a safety net rather than as a catalyst for local development.

Another important aspect of social capital relates to accessibility to resources and facilities. Table 4 provides an inventory of infrastructure provided in Padang Mat Sirat, Kilim and Pulau Tuba. Overall, Padang Mat Sirat has all the infrastructure listed, however Pulau Tuba still needs further improvement, particularly in the provision of public telephones and mobile phone coverage, proper garbage disposal systems, public transport, drainage and a post office. It is important to note that although similar infrastructure may be provided, it may not be of similar quality and quantity, depending upon geographical location, needs assessment and state allocation.

Type of infrastructure	Padang Mat Sirat	Kilim	Pulau Tuba
Piped water	√	√	√
Electricity supply	√	√	√
Public telephone and mobile phone coverage	√	√	X
Tar road	√	√	√
Jetty	√	√	√
Public transport	√	√	X
Village clinic/Midwife	√	√	√
Primary school	√	√	√
Secondary school	√	√	√
Post office	√	√	X
Police station	√	X	√
Community Hall	√	√	√
Mosque	√	√	√
Motel/Chalet	√	X	√
Garbage disposal	√	√	X
Sewage treatment	√	√	√
Drainage	√	√	X
Shophouses	√	√	√

Table 4 - Infrastructure available in Padang Mat Sirat, Kilim and Pulau Tuba

#### 4.3. Livelihood assets: Financial capital

According to the Tenth Malaysia Plan (2010), participation rate is the number of people in the labour force divided by the size of population of working age. The labour force is defined as the number of people employed plus the number of unemployed but seeking work. Meanwhile, the unemployment level is defined as the labour force minus the number of people currently employed. The unemployment rate is defined as the level of unemployment divided by the labour force. Therefore changes in the labour force are due to natural population growth, net immigration, and retirements from the labour force. Changes in unemployment depend on inflows made up of non-employed people starting to look for jobs, employed people who lose their jobs and are looking for new ones, or people who stop looking for employment. It was reported that participation rate for the whole of Langkawi is 56% with an unemployment rate of 8.7% (KRTDL, 2000). Figure 6 indicates the participation and unemployment rate observed for Padang Mat Sirat (where the participation rate was 54.6% with an unemployment rate of 6.3%). In Kilim the participation rate was 54% with an unemployment rate of 7.8%, while in Pulau Tuba the participation rate was 55.7% with an unemployment rate of 18.4%. In relative terms, women's participation in the formal wage-labour force is lower than men's participation, particularly in Pulau Tuba, where the women's unemployment rate was the highest observed (42.5%). The unemployment rate for the country was stated at 3.1% and participation rate at 62.5%, while for the State of Kedah, the unemployment rate was observed at 4.3%, and participation rate at 58.6% (Department of Statistics Malaysia, 2010).

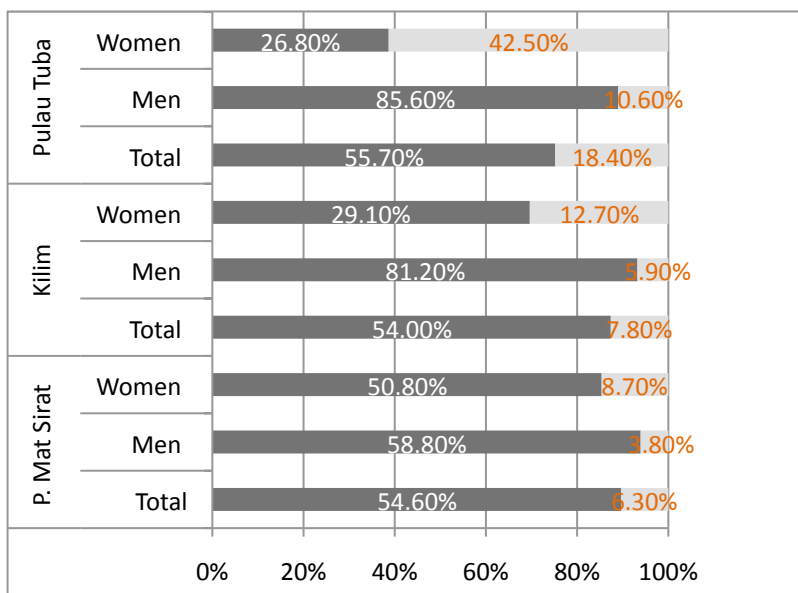


Figure 6 - Participation and unemployment rate (in percentages – black: participation; grey: unemployment)

a. Types of employment based on sector and female respondents within the working age-group population

The inception of Langkawi as duty free zone in 1987 impacted on the structure of business and trade patterns. Opportunities for businesses to prosper by selling duty free goods, such as chocolates, household appliances and cigarettes, have made Langkawi island a ‘shopping paradise’ in Malaysia. The influx of tourists, both local and international, and the related infrastructural development, have transformed the island landscape from a sleepy fishing area into an urbanised, mainstream development. The main employment pattern in Langkawi has shifted from the traditional sector to service and sales oriented activities, ie secondary and tertiary sectors (Langkawi Local Development Plan, 2001-2015). As shown in Table 4, the predominant employment pattern involved the wholesale sector, grocery operations, hotels and restaurants, followed by the service and transportation sector, and then agriculture, forestry and fisheries. There was no significant difference in employment patterns between Padang Mat Sirat, Kilim and Pulau Tuba. This indicates that even though Pulau Tuba is situated off the main island, a higher percentage of working age-group population travel to the main island to access job opportunities.

Sector	Padang Mat Sirat	Kilim (n=179)	Pulau Tuba (n=88)
Agriculture, Forestry, Fisheries, Livestock rearing, Cottage industries.	17.5	12.3	27.3
Production, Processing	4.5	5.1	3.4
Wholesale, Grocer, Hotel, Restaurant	39.6	40.2	31.8
Service, Transportation, Others	38.5	2.3	37.5

Table 4 - Employment sector in three localities on Langkawi Island

*Mean of households income from main occupation for Kilim and Pulau Tuba (in percentages)*

In Kedah, the poverty incidence for 2000 was 13.5%, which ranked fourth when compared with other states in Malaysia (Kedah Maju Action Plan, 2001). In the case of Langkawi, it was reported by Kedah Development Authority (KEDA) that the number of people below the poverty line reduced from 812 in 1990 to 58 in 2000. However, it is important to note these figures are only based on those who had received some forms of assistance, such as from the Department of Welfare, Kedah Development Authority (KEDA) and the District office.

The mean of total households' income (Table 5) is generally associated with levels of educational attainment and types of employment. The mean of total household income in Padang Mat Sirat was RM 1,383, and in Kilim was RM 1,277.39. Generally, the Kilim poverty incidence rate was stated at 18.4% (Yusoff and Omar, 2005). The mean of total household income in Pulau Tuba was RM 609.91. The Pulau Tuba poverty incidence rate was 69.2%. The stark contrast observed in poverty incidence rate between both areas is an indication of the main island development, particularly from the centre of development activities, which disperses few spill-over benefits to the nearby populations of adjacent islands. Comparing the expenditure and savings between Padang Mat Sirat and Pulau Tuba, the latter indicated higher trends of expenditure rather than income. However, there are savings involved. For both areas, the three main items of expenditure were food and groceries, transportation and schooling expenses.

Interviews held with a group of local leaders in the villages found that local participation in tourism development activities is still minimal. A local leader and a fisherman shared his views:

*When 1987 Langkawi was declared as duty free, it was a sudden thing for us, many of us were unable to fully seize opportunities because of the lack of knowledge in the area. (pc May, 2006)*

The general lack of the required skills among local people is one of the factors hindering their ability to compete and improve their livelihoods in mainstream development. The positive benefits to the local residents, in both economic and social terms, become minimal simply because of their lack of involvement in tourism developments, as well as their inability to respond to the new employment opportunities brought by tourism.

	<b>Padang Mat Sirat</b>	<b>Kilim</b>	<b>Pulau Tuba</b>
Total average household income per month	RM 1383	RM 1277.39	RM 609.91
Expenditure	RM 1262.41	-na-	RM 631.14
Savings	RM 211.26	-na-	RM 121.05

\*Note: USD 1 = RM 3.10 (January 2011)

Table 5 - Mean of total household monthly income

## 5. Assessing Livelihoods

Assets are, in this sense, not just things that people have; they are also sources of their power, as suggested by the sustainable livelihoods framework (Bebbington, 1999; Scoones, 1998). The sustainable livelihood framework suggests that livelihoods can be understood as the ways in which people transform several types of capital (human, financial, social, natural, and physical) into livelihood outcomes. Therefore, assets ownership is viewed as the basis of a livelihood. This provides the basis of individual or collective capacity to resolve a problem based on the nature of their skills, networks and financial resources. Major findings from this study consist of three main issues: tourism and its trickle-down effect, development in transition, and the geopark as a potential tool for development.

### 5.1 Tourism and its trickle-down effect

Clearly, based on results from Padang Mat Sirat, Kilim and Pulau Tuba, 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. Tourism development also affects men and women differently, particularly in terms of participation. In particular, the low percentage of women's participation in salaried work from both areas must be addressed by relevant agencies in order to take up appropriate measures to optimise productivity and the sustainability of women's working age-group population. Several examples from island community studies indicate similar situations whereby island women have lost traditional productive roles but have not been incorporated into employment in the modern sector as fully as men (Wilkinson and Pratiwi, 1995; Monk and Alexander, 1986). Further studies need to be undertaken to assess the contribution of women working in the informal sector.

The result observed from participation based on types of employment suggests little movement in terms of upward mobility. Even though respondents born in age cohort groups born in 1980-1990 have received higher formal education than those born in 1960, the majority of them are employed as workers in sales and service sectors with low income. Although the provision of accommodation for tourists creates employment in hotel and guest houses, the better paying skilled positions are likely to be held by people who have come from outside the area. Training opportunities for locals are few; instead, they hold lower skilled jobs that are poorly paid. The better educated and skilled are liable to be advantaged whereas the unskilled and less educated are likely to be disadvantaged. Consequently, their opportunities for social mobility are limited and they are more likely to wind up in the same social status as their parents who worked in self-sustained economy.

The unemployment rate was significantly high for both areas, especially for Pulau Tuba (18.4%) due to its location off the main island. Investment efforts, either by government or private sectors, are needed to revive present economic activities with diversified concepts that are appropriate, depending on types of skills available from the local community. The labour force participation and unemployment rate indicate that the marginal region concept applies for Pulau Tuba; in most cases the locals are excluded from the trickle-down effect received by the locals on the main island.

It is difficult to disentangle elements of education, skills, employment and income when thinking about participation and sustainability. The challenge to ensure effective participation and sustainability is a multifaceted one which requires commitment from individuals, the

community and development agencies. Proper mechanisms and good governance within relevant agencies, such as LADA and the District Office, need to be instilled to channel suitable socio-economic-driven projects to improve local livelihoods and to encourage bottom-up participation among locals by empowering them in the development and planning processes.

## 5.2 The Geopark as potential tool for development

This section attempts to discuss the relevance of Langkawi's recognition as the 52nd member of the UNESCO Global Geopark Network in 2007 with regard to bridging community marginalisation as well as enhancing livelihood sustainability. The geopark concept is defined as one of the sustainable development tools that can ensure balance between three main elements, namely: conservation of heritage resources; development of tourism and infrastructure; and enhancement of local participation and socio-economic development (Komoo and Patzak, 2008). The idea of geoparks was essentially initiated by the resolution adopted during the UN Conference on Environment and Development held in Rio de Janeiro in 1992 (UNESCO, 2000). Geopark conservation provides an alternative to other heritage conservation 'packages', for instance World Heritage Site listing. It is a concerted effort that aims to combine the relationship and interaction between socio-economic and cultural development with the conservation of natural environment and resources.

The Langkawi Development Plan (2005-2010) advances a conceptual mechanism to achieve sustainability in terms of local community well-being, provision of infrastructure and basic facilities (as well as sustainable utilisation of resources for the purpose of development). In one way, the amalgamation of the geopark concept with existing development and structural planning can only enhance the objective of achieving sustainable utilisation of resources for Langkawi. For instance, local labour resources have been seen as able to provide labour inputs. However, with the concept of the geopark in mind, the issue of local resources could be addressed in a strategic and innovative manner, one that aimed to increase capacity-building for better livelihood and quality of life.

While Langkawi is now a leading island tourist destination in Malaysia, with a strong base in terms of infrastructure provision and basic amenities, there are issues of sustainability that need to be addressed, particularly in terms of natural and socio-cultural resource conservation as well as the enhancement of local people's livelihoods. In this regard, the holistic concept of the geopark, which includes components of conservation, tourism infrastructure provision and societal well-being, has the potential to demonstrate ways of bridging marginality with regard to local capacity and capability of participating in development activities. The geopark can thereby further assist in understanding the dynamics of island communities, as emphasised by McCall (1994) in the concept of nissology, in order to study islands on their own terms.

The Kilim Geoforest Park is an example of a pilot project for improving local livelihoods that has shown early signs of success, particularly in providing innovative job opportunities for local people, such as fishermen participating in tourism as nature guides and boatmen. Local fishermen in Kilim have set up their own Fishermen's Co-operative, working together with local authorities to manage natural resources, ensuring their carrying capacity and improving the socio-economic conditions of the local community. These activities are in-line with geopark components and have the potential to strike a balance between conservation and development.



As mentioned earlier, participation in the regional work force is still relatively limited in terms of income and levels of skills. As a result, this situation requires further attention in order to build local community capabilities to participate in and benefit from tourism activities. In terms of location, the lowest participation in the workforce was observed in Pulau Tuba (as compared to Kilim and Padang Mat Sirat). The geopark thereby has the potential to assist underdeveloped regions, such as Pulau Tuba, particularly in the provision of basic amenities and infrastructural facilities. Through geopark activities several existing natural assets, such as the Wang Buluh and Wang Lebah caves, have been developed to bring more tourists to Pulau Tuba. These new products are able to complement existing assets to better showcase the area as well as uplifting local livelihoods.

Although the geopark is still a recent phenomenon in the hearts and minds of locals in Langkawi, encouraging signs can be observed from local support for geopark-based activities at village and school levels. Therefore more concerted efforts should be carried out by local agencies, particularly Langkawi Development Authority (LADA) District Office, together with researchers from universities, to enhance awareness, increase understanding, knowledge and appreciation of the geopark and its benefits.

## 6. The way forward

This paper draws attention to the need for future research to track changes that have occurred since Langkawi was recognised as Geopark in 2007. One of the ways to track the changes is through understanding the economic and cultural background of the local community. Understanding local needs and assets based on human, physical and social capital would illuminate critical aspects of the capacity to strive towards achieving a better quality of life. Indirectly, these will have an impact on how locals respond and may instil a sense of belonging and dedication towards realising the geopark as a potential tool in bridging marginality on the island. To translate the geopark concept into action, a set of programmes have been initiated and planned (short, medium and long term) through collaboration between university researchers, responsible institutions (eg Langkawi Development Authority), the local community, schools, hoteliers and tourism operators. These programmes are in the forms of interpretation panels, educational programmes involving experiential learning, a public education module specifically design for stakeholders, as well as training programmes for local nature guides. The actual impact of geopark-based programmes should be monitored to guarantee continuity and ensuring participation by all stakeholders in the community is critical for successful implementation.

Acknowledgements - We would like to express our sincere gratitude to Langkawi Research Centre, LESTARI, UKM, for their funding assistance. We thank Emeritus Prof Chamhuri Siwar, and Lim Choun Sian for his technical support in preparing the figures. We are also grateful to our local informants, especially members of the Fishermen Economic Group: Pak Dali, Pak Che Det and the women's economic group: Che Embon and Che Limah, for their warm hospitality and continuous support. Thanks also to Langkawi Development Authority (LADA) for logistic help.

## Bibliography

- Anyaoku, C.E and Martin, C (2003) 'Parks and participation', *UNEP Our Planet* v14 n2: 14-15
- Bass, S and Dalal-Clayton, B (1995) Small island states and sustainable development: Strategic issues and experience, *Environmental Planning Issues*, n8 September

Bebbington, A, Dharmawan, L, Fahmi, E and Guggenheim, S (2006) 'Local capacity, village governance, and the political economy of rural development in Indonesia', *World Development* v34n11: 1958-1976

Bourdieu, P (1985) 'The forms of capital', in Richardson, J.G (ed) *Handbook of Theory and Research for the Sociology of Education*, New York: Greenwood

Cambers, G (2000) 'Islanders' Perspectives on Sustainable Living', *Island Studies Journal* v1n1: 125-142

Chambers, R and Conway, G.R (1991) *Sustainable rural livelihoods: practical concepts for the 21st Century*, Institute of Development Studies IDS Discussion Paper n296

Coleman, J.S (1988) 'Social capital in the creation of human capital', *American Journal of Sociology* n94: S95-S120

Commonwealth Secretariat and The World Bank (2000) *Small states: Meeting challenges in the global economy*, London: Report of the Commonwealth Secretariat/World Bank Joint Task Force on Small States

Cullen, B and Pretes, M (2000) 'The meaning of marginality: Interpretations and Perceptions in Social Science', *The Social Science Journal* v37n2: 215-229

EFA UNESCO 2000. Country Report: Malaysia, online at:  
[http://www.unesco.org/education/efa/efa\\_2000\\_assess/index](http://www.unesco.org/education/efa/efa_2000_assess/index) - accessed January 2011

Ferguson, R (1990) 'Introduction: Invisible center', in Ferguson, R, Gever, M, Minh-ha, T.T and West, C (eds) *Out There: Marginalisation and Contemporary Cultures*, New York: The New Museum of Modern Art: 9-14

Geertz, C (1983) "From the Native's Point of View": On the Nature of Anthropological Knowledge', in Geertz, C *In Local Knowledge: Further Essays in Interpretive Anthropology*, New York: Basic Books: 55-70

Helmore, K and Singh, N (2001) *Sustainable livelihoods - Building on the wealth of the poor*, Bloomfield: Kumarian Press

Hudson, R (2005) 'Rethinking change in old industrial regions: reflecting on the experiences of North East England', *Environment and Planning A* v37n4: 581-596

Jackson, R (2006) 'Bruny on the Brink: Governance, Gentrification and Tourism on an Australian Island', *Island Studies Journal* v1n2: 201-222

Kajian Rancangan Tempatan Daerah Langkawi (KRTDL) (2000) *Penilaian Sosioekonomi i* ('Socio-economic assessment'), Langkawi: Majlis Perbandaran Langkawi

Kedah State Economic Planning Unit (2001) 'Kedah Maju Action Plan', Wisma Darul Aman: Kedah State Economic Planning Unit

Komoo, I and Patzak, M (2008) 'Global Geoparks Network: An Integrated Approach for Heritage Conservation and Sustainable Use', in Leman, M.S, Reedman, A and Chen, S.P (eds) *Southeast and East Asia Geoheritage Conservation*, Bangi: LESTARI UKM: 1-13

Leman, M.S, Abd Ghani, K, Komoo, I and Norhayati, A (eds) (2007) *Langkawi Geopark*, Bangi: Penerbit LESTARI, UKM

Liu, A (2006) 'Tourism in rural areas: Kedah, Malaysia', *Tourism Management* v27n5: 878-889

Martin, R and Sunley, P (2006) 'Path dependence and regional economic evolution', *Journal of Economic Geography* n6: 395-437

McCall, G (1994) 'Nissology: The study of islands', *Journal of the Pacific Society* v17n23: 1-14

McKeever, P.J (2009) 'The UNESCO Global Network of National Geoparks: Geological heritage and sustainability', LESTARI Public Lecture n7, Bangi: LESTARI Publications

Monk, J and Alexander, C.S (1986) 'Free port fallout: gender, employment, and migration on Margarita Island', *Annals of Tourism Research* n13: 393-413

Putnam, R.D (1995a) 'Bowling alone: America's declining social capital', *Journal of Democracy* v16 n1:65-78, online at:  
[http://muse.jhu.edu/demo/journal\\_of\\_democracy/v006/putnam.html](http://muse.jhu.edu/demo/journal_of_democracy/v006/putnam.html)) – accessed January 2011

----- (1995b) 'Tuning in, tuning out: The strange disappearance of social capital in America', *Political Science and Politics* n28: 664-683

Royle, S.A (2008) 'From marginality to resurgence', *Shima: The International Journal of Research Into Island Cultures* v2n2: 42-55

Scoones, I (1998) *Sustainable rural livelihoods: A framework for analysis*, Brighton: Institute for Development Studies Working Paper n72

Shils, E (1975) *Center and Periphery: Essays in Macrosociology*, Chicago and London: The University of Chicago Press

The Economic Planning Unit (2010) 'Tenth Malaysia Plan (2011-2015)', Putrajaya: The Economic Planning Unit, Prime Minister's Department

Terluin, I.J (2003) 'Differences in economic development in rural regions of advanced countries: an overview and critical analysis of theories', *Journal of Rural Studies* n19: 327-344

UNESCO (2000) UNESCO 'Geoparks Programme Feasibility Study' (unpublished report by Division of Earth Sciences for the UNESCO's Executive Board at the 161st Session in June 2001), Paris: UNESCO

Wanmali, S and Islam, Y (1995) 'Rural infrastructure and agricultural development in Southern Africa: a center-periphery perspective', *The Geographical Journal* v161n2:149-166

Wilkinson, P.F and Pratiwi, W (1995) Gender and tourism in an Indonesian village, *Annals of Tourism Research* v22n2: 283-289

Yusoff, I and Omar, M (2005) 'Pembangunan Langkawi dan mobiliti pekerjaan penduduk di Lembangan Kilim' ('Langkawi development and employment mobility in the local community in Kilim') in Leman, M.S, Komoo, I, Latiff, A.and Salleh, H (eds) *Lembangan Kilim: Warisan Budaya dan Sumber Asli Langkawi* ('Lembangan Kilim: Cultural and Natural Resources Heritage, Langkawi'), Bangi: LESTARI UKM: 53-79