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Dive tourism and local communities: active participation or passive impacts? Case studies from Malaysia.

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Abstract
For many Less Developed Countries international tourism has long been considered a driver for economic development (OECD, 1967). However, tourism has also been heavily criticised for its negative environmental and cultural impacts and significant economic leakages due to the dependence of many host countries on large trans-national corporations (Mowforth and Munt, 2003). Specialist tourism forms such as eco-tourism or small-scale locally owned tourism have been promoted in response to these criticisms, with benefits advocated for local communities, greater cultural awareness by tourists and more controllable environmental impacts (Weaver, 2001; Scheyvens, 2002; Hampton, 2005).

Using local participation approaches, this Working Paper examines dive tourism as a form of niche tourism and assesses its impacts on local host communities. It investigates whether, or to what extent, active local participation is possible, and how far host communities are merely exposed to ‘passive’ impacts of dive tourism.

The study covered three research locations in Malaysia and revealed that many aspects of local community life were affected by dive tourism. Besides physical changes such as new infrastructure, the study showed varied economic impacts for local communities through the existence (or lack of) employment/business opportunities, and
differing levels of economic linkages, notably the purchase of goods and services between the dive industry and host villages. Local participation varied between locations and a number of obstacles to increased participation were revealed. Furthermore, impacts on local culture and society were observed as well as a lack of participation in possible cultural productions (handicrafts, performances) by local host communities. As a consequence of the dive industry’s initiatives however, positive educational impacts were noted, especially concerning environmental awareness and English language acquisition.

Key words
Dive tourism, local participation, host communities, economic impacts, tourism impacts

1. **INTRODUCTION**
Since the 1960s international tourism has increasingly been seen as a driver of economic development, especially in many Less Developed Countries (LDCs) generating income and employment, and contributing to government revenues and overall national income (OECD, 1967; Lea, 1988). International tourism in LDCs is often spatially concentrated at the coast, ranging from so-called ‘3S’ (sun, sea and sand) mass tourism, to the increasing growth of more active leisure as exemplified by the rapid growth of scuba diving. However, despite its fast growth, a crucial question arises: do the economic, environmental and social effects of dive tourism ultimately benefit the local host community in LDCs or do the costs outweigh them? This fundamental question lies at the heart of this research that specifically examined international dive tourism in three tourism-dependent coastal communities in Malaysia. The study focused on local host communities in the research locations. The term ‘local’ therefore in this context refers exclusively to people from the settlements in question and should not be confused with a wider application of the term to include Malaysians from other parts of the country, who might be involved in the dive industry in these destinations.
Using local participation approaches, this Working Paper examines dive tourism as a form of niche tourism and assesses its impacts on local host communities. It investigates whether, or to what extent, active local participation is possible, and how far host communities are merely exposed to ‘passive’ impacts of international tourism. The paper first examines the key concepts and literature concerning tourism impacts on local communities and participation. The main part of the paper then considers three dive locations and their local communities in Malaysia. These were chosen to represent different types of dive tourism currently available in Malaysia: Sipadan island in the state of Sabah in Borneo as a world class dive site frequented mostly by the foreign high-end, experienced market segment; Redang island on the East coast of peninsular Malaysia as a destination for mostly domestic mass tourism with diving as an ‘add-on’; and the Perhentian islands, also on the East coast but slightly further North of Redang, which mostly attracts backpackers wanting to learn to dive. The paper discusses a range of dive tourism impacts including physical impacts, employment, business opportunities, linkages to the villages, impacts on local culture, and educational impacts. This generates valuable insight into the impacts that occur as a consequence of the different forms of tourism (foreign high-end tourism, domestic mass tourism or foreign backpackers). The final section of the paper offers some conclusions and suggestions for future research directions.

1.1 Tourism impacts on local communities

Whilst tourism is a significant industry in many LDCs it has often been criticised for its varied negative impacts upon local host communities. Mowforth and Munt (2003: 211) noted that “there is a vast body of work that demonstrates that local communities in Third World countries reap few benefits from tourism because they have little control over the ways in which the industry is developed, they cannot match the financial resources available to external investors and their views are rarely heard.” In particular research on mass tourism reveals high levels of economic leakage, domination by large trans-national corporations (TNCs), and weak economic linkage to local communities often with the creation of low-skilled, underpaid jobs (Britton, 1982; Harrison, 2001; Scheyvens, 2002).
Alternative forms of tourism were then advocated as a remedy for these negative impacts of mass tourism so that ‘pro-poor tourism’, ‘ecotourism’ and later different forms of ‘niche’ tourism were expected to create more involvement of, and benefits for, local communities. However, it became recognised that these supposedly less intrusive forms of tourism also created many problems, notably the opening up of new, previously untouched areas for tourism, as well as other observable effects. This was seen in light of Butler’s early work on the tourism area life cycle (Butler, 1980 & 1990; Wheeller, 1991). Yet, some forms of specialist tourism, such as backpacker tourism indeed indicate stronger economic linkages to local communities (Hampton, 1998, 2003; Scheyvens, 2002).

1.2 Marine/dive tourism impacts

Whether through traditional coastal mass tourism or more low-key alternative tourism development, a growing number of coastal communities in LDCs have become dependent upon tourism as a main income source. Local communities - especially in regions where marine parks were established for conservation purposes - often rely solely on tourism, since alternative forms of income generation, such as fish farming or industrial fishing are banned in the conservation zone (Andersson and Ngazi, 1998). As a consequence, specialist coastal tourism forms, such as diving or marine wildlife spotting are of increasing economic importance for these coastal communities.

As a growing form of marine tourism, scuba diving has seen annual increases of on average 12% since the 1970s according to the world’s biggest dive certifier, the Professional Association of Diving Instructors (PADI), which alone had certified nearly 18.5 million divers worldwide by 2009. The Egyptian Red Sea for example, has seen a steep increase in dive tourism, with ten times as many divers arriving now compared with the 1990s (Harriott, 2002; Garrod & Gossling, 2008). Despite this growing popularity, little research exists on dive tourism, with the majority of academic work on the topic originating from the natural sciences. As such it has mostly discussed impacts of diving on the marine environment, or even potential impacts of dive tourism as exemplified by a study carried out in Thailand that focused on potential financial contributions divers could make to support marine parks (Asafu-Adjaye & Tapsuwan, 2008). Broadly, it is
the negative impacts - such as damage to coral reefs – that have been examined (see for example Hawkins et al., 1999; Tratalos & Austin, 2001; Harriott, 2002; Zakai & Chadwick-Furman, 2002; Worachananant et al, 2008). Other negative impacts of dive tourism are similar to those observed for other types of tourism development and include uncontrolled construction of tourist resort towns, environmental degradation through increased volumes of waste and waste water, the displacement of locals from desirable coastal locations or little actual financial benefit to local communities (Orams, 1999; Garrod & Wilson, 2003; Agarwal & Shaw, 2007). Musa (2002) raises concerns over the negative impacts of dive tourism, particularly underlining problems of overdevelopment, noise pollution and increasing litter, whilst Mograbi and Rogerson (2007) conclude that dive tourism in Sewana Bay, South Africa, can contribute to poverty alleviation if some of the current obstacles are overcome, notably a lack of skills and business opportunities for local people.

1.3 Local participation
According to Arnstein (1969: 216) participation by citizens can be described as “the redistribution of power that enables the have-not citizens to be deliberately included in the future. It is the means by which they can induce significant social reform, which enables them to share in the benefits of the affluent society.” Arnstein (1971) developed a typology of community participation with eight different categories: manipulation, therapy, informing, consultation, placation, partnership, delegated power, and citizen control. Pretty’s typology (1995) of community participation identified seven types of participation with an increasing degree of active involvement: manipulative participation, passive participation, participation by consultation, participation for material incentives, functional participation, interactive participation and self-mobilisation. Both Arnstein and Pretty based their categorisation on general development studies without being sector specific. For tourism academics, community participation became an area of renewed research and policy interest after work by Murphy (1991) and Simmons (1994). More specifically for tourism in LDCs, Timothy (1999), Tosun (1999, 2000) and Hampton (2005) discussed problems of local participation. Tosun (1999), as detailed in the table below, created three overall categories based on the models developed by Arnstein and
Pretty, but applied them specifically to the tourism sector. The three categories comprise coercive participation, induced participation and spontaneous participation. Tosun attributed each of Arnstein’s and Pretty’s types into one of these three groups, detailing the characteristics of each group. Based on Tosun’s characteristics, this present research analysed previously identified indicators (see Table 2) and assigned them to one of the groups accordingly in order to assess the overall level of participation in dive tourism of the local communities. A fourth level of participation was identified in this study and due to the frequency of occurrence was considered necessary to be singled out as a separate indicator.
Table 1: Normative typologies of community participation.

<table>
<thead>
<tr>
<th>Level</th>
<th>Typology</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7. Self-mobilization</td>
<td>Spontaneous Participation: Bottom-up; active participation; direct participation; participation in decision making; authentic participation; self planning.</td>
</tr>
<tr>
<td></td>
<td>8. Citizen control</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Delegated power</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Interactive participation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Partnership</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>5. Functional participation</td>
<td>Induced Participation: Top-down; passive; formal; mostly indirect; degree of tokenism, manipulation; pseudo-participation; participation in implementation and sharing benefits; choice between proposed alternatives and feedback;</td>
</tr>
<tr>
<td></td>
<td>5. Placation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Consultation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Participation by consultation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Informing</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2. Passive participation</td>
<td>Coercive Participation: Top-down, passive; mostly indirect, formal; participation in implementation, but not necessarily sharing benefits; choice between proposed limited alternatives or no choice; paternalism, non-participation, high degree of tokenism and manipulation.</td>
</tr>
<tr>
<td></td>
<td>2. Therapy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Manipulative participation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Manipulation</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Non-Participation</td>
<td></td>
</tr>
</tbody>
</table>

Pretty’s (1995) typology of community participation  
Arnstein’s (1971) typology of community participation  
Tosun’s (1999) typology of community participation  

Source: adapted from Fig 1. in Tosun, (2006).
2. DIVE TOURISM AND LOCAL COMMUNITIES.

2.1 Methodology

This study was part of a wider funded international project on the socio-economic and environmental impacts of scuba diving in Malaysia. Previous studies in the field of scuba diving impacts are mostly based on quantitative methods from the natural sciences. However, in order to assess local participation a qualitative approach was considered more suitable for this project. Bearing in mind cultural preferences, and especially the importance of personal conversation, both in the traditional village populations and the ‘laid-back’ dive shop atmosphere, in-depth, semi-structured interviews were regarded to be the most appropriate approach. Thus, after analysing local participation typologies and determining a set of relevant factors to examine in this study, n=139 qualitative, in-depth, semi-structured interviews were carried out in 2008 and 2009 with dive professionals (dive instructors, dive masters, dive master trainees), other dive shop staff (owners, boatmen, receptionists), surrounding linked tourism businesses (accommodation providers, restaurants, shops), members of the local community, local NGOs and other stakeholders. Site mapping was also carried out to highlight physical changes on the islands.

2.2 Locations

Three research sites were chosen to represent different types of dive tourism available in Malaysia: Sipadan island in the state of Sabah on Borneo; and Redang island and the Perhentian islands on the East coast of peninsular Malaysia.

Sipadan is an uninhabited island dive destination with divers’ accommodation on nearby Mabul island and is probably the best-known of all of Malaysia’s dive sites, as the international dive community considers it one of the top dive spots in the world. Until around 2009 diving in Sipadan attracted mainly an upmarket, high-end, international clientele, who stayed in one of a handful of resort hotels on Mabul and consisted predominantly of highly experienced divers. In recent years Semporna, the nearest coastal town to Sipadan, has seen the emergence of dive tourism shops, who cater for a generally younger and less experienced international dive market (often backpackers) as well as providing a lower budget offer that competes with the upmarket services on
Mabul. A couple of lower budget enterprises have also sprung up in Mabul more recently. Interviews were carried out with stakeholders in both Mabul and Semporna.

Redang, in peninsula Malaysia, is a growing dive tourism destination, but is less well-known internationally. It is a popular domestic holiday resort easily accessible from Kuala Lumpur by direct flight connection largely based on standard package tours with diving as an optional offer. The dive tourists there are more varied, but show a higher proportion of domestic divers than the other two sites.

The third research site, the Perhentian islands, also in the peninsula, focus on small-scale beach tourism, targeting the international backpacker market. They are home to many dive shops and their customers are young international tourists keen to learn diving during their extended backpacking trip. They have often just acquired their Open Water dive certification in Thailand or indeed take the first courses in the Perhentian islands.

2.3 Key indicators and discussion
A set of seven indicators (see Table 2) was chosen in order to examine the type of community participation in dive tourism. These indicators were identified with the aim to cover economic, socio-cultural and environmental and physical aspects of possible community participation. Respondents were also asked about direct and indirect impacts of dive tourism as well as their own personal opinions and future outlook, which also mostly centred around these key issues.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Key questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. location of village and dive tourism</td>
<td>How has dive tourism developed?</td>
</tr>
<tr>
<td>2. infrastructure development</td>
<td>Who decides on infrastructure?</td>
</tr>
<tr>
<td>3. employment</td>
<td>Who works in the dive industry?</td>
</tr>
<tr>
<td>4. business opportunities</td>
<td>Who owns the dive shops and associated businesses?</td>
</tr>
<tr>
<td>5. economic linkage</td>
<td>How much do divers spend locally?</td>
</tr>
<tr>
<td>6. impacts on local culture</td>
<td>(In what ways) does dive tourism impact on local culture?</td>
</tr>
<tr>
<td>7. education</td>
<td>(In what ways) does dive tourism impact on education?</td>
</tr>
</tbody>
</table>

2.4 Physical impacts

One immediately observable impact is the actual physical separation between the dive (and other) tourism infrastructure and the islands’ local population. In all three cases the tourism zone did not grow from within the local settlement. The *kampungs* (villages) on Mabul, the Perhentians and Redang are located on one part of each island, whilst the tourism development takes place on beaches elsewhere on the island. In Mabul, due to its small size, the village and the dive resorts are actually adjacent, but separated by a fence. A handful of villagers have set up small accommodation and dive operations in the village catering for a lower spending market segment than the resorts. In Semporna, several hotels are situated near the harbour but more recently, a whole new area of land has been reclaimed from the sea and shop houses were constructed with the purpose of housing tourist infrastructure. A series of new dive operators, a hotel, restaurants and shops opened there. In Redang and the Perhentians the physical separation is even more visible with the dive and associated tourism infrastructure separated by forested areas without even a road connection to most beaches. This physical separation is a first indicator that the development of dive tourism did not come from within the local community, thus putting this indicator at best in the level 2 category of typologies. In the Perhentians, the possibilities for some local Malay families who owned land across the island to utilise this property for tourism developments meant at least some income for locals, which would support this classification (see Hamzah, 1997). It could however also be considered a level 3 type of participation, with no other alternatives available.

Besides the physical separation, further physical impacts on the islands can be noted. The architecture of new buildings that are being constructed for, or as a consequence of, the presence of tourism, such as shop houses or a new police station, stand out for their disproportionately large size in comparison with the surrounding buildings and the materials used (concrete instead of wood) also clash with the local architectural style. Furthermore, logging and land creation for additional space takes place in all three research locations. These infrastructure developments are decided at state government level, that is, not in the actual island communities themselves. Whilst it could be argued that most islanders get a vote in the elections, that in itself cannot be considered active participation in the planning process (Timothy, 1999), placing the
indicator ‘infrastructure developments’ with its top-down implementation into level 3 of typologies. Mabul is unusual in that it is hosting a sizeable population of former refugees from the southern Philippines who had been relocated there under UN auspices and who do not have full Malaysian citizenship, nor voting rights.

The islanders’ views and the views of many of the dive professionals reflect the lack of active community participation in planning. They were worried about the speed of development and rising real estate costs and were sceptical about new building projects. At the same time, villagers generally considered developments such as road building, freshwater pipelines or the construction of wind turbines as signs of modernity and even showed some enthusiasm. It could be argued though that these developments could perhaps be seen as ‘tokens’ to the local population and their effect would also fulfil the aim of tokens, for they generate positive feedback. This again points at a level 3 type community participation.

2.5 Employment
Dive tourism in Malaysia is characterised by a severe shortage of trained local dive staff and thus the necessity of employing international expatriate dive professionals such as Dive Masters (DMs) and Instructors. The supporting tourism industry, that is accommodation providers, restaurants, shops etc. rely heavily on low-skilled labour, a typical point of criticism for the tourism industry overall (Harrison, 2001; Mowforth and Munt, 2003). This labour was often provided by immigrants from South Asia or the Philippines. When asked for the reason behind employing staff from South Asia, one hotel manager in the Perhentians said: “Malaysians can’t adapt to [the] environment here. They can’t stay on [an] island. They are used to town. Here you can’t do anything. They come, start work, go after one month.” The hotel had hired staff from the mainland before with the described result. Hiring locals from the island was often considered problematic by businesses owned by non-island proprietors. A lack of hospitality training (and sometimes laziness) were cited as reasons for this. A Mabul dive resort manager stated that “some locals from the village that approach us get employed as boatboy, boatmen or cleaning personnel or sweepers. Our staff gets in-house training so they can grow.” He also highlighted a particular problem of one of the communities, the Bajau Laut (Sea
People), on the island: “But [the] Bajaus live on the sea, they don't want to learn, they come and leave, want money for their work and then leave.”

Some members of the local communities in all three research locations did nevertheless find employment in both the dive shops and supporting tourism businesses. In the dive shops however, more local people (and more mainland Malaysians) seemed to be employed in Redang and the Sipadan area than in the Perhentians. In Mabul a dive resort manager observed that “staff comes [sic] from Semporna for boatmen and DMs, [and from] KK [Kota Kinabalu] for DMs”. The biggest barrier preventing higher levels of involvement in the dive professions by locals was the cost of training to become a dive master and then dive instructor. The seasonality of the job due to the East coast monsoon seemed to be a further obstacle in peninsular Malaysian islands, as islanders (not unreasonably) prefer year round employment, which normally takes them to the mainland. In addition, there is also a language barrier. PADI training materials are not available in Bahasa Malaysia, so a good level of English is required for those wanting to train. Furthermore, there is a general perception of diving not being a desirable career, with many families preferring their offspring to pursue office based careers instead. As one Malaysian dive shop owner summarised “I’d prefer more local dive masters and local instructors but they are hard to get.”

In addition to the obstacles for local involvement in the dive profession, the availability of international volunteer dive professionals means that dive shop owners have little pressure or incentives to train more local people. These international dive professionals fund their own stays (Daldeniz and Hampton, 2010) and the international dive instructors’ work is based on the commission that they receive from selling dive courses to tourists. These commissions cover their basic living costs at the resorts. International dive masters and dive master trainees are usually entirely self-funded and have often saved up prior to setting out on a long backpacking trip. As a consequence there are few costs for the dive shops if employing international staff, besides on occasion providing basic room and board. This seems to be a vicious circle as the businesses claim they cannot find trained local staff, so they hire expatriate ‘volunteers’, which in turn makes the training of new staff unnecessary.
Nevertheless, the study also revealed examples of good practise where dive shops in all three research locations tried to encourage local people to enter the profession. The classic route taken was to start as a boatman in a dive shop, or become a ‘compressor boy’ and then be offered the training to progress in the dive professions. One dive resort manager told his own story saying: “I start[ed] from [the] bottom. First boatboy, compressor boy and now….“ The study found that dive shop owners, who had progressed in a similar manner were more inclined to encourage local staff to do the same, whilst outsiders, who themselves had taken up diving merely as a leisure activity were less inclined to do so.

Different models of training sponsorship were used: some dive shops had contracts with their employees contracting them for a certain number of years in return for funding their professional dive training, whereas others had set up a wider training scheme with the financial assistance of the Sabah government to train a large number of new dive professionals. Whilst the ‘classic’ route from boatman to dive master was predominantly taken by villagers from the local community, the more elaborate schemes were used by young educated adults from the larger towns in Sabah such as Kota Kinabalu, thus not directly targeting the local host populations in the actual dive destinations.

In some individual cases a proactive bottom-up and initiative-driven participation could be observed especially in the boatman-to-dive master histories. But, in general, the local community’s level of participation through employment was more of a level 2 type participation, and the arrival of dive shops and therefore the surrounding tourism activities were seen as an alternative career path to traditional fishing or emigration to the mainland. In Mabul however, where the village settlements largely consist of a refugee population without formal citizenship and Bajau Laut families, the level of participation can be classified as level 3, as there are no other alternative formal employment possibilities.

2.6 Business opportunities
The ownership of businesses was another key indicator for local participation in this study. In general a low level of local ownership existed in the dive tourism sector.
Locally owned businesses were predominantly small-scale such as cafes, restaurants and guest houses. In addition, there were several micro-businesses, such as souvenir stalls or snorkelling tour operators which have minimal capital requirements and so are open to lower income villagers. The latter however requires a small boat and the purchase of a few sets of cheap snorkelling equipment and inexpensive lifejackets. In the Perhentians, after the building of permanent concrete jetties, under-employed water taxi boatmen started offering snorkelling tours. Redang’s resort hotels, where the dive shops are based, were all externally owned, as were the large resorts in Mabul. Semporna and the Perhentians had one local owner of a dive shop each, but were also dominated by the increasing influence of external investors from elsewhere in the state, or from Kuala Lumpur. Managerial and other senior positions in all research locations were mostly filled by outsiders not by local villagers. Unsurprisingly, where ownership was local, employment and training of local people was encouraged more frequently. To increase local ownership therefore would be beneficial to the wider community.

Considering how few the cases of local ownership are in dive tourism, a classification as non-participation is appropriate. For Tosun (1999) non-participation falls into the group of coercive participation (in Table 1 described as level 3). The absence of participation in this economically crucial aspect of dive tourism is however not imposed or coerced. It merely highlights the lack of opportunity, and above all finance and training that impedes more local involvement. The two locally owned dive shops were financed in the one case by an informal personal loan from an international diver, and in the other by existing family income through ownership of one of the first tourist accommodation bungalows on the island. Therefore it is proposed to introduce a new category in the typology of participation: ‘non-participation’ - due to lack of means and access to training.

2.7 Linkages to villages

In terms of direct economic impacts, the linkages between the dive shops and their supporting tourism infrastructure to the villages were analysed. It was found that large scale provisioning was carried out on the mainland through supply boats, and so the only goods purchased locally were some fish and seafood. Individual dive professionals and
dive tourists stated that they occasionally purchased snacks such as banana fritters when passing through the *kampung* or as one dive instructor on Mabul put it “It’s really bad, but I only go there to buy ciggies”. In Redang and in the Perhentians this might be due to the physical distance between the dive shops and the local community settlement, but in Mabul it can be narrowed down to the all-inclusive character of the dive resorts, which does not encourage staff and tourists to make additional purchases outside. In Semporna, the main beneficiaries of divers’ expenditure were the shops directly in the tourist area of town, but there was also some tourist spend observed at the adjacent local market. The restaurants there also purchased their goods at the local market, making Semporna the research location with most direct economic linkage between local economy and the dive shops.

Besides the economic linkages, social linkages were also examined. It was found that the dive professionals did not widely mingle with the locals, even in Mabul where they lived in close proximity. Only few dive professionals (mostly Malaysian nationals) stated that they visited friends or co-workers, such as boatmen or shop staff, in the village. On occasion, the dive professionals on the Perhentians (mainly expatriates) would frequent the village restaurants for a change from their usual resort or tourist beach food. However the respondents highlighted that that was rather the exception than the rule. Thus, both economic and social linkages between the dive shops and the local communities are minimal and therefore fall into the category of non-participation. At best the purchase of some fish and seafood products on a more regular basis by some of the dive resorts could perhaps be described as tokenism and be classified under level 3 participation.

### 2.8 Impacts on local culture

The study revealed that in similar ways to other forms of tourism, dive tourism shows a range of negative impacts on the local culture, notably through the ‘demonstration effect’ on local young people and adults (Fisher, 2004). Problems mentioned by respondents included drugs, alcohol, crime and some issues over modesty and harassment. Interviewees described cultural tensions between themselves and the locals, often as a result of what could be termed ‘typical tourist behaviour’, that is, excessive alcohol
consumption, partying and sexual liberty. Interviewees stated that whilst such behaviour did not cause trouble as long as it was confined to the tourist beaches and the tourists themselves, problems had arisen when local people joined in, or started to imitate tourist behaviour. This lead to a clash with their own community, notably their families and village elders. As one Malaysian interviewee described, “when foreigners come here the locals copy their style. For example, the bar is for foreigners but the local people join them and consume alcohol”, which causes particular offence to the traditional Muslim population.

At the same time, the traditional cultural goods of the community were not used for income generation. Few cultural shows were organised and if so were often contracted out to dance companies from the mainland. There were no regular events, only some attempts at individual resort level to organise evening performances. Some villagers were of the opinion that the resorts and operators on the tourist beaches would anyhow discourage their guests from going to village activities as it was in their interest to keep the significant evening expenditure on their own terrain, that is, at the tourist beaches.

As far as the sale of handicrafts is concerned, only generic souvenirs and (sometimes illegal) sea products were available for purchase. Most of these were sourced on the mainland and not produced locally. There were no handicrafts or other typically local items sold in any of the research locations. Even the cotton T-shirts with the island name printed on were produced in the mainland.

So on the one hand again we have non-participation of the local community and on the other, a series of negative impacts caused by the demonstration effect of dive tourism.

2.9 Educational impacts
One area that almost all the respondents felt passionate about was environmental education. This matter was particularly close to the heart of the dive professionals, who showed great initiative in organising events to raise environmental awareness in the island communities, often with environmental NGOs such ReefCheck. This was generally well-received, especially amongst the island children, who were the main target of the initiatives. Examples for this type of events include practical activities like
cleaning up the beaches, fun educational activities for children and larger events like the Mabul Marine Day. In Mabul, the dive resorts introduced a zoning scheme on the island, with each resort taking responsibility for garbage clearing in their designated zone.

Not only do initiatives like these help to clean up the islands, but they are generally perceived as a step to overcome the separation of tourism and the local population by working together on environmental issues and by increasing environmental awareness in the population. The positive perception of these educational efforts was highlighted by several villagers. Respondents also emphasised that the presence of the dive tourism businesses meant that locals improved their English language skills, making them more employable in general.

Despite the efforts of the dive industry however, shark is still on offer in some of the local restaurant menus and turtle eggs are still sold (illegally) in the villages. Both of these actions, especially the former, are a source of conflict between some local people and the dive operators.

Based on Tosun’s levels of participation (1999, 2006), this is a clear case of level 3, coercive participation with the dive businesses taking a paternalistic top-down approach. It could be argued that the local population also benefits from a cleaner island environment, which would place it more into a level 2, inductive participation, but responding dive professionals often commented on a lack of interest in the issue amongst the local adults and therefore focused their attention on the children. At any rate, it is mainly in the interest of the dive businesses who would receive frequent critical comments from their tourists should the islands not be kept clean.

Table 3 Indicator distribution

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 2 or Level 3</th>
<th>Level 3</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>physical separation village/divetourism</td>
<td>infrastructure development tokenism, e.g. freshwater</td>
<td>business ownership</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Employment</td>
<td>pipeline</td>
<td>social linkages</td>
<td>economic linkages</td>
</tr>
<tr>
<td></td>
<td></td>
<td>tokenism, e.g. fish purchases</td>
<td></td>
<td></td>
</tr>
</tbody>
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Table 3 illustrates that none of the analysed indicators fell into the levels with higher active local participation. Most are categorised as either coercive or as in between induced and coercive participation levels. In addition to this, a new category could be identified where non-participation or minimal levels of participation could be observed.

3. CONCLUSION

Local participation in dive tourism can be compared with local participation in tourism in general. Whilst local communities feel the impacts of dive tourism - be it through positive developments like the construction of a freshwater pipeline from the mainland, or negative consequences like the rise of real estate costs and increased pollution - they have neither influence on the entire development and running of dive tourism nor can be seen as being highly involved.

Using Tosun’s (1999) typology of local participation, this study revealed that none of the chosen key indicators (village location, infrastructure development, employment, business opportunities, economic linkage, impacts on local culture, education) fell into any of the categories with high levels of local participation. Most are categorised as either coercive, or in between induced and coercive levels of local participation. Several indicators showed non-participative characteristics, so much so that it was felt that this in itself should be another level in the typology, rather than grouping it into the same level as coercive characteristics as Tosun suggests (2006).

Very few local people managed to set up and run their own dive shops and few others owned supporting tourism businesses such as restaurants or accommodation. This was less so in the Perhentians which had the longest experience of hosting international tourism. That said, the Perhentians appear to be reaching a ‘tipping point’ of fundamental change in tourism with decreasing local Malay ownership and growing Chinese Malaysian and even foreign ownership and control. Similarly, only a few members of the local communities in each location found direct employment in dive tourism. By and large, if they found employment, it was mostly in low-skilled hospitality jobs in the dive resorts or other hotels.
Obstacles to a wider involvement in the dive tourism industry are financial restrictions, both for ownership of businesses and dive training, lack of English language skills and also a perception in the local population that a career in diving and staying on the island, is less desirable than a white collar career on the mainland.

For dive tourism to benefit local communities in LDCs more effectively the following questions will need to be addressed: how could opportunities for business start-ups and involvement in higher skilled employment for locals be encouraged? How could cultural performances and production of local handicrafts be encouraged? What special training or activities could be developed to encourage young people to get involved in diving? How could the negative social and cultural impacts (drugs, alcohol, immodesty) be managed? How can the direct expenditure of dive tourists in the communities be encouraged (and retained) with lower economic leakages and stronger economic linkages? These questions illustrate that there is a need both for further research and, specifically, for the development of well-designed schemes to enable wider local participation in dive tourism in Less Developed Countries. That said, existing initiatives that the researchers observed in parts of Malaysia, particularly Sabah, constitute an encouraging foundation that could be built upon and even replicated by tourism planners elsewhere.

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References


