

# "Don't get sick at sea"

## *An Ecological Study of the Fishermen of Pulau Tuba, Langkawi, Malaysia*

Morten Mack Berger

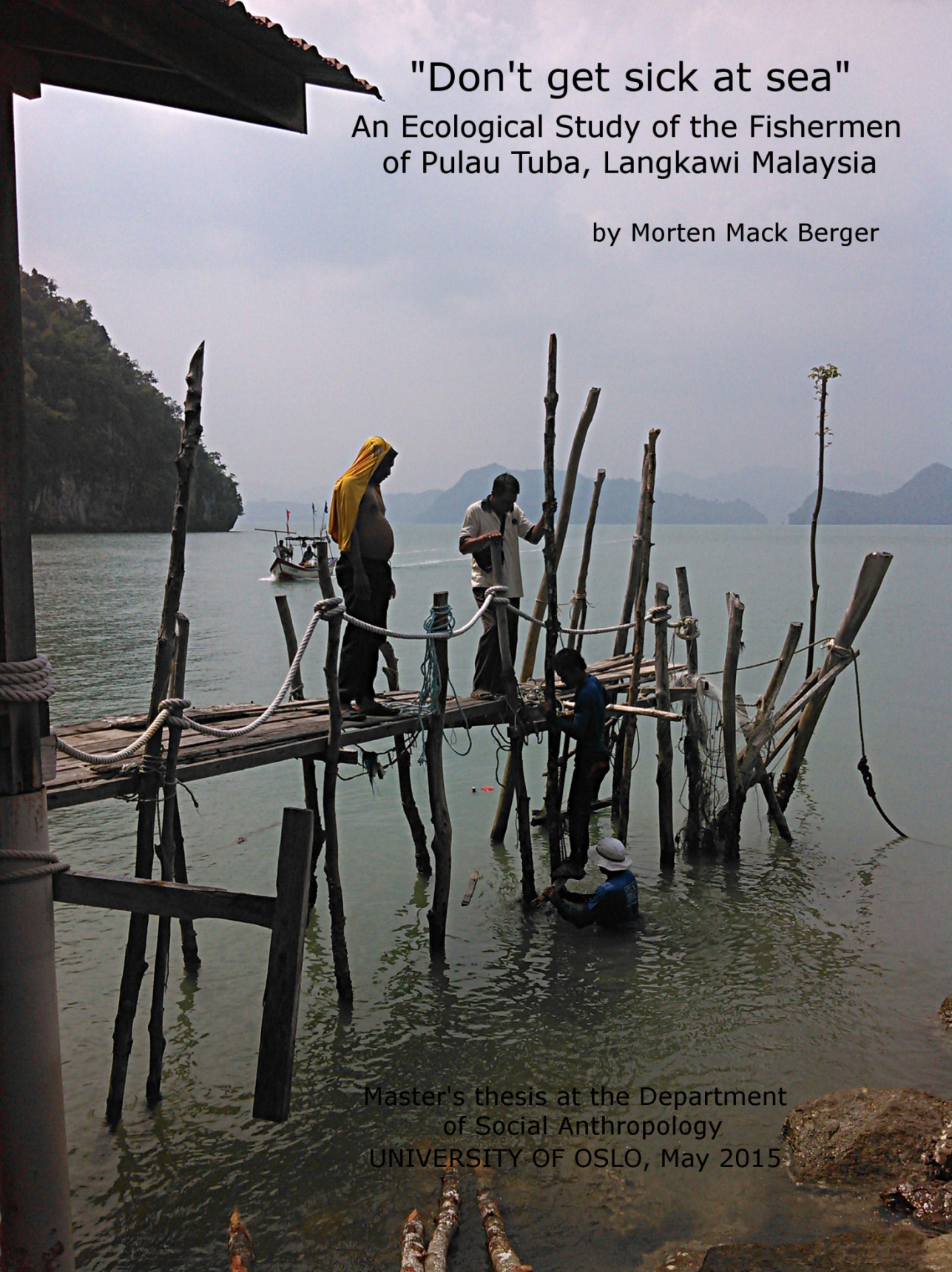


Master's thesis at the  
Department of Social anthropology

UNIVERSITY OF OSLO

15.05 2015





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by Morten Mack Berger

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2015

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Morten Mack Berger

<http://www.duo.uio.no/>

Print: Reprosentralen, Universitetet i Oslo

IV

# Abstract

Berger, Morten M. (2015). *"Don't get sick at sea": An Ecological Study of the Fishermen of Pulau Tuba, Langkawi, Malaysia*. Master's thesis in Social Anthropology. Department of Anthropology, University of Oslo.

This study is a project based on a fieldwork of 6-months duration at the island of Pulau Tuba in the Langkawi archipelago outside the north-western coast of Malaysia. I've been using anthropological research methods like participant observation and informal interviews for data-collection. My approach to establish my field was the following: Firstly to investigate prior literature from the region or discussing similar themes as what I wanted to investigate further. Secondly to establish the following research theme, namely how Pulau Tuba can be seen as an ecosystem on a smaller scale within which the inhabitants are conducting multiple activities and how the products from such activities are flowing out of the Tuban ecosystem through the interaction between people, as well as how external influence impinge on the lives of the inhabitants. Using the methods above and going along people during their activities, resulted in a bulk of raw data, carefully registered in several notebooks. After reading these notes I started looking for theories useful for analyzing my data. I elected to use an ecological approach in combination with the idea of a generative model from Barth's "Models of Social organization" in order to produce my own conception of how the flow of the Tuban ecosystem could be charted. However I also investigated structures and systems existing at Pulau Tuba. Through multiple observations of people involved in religion, kinship and politics I determined that these should be viewed as important parts of social organization at the island and which should be presented in detail. Prior regional literature was also important for enabling comparison and showing how some things have changed in the field.

It is important to note that my main focus has been on activities within the primary sector of the economy like fishing, agriculture and animal husbandry as well as less practiced activities like hunting and gathering. I've been closely investigating the inhabitant's ecological adaption to particular niches within different habitats in their ecosystem. The Tubans are however also engaged in service activities within the tertiary sector like tourism and hospitality, transport and recently waste management. It could actually be argued that the inhabitants of Pulau engaged within the primary sector also are active in the tertiary sector, as they sell some of the goods they have produced themselves directly to fellow villagers, which can be viewed as consumers. The majority of the produce is however sold to middlemen and is something that I investigate through making a generative model. Significant components of this model includes possibilities and limitations within ecological conditions and social relations, which together with cultural values and existing assets influence an individual's choice of whether to engage in activity or not. In order for a transaction to take place there must also be an agreement on the definition of a transactional situation and a shared system of evaluation must be proposed. Through a successful interaction between two parties, activity patterns and social patterns become evident which subsequently influences what was termed significant components above through positive and negative feedback loops.



# Acknowledgements

This thesis is the result of a fieldwork 6-month among the inhabitants of the island Pulau Tuba in the Langkawi Archipelago outside the Malaysian north-west coast, which would have been impossible to accomplish without the help of a large number of people. I would foremost like to thank my family and friends, especially my brother Mads for providing me feedback during the writing process as well as helping with selecting an image for the front-page.

I would also like to thank all the people of Pulau Tuba for extending their hospitality to me and allowing me to observe and partake in their lives. A special thanks to my friend Samuel, his wife Julie and his family for letting me join them for dinner and not growing tired of my seemingly endless questions. Without him, the outcome of the fieldwork would have looked very different. The list of names of fishermen and others who let me come along to observe their activities is long, but know that I remember you all and thank you for everything.

Thanks should be extended to my fellow students and the seminar leaders for their feedback during our writing seminars. I would also like to thank my supervisor Arve Sørum for being such a huge resource during the writing of this thesis.





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# 1 Introduction

The following thesis is based on an anthropological fieldwork of 6 months duration among Malay fishermen at the island of Pulau Tuba in the state of Kedah outside the north-western coast of Malaysia. Mainland Kedah has been an area where rice agriculture has flourished together with the growth of industrial areas and steadily increasing tourism. However my study area is better characterized by a focus on fishing, rubber production and alternative forms of agriculture rather than rice agriculture as well as some degree of tourism. Parts of the Langkawi archipelago including most of Pulau Tuba and the neighboring island Pulau Dayang Bunting have been incorporated into the Langkawi Geopark and was given the status of a global geopark in 2007 associated with the Global Geoparks Network, an umbrella organization of Unesco. This means large parts of jungle and land outside settlement areas have become protected areas, limiting expansion, building and resource extraction within these. Another goal of opening the geopark was according to Halim to contribute to nature conservation, increased tourism and better standard of living for local inhabitants. Prior to this, in 1987 the Langkawi archipelago was declared a duty free area and the Langkawi Development Authority established (Halim 2011: 96-98).

Halim actually argues that the geopark should be seen as a development tool which promotes a sustainable utilization of resources and local socio-economic development. However the existing island community is outlined as marginal and regional economy as something which has stagnated and yields low returns while being stuck in existing ideas and practices. Further Halim drawing on an essay by the sociologist Shils argues that within a community there is a centre and periphery which influence those living within the ecological domain of society in various ways (Halim 2011:99). However Langkawi and the surrounding islands are very much linked to the external world both by waterways and through its airport, not only through the import and export of goods but also through the flow of human resources like skill, labor and knowledge as well as capital. The view of the Langkawi archipelago as something marginal which requires development might be something which reflects national Malaysian ideas of growth and development, as discussed by Larsen in 2002. Several governmental and non-governmental programs and initiatives have been put forth in order to develop and reshape existing social structures within the archipelago.

Before travelling to the field I had the conception that the inhabitants of Pulau Tuba had a combined ecological adaption of rice agriculture and fishing, something which however was disproved quickly when I arrived in the field. I've still included some of Larsen (1994) and Carsten's (1997) empirical background on rice agriculture for the sake of history however as will be seen later the Tubans have shifted focus to rubber, fruit and coconut plantations due to rice agriculture no longer being perceived as an economically viable activity. The bulk of my empirical data then concerns these alternative forms of agriculture and different types of fishing which themselves are combined as well as various other activities they are combined with. Success within both agricultural and fishing activities are subject to natural conditions like weather and seasonal change although for fishing in particular moon phases and ocean currents are important ecological factors.

Chapter 2 in this thesis concerns my own journey to the field and first impressions of it as well as an introduction to the chosen field site. Following this I will present some of the historical background of Pulau Tuba and Langkawi as recounted by Larsen and Carsten as well as some oral accounts of history I found in the field. Continuing I will highlight some of the issues faced by the inhabitants of Pulau Tuba and factors which regulate fishermen's lives, both the natural conditions as mentioned above and market fluctuations.

Moving onto chapter 3 the methodological background of my fieldwork as well as my theoretical framework will be presented. Further argumentation from this chapter onwards will be an attempt at showing how Pulau Tuba, when viewed as an open ecosystem, is linked together with other nearby ecosystems of varying scale through the flow of goods and human resources. However such argumentation requires empirical backing which I establish by presenting some important social institutions or systems existing within the field site like religion and politics in chapter 3, but also kinship which I discuss in a later chapter.

Activities undertaken by the inhabitants of Pulau Tuba are presented in detail in chapter 4 and these range from different types of fishing and fishing techniques through various kinds of agriculture and gardening to animal husbandry. Alternative activities will also be presented to some degree. These activities are linked to both subsistence but also economical gain; however some of the activities carry with them the potential for a higher yield than others. Chapter 5 has a more analytical dimension where I also integrate some theories from Barth's "*models of social organization*" as well as my own attempt at creating a generative model of processes based on my analysis of the empirical data I've gathered in the field. The intention

of this model is that it potentially can be applied to similar processes in the future and also be used as a tool for comparative analysis. Towards the end I will present some issues which have surfaced after I left Pulau Tuba and which influence the lives of the Tubans.

This means my thesis will concern an ecosystem approach to viewing the society of Pulau Tuba showing how especially the Tuban fishermen take part in economical trade-relationships with middlemen making the flow of goods and capital to and from the Tuban ecosystem possible. However as I will also show the actual process of these activities is influenced by several different factors ranging from social and ecological possibilities and limitations to motivations and value-sets. The results of successful transaction and interaction between middlemen and Tuban Fishermen becomes manifest in both social and activity patterns which in turn might influence the earlier mentioned factors through positive and negative loops of feedback. I will also present some new external influences which can potentially impact on this process either in positive or negative ways

## 2 Journey to and history of the field

Walking from the ferry terminal at Eagle square in Kuah towards the yacht club one might notice a small space lying in-between a medium sized parking lot and the large yacht club. Or if one does as the anthropologist in this case and walks past and doesn't notice this small space but instead continues on to the aforementioned yacht club in the search for the ferry to his field site. At the yacht club he asks the person at the front desk where the ferry to Pulau Tuba is. After being pointed out the general direction to *Jeti Tuba* (the Tuba Jetty) the anthropologist walks down a small road which winds its way down from the main road for a couple of meters. On one side of the road lies a rest house with benches lined along the side. In the middle of the open-sided rest house two middle-aged men are sitting and playing *Dam* (a checkers-like board game) with bottle caps. On the benches around them more men are sitting and talking among themselves and sometimes seem to comment on the game. Situated at the other side of the road is a small building which houses both a *Kedai* (shop) and a *Kedai kopi* (coffee house). The anthropologist walks past the building and in what to onlookers might have looked like a display of cultural negligence, hurries towards the roughly constructed *Jeti* made up of a layer of wooden planks on top of empty barrels.

After standing there for a while one of the men sitting at the *Kedai kopi* approaches me and gestures towards the tables at the coffee shop. I order a coffee from one of the three ladies who are working there and sit down and wait for the ferry or rather the boat to arrive. While sitting there I can't help to notice the big contrasts between the yacht club and the jetty and seemingly rich and poor. Nonetheless most of the people sitting around me are idly chatting in Malay and seem quite happy. More locals arrive either on foot, by scooter or gets dropped off by cars, the majority of which are women. They are dressed in long dresses or t-shirts and jeans and most of them wear hijab. Some of these women walk into the coffee house and order drinks and food, while others sit down and chat on a wooden bench outside the small building. A man comes walking down the walkway and puts up a display with dining plates. After a short while a couple of small speedboats arrive and out comes both Chinese, Indian, Arabic and Malay people walking up towards where I'm sitting. Some of them stop to look at the dining plates which are printed with their photos while others walk straight past the display. Later I'm told that this is one of two jetties providing island hopping tours and which are operated mainly by the inhabitants of Pulau Tuba.



## 2.1 The Boat ride

When a couple of hours of waiting have passed by the boat to Pulau Tuba arrives. All the people who have previously been chatting, drinking coffee and eating start walking towards the boat, some of them carrying small boxes and crates. The following is a translated excerpt from my field diary, day one: *"I'm sitting in a small 14-foot speedboat, fully loaded with food and supplies, together with 17 other passengers. I notice that the majority of the passengers are women and all of them are wearing hijabs with many different colors and accessories. They are also wearing a variety of colorful t-shirts, jeans, blouses and dresses. All the women are sitting inside the passenger-coupe while the men are either sitting in the back together with the driver or standing Titanic-style in the front of the boat. While driving towards Pulau Tuba I see a large luxury hotel to the left on Langkawi island and a mountain enveloped in jungle on Dayang Bunting to the right. After a few minutes a fjord-like gap opens up to the right, and tracing my eyes along its shores I spot small houses in a multitude of colors, as well as a concrete bridge linking the islands together. The waves have gotten larger now and the boat has started jumping up and down, but the boat driver doesn't seem intended at reducing the speed, even if one of the women is displaying signs of nausea.*

*What surprises me most is how massive Pulau Tubas northern edge looks with steep jungle clad mountains rising 300 meters from sea level. There is only one house along this shore, which can be reached by sea and is effectively isolated from the rest of the island by thick jungle. The boat passes a headland and I can see the ferry quay. To the right is a river in which there are many fishing boats moored along small wooden landings supported by tall poles. There is also another pier along which a large yellow and blue ship is anchored. A couple of minutes later the boat driver moors his vessel alongside 5-6 other similar vessels. The men jump out of the boat first, and then come the women and after them I follow. Both men and women are carrying goods and supplies onto the quay. I put on my backpack and start walking over a walkway which connects the quay and the dock. At the other side a couple of men and women are sitting on a bench and about hundred scooters are parked around them as well as 3 white and one yellow minibus. In front of me lies a large paved space and on the other side is a building with a large sign displaying clinic, which has several rows of metal benches in front of it, as well as a small restaurant with chairs and tables outside".*

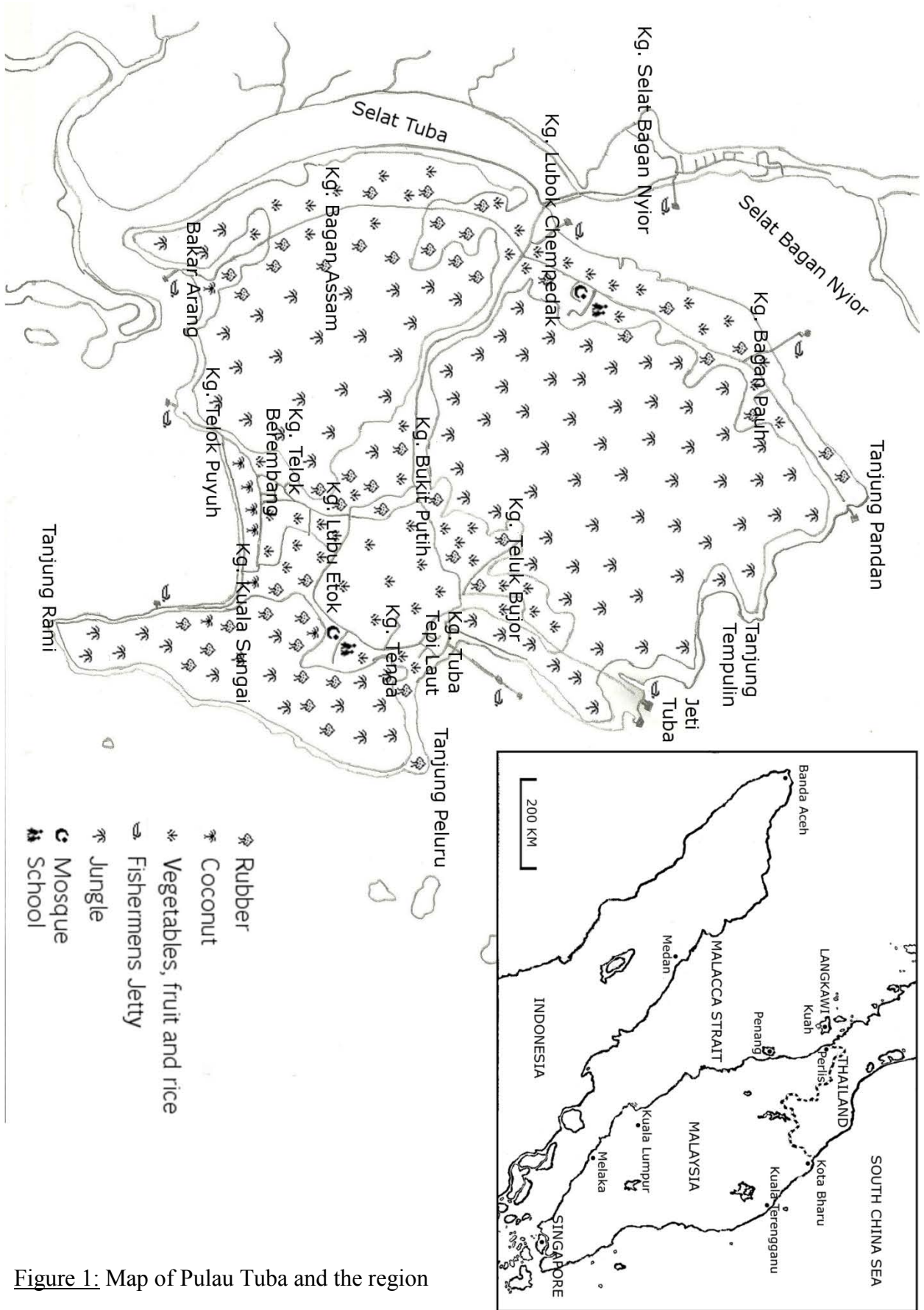


Figure 1: Map of Pulau Tuba and the region

## 2.2 A tour of the island

Standing at the dock for a few minutes I was asked in English by the minibus-drivers if I wanted a ride. But I politely rejected and started walking towards the village where I planned to search for a motel to spend the night. After walking for 200 meters one of the minibuses pulls up next to me and the driver, Samuel<sup>1</sup>, asks if I want a ride since it's a long walk to the village. Reluctantly I accepted his offer, but upon getting into the van he told me we had to pick up some people and drive some goods before he could drive me to the village. I noticed that there were two other large areas surrounded by fences on the way out of the jetty compound, one which during the fieldwork became a recycling facility and one which was tied up for future government purposes. First we followed the main road from the jetty over a small hill. Along the road brick houses and a few wooden houses started to appear as we entered what Samuel called *Kampung Teluk Bujur*. This village is situated in a small valley surrounded by a big hill on the eastern side and a larger mountain on the western side. I noticed how the color of the foliage here was more yellow and brown than along the coastline. After driving a few minutes and passing about 30 houses we got to an intersection where the main road continues around in a circle around the central paddy field. We drove to the east passing a small petrol station and bypassing the road that goes to *Kampung Tepi Laut* which is also called *Kampung Tuba* by the authorities, which contains the only police station on the island. This is where Samuel lives and where I spent much of my time during the first three months of the fieldwork.

Continuing further along the road we passed a large soccer field with a large deciduous tree on one side and a small multiple-section house which contains both a shop and a living space for the owner's family. A trademark for the houses on Pulau Tuba is the corrugated iron roof of which the majority was in blue color for government buildings and red for villagers houses. Moments after this we passed another intersection to *Tepi Laut* and the road started turning towards the south, with thick jungle on one side and the soccer field on the other side. According to Samuel we entered *Kampung Tenga*, which is a village that stretches out on both sides of the road, lying next to the paddy field on one side and one of the elementary schools on the other side. We met a few scooters along the road, but there was not much traffic or people walking by the roadside. We take a turn to the left and enter a smaller road

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<sup>1</sup> I've chosen to anonymize my informants identity by giving them new names. However village names will be presented as they are. There is however a difference between the government's official naming and the villagers naming of the villages. In this thesis I've taken a more emic approach by using the local village names.

where there are houses of varying design, made of bricks and some made of wood, on each side. Then after a short while we stop outside a house, and two old ladies emerge from the house and enter the minibus. Samuel then turns the vehicle around and we drive back to the main road and continue towards south. Shortly after we pass the yellow buildings of the school, which is fenced in and has one main entrance where there are security guards and also a small shop. On the other side of the road there is a dirt track running across the paddy field and another small shop, where children can buy treats when they finish school. A bit further down the road lies the *masjid* (mosque) on the left and a kindergarten as well as the graveyard on the right side. There are also a few smaller roads extending towards the hills on the left side. Samuel tells me that the hill next to the mosque is called "Eagle hill" while he's looking up at the jungle canopy searching for eagles or monkeys to show me.

After a short while the road turns west again and offers view of a rubber plantation on the left side and the paddy field on the right side. Shortly after a road extends down to the left and *Kampung Kuala Sungai* as well as the southern part of the island, but we continue on the main road and enter *Kampung Luboh Etok*. There are some houses lying between the road and the paddy field but the majority of houses and side roads are on the left side. Many of these houses are surrounded by gardens containing flowers, fruit trees and ornamental trees. Yet there are few people actually outside the houses as we pass by. The women in the backseat are chatting along with each other while Samuel sometimes enters their conversation. A few minutes later we come to an intersection where there is a road extending south towards *Kampung Teluk Berembang*, *Kampung Teluk Berembang Kedah* and *Kampung Teluk Puyuh*. Within the vicinity of this intersection are a couple of eateries and shops as well as many houses. Following the main road towards the north we pass by yet more houses and I notice that a few of them have dried puffer fish hanging outside them. On the right side of the road, next to a yellow house by the paddy field, there is a small wooden platform on which there sits a few young people playing a game of dam. Further along the road on the left side lies the house and beautiful garden of the Quran teacher Panga and his son. Just 50 meters from this there is a large intersection where the road extends to the other side of the island. There is also a large jungle clad hill with a white face in front of us, and a few houses which Samuel tells me is the start of the village *Kampung Bukit Putih*.

We make a left turn and continue past an old fisherman's *kebun*<sup>2</sup> where different kinds of vegetables and fruits are grown. Continuing up this road I can see fewer and fewer houses as we steadily climb towards the top of the hill separating the island in two parts. Alongside the road runs a street gutter fed partially from excess water from a water tower and rainwater streaming down from the hillsides in the rain season. On both sides of the road lie large plantations as well as the shop of the main hardware and construction supply dealer on the island. Further up at the left side of the road lies a small garbage dump which occasionally during my stay was lit on fire and where native monkeys and wild dogs also could be seen. At the top of the hill there is a telecommunications tower on the right side of the road as well as another water tower. Upon starting a steep descent from the hill we passed another water tower and soon entered *Kampung Selat Luboh Chempedak*. Here I could also see a bridge extending over *Selat Bagan Nyior* connecting *Pulau Tuba* and *Pulau Dayang Bunting*. The village itself seemed like a patchwork of houses and their compounds together with *kebuns*. Just after passing a few plantations with coconuts and rubber trees as well as a small *kedai makan* (restaurant or eatery) we came to a large crossroad.

From this crossroad there are roads extending further west, northwards and to the south, each leading to other villages and beyond. In the north lies *Kampung Bagan Pau*, the site of another jetty and which is partially inhabited by Thai people. Further north lies *Tanjung Pandang*, where there are plans to build a new campus for UITM (*Universiti Teknologi MARA*) as well as an exclusive chalet, and where a new undersea electric cable was being constructed during my fieldwork. Just before the bridge to the west lies a supermarket and the island's main petrol station while across the bridge lies *Kampung Selat Bagan Nyior*, which is the main settlement on the neighboring island. Here there is a mosque, a primary school, a jetty and a small fish farm as well as a few eateries and shops. Outside the settlement there are mainly rubber plantations as well as some cattle roaming around. South from the crossroad lies *Kampung Bagan Assam*, where there are many young rubber plantations along the road extending both into the hills and downwards towards the strait. Here there are a few middlemen who buy fish caught by fishermen passing by and store it.

Further south lies *Kampung Bakar Arang* which is situated next to *Selat Tuba* (the Tuba strait). In *Kampung Bakar Arang* there is also a jetty where people from *Kampung Bagan*

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<sup>2</sup> *Kebun* is a general term for garden in Malay and was used by Tubans to denote everything from garden patches outside houses to larger plantation-like gardens situated on other property. Sometimes the produce from these gardens are integrated into gift exchange, trade or consumption as part of self-subsistence.

*Assam* and *balik bukit* (back across the hill) have their boats. A couple of Thai families live here in stilt houses partially over the *sungai* (river). As one of the Thai settlers told me: "*This river goes all the way to Kuah*", although it should be noted that this is not really a river but rather a part of the strait between the two islands. The strait does quite well at emulating a river though, as there are meandering and sand banks in it as well as a continuous mangrove forest running along its banks. There is also a large river which comes from the interior of Dayang Bunting and enters the strait. The Thai fishermen use special wooden boats to access small side rivers within the mangrove forest where they set up crab traps. The catch is either used for self-consumption, sold to middlemen in *Kampung Bagan Assam* or *Kampung Bagan Pau* but sometimes brought to Langkawi when there is a better price offered there.

Back in *Kampung Selat Lubu Chempedak*, lies the island's only power plant operated by Tenaga Nasional, which provides the surroundings with the constant rumbling of several aggregates. Samuel takes a right turn and we proceed up a small hill to the north, passing a small chicken burger outlet. There are houses along the road on both sides until a large fenced-in compound appears. Here lies another *masjid* and Pulau Tuba's only high school which serves students from the entire island as well as *Dayang Bunting*. Samuel pulls up next to the gateway at the high school's entryway and tells the security guard that he's there to deliver the two old ladies. We enter the compound and pass by the teachers housing, computer lab and pull up at a driveway next to the school's canteen<sup>3</sup>. After this we went back across the hill to the main jetty and Samuel picked up some crates of food and supplies destined for a grocery store in *Kampung Teluk Berembang*.

## 2.3 History of the island

Situated next to a large bay and where a *sungai kecil* (small river) enters the bay lies the village of Tuba Tepi Laut. According to my informants this is one of the oldest settlements on the island. However upon trying to inquire further upon the history from the informants I usually would get general answers such as "this place is over hundred years old, now that's a long time isn't it?". Anne Kathrine Larsen does however mention some of the general history of the Langkawi islands as well as the local history of Pulau Tuba in her book (Larsen 1994: 61-79). One of the stories mentioned here is that of a local resistance hero, Panglima Hitam,

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<sup>3</sup> Later in my fieldwork I met the owner of the catering firm which delivered food to this canteen, as well as several female employees on different occasions.

who fought against a Siamese invasion in the 17th century and upon his death was buried in a grave at Pulau Tuba. The Siamese were repelled, but some stayed behind, hiding in caves and this is said to be the reason some people speak Siamese dialects throughout the Langkawi archipelago (Larsen 1994: 63). Larsen also mentions she encountered almost the same issue as me when asking about Pulau Tubas history, stating that: *"In general, it is hard to trace the history of the island for more than sixty years or so back, which seems to be the time span recorded in the memory of its inhabitants"* (Larsen 1994:64).

However I did meet one informer, Panga the Quran teacher, who only spoke Malay and who told me about the conditions in Pulau Tuba during the 2nd world war. While visiting a shop I also got to see a 10-dollar bill issued during the Japanese occupation of Malaysia. He also told me how scared he had been as a little boy when an aircraft had circled above Langkawi and Pulau Tuba signaling the end of the occupation. Panga told me how some of the Tubans had hid in caves when they saw a boat filled with Japanese soldiers approaching the island. Back then they also had farm fields and plantations extending up into the hills surrounding the settlement. The Japanese had done a headcount of the villagers and used Tuban manpower to obtain food supplies like coconuts. When liberation day finally came Panga told me that tens of thousands of canoes made their way from the archipelago towards the mainland to confirm the occupation had ended. He also told me that back in those days the islanders only had access to small sails or oars. Another interesting aspect about Pulau Tuba is that some of the houses in Kampung Tepi Laut are said to have been built by and owned by Chinese who also owned some plantations on the island. According to several villagers the Chinese left the island due to an uprising and ensuing ethnic tensions in the 1960's. One of my informants claimed the local Chinese were too few to defend themselves if the conflict escalated. Nonetheless a few plantations are still owned by Chinese today, but operated by the Tubans.

In a survey done by Larsen in 1988-1989, which also highlights sex and age distribution, the total population of the eastern part of Pulau Tuba was estimated to 1329 persons of whom 641 was female and 688 male. The sex-age distribution based on these data was not even with the exception of people between 40 and 49 years (Larsen 117: 1994). When I asked informants about the current number of inhabitants the answer varied in-between 2000 to 5000 *penduduk* (inhabitants) and more often than not they would state the number of *rumah* (houses) on the island which was around 800. A rough estimate based on multiplying the amount of houses

with 3-5 people living in each house would give a number ranging from 2400 to 4000 inhabitants. Sex and age of these inhabitants is however not possible to obtain this way.

As Carsten writes in her book the Langkawi region has been subject to a demographic boom from the 1980s and onwards. According to Carsten there were 28340 people living at Langkawi in 1980 consisting mainly of ethnic Malay but also Chinese and Thai. The Malay and Thai were mostly involved in subsistence agriculture while Chinese middlemen exported fish caught by Thai and Malay fishermen to both Penang and Singapore. Men would also spend several years doing work on trawler boats while women did work as factory workers and domestic servants in peninsular Malaysia. Back then the lives of the islanders were also linked in several ways to the mainland economically, politically and socially (Carsten 1997: 10-11). Carsten also mentions that quarrying of marble, rubber plantations with Indian workers as well as tourism existed but had been confined to the eastern side of Langkawi. Tourism back then only made up a small part of the economy, which to a large degree did not influence the lives of the islanders. Carsten writes that the tourists would mainly stay in some hotels in Kuah, but when returning in 1989 it became evident several new large hotels had been built, greatly influencing the price of coastal property. Other developments was what Carsten calls a shift in the economic base of Langkawi as well as the arrival of foreign people and along them new cultural influences (Carsten 1997: 11-12).

Ling argues in an article from 2006, that there from 1989 and onwards has been ongoing attempts of marketing Langkawi as an international tourist destination. She also mentions that this is not the first attempt at trying to incorporate the island in the global economy, stating that there has been several periods of development where rubber plantations and marble quarries have been constructed. According to Ling there was 1,7 million tourists visiting Langkawi in 1995, however most of the arriving tourists was actually domestic tourists from other parts of Malaysia. Alongside this boom in tourism, several new resorts and hotels was constructed as well as several golf courses, zoo's and wildlife parks and the cable car theme park. In addition to this Ling argues that the state initiative of promoting Langkawi as a tourist destination has led the reinvention and remarketing of cultural heritage sites like the Mahsuri tomb which excludes nearby Malay fishing villages, rice fields and Indian houses from the re-imagined story (Ling 2006: 202-209). The growing importance of tourism in Langkawi will be investigated more in chapter 5.



## 2.4 The village- Kampung Tuba Tepi Laut

During my fieldwork I stayed at Chalet Tokpah in Tepi Laut. Located literally next to the jetty I figured it to be a good location for observing fishermen and their activities. The rest of the village and island was also within reach due to quite short distances. After taking a left turn from the main road after a small petrol station, the road continues through a mangrove forest and crosses a small iron-topped concrete bridge. On the other side of the bridge is the start of Kampung Tepi Laut. To the left lies a small stilt house at the river bank and another house on the other side of the river accessible by a thin wooden walkway. Outside the small house there was usually a few women sitting and chatting as well as sometimes repairing fishing nets. Continuing down the road are a few houses on both sides of the road and most of these have pretty gardens surrounding them. Some meters further along the road lies a scooter rental, fishing and construction equipment store which doubles as the owner's house. Next to this building lies Lunur's house which also contains a small shop. To the right is a small path which goes along the fenced compound of the police station and links up with the main road. Proceeding along the road there is a crossroad where taking a left turn leads to the graveyard tenders house, Chalet Tokpah and the jetty.

Choosing to continue along the road leads past the house of a school teacher, an old fisherman's house, a partially abandoned two-story house and the fisherman and welder Pazo's house on the left side with the compound housing the police station and living quarters for the policemen on the right side. At the end of the road is a new crossroad where the road to the left continues 10 meters towards the beach with a eatery owned by Ligga's brother on the left side as well as a big tree where a couple of hammocks are hanging. Further along this road lies the house of a former army sergeant and van driver with a large garden around it as well as Faredzuan Motel. The latter is owned by a famous retired soccer player and his family. Back at the crossroad lies another eatery or coffee house owned and operated by the Imam. Actually this crossroads is one of the busiest places in the village, due to much traffic in the morning and evening, and functions almost like a village square in terms of being a place for both commercial and social exchanges. Taking a right here leads past Samuel's house and the grocery store where Yahida works which also contains her family's house on the left side, and the house of the village headman, Haji Zamnoor, who also makes and sells traditional medicine on the right side. At the right side after this is a small wooden house followed by a

large open space where a motel used to be while on the left side lies skipper Ligga's house and a dirt road leading to the house of a fisherman and some other houses behind.

Further along the road lies an abandoned house on the right which during the fieldwork became storage for potting soil as well as a vegetable garden and a duck farm. A bit further up the right side of the road lies a surau (prayer house). At the left side of the road lies the house of Ligga's nephew and a road leading past the school teacher's public housing, the *Kraftangnyan* (the handicraft complex) and the public library where Lunur is working as well as the villager's mailboxes. A bit further down this road is a futsal course as well as a goat and chicken farm and a small path which continues down to the beach and another motel hidden behind Faredzuan motel.

## **2.5 Some contemporary issues faced by the people of Pulau Tuba**

One issue the inhabitants in Kampung Tepi Laut as well as people living up to 50 meters from the shoreline are facing is that the entire area is regulated for public services which means the Malaysian government can forcibly evict the villagers if needed for development of the area. Further inland this is no longer an issue as this property can only be bought by villagers or gained through inheritance. The large paddy fields in the middle of the island are an example of this. Here the lands are divided by mud walls separating each paddy plot from the others. Local property rules also encompass property surrounding this area. These can be parts of previously mentioned gardens or *kebun* which also might be a part of "my father's land". Actually this expression was uttered by Samuel upon visiting his *kebun* at the edge of the paddy fields. He told me that the location made him feel closer to his ancestors and that it also represented a place for reflection and solitude when needed. Samuel had also been living in a small wooden house on the property, which had a groundwater-well outside the house. Another facet of this land was that it formed a part of what was perceived as "the real kampung" (village). I was told by an informant that in the old days if a group of siblings inherited such a property they would often seek to keep the land undivided in order to keep as large a productive area as possible intact.

A problem that is on the rise and which was pointed out to me by older informants was that of teenagers dropping out of school. Some of this problem might be in relation to drug abuse,

which seemingly is widespread. During the fieldwork I saw people doing everything from sniffing glue and ingesting herbal cocktails as well as hearing stories of people who did illegal substances. The drug problem is a sad issue which in the future threatens to destroy many lives on Pulau Tuba. As some of my informants pointed out, large-scale drug trafficking and drug use is punishable by death penalty in Malaysia. The result of this might be that someone who is trafficking drugs will be more prone to violence and carrying of illegal weapons since if caught alive he will be subject to death penalty. There were several police raids on Pulau Tuba during the fieldwork period, but none of these resulted in any deaths that I heard of. At the same time the police are more interested in catching the big fish than the smalltime suppliers, according to a local police man. Due to the police station only having a few officers the problem remains largely unchecked and difficult to control.

Another issue with young people according to some elder informants was that they seem to have a somewhat careless attitude when it comes to managing money. One of them said to me "Easy money, easy go" and pointed out that some people on Pulau Tuba live more on a day to day basis rather than planning ahead. Another informant mentioned how he was afraid that the first thing his son would do upon his death would be to sell the fathers plantation and land in Tepi Laut and spend all the money in no time, illustrating a lack of knowledge of how things really work. There is also a lack of jobs for people on the island, both jobs which require education as well as those which don't. The result of this is that villagers have to look for jobs in Langkawi and in some cases move away from the island for a period of time. For example Samuel mentioned that he at one time had been working in an electronics factory, checking the inside boards for errors. Several of the women of Pulau Tuba are employed in the hotel industry on Langkawi as housekeepers, at the front desk or cleaning the streets in Kuah. During my stay there were some occasions where recruiters came to the island with posters and interviewing villagers for jobs on Langkawi. One such occasion was during *Pesta wau* or the kite flying festival which also functioned as a political and community rally.

## **2.6 Factors regulating a fisherman's life**

It is important to note that one fisherman's daily routine can vary a great deal from that of another fisherman. During the fieldwork I did however observe some patterns which several fishermen share. There are for instance some important factors which influence the access to different kinds of fish and marine species for the fishermen. One of this is the seasonal change

between the monsoon and drought season and another is the lunar phases which influence tidal levels. There are certain times during a month that certain species can be caught. One example of this is *mencari sotong* (squid scooping) which usually only happens in the night during full moon (which also is when the tide is at its highest). Weather in terms of wind strength as well as much rain can also influence whether marine species can be caught, but also whether fishermen dare to brave the elements. At some jetties the wind and waves is simply too strong which forces the fishermen to wait out the weather but also having to move their boats to safer waters when at its worst. I went together with Mahz, the fisherman during one of these occasions and even if the sky was all clear, the waves and wind were totally unforgiving. We had to drive the boat around half of the island passing the treacherous rocks at Pulau Tubas southernmost point *Tanjung Rami* (Cape Rami) on the way. At that time I feared for my own life when I both saw and felt the 2-3 meter high waves with their foamy tops. Still Mahz remained quite calm throughout the journey and also made me calmer. Even so, upon arriving in the bay next to *Kampung Tepi Laut* both Mahz and I were soaking wet.

Days almost without wind and clouds could also be quite bad conditions depending on what the fisherman was trying to catch. So the first thing a fisherman would do after waking up in the morning would be to pray, if he was pious, maybe have some breakfast and then go outside to see what kind of weather it was that day. If it was raining too much, the wind was too strong or too weak he would simply wait and see if the conditions improved throughout the day. Living next to the jetty I could hear fishermen driving past on their scooters and out on the jetty in the morning hours to check out the weather conditions. Even if the weather was good the fishermen would sometimes get surprised by too low water levels. This happened once when I went with the fisherman, Din, for crab fishing. With water levels varying 3-4 meters the boat had been anchored up too close to land the day before and we had to wait for a few hours to be able to attempt moving the boat. On top of this the boat was lying on a sand bank which was maybe half a meter over the current water level. When we managed to depart shore and arrived at the location where he wanted to put out the crab net, he exclaimed: "*Hari ini tak ada anjing*" ("Today there isn't any wind"). If the wind continued to be like this it would mean that the crab net, which was a stationary net couldn't be laid out correctly and minimize the catch. Luckily the wind got stronger within only a short time.

During the fieldwork I also witnessed several episodes where the price and demand for goods rose and dropped due to fishermen's access to the marine species. According to several

fishermen it was also important to get to a "good" location as well as selling the catch to a middleman or dealer before other fishermen, in order to get the best price. At one occasion Samuel, the driver who during my fieldwork also opened up a fish store, received a total of 327,7 kilos of squid over a few days. But the problem was that the market in Langkawi was already flooded with squid and had forced a price drop. Samuel had bought the squid over a period of several days, with his buying price dropping according to the price level in Langkawi plus a small profit. Because of this Samuel made contact with one of his cousins at the mainland in order to secure a better price for the squid. The cousin was able to buy the squid at almost the same price as Samuel had bought it for, which in total meant a net profit of 2168,40 MYR. But the cost of hiring a boat and driver for transport together with fuel cost meant Samuel lost a total of around 300 MYR.

Another fisherman, Nadche, whom I went fishing together with also, faced an issue with the price steadily dropping after day one of the squid scooping period. For the first catch the Thai middleman offered him a price per kilo of 12 MYR which had dropped to 8 MYR the night I went fishing with him. However Nadche also caught barracuda in the morning after the squid scooping using caught squid as bait. As the kilo price of barracuda was higher, at that time 13,5 MYR, it enabled him to still get some profit. In all Nadche sold a total of 9 kilos of barracuda and 21,7 kilos of squid for a net profit of 295,10 MYR. One interesting point about all these transactions is that none of the fishermen seemed to be subject to taxation. Whether this was due to the Langkawi region's status as a Tax-free zone is uncertain and something I didn't manage to get an answer to in the field, however as I've discussed elsewhere in an article in Antropress, a new set of rules regulating import and export of goods to Malaysia appeared in April 2015. With Langkawi being a *designated area* in the new regulations, transported goods between mainland Malaysia and Langkawi must be declared and can be subject to goods and services tax (Berger 2015: 12, RMCD 2014).

I have here mentioned how fishermen's lives are influenced by several factors ranging from natural factors which cannot be influenced by humans to the market which to some extent can be influenced by human actors. One of my fields of interest when doing this study was to look at the existence of limitations and possibilities for the people on Pulau Tuba. However this requires me to also look at social relations, as well as how and if the society is subject to any structure ranging from religious to economical and political. In order to try seeing these different elements I propose to see Pulau Tuba as an ecosystem which involves humans,

animals and externally influencing factors. The reason why I propose this is that during my fieldwork I saw several examples of how people's lives were influenced and sometimes limited by such factors. Another point is that the Tubans seem quite opportunistic when it comes to exploring different ways to make an income, but at the same time seem to have the ability to let go of everything in their hands and just relax and wait for a better day. During the fieldwork I met several Malaysians from the mainland who were visiting the island and one thing several of them remarked to me was "What a lazy life these islanders live. They don't seem to know anything about the stressful city life". However I didn't fully agree with this remark as I'd seen many of the islanders working hard for their living.



Figure 2: Commuting Tubans on their way back to the island



Figure 3: The main street in kampung Tepi Laut



### 3 Method and theory

When doing an anthropological fieldwork there are several methodological ways to approach the research questions. What kind of data is needed to illuminate a problem might force a researcher's hand in choosing between different tools for doing the job. Raymond Madden argues that a common problem for anthropologists is that in their chapter on methodology they merely mention the different methods they have been using and not the reason why the method was undertaken in a specific way (Madden 26: 2010). Another point which should be elaborated upon is that of anthropologists claim to objectivity seeing as the researcher according to Madden is in fact the central research tool during a fieldwork (Madden 20: 2010). An issue which then appears is that the anthropologist, who through his own sensory system gathers data in the field, is not a neutral, objective being. On the other hand the researcher is an already situated entity with an existing canvas of references upon which the raw impressions from the fieldwork impinge.

Donna Haraway writes that within vision there exists an embodied nature which has previously been used for signifying distance from the marked body and turned into a conquering gaze from nowhere. The problem of this gaze according to Haraway is its history as a tool of visualization tied to capitalism, colonialism, militarism and male supremacy, distancing the knowing subject from everything and everyone gaining almost unlimited power (Haraway 581: 1988). However using vision and other senses is vital for anthropologists. Madden mentions that there exists different gazes and counter-gazes which can signify power and privilege at one hand or resistance to the former on the other hand. Human ways of seeing are actually perspectival, reflecting the social status, politics, power, history and upbringing of an individual (Madden 97: 2010). It is then important for anthropologists doing fieldwork to consider all these loaded connotations associated with the usage of their own senses in the field. Looking back towards the beginnings of ethnography, the ultimate goal of an anthropologist can be found:

"The final goal, of which an Ethnographer should never lose sight.. is.. to grasp the native's point of view, his relation to life, to realize his vision of his world"  
(Malinowski 25: 2010; my emphasis).

Apart from Malinowski's usage of the presently loaded term *native*, this quote encourages the anthropologist to have an emic approach to his informants through actively identifying



existing local culture in the forms of social structures, categories and language potentially enabling the ethnographer to view the world through the eyes of his informants.

### **3.1 Choosing the field and the approach**

I remember when deciding upon a place to conduct my fieldwork that I wanted to go all out and travel to a remote pacific island or to a hunter-gathering tribe far away from the modern world. After doing a bit of preliminary research on the possibility of going to such a place I figured out that it would be difficult to obtain the necessary permissions for the latter project and that I would be too far away from my girlfriend on a remote pacific island. In the end I chose to make a compromise, considering my girlfriend was living in Singapore and started reading up on anthropology about Malaysian fishermen enabling me to stay close to her. But actually I discovered that there wasn't that much existing literature on this theme. The first book I found in the library was Firths "*Malay Fishermen: their peasant economy*". After discovering the book I was intent at doing a comparative study within the same area as Firth in the states of Kelantan and Terengganu. But after reading some news articles from the place describing it as a violent hotspot with communist rebels running around in the forest and with a very conservative Muslim party ruling the state parliament, I decided against travelling there.

Instead I managed to find a book written by the Norwegian anthropologist Anne-Kathrine Larsen from a fieldwork at Pulau Tuba. According to Larsen the Tuban economy was based on primary industries with fishing as the main source of income. Based on claims from her informants such as "Tuba is a 100 percent fishing community and "We are all fishermen on Tuba", Larsen argued the Tubans viewed themselves primarily as a fishing society. However the Tubans were also involved in agricultural activities and animal rearing but these were only supplementary sources of income. Larsen claimed that even if the main source of the household income came from other sources, agriculture was still an important activity for a pensioned spouse or parent. Within the definition of agricultural activities outlined by Larsen the growing of fruits and vegetables, rice farming and rubber production was also included (Larsen 1994: 118-119). After reading Larsen's book I decided that Pulau Tuba sounded like an interesting place for further studies. Admittedly I had no prior knowledge of the area where the fieldwork was conducted, but I visited the city Malacca for a week in 2012.

## 3.2 Choice of methods and language

When choosing what kind of methods to use I elected to exclude surveys and formal interviews from my toolbox. One of the reasons for this was based on the experiences Larsen had in her fieldwork. She did mention that surveys was a good way to gather some basic data on the informants however formal interviews tended to become influenced by other people interrupting, joking about and entering the interview setting (Larsen 45-46: 1994). Another aspect which made a huge impact on my fieldwork was that I didn't know how to speak Malay. I had actually thought that I might be able to conduct the research relying on English, but just in case I had brought with me some introduction books to Malay. Seeing as the pre-lingual period of my fieldwork was shaped by me trying to communicate with hand gestures and drawings as well as speaking English with those few who spoke it fluently, made me start reading up on and slowly learning Malay. Combined with hearing Malay speech every day I eventually had a general understanding of what people were talking about. Another point which should be made is that the people of Pulau Tuba speak dialect. For instance "*garret*" might be used instead of "*basikal*" when speaking about a bicycle.

In this period as well as for the duration of the fieldwork, I chose to focus on participant observation as my main research tool. Practically this meant I would arrange to go together with people on activities by asking someone who spoke English to translate for me what I wanted to do. I also sought to convey to informants that I was a university student and doing research. It seemed the jungle telegraph worked quite fast on this matter, as most people I met had already heard about me and why I was on Pulau Tuba.

One thing I also encountered was a complex Malaysian system of naming and titles for persons of higher or lesser social rank than ego which can be based on kinship or social relations or religious piety but also age and generational age-groups. It is also important to note that when I arrived at Pulau Tuba and people realized I was going to stay for a while I was partly seen as an *Anak Angkat* (adoptive child or orphan). This meant that different people would refer to me as Mister Morten, a title I didn't really feel comfortable with, or the more familiar *Adik* (younger brother) or *Pak su* (youngest uncle) as most children called me. I also discovered the informants sometimes used another term to refer to me, namely *Orang Putih* (literally white man or European). Interestingly I integrated this term into joking

relationships I had with people, though when possible I usually preferred referring to other foreigners visiting the island as *Orang* followed by the country they came from.

Another method I made use of was that of informal interviews. This was casual conversations I had with informants where we would exchange information back and forth and if I wanted to could steer the conversation onto topics I wanted to know more about. But I actually found it interesting to just follow the natural flow in the conversation and sometimes this could lead to talking about new topics I didn't know the informant was interested in. Sitting at the coffee house and listening to gossip about for instance fish prices, weather and politics also became a way of gathering information and sometimes led to possibilities of joining people for activities. Eventually I would start going out on the jetty before or after breakfast and talk to or look at the fishermen going out for their daily trip. One of the most stressful aspects during the fieldwork was to actually remember to record what I heard and observed by writing it down on the spot or making mental notes for a later occasion. In the beginning of the fieldwork I tried bringing along my notebook when I was with people. However I seldom would get time to write down notes and instead would write keynotes and take pictures followed by writing down the notes once a day in the evening. One time when I brought my notebook along for a fish delivery trip, the book almost fell into the water and some of the pages became wet. On this trip I also managed to forget about the cell phone in my pocket when wading into stomach-high water, carrying a crate of fish, resulting in corrosion of the phones interior. After this I started to always bring plastic bags to keep my gear dry.

### **3.3 Gaining access**

Being the only European male on the island did bring with it both limitations and possibilities. At times I actually forgot that I wasn't Malay but as I frequently was hanging out with Samuel the other villagers would remark how we where black and white. This actually became a running joke when people saw us together. Before I went to Pulau Tuba I imagined it would be difficult for me as a man to gain access to Muslim women. However as long as we were outside the house preferably with other women, I could sit together with them and talk or listen to their conversations. It was easier to get access to females if they were younger or elder than a certain age, essentially meaning the reproductive age. In her book Larsen writes how her movement was somewhat restricted due to possible dangers after darkness (like wild animals, spirits), and that the villagers had an expectation that she would visit women.

However she did spend some time in what she terms the male domains like the coffee shops in the village center and the boat landing spots (Larsen 48: 1994). I was also advised against visiting the jungle and remote areas, mainly due to wild animals and what I later figured out by trial and error, the possibility of running into people doing drugs. However if I wanted to I could move around after dark, but this was actually quite dangerous with wild dogs and water buffalos running around.

During the fieldwork I also managed to gain access to other female areas of activity like the *Kraftangnyan* and the women's microcredit group. At the first area I was able to observe women learning how to weave traditional prayer mats and small storage boxes while weaving myself. The other area was harder to get access to since according to several informants, men were told to keep away in fear of them stealing the money. After the first time I visited, rumors started circulating about me and whether I had other intents than doing research. In order to prove who I was I therefore chose to bring along the statement from my university showing the leader of the group I was in fact an anthropology student and that I had the papers to prove it. This was one of the few times during my fieldwork I had to prove my reason for being there. Another time was during a concert arranged by the Malaysian DCA (drug control authority) where I was taken aside by one of the officers, who was dressed as a civilian, and asked what I was doing there as a lone white male. Understanding that I was talking with a government representative I told him I was a researcher and that I had no interest whatsoever in drugs. However I also had to admit I had heard rumors of people trafficking and using drugs, but I pointed out that they should rather ask the villagers themselves than me for information. During this interview I was nervous in terms of whether I would be subject to corruption and perhaps someone fabricating evidence against me, which luckily didn't happen, enabling me to carry out the remaining fieldwork without trouble.

### **3.4 Embodiedness**

Inspired by one of the lectures on method we had at university I also tried to remain aware of what can be called embodied research by consciously using more of my perceptive apparatus. This includes smell, touch and taste. Instances of when I used this was when eating local dishes, the smell of moist earth after rainfall especially in the rain season and when touching the skin of a fish during a fishing trip. Using these senses together with vision and hearing gives a much broader access to the world of the informants. However it also made it more

clear to me that in some cases what I felt tasted very spicy or didn't smell nice, would for the villagers taste good and smell nice. Using these extra tools gives another dimension to the fieldwork; however it must be used in combination with other senses as well. Another way I did embodied research was during participant observation, when I sometimes carried out the same physical labors as informants. This included carrying heavy crates of fish to and from the beach, fetching seawater for use in a small aquarium and also digging sand in a sandpit under the baking sun. All of it required some kind of physical strength to be done and seemingly helped speeding my fieldwork along as the villagers started to perceive me as "strong". In order to gain access to the fishermen it was especially important to be seen as strong, both in mind and gut. At the same time my involvement provided me with relevant information on daily activities the informants were involved in.

During my early fieldwork it was nearly impossible to make arrangements to go with the fishermen to the sea. They would usually say something like: "Since you are unfamiliar with being at sea, you will get sick". This notion haunted me during the first 20 days of fieldwork until one fisherman finally took the chance of bringing me along. The day before I went for this trip I visited Samuel's house for dinner. While I was there he told me: "It is important you don't get sick at sea" as this would scare other fishermen from taking me along later. It should be noted that I didn't get sick during that fishing trip itself, but when I came back to the shore I experienced what they called land sickness. In essence it felt like I was still on the boat a day after I left it, however on subsequent trips I never felt sick again. Successfully managing my own bodily urges enabled me access to participant observation with the fishermen.

### **3.5 Empirical accounts from the field**

While staying at Pulau Tuba I grew increasingly interested in the vast amount of activities people participate in to make a living. A limited population living on an island and having to learn multiple skills in order to survive could be one explanation for the variety of activities. Looking for theoretical approaches that might help explaining such adaption I figured ecological adaption as one way to investigate this theme further. Before moving on I would like to define some of the main terms of such an approach. The concept is that humans form part of an ecosystem together with all other kinds of organic life in a flow of information and energy and matter. For humans and animals this includes a cycle where energy is obtained from devouring other organisms as well as forming part of essential processes like the carbon

and nitrogen cycles (Bates 2007: 25). When trying to determine whether an ecosystem is stable or in balance using the terms elasticity and stability are useful. Bates mentions Hollings definition of these terms as: "*Stability is a measure for how fast an ecosystem returns to balance after experiencing hardships and interruptions*" and "*Elasticity is a measure for the degree of change an ecosystem can experience while still maintaining its fundamental elements or their interior relations*" (Bates 2007: 26).

Other terms that are useful when talking about humans or other species place in an ecological system are habitat and niche. Habitat is the area and environment a species live within while niche is the way in which a species sustains life based on its relation to food resources, competition and predators (Bates 2007:26). Barth mentions how Coon has described Middle Eastern society as founded on a mosaic principle wherein several ethnic groups with vastly different cultures live side by side in symbiotic relationships. Barth also writes how Furnivall referring to a similar structure describes the Dutch East Indies as a plural society. He proceeds on claiming that what these two cases have in common is a combination of economic interdependence and ethnic segmentation. Further he goes on writing that natural conditions alone doesn't define the environment of an ethnic group, but is also influenced by the presence of other ethnic groups and their activities within the same area. Barth then claims that this interdependence between groups of people is analogous to different kinds of animals living within a habitat (Barth 1956: 1079).

Chagnon drawing on Williams argues that it is actually individuals who are the primary units of adaptation who through behavioral strategies like social interactions, food gathering as well as mating influence their own chances of reproduction and survival. This stands in contradiction to the assumption that it is the group as a whole which adapt to their resource and food base although Chagnon further claims that the group is composed of and reflected by its individual parts (Chagnon 2009: 93). Barth argues in his book "Models of Social Organization" that within individual behavior, a series of regularities which make up the forms in social life exists. The models which Barth tries to sketch out are meant to generate such regularities and forms. Through their particular makeup the variables of the models reflect empirical forms of the social system, and Barth proposes that such forms can be generated through logical operations on the model, reflecting observed processes. Further he cites Radcliffe-Brown's definition of what anthropologists observe and describe, namely the process of social life within a particular region of the world at a given time. The nature of this

process is dependent on a large amount of actions and interrelations between people acting as individuals or in groups and by stating the general features of the processes of social life, a description of the forms of social life can be made (Barth 1981: 32-34).

Extending from this Barth then claims that the general features of social life observed by anthropologists, concerns the repetitive nature of acts whose frequency and randomness are reflected in patterns. Barth further argues that one of the simplest models which can be outlined is that of decision-making which is influenced by incentives and constraints. What is observed should not be seen as customs but rather as cases of human behavior, the limitations on choices which stem from a society's moral system outlining the rights and obligations of men. Barth argues that when studying a process the necessary and probable interdependencies governing courses of events should be identified. Social forms should be seen as the cumulative results of separate decisions and choices made by people acting in relation with each other and as such are generated through processes of interaction, reflecting constraints and incentives to their acts (Barth 1981: 34-36). Drawing on Goffmann, Barth states that the definition of a situation must be established and maintained in order to figure out which statuses form the basis of interaction between actors.

Within such interactions impression management happens in two various ways, firstly when an actor is drawing on his existing repertoire and secondly when he is following institutionalized conventions. Through the success or failure of an interaction realignment and optimization can occur. Large and complex behavior patterns identified as roles can be generated through specifying rights seen as statuses and roles generated like this represent the ideal. According to Barth this forms an important part of a model where limitations and possibilities impinging on choices are transformed into regularities within social life (Barth 1981: 36-37). Rights and obligations of status sets relevant to a situation are combined with limitations, the nature of whose interconnection must be understood to discover how they within a generative model can be combined. Interpersonal relations are inherently transactional with their flow and counter-flow of services, actions and goods. Ideas of value and appropriateness influence relations between counterparts by determining statuses in a situation and also their course of interaction, which is not random but constantly modified. According to Barth a reciprocal system is characterized by enabling involved parties to be satisfied with their deal and their exchange being in balance. He proposes an analytic concept of transaction as sequences of interaction governed by reciprocity, with some exceptions like

incorporation and altruism. Further transactions can be seen as games of strategy where the maximizing of profit and limiting losses is important (Barth 1981: 37-38).

Barth further argues for a model which may generate forms following the rules of strategy and dependant on evaluation and can be compared to empirical patterns observed.

Transactions have a special analytical importance according to Barth because transactions are the dominant mode of interaction where evaluation systems exist and through them a cultures values can be discovered. Transactions are also social processes which may be used in explaining the production of various social forms from basic value-sets (Barth 1981: 39-40).

In order to draw further on the concept of ecosystem within the empirical reality on Pulau Tuba it then becomes important to identify what kind of structures and processes exist there. This might however require an even larger amount of data material than what I currently have managed to gather and also over a longer period of time. Based on what informants told me about life on the island the minimum amount of time required would be one full year as there are several seasonal activities which only occur at a particular time of the year. It could actually be argued that Tuban time almost follows a cycle which with some minor changes continues to repeat itself year after year. Even limited my data material still provides a means to make an outline or sketch of some of the processes and structures which impinge on the lives of the Tubans living within the ecosystem of Pulau Tuba. Religion and politics are two such social structures or systems, which it became clear through my fieldwork that almost all Tubans have some relationship to. Below I will sketch out some of the features of these important structures.

### **3.6 Significance of religion on Pulau Tuba**

Some examples of how Islam can be said to regulate the Tuban's life is through prayer times, outlining what kind of food that are Halal or not, rites of cleanliness, interaction between genders and rules of conduction for important events in life such as birth, circumcision, weddings and burials. All of this became evident while I attended different events during the fieldwork and conversations I had with different informants following these. By talking with the Imam, Hajji Faizil and others I also learnt that there exists both a moral system determining whether someone can be said to be a good Muslim or not as well as a system where knowledge of the prayer verses and Islamic religion is measured. During the main



prayer at Fridays when most of the Tuban men would attend the mosque a combination of these two systems as well as whether one was following the five pillars of Islam, especially having fulfilled a pilgrimage to Mecca and gained the honorary title of Hajji or Umrah, would usually determine the men's distance from the mosque's front. This prayer was also divided into a common prayer and an individual prayer where children and a few adults would leave the mosque before the latter started. Hajji Faizil explained that those who left had yet to learn the verses in order to participate in the prayer. Another informant told me that he did not attend mosque every Friday and that this partially made him feel as a less good Muslim than others. Both he and another man told me they would sometimes get an urge to read Al-Quran to learn more as well as trying to attend the mosque more often.

I was told by Samuel that *Hari Raya Aidilfitri* (a day of celebration marking the end of the Muslim fasting month Ramadan) also was a day during which people asked each other forgiveness for things that had happened throughout the year. Villagers would also give gifts to each other, reinforcing social relations. From how it was explained to me it sounded as this day functioned as a social safety valve eliminating potentially disruptive social conflicts from arising. Asking forgiveness seemed to be important for people on Pulau Tuba as it occurred both before people could travel for pilgrimage to Mecca and when someone passed away. In order to go for *Hajj* or *Umrah* all debts had to be settled as well. This in turn leads into the notion of religion as a supplier of law and moral ways of conducts. However as I was told by several Tubans these rules and decrees only applied to Muslims and coexisted with regular law. The inhabitants of Pulau Tuba was actually subject to the laws of *Sharia*, but these laws required four righteous witnesses to a crime to ensure a correct verdict. Other ways in which religion directly influenced the lives of the villagers was through the existence of norms for proper dressing for women (and men during weddings for instance) as well as taboos connected to cleanliness and food. This not only regulates which food can be eaten, but also the way in which it is consumed. For example, children cannot put food into dips or sauces themselves or take food from a dish and put in onto their plate themselves, but must be handed or helped by an adult (usually their mother). I was told the reason for this prohibition was due to the potent nature of sauces and dips.

In addition to Islamic belief parts of the population of Pulau Tuba also believe in what can be called spirits and ancestors living in the forest and ocean. Early in the fieldwork I was actively restricted by villagers from entering the jungle on my own, as mentioned in chapter 3. At a

later occasion, when we came back after transporting and selling fish to Kuah, I was told by Samuel that there was spirits in the sea. According to him, people returning from the ocean or the jungle between the last and the second-to-last prayer of the day, had to wait outside their house or even village boundaries for 30 minutes before they could enter. Not entering the house was especially important if there were young children in the house. On another occasion I was told by Rosli, the older brother of Farin, during a trek in the jungle to a *guh* (cave) that ancestors or spirits was living in the cave and the jungle around. Due to this it was important to ask their permission to enter, before entering these areas.

Another time I encountered visible signs that there could be something like spirits existing at the island. This was when I saw a light, brighter than a star, hovering above the hill to the east of Kampung Tepi Laut. I watched it for several minutes and concluded it was neither an aircraft, satellite or helicopter since it was not moving and the light also appeared constant, however the following night it was gone. I also asked some women sitting next to Samuel's house what it could possibly have been and they looked at each other for a few moments before exclaiming it must have been a ghost. I was also told they had seen light in the same spot earlier, without any other explanation. It should be mentioned that I saw what looked like torches moving around on top of the southern hill near Kampung Teluk Puyuh. The morning after I tried to investigate this further, but to my dismay didn't see any sign of the activity I had seen the night before. I also asked villagers about what this could have been, upon which several replied "*It was just someone clearing and burning the jungle*". I was however given an alternative explanation when asking the Imam and Hajji Faizil about these supernatural observations. They referred to what is called *Djinn* (demons and spirits) and the eternal battle against *Iblis* (Satan) and his temptations and minions. According to them people would sometimes be manipulated into seeing things that really didn't exist. Larsen discusses the coexistence of Muslim and traditional worldview at Pulau Tuba in greater detail, also proposing its importance to activities like fishing (Larsen 1994: 252-268). Following this I would like to present a description of the Muslim wedding seeing as it is an important religious ritual linked to both kinship and social integration, which will be discussed later in chapter 5. In addition the wedding is a place where tradition and modernity meets each other as well as local and imported resources being used simultaneously.



Figure 4: Women selling snacks and drinks to people at the kite festival



Figure 5: A wedding couple praying upon arriving at their wedding feast

### 3.7 A Tuban wedding

If a fisherman is still unmarried he might be saving up money in order to marry someday. A Muslim wedding at Pulau Tuba is a rather large lifetime investment since the groom must pay almost 20000 MYR as dowry or several water buffalos, according to the Imam and considering that the actual amount of money earned by a fisherman is subject to the fluctuations of the market and prices given by the middleman. The Tuban wedding can be used as an example of how both local and external resources are co-joined in reproducing and reaffirming local social institutions like kinship and integration. It also allows the wedding couple and their immediate family to display success and wealth together with skill within the social sphere. Through the Tuban wedding already existing notions of what constitutes a traditional, safe arena providing the foundation of a household is also confirmed. A wedding itself can be planned several months if not years in advance and is usually also preceded by courtship and engagement between the involved parties. Even if both families of the ones to be married agree, the final decision is to be made by the Imam, partially depending on whether the parties are good Muslims or not following the principles of Islam, but also whether the man has the ability and willingness to provide for his future wife and family.

If all of this is in order the preparations for the wedding can go ahead. Wedding invitations are usually conveyed in-person by a member of the family if the guest is living at Pulau Tuba or by cards or other means of communication if the guests are living off-island. Contemporary wedding fashion like those found in magazines and on the internet or in other weddings at the island, together with traditional ideas of what a wedding should be like has some influence on what kind of clothing the bridal couple should wear, what food should be served, what decorations to use and how the wedding should be conducted.

The preparation of decorations as well as some of the food for the actual *kenduri kahwin* (wedding feast) usually begins the day before the wedding. At Pulau Tuba, there are actually two wedding feasts, one for the bride and one for the groom, even if they are from the same village. Relatives and neighbors from the village come together and help in preparing food to be served for the wedding guests. Some weddings have meat from cattle or water buffalos slaughtered in the halal-way by a Muslim ritual specialist, however the consummation of this meat is often limited to the bridal couples close family and cannot be eaten by outsiders or non-Muslims unless the grooms or bride's father says otherwise. Fresh ingredients from the



local market like vegetables, fruits and spices are used in the cooking and served together with dishes of buffalo meat, grilled or fried fish and chicken as well as various dips, curry soy and chili sauce and rice. A local shrimp paste called *sambal belacan* made from local small shrimps mixed with chili, water and herbs, is often served with the dishes while *Bubur kacang* (bean porridge) often is served as a dessert.

When arriving at the wedding the guests are greeted by the father and uncle of the bride or the groom. Before the wedding feast starts the men, wearing *Topi* (religious hats) and cotton shirts will come and sit together chanting religious verses and praying. After this food is brought over to the tables by both men and women helping out at the wedding and the guests can start eating. The wedding couple themselves will, depending on whether both of them or the groom is from Pulau Tuba, be at the mosque conducting the official part of the wedding together with the Imam and some close relatives as witnesses. Sometimes during the fieldwork the wedding feast had actually finished before the wedding couple returned from the mosque. If the feast is still going on, the wedding couple will walk in a procession followed by close relatives and other guests into the compound where the wedding is held. The wedding couple themselves eats together with their parents at a beautifully decorated table at the middle of the feast, next to the wedding throne where the *bersanding* (sitting-in-state) ceremony takes place.

Since the wedding feast can last quite a long time there are usually dishes being washed throughout the entire event. At all the weddings I attended this task was conducted by men, sometimes guests who gave their labor as a gift to the wedding couple. The washing consisted of an intricate system of 6-7 large barrel halves where one man was sitting on each side of the barrels except the first in the line. At the other end or nearby was a large, newly-dug pit, in which food remains would be thrown and buried underground. During one of the weddings I noticed a man who dug through and collected some of the food remains in the pit, uttering a short prayer whenever he found something edible. He told me the food remains was to be used as chicken fodder. What can be drawn from this observation is how religious taboos was reflected in the division of labor during the wedding. Actually men did prepare and cook rice, but most of the other food was prepared by women. Serving of the dishes was done mostly by women, but also by some men, while the washing of the dirty dishes was only done by men. These observations can be claimed to fit into anthropological dichotomies, be they fruitful or not, of cooked versus raw, pollution versus cleanliness and also nature versus culture.

### 3.8 The importance of politics in Pulau Tuba

One day as I was walking away from Kampung Tepi Laut towards the central paddy field I walked past a house with a fenced-in fruit garden in the backyard. Outside the house was a sign with the letters "PAS". I had actually been to this house together with Samuel to get the exhaust of his scooter fixed and welded at an earlier occasion. The house owner and his wife were also both working as security guards. He invited me to sit down outside the front of his house to have some *teh* (tea) and *biskut* (biscuits). Then I asked him why he had this large sign with the name and logo of a political party on his front lawn and we started to discuss politics. It became clear that his party PAS currently had few members on the island and had also lost some members to the now much larger Barisan Nasional. The political climate of Pulau Tuba was also reflected in which projects were prioritized and which ones were not.

In order to understand the politics in Pulau Tuba it is helpful to look at some of the recent elections and ruling constellations within the state of Kedah and Malaysia. For instance during the 2008 state elections in Kedah the party PAS had won a minor majority of the votes and alone secured 16 of 36 seats in the state assembly while Barisan Nasional got 14 of 36 seats. Barisan Nasional did however manage to retain its position as Malaysia's ruling party (Mokhtar 2008: 97-99), the possible outcome of which could be that states like Kedah held by the opposition would not be prioritized in the budget. A coalition between the parties PAS, DAP and PKR named Pakatan Rakyat was also formed in 2008 in opposition to the many parties which makes up the coalition of Barisan Nasional. However in 2013 there was a nationally much-debated turnover and Barisan Nasional won back the Kedah state assembly with 21 of 36 seats in opposition to Pakatan Rakyat which declined to claiming 15 of 36 seats. It should be noted that Pakatan Rakyat actually achieved a small majority of 50,87 % of the popular votes during the 2013 Malaysia general elections while Barisan Nasional got 47,38 % of the popular votes, but the latter was still able to form a federal government due to winning the most parliamentary seats (Teik 2013: 1-6).

Back in the field where I was discussing politics with this local PAS member he decided to show me a plan for the development of Pulau Tuba between 2012 and 2017. It took a little while for me to realize that it was just a sketch of the plan due to our conversation being undertaken in Malay. The plan outlined multiple aspects of development from building new infrastructure such as a waste disposal plant creating jobs, a scenic drive around the east coast

for tourists, more shops and restaurants together with a total revamp of existing buildings in Kampung Tepi Laut encouraging tourism and sustainable development focusing on and encouraging local resource production and small industry together with local handicrafts. It also included plans to make a campus for UITM, mentioned earlier as well as for an Islamic school. According to the man I was talking with the plans for the Islamic school had at that time been put on hold indefinitely. During my fieldwork I witnessed some other developments such as the waste disposal plant and making of local handicrafts taking shape.

Larsen writes in an article how the idea of development is viewed by Malaysians. She argues how the term development is situated in an ethnocentric discourse of otherness with some parts of the world designated as underdeveloped in contrast to the developed part of the world. Development is also viewed as a continuous process or a process resulting in a finished stage. Larsen mentions how the Malaysian government aims to become a fully developed country by 2020 through new laws, development projects and teaching Malays the "correct attitudes", the latter because this ethnic group is described by the educated cadre as lacking the attitudes necessary for participating in a progressive, modern nation. The Malaysian government does this through a wide range of speeches, campaigns and the mass media (Larsen 2002: 37). Continuing Larsen writes how regional development plans from the 70's aimed at restructuring the economical and physical structure in less developed areas, became synonymous with clearing the jungle, building new roads and other infrastructure and the making of new settlements through cheap houses and public service facilities. The issue with these plans however is that focus on the actual people living in the area can be lost in the phase of development. Larsen writes how village and local politics are saturated with politicians offering projects to villagers in return for support. These politicians also present the villagers an image of what "the good life" means, and what they eventually will become a part of. In addition there is focus on encouraging planning, togetherness, community spirit, progress and development (Larsen 2002: 39-40).

At two instances I saw politicians making public appearances at large events such as *Pesta Wau* (the kite flying festival) and *Pesta air* (the water festival). The festivals were financed by the local government and also provided a means to promote community spirit. They were also an arena where state politicians could address important issues in front of villagers, regardless of political affiliation. Local volunteers from Barisan Nasional did preparations for and were functionaries during the events. The kite festival was held at *padang bolah* (the soccer field)

near kampung Tepi Laut and the water festival at the beach on the outskirts of *kampung Selat Bagan Nyior*. Different politicians from the Kedah state parliament visited the events and gave speeches to the gathered people. One of the politicians visiting the kite festival was followed by a TV-crew and also visited the women at the arts and crafts complex. The events also promoted opportunities for local women who sold food and snack from stalls. Villagers and competitors could win prizes through various activities ranging from kite flying, coconut bowling, throwing water balloons, tug of war, bottle fishing and raffles. The intended effect of these events like creating a sense of community and progress seems quite similar to how Larsen describes the promotion of Malaysian notions of development above. After describing some of the important features of religion and politics, both of which are influential structures at Pulau Tuba it is now time to make a return to the ecological approach.

### **3.9 The Tuban Ecosystem**

While acknowledging that the concept of ecology used to be a nexus of theories reserved for biologists, I would argue that there are also valid reasons for applying some of these theories in the field of anthropology. Through some theories of ecology such as population ecology, ecosystems as mentioned earlier and concepts like niches and habitats, a better overview of the ecological reality of the Tubans can be achieved. However there are also some issues with using concepts and theories that stem from another field of research. On one hand this relates to methods being applied in the data collection in the field and the way these data are processed afterwards. Partially drawing on the short introduction to Tuban politics and religion above, I would argue that the ecosystem which makes up Pulau Tuba is in fact not separated from other ecosystems.

Claiming the Tuban ecosystem to be "*a demarcated portion of the biosphere that includes living organisms and non-living substances interacting to produce a systematic exchange of materials among the living components and with the non-living substances*" as per Rappaport's definition in "Pigs from the ancestors" does not suffice (Rappaport 1984). On one hand Pulau Tuba together with Pulau Dayang Bunting and the ocean around these islands, can be said to constitute a local ecosystem in which however there is a seemingly constant flux of materials, goods and biomatter ranging from fish to humans and animals moving in and out of this ecosystem. The constituents which make up the Tuban ecosystem are actually linked together with similar biomatter, goods and material in other ecosystems, both nearby and



further away, and also move between these ecosystems. Yet the understanding of an ecosystem which I partially seek to convey also concerns the products of humanity namely culture, religion, politics and economics and how these and their bi-products are flowing around on all levels, from local and regional to national and global, ignoring the natural borders that exist within an ecosystem.

There are indications that there is such a flow of human products, material, goods and biomatter happening however to claim it as organized is not possible. And the real question is, proposing that ecosystems are somehow linked together and continuously experiencing this flow, where does one ecosystem start and another begin as well as can multiple ecosystems be present within the same area at the same time? This is certainly a matter of definition and scale, as smaller scale ecosystems can be said to exist within a larger ecosystem. It is here important to note that these ecosystems, regardless of scale, should be seen as open and not closed units. I suggest establishing the scale of these ecosystems by drawing on the various, simultaneously existing and sometimes combined ecological adaptations of the inhabitants of Pulau Tuba to different niches as well as the limits of human activity and interaction. This will be demonstrated in the following chapters through short introductions to various activities Tubans might take part in as well as providing some examples to demonstrate the whole process of acquisition of raw materials or goods like fish, various actors involved in transport and relaying the goods leading up to the point where the goods might leave the ecosystem and get converted into money or other resources for the actors involved.



Figure 6: A fisherman putting out his net during high tide



Figure 7: A man peeling of the shell of coconuts for export

## 4 A matter of choice: various activities within the Tuban ecosystem

The following chapter is a collection of several activities which the inhabitants of Pulau Tuba engage in and the description of them is based on several observations. They are meant as an empirical source to be drawn further upon in chapter 5 when a generative model using Barth as a theoretical framework is presented. Another intention with this chapter is to show the multitude of ways in which Tubans have adapted to particular niches within the Tuban ecosystem. These adaptations represent a specter of opportunities to choose between and combine which is regulated by socio-cultural and ecological factors.

Tuban fishermen employ a wide variety of fishing techniques and equipment to land their catch. Through a man nicknamed "Boss fishermen" I got access to a document where 73 fishermen had registered with their age, boat registration number and the type of equipment they employed. Over several days I counted 120 different fishing boats, both registered and unregistered, which gives a rough figure of 140-170 fishermen, when crew is included. The forms of technique and equipment used ranges from simple *memancing* (hand line fishing) from the jetty to the use of a wide variety of nets and traps for catching different types of fish, crab and shrimp. Multiple species of *sepod* (seashells) are also collected at varying locations using a diverse range of gear. Lamps are used in conjunction with *jala ikan* (throw net) for catching squid as mentioned earlier.

With this thesis focus on ecology I think it would be important to go into details about the different ways of fishing that Tubans use for gathering the fruits of the sea. Based on several trips to the sea with fishermen I was able to gain a better overview of the fishermen's knowledge of how and what techniques and equipment to use when trying to catch marine species. But first it should be mentioned that the shoreline of Pulau Tuba is actually rather diverse ranging from steep cliffs in the north and parts of the south, a long muddy beach situated in a large shallow bay to the south, one long sandy beach within a shallow bay and several smaller beaches of similar type to the north as well as muddy mangrove forest along parts of the western shore. There are also a few coral reefs growing along the eastern shoreline of Pulau Tuba as well as some more scattered around the island. The somewhat unique nature of various parts of the Tuban ecosystem is reflected in the diversity of marine

life available to catch within each of these habitats as well as Tuban fishermen's adaption of different techniques suited for fishing in such specific habitats.

## 4.1 Fishing nets for catching fish

An interesting form of net fishing is *pukat jerut* (purse seining) which there also seems to exist another variety of among the Tuban fishermen. I think a better term for one of the Tuban versions would be encirclement fishing and is usually carried out within a short distance from the shore. The procedure of using this net involves two or more fishermen, one who steers the boat and one who handles the net. The net handler first deploys it by dropping one float attached to the net and the driver drive the boat in something like an oval or circular shape. When all of the net has been deployed in a satisfactory shape the net handler throws the end float out of the boat. Both then proceed to grab something which looks like a large drumstick, actually an old part-plastic and styrofoam float, and start beating it at the boat railing while driving outside the deployed net. This method is meant to startle the fish so that they swim into the fishing net. After one round the fishermen shut the engine off and wait for 15-20 minutes after which they might make another round around the net repeating the same procedure as before or start pulling up the net. When pulling the net up both the net handler and the driver are actually involved, wearing woolen gloves to protect themselves from sharp objects like coral and sea urchins. Depending on how good or bad the catch is the fishermen might then proceed to deploy the net again or return to shore to sell the catch. If a certain amount of valuable fish such as *kerapu* (grouper) has been caught the fishermen will sometimes drive over to Langkawi, selling the fish to a middleman there.

Some of the Tuban fishermen travel several kilometers away from the island to sand banks rich with marine life and beyond. While fishing here they might also combine different types of fishing equipment such as driftnets, crab nets and line fishing. During fieldwork I went out towards the sandbanks with some fishermen on two separate occasions. The first trip was with Mahz who was intent at catching large fish such as *Tenggiri* (a species of mackerel) by line fishing. He employed both traditional and modern equipment while fishing, the latter which consisted of a Rapala-style fishing tackle attached to a hand line. The traditional method consisted of using fresh fish, bought from a couple of drift net fishermen at sea, with a hook through the belly and a piece of wire around the fish snout to keep it in place and attached to a similar hand line as the one used for the modern method. There was actually several



fishermen, 4 that we saw, within the same area fishing in a similar manner as Mahz that day. Fishing at open sea in the tropics clearly does affect the health of the fishermen, seeing as most of them wore hats and long-sleeved sweaters for protection against the sun. At about noon all the fishermen within a certain range on the fishing field gathered together and had lunch while idly chatting with each other. Some of them put up protective screens made of an old *sarong* (women's clothing) tied to four bamboo sticks in the corners to block out the sun and create some shade. Upon moving from the front of the boat I could physically feel the huge difference between staying almost unprotected under the scorching sun and being underneath the cover. The bamboo sticks also served a secondary function, namely that of keeping the fishing line from reentering the boat. According to Mahz it was very dangerous if this happened as the line would serve almost like a guillotine if the line slipped when we got a large catch. Mahz also recommended against tying the fishing line around the hand or other body parts as the result could be similarly brutal. However luck was not on our side that day and we didn't land any catch even after staying at sea for almost 10-11 hours.

One of the most diverse types of fishing at Pulau Tuba in terms of equipment is that of drift net fishing, the reason being that there is a wide range of different drift net types to catch specific fish species. Some of these are *pukat bawal*, *pukat tenggiri*, *pukat temenong* and *pukat talang* which are all named after the species they are intended for and which vary from each other in mesh size and net length. I also saw a few examples of combinatory use of nets however this doesn't seem to be too widespread and such use might be due to other factors, personal economy being one of them. Several fishermen told me the nets are rather expensive and a fisherman must also spend some time assembling and preparing the net before putting it to use. A fisherman may also conduct a small ritual before using a new net, like splashing water onto it while whispering a prayer.

As I mentioned earlier I went two times to the sandbanks approximately a few kilometers away from Pulau Tuba. On the second trip I went together with a fisherman and rubber plantation owner from Kampung Bukit Putih called Aro and Di, a part-time fisherman and hairdresser from Kampung Lubuk Etok. We left the jetty at Kampung Tepi Laut at around 7:15 in the morning and upon arriving at the fishing field several boats was already in the area. All the boats were anchored side by side, with some meters distance, and they were all fishing with hand-lines after *kerapu* and other fish. After a while another couple of boats arrived and at one instance there were 9 boats at the location. Four of the boats had married

couples in them, two boats with one man in each, two boats with two men while there was a single woman in the last boat. After fishing for 1,5 hour we had caught a couple of *kerapu* and started driving out towards where we would lay the net. Some of the other boats also proceeded to separate net laying spots, while others stayed behind and continued hand line fishing. According to Aro the sea was calm (*Air Tenang*) which Di claimed wasn't good for fishing since it meant the drift net wouldn't move. The drift net is attached to a styrofoam float in each end with weights at the bottom and a string of floats along the top.

According to the fishermen this makes the net "crawl" along the sea bottom following the current; however it is important to notice which direction the current is moving to prevent the loss of the fishing equipment. While Aro was driving the boat, Di put the first float followed by the net out over the boat railing. He was wearing gloves to prevent his hands from suffering friction damage and the snapping of fingers entangled in the net. After throwing out the end float we drove back along the net to the location of the first float and laid anchor to wait for the net to drift. Two hours later they decided to pulling the net up again, a strenuous process when hauling up a 300-meter long net which is almost impossible to do alone. Yet after concluding that the catch was too small, they put out the net a second time following the same procedure. But this time they only got a bucket of fish, mostly *Ikan Kebasi* (Shad) and *Ikan Kembung* (Rastrelliger) and a crab as well as some fish they threw overboard since it was dirty and inedible. Aro and Di then decided to return to Pulau Tuba, but due to the small catch they kept and split it, to be used for their family's consumption.

There are also some net types which are affixed to the seafloor when used by fishermen. One of these is *Pukat Karang* (coral net) which is used near or at locations with coral reefs. During the fieldwork I went once with a fisherman named Pazo and his friend to observe them using this net type. We left the jetty at Kampung Tepi Laut in the afternoon at around 4 o'clock and headed along the northern shoreline of Pulau Tuba towards *Tanjung Peluru* (Cape Bullet) where Pazo had set up his net earlier the same day. The friend started pulling up the net and Pazo, who was driving the boat, joined him after a short while. In the net there was two *kerapu*, a few crabs, a white fish with a black dot and some pieces of coral, the latter which I upon talking with Lunur's sister, who was doing a PHD on social economics on the topic, found out was a rather large environmental issue that local fishermen faced. Even so the real environmental issue is actually the larger trawler boats, *Pukat Tunda* (tuna trawler) and *Pukat Bilis* (anchovy trawler), whose crew regularly get pieces of coral and non-quota catch in their

trawl and which are now thought to do considerable damage to the marine ecosystem over time. However Pazo and his friend agreed that if they caught a nice piece of coral in the net they would rather keep it than throw it out again.

In the net there was also some *sepod* (seashells) that had gotten stuck which the fishermen removed by hitting it with a plank and sometimes keeping it if the cluster was large enough. After pulling up the net and cleaning a second net Pazo had brought with him we continued southwards along the islands eastern shore. Shortly after passing the scenic outlook the fishermen started putting out the net again. According to Pazo it was a good location to fish as long as the weights keeping the net down remained in place. Seeing as there was no natural barriers protecting the shoreline, it could be a rather tough place to fish if there was big waves and much wind. After Pazo's friend had put out the net we travelled back to the jetty, where Pazo told me he would go back and take up the net at night or the following morning.

## 4.2 Fishing nets for catching crab

Some of the Tuban fishermen specifically target crab during their fishing. Nets used for crab fishing can either be a *pukat ketam* (crab net) which is a partially custom made net with large mesh width or a drift net almost similar to those used for catching fish. The fishermen use different techniques for these two types of nets. Din, the crab fisherman mentioned earlier, not only encountered problems with too low sea level but also with his engine when we were going to sea. He had a large diesel-engine with a hand crank and apparently there was an issue with the feeder hose or the start plug. We used about 45 minutes to travel towards his fishing spot which was close to another island named Pulau Timun. According to Din his fishing net was worth 2000 MYR and was close to 150 meter long, consisting of several smaller 30 meter nets with a small 20 centimeter gap in-between them. When we arrived at the fishing spot he first threw out a buoy which could be tied to either large rocks or bricks acting as weights which partially pulled the net towards the ocean floor. While he was putting out the net he had to remove seashells, squid eggs and jellyfish slime in order for the net to be deployed correctly. He also complained about the wind, since the boat started drifting when it should be standing still. Din also said that he would leave the net overnight and pull it up the next day, even this meant he had to travel double the distance as other fishermen. But since Din didn't have to stay for longer time than it took deploying or hauling the net and this type of fishing only required one person the negative and positive sides seemed to outweigh each other.

In contrast the drift crab net must be pulled in during the fishing session or it will be lost at sea and is also deployed while the boat is running very much akin to other drift nets, however this net only required one person for use. At about 8 o'clock in the morning I met the fisherman at the village square, he bought some food and talked with the Imam after which we went to his house which was behind Ligga's house. He entered his house, seemingly rummaging through it for a small net. After this we walked through the neighboring garden, greeting the woman rearing goats and her friend who was sitting outside chatting and proceeded down to his boat which was lying close to a small stream at the edge of the village. An hour after I had met him we were on our way to the small islands north-east of Pulau Tuba and stopped in-between two islands upon which the fisherman exclaimed "*Hari ini, air mati*" (Today the sea is dead), meaning we had to wait for better conditions. After 1,5 hour of waiting in the baking sun without any wind we proceeded towards the fishing spot. There we met two other fishermen on their way back from the sea who said "Today there isn't any crab. We are going back to relax. It is probably better tomorrow".

A couple of mackerel trawler boats also passed by and the fisherman said there was a huge issue with having those around as they fished everything from fish to crabs. While steering the boat with one hand and deploying the net with the other hand with help of a bamboo stick, similar to how Mahz used it to keep the line outside the boat, we drove on for 200 meters. After this the fisherman cut the engine and we waited for 1,5 hour before he started pulling the net up again, but after 10 meters he said "*Tak ada ketam*" (There is no crab) something he repeated a few times. The fisherman was wearing a hoodie to protect himself from the sun as well as gloves to protect his hands. A lot of marine creatures had been caught in the net like a puffer fish and several small fish, but only five crabs. While we were at sea we also met Mahda's son and his friend who told us they had been having a good day managing to catch several crabs, followed by the fishermen cracking jokes with each other. Upon returning to shore the fisherman I was with started to empty his net of fish that he had caught, indicating to me that at least his family had something to eat.

### **4.3 Squid Scooping**

This was actually the first kind of fishing I went along for during my fieldwork. After arranging to travel along an old man for fishing through Samuel, on the condition I brought my own food and drink, I was told to be at the jetty in Kampung Tepi Laut about 6' o'clock in



the afternoon. 15 minutes before this, the old man arrived at the jetty carrying a cooling bag, petrol canister and other equipment but he went back to pick up a young man. The young man whom I will refer to the "net caster" and the old man loosened the moorings of the boat and I climbed down into the boat to receive some of the equipment. After filling the engine with gas from the petrol canister the old man started the engine and we proceeded out towards the sea. However after 800 meters we stopped at the southern side of a small island and the net caster threw out the anchor. The two fishermen started preparing the gear for the nights fishing; each of them seemingly having specific tasks. The net caster began screwing light bulbs into the lamp rig (four different bulbs, two which had clear white light, one with red light and one with a lamp screen and dimmer) while the old man prepared the petrol aggregate for powering the lamp rig. Then the net caster swung the lamp rig out over the right edge of the boat and tied a supporting pole to it. After that he started working on the ice in the cooler, in preparation for storage of the catch. 45 minutes after leaving the jetty, the boat was ready for squid scooping and the net caster started the aggregate.

At the same time several *pukat bhilis* (anchovy trawlers) was passing by on their way to Kuah for unloading the day's catch, some of them with the crew resting on deck others fixing the trawl and some of them hanging up clothes in the back of the trawler. We waited for an hour for the first squid to appear and start circling in the water surface. Just moments later the net caster threw the net for the first time and caught 30 squids. During the entire night he threw the net 9-10 times while the old man used a line with a special hook to fish single squids, the latter which I also did. When the squid came out of the water they would occasionally squirt ink and salt water all over us and the boat. While waiting between each throw we either slept or fished with the line. Sometimes the old man would also use a landing net to catch lone squids and crabs for his own consumption. Between 03:00 and 07:15 there were almost no squids to be caught. The net caster was seemingly tired and wanted to sleep so the old man had to yell and kick him in order to wake him up. But the last two hours we were all so sleepy that we half slept in the carbon monoxide vapor and loud sound from the aggregate. The last hour before dawn the fishermen tried catching the last squid in the area and after this we went back to the jetty. The fishermen went home and stored their catch to sell it later the same day.

At another occasion I was lying in a hammock underneath the trees near the beach in Kampung Tepi Laut and talking with Nadche, a 60 year old retired banker who had bought a large fishing boat. He told me how "*There are many various ways of fishing here nowadays*"

proceeding with "*but there are only 2 real fishermen, by which I mean they travel to sea 20-25 days during a month. The rest are just part-time fishermen, who sometimes fish for profit and other times for food for their family*". He also mentioned that he was out the night before fishing squid and I asked if I could join him the coming night. Nadche also owned a net for catching medium-sized fish, but said it was difficult to recruit crew for this kind of fishing since it was done in the night and the yield was often low. Usually people would sign up as crew for one night, but no more.

About 5:30 in the afternoon I was on my way towards Pulau Lima, a small limestone island about 2 kilometers south of Pulau Tuba. Nadche had brought along his son, who was of similar age as me, for crew. On each side of the boat other boats are passing on their way to the fishing grounds. We encountered a slight problem with the engine petrol hose, but after fixing and hitting the starter a few times the engine, which was a truck engine, started again. Short time after we arrived at the fishing spot, several other fishermen arrived at nearby spots. Nadche told me "*I have caught 200 kg at this spot during the last five days*" and also said "*during a good throw with the net it is possible to get as much as 30-50 kg of squid*". At about 19:45 almost all the fishermen simultaneously switched on their lamp rigs. According to Nadche, the moons position plus dirty water from the spring tide which occurs twice a month was important to get a good catch. Sometime around 10' o clock in the evening, Nadche threw the first throw and caught 98 squid. The next throw was about 1' o clock and he caught 112 squids. His son was controlling the lamp rig by dimming and turning on the red light. I noticed that some of the other boats nearby used green light. Throughout the entire night Nadche threw the net 6 times of which 4 times was during the night itself and 2 times in the morning to catch the remaining squid. The following morning we fished barracuda on the other side of Pulau Lima for a few hours, using some of the caught squid as bait. After this we proceeded to Langkawi in order to sell the catch as elaborated in chapter 2.

#### **4.4 Various fish and crab traps**

Tuban fishermen also employ several different varieties of both *Bubu Ikan* (fish traps) and *Bubu Ketam* (crab traps). The fish traps are usually deployed close to the shore in the northern and southern bays as well as underneath the jetties and the fish caught in these traps is usually quite small. It seemed like the usage of fish traps was more of a subsistence activity in terms of supplying the household with food. However the caught fish inside the trap could

sometimes act as a lure for larger fish by using fishing rods or hand-lines. The economical value of crab traps on the other hand became increasingly higher during my fieldwork, which is elaborated further in chapter 5. This activity actually changed from being primarily a subsistence activity to becoming a potential source of income due to increased demand for crabs. Both crab traps and fish traps have metal frames over which a net with varying mesh sizes is stretched. The designs themselves might vary from round traps with a large bottom ring and a smaller bottom ring to which metal wire is attached supporting the frame. Through the trap a half-meter long piece of wood might be stuck in order to fasten the trap to the river or sea bottom. Other designs include cylinder-like traps with narrow entries on the sides or round tent-like traps. Depending on a fisherman's economy both crab traps and fish traps are combined with other types of fishing. Some of the traps are even dependent on being launched from boats. The Thai people living at *Kampung Bagan Pau* and *Kampung Bacar Arang* favored using the traps in the mangrove forest and rivers adjoining the strait between Pulau Tuba and Pulau Dayang Bunting.

## 4.5 Collecting mussels and seashells

Occasionally while observing other activities I saw women sometimes followed by their children *cari sepod* (looking for seashells) like clams and mussels at the beach near Kampung Tepi Laut. This made me interested in observing this activity further. The women, who were both young and old, would use short rake-like tools to dig into the sand looking for hidden shells and collect them in a bucket or a plastic bag. When going back home they would then start preparing the shells by opening them with a sharp knife if the shells were for self-consumption or began sorting them into different containers or bags if they wanted to sell the shells. Sometimes the shells would be brought to the ferry quay for transportation to Kuah for selling. When asking some women who was sitting by their house and working with the shells they told me the price was only 1 MYR per kg for *sepod Kerang* (clam shells) but other types of *sepod* (seashells) could fetch higher prices.

During a fishing trip with a retired policeman and his nephew we suddenly saw 70 or more people standing or sitting in the mud near the bridge between Pulau Tuba and Pulau Dayang Bunting close to kampung Selat Lubu Cempedak. When we came closer I saw that there were mostly women and children but also some men who were busy diving and collecting clusters of *sepod*. The gathered people also had large round plastic sieves which had been attached to

wooden poles with wire or thread which they used for sifting the gathered shells in and remove the mud from the clusters. We stopped next to them and all of us jumped into the water, starting to collect clusters of *sepod* ourselves. The clusters almost looked like the frames used in beehive farming full of honeycombs, or shells in this case. Another boat also pulled up next to us, some of the people in it jumping into the water and also collecting shells. To my displeasure I discovered the muddy sea bottom was full of sea urchins, which hurt like bee stings when stepped upon. I recognized several of the gathered people as coming from the other side of the island, among them Aro and some other women and fishermen. Another thing I noticed was how all the women wore regular clothing, like hijab and batik in the water. People were chatting with each other, some children were playing in the water and they seemed quite happy. When we had gathered enough shells we went back into the boat, but the retired policeman discovered he had not brought along a sieve and had to borrow one from a neighboring boat. The nephew and I then started sieving through the shell clusters as we drove further down the strait and away from the people collecting shells.

Another time I was sitting in the van of Rosli, a van-driver and the leader of the home-stay program on Pulau Tuba, on the way back from a jungle walk when he got a phone call from his wife. She and several other people had been gathering seashells at a beach close to *Tanjung Pandan* and needed transportation for the *sepod* back to *kampung Teluk Puyuh*. However on our way there we drove onto the bridge between Pulau Tuba and Pulau Dayang Bunting where people was looking for and collecting shells in a similar way as mentioned above. A young American tourist was also in the van and after arriving close to the beach we followed Rosli down to pick up the cargo. At the beach there was close to 20 people wading in the water looking for seashells or sitting at the mudflat cleaning shell clusters. The shells had been put into various bags and buckets for carrying and we had to watch our step while walking barefoot with the shells on our back towards the van. We drove back towards Rosli's house in *Teluk Puyuh* and upon arrival Rosli's wife and daughters started preparing some of the shells for cooking. Opening the shells with a sharp knife required some technique however and I cut myself while trying to copy the women.



Figure 8: Mother and daughter cleaning seashells



Figure 9: A man illustrating rubber tapping



Figure 10: An elderly man and his water buffalo



## 4.6 From rice cultivation to rubber tapping and cattle rearing

Fair to say there has been a rather significant change in Tubans ecological adaption when it comes to agriculture, especially wet rice farming. Larsen did a household survey during her fieldwork where 77 persons said they did paddy farming as a side occupation, some of which were field owners who rented out the field or laborers working on fields owned by others (Larsen 1994: 133). As mentioned earlier the population of the eastern side of Pulau Tuba was 1329 persons in 1988-89 (Larsen 1994: 117). Today there are only one or two elderly people on Pulau Tuba who still farm rice when the conditions are right. Larsen does actually state that some of the reasons Tuban rice production has decreased is due population growth and farmable land plots becoming divided into non-economically viable land (Larsen 1994:142).

On the other hand it has apparently been an explosion in rubber plantations and people doing part-time work on these as rubber tappers in the recent years. When Larsen describes the rubber production of Pulau Tuba in her ethnography she describes that "*Some households on Tuba are involved in rubber production. The existing rubber trees on Tuba are old and not very well kept*" but she also mentions that "*at the time of fieldwork, several new rubber forests had recently been planted, but were not yet mature for tapping*" (Larsen 1994: 142). Actually parts of this picture is still true seeing as there are old, seemingly abandoned rubber plantations scattered throughout the island, yet there has also been a significant increase in both the amount of rubber plantations and newly planted rubber trees. When the western side of Pulau Tuba, *balik bukit* (back across the hill) is also included in such a figure, rubber can today be considered a quite widespread crop on the island. As I've mentioned in an earlier chapter there are still a few Chinese who own rubber plantations on Pulau Tuba, however most of the plantations today are owned by islanders and worked by women and children or fishermen as a side-occupation.

## 4.7 Rubber tapping

I woke up early in the morning before sunrise and walked together with Kapak, the motel owner along the main road towards a rubber plantation approximately 5 kilometers away. She was carrying two *pisau getah* (rubber tapping knives) with her. Along the road we met people on their way to the jetty and going for work in Kuah. When we got to the large road

intersection at Kampung Bukit Putih where the road continues west across to the other side of the island and south towards Kampung Teluk Berembang, we took a right turn and entered a small road. Continuing along the road we first passed Aro and his brother's house and rubber plantation and then continued walking along a small jungle road past a *kebun pisang* (banana plantation) at the right. After a few hundred meters we took a left turn and walked down a small dirt road partially covered by branches and the jungle canopy. We spent about 45 minutes walking to the plantation. Just before getting there we passed another rubber plantation, behind the island's only provider of construction materials, where five women and one man was standing and cutting small strips off the rubber trees followed by a milky-white liquid dripping out of the tree trunk and into small black plastic buckets. 30 meters along the road we entered a plain where there were 5-6 rows with 10-12 rubber trees in each row. The motel owner started *motong pokok getah* (cutting the rubber tree). First a small diagonal incision from the left followed by a similar cut from the right. Extending from the tree trunk was a small metal tap leading the rubber milk into the black plastic bucket. After 20 minutes a woman accompanied by a small girl appeared and also started rubber tapping. Kapak gave me the rubber tapping knives and instructed me how to cut as well as how to avoid pieces of bark in the rubber milk. She also told me that if it started raining it would corrupt and ruin the rubber milk hence it was vital to empty the bucket during the same day. After a few hours of tapping we walked back to the motel.

Through doing this participant observation I gained the impression that rubber tapping was a female dominated activity, however later observations and conversations with informants on the subject indicated that men also tapped rubber, but on a smaller scale. Another occasion where I got to see rubber tapping was after a *kenduri* (wedding feast) in Kampung Lubu Etok, where I asked Aro, the fisherman from Bukit Putih, if I could go to his house and look around on his property. Back at his house, Aro told me he had 8 siblings who each owned 1 acre of land next to each other in Kampung Bukit Putih. At his property he had both rubber trees and some fruit trees, the latter which will be elaborated in another section of this chapter. While showing me around on the property he also demonstrated how to do rubber tapping but later told me that it was his brother, living next door and doing part-time work as a hairdresser, who usually did the tapping. According to Aro a rubber tree has to grow for 5-7 years before being able to produce good-quality rubber milk.

First a diagonal cut is made at one side of the tree trunk downwards to a certain point and a similar cut on the other side. After cutting into the tree with the knife the rubber milk starts dripping into a plastic cup or small bucket. It takes 4-5 hours for the rubber milk to dry in the cup, upon which it must be harvested before any rainfall ruins it. However the rubber should only be tapped once a day or else the tree will die. The bark on the rubber tree will gradually heal itself over a period of 4-5 years after which the process of tapping can be repeated. While tapping rubber, Aro said, it is also important to check whether there are any bits of bark or other foreign objects in the cup which could deteriorate the quality. The harvested rubber from Aro's plantation would be placed in a large barrel for storage and later transported across the hill to a middleman, the *ketua kampung* (elected village leader/chairman), in Selat Bagan Nyior who would sell it further to a buyer.

## 4.8 Coconut harvesting

Almost every household on Pulau Tuba grow *pokok nyior* (coconut trees) near their house or have access to coconuts through their "father land" or reciprocal relationships with friends or neighbors. There are also some coconut plantations on Pulau Tuba which grow coconuts for off-island export. I went together with a man, the son of a shop owner at the crossroads near Kampung Tepi Laut, to one of these plantations situated between Kampung Luboh Etok and Kampung Kuala Sungai. He had bought the rights of harvesting the coconut trees from the plantation owner and sold the coconuts to Kuah. We gathered coconuts that had fallen down from underneath the trees and put them in a large heap. We also shook each coconut to hear if they had liquid in them or not. The man then inserted a large spear-like object into the ground and started ripping off the outer shell on each coconut. He told me that good coconuts were brown, not green in color and should not have sprouts growing out from them. The outer shell or skin is pulled off by piercing the coconut onto the spear from one side and pulling downwards with both hands while gradually rotating the nut around until one gets a star-shaped outer shell that can be pulled off. This outer shell however is not considered waste but can be utilized for everything from barbeque and rope making to plant pots. He told me that he bought the coconuts for 40 cents apiece and earned an additional 10 cents apiece. Transportation of the coconuts cost 50 MYR by lorry to the Jetty as well as transportation costs for the boat. In Kuah the coconuts are sold at a price of 1.20 MYR for a big one and 70



cent for a small one. The coconuts can also be sold for industrial production where the oil is extracted and used as an additive.

While doing a walk around the village, a method which apparently can lead to some really interesting discoveries I stopped next to a small shop and talked with the shop owner who was an old lady. Then a young man driving past me stopped and asked if I wanted to come along and watch them harvesting coconuts. The issue was that I walked on foot and when I arrived at the coconut plantation the man was seemingly gone. I tried looking for the young man and chose to enter a small forest where I could hear voices speaking in Malay. At my surprise the young man and his friend was sitting next to a tree, heating up a white powder in a spoon over a small flame. Moments later they both spotted me and the young man I met earlier put his index finger across his mouth and made a gesture of silence followed by pointing towards where I came from, indicating I should hurry back. Back by the coconut trees I saw two other men who were gathering coconuts in a pile as well as an old lady standing next to them. I went over to the old lady and in my adrenaline rush told her in broken Malay what I had seen and then she rolled her eyes, indicating she knew what was happening. A short while after the two young men appeared from the jungle and one of them climbed fast as lightning to the top of a coconut palm and started throwing down coconuts. The other young man determinedly grabbed what looked like a large reverse gardening scissor and started cracking the shell of the coconuts his friend had thrown down. I was anxiously standing there looking at the two young men, visibly intoxicated by something, working fast and efficiently like a whirlwind.

At an earlier occasion I actually went together with Samuel to fetch coconuts at a coconut plantation up in the hill behind the mosque. When we arrived there was a work gang of 7-10 men busy with fetching coconuts from several trees in the vicinity. According to Samuel they were contractors from Thailand or elsewhere who had come to Pulau Tuba for the single purpose of doing this job. While the contractors continued their harvesting, Samuel, I and a couple of other Tuban men started carrying coconuts from several coconut piles in the area onto the back of Samuel's lorry. Afterwards we drove down a small dirt road which lead to the main road and then drove the fully loaded lorry to the jetty where the coconuts was packed into bags and sent with the passenger boat to Kuah.

## 4.9 Fruit plantations

Almost every day I went to the Imams *kedai kopi* (coffee shop) for breakfast. Occasionally I would also sit down and share a cup of *kopi* (coffee) or *teh* (tea) with some of the visitors. One of the regulars at the coffee shop was Hajji Faizil whom I talked with almost daily. He told me that he had a *kebun buah* (fruit plantation) which he visited regularly to attend, when he managed. If he was going to the plantation he would usually be wearing a leather cowboy-hat, a shirt and a machete at the side of his belt. One day he asked me if I wanted to come along and look at his plantation. I accepted his invite and after drinking up our coffees I got onto the back of his scooter and we went off towards Kampung Bukit Putih. Just after passing a house under construction we went up a small dirt road leading up towards *Gua Wang Buluh* (a cave which is part of Langkawi Geopark) and the dam which used to regulate the water flow to the central paddy fields. However we stopped after just a few hundred meters and got greeted by Hajji Faizil's guard dogs. Even though dogs are usually viewed with scorn on Pulau Tuba, mainly due to religious reasons, Hajji Faizil still chose to feed them occasionally. This meant the dogs would stick around his plantation and guard it from intruders like youngsters looking for fruits or wild animals like monkeys and wild boars, in exchange for food. I still felt sad for the dogs whom although mangy and flea-ridden happily wagged their tails as we entered the plantation lands.

The crops which Hajji Faizil grew consisted of a multitude of fruits among which was *Buah Nanas* (Pineapple), *Buah Cempedak* (same family as breadfruit and jackfruit), *Buah Nangka* (Jackfruit), *Buah Mangga* (Mango) and Buah Nyior (Coconut). He told me that in order to further protect some of his fruits from insects while ripening he would hand weave traditional *sarung buah cempedak* and *sarung buah nangka* (literally sheath or cover for said fruit) made from palm leaves. While we were at the plantation he used a long stick with an iron hook at the end to loosen coconuts as well as his machete to slash the coconut open. The machete was also used to cut loose pineapple and remove weeds from the plantation. Hajji Faizil told me he did the latter in order to prevent overgrowth which could potentially turn the plantation into a paradise for snakes. As I mentioned earlier Aro from Bukit Putih also had some fruit trees at his property like *Rambutan*, *Buah Nangka*, *Buah Manggis* (Mangosteen), *Buah Cempedak* and *Buah Asam* (Tamarind) as well as some bamboo trees. Sometimes he would sell the fruit from these trees at different rates or use them for his household's self-consumption. Outside his house he had a roofed wooden platform for storage of the above-

mentioned fruits and his fishing equipment as well as a hammock that served as a resting place during the warmest hours of the day.

## 4.10 Gardens

It is not unusual for the inhabitants of Pulau Tuba to have a garden close to their house, however after talking to several informants as well as walking around in the village they didn't seem to have an unified notion of what should be grown within such a compound. It can also be difficult to differentiate between what makes up a garden and a plantation, seeing as both fruit and vegetables grown at plantations can also appear in gardens. Another issue I discovered was that the local word used for plantations (*kebun*) is also used when talking about gardens. On the other hand, usually only a couple of plants or trees of the same species are grown in a Tuban garden and the produce from these crops are used as ingredients for cooking, subsistence, treats for children and also in reciprocal exchange with family, friends and neighbors rather than becoming injected into the economical system. However I also saw some people selling their garden produce directly to fellow villagers or indirectly by using it in cakes, candy or food to be sold, but only on a small scale. Spices for use in cooking as well as herbs for use in traditional medicine are also sometimes grown.

The following is an example of how garden produce can be used to earn a temporary income. An old fisherman, living directly opposite from the police station in Kampung Tepi Laut had a garden next to the intersection in Kampung Bukit Putih. He and his wife used to travel there occasionally, during my stay, to fetch different fruits and vegetables. One day as I was walking past their house I saw both of them standing inside the partially open warehouse next door. The wife was busy cracking open the outer shell of *kelapa* (coconuts) lying in piles on the warehouse floor with a *linggis* (spud bar) while the fisherman was having a rest at a workbench next to her. Piles of plank and other building materials were lying around the workbench. The next day he had started building a street vendors cart with the intention of putting it over at the four-road intersection I've nicknamed the village square. While he was finishing up the cart his wife was busy making cakes of various sizes from the coconuts and other ingredients fetched from their garden. A couple of days later I woke up early as I was going out with another fisherman and went over to see the fisherman's wife selling her cakes in action. The closer I got the better I heard the almost constant rumbling of people driving to and from the village square on their scooters. At one point there was nearly 20 scooters

parked within that area. Both men and women were sitting on their scooters, others idly standing and chatting with each other, while the rest was standing in line at the two *kedai makan* (restaurants) and the *kedai kek* (cake shop). The fisherman's wife had neatly cut some of her cakes into smaller pieces and gave each customer the pieces of cake they wanted in a plastic bag. After the people had bought what they came for, they hurried along either to their work, home or trying to make their way to the boat to Kuah.

## 4.11 Cutting grass and rearing cattle

On Pulau Tuba there are also some other activities linked to agriculture or gathering of plants which the inhabitants carry out. One of these is the harvesting of *rumpit* (grass) which is used as fodder for *kerbau* (water buffalos). I went together with Farin, a fisherman as well as the captain of the water supply ship owned by the Halim Mazmin group docked at Jeti Tuba, and his wife up into the hills above Kampung Teluk Puyuh. Following a narrow jungle path lying next to a small river we arrived at his brother's *kebun* after a 5-minute walk. Farin started *potong rumpit* (cutting grass) by using a *sabit* (sickle) at the bottom of the grass stalks. Each time he cut a plant he would lay it in a heap next to him upon which his wife assembled the cut grass into a bundle and eventually put it inside a plastic bag. There was also a range of other crops growing within the vicinity of the grass field, like a large banana plantation and some scattered fruit trees. Once Farin had cut enough grass he put the bundle of *rumpit* on his shoulder and we started walking down again, passing through a small gap in a barbed wire fence and balancing along the edge of a steep cliff with a waterfall. Back down by the road, Farin and his wife got onto a scooter with the bundle of *rumpit* in-between them and I followed them back to their house driving another scooter. When we got back to the house Farin carried the bundle over to his water buffalo which was tied to a small wooden stick next to his house, and fed the grass to it. Farin told me he also had another water buffalo but that it would wander off during the day and return before nightfall.

There are several ways which the inhabitants of Pulau Tuba keep their cattle. One is the way described above where cattle are kept close to the house. Another is by keeping it within certain designated areas as described in the following story based on observations from two separate occasions. While walking along the road on the way back from Panga's house there were suddenly several men on scooters passing by me with bundles of *rumpit* tied at the back of their scooters. I decided to try and catch up with them; however I was *jalan kaki* (walking).

Taking a right turn from the main road I passed an abandoned house and after several hundred meters reached an open area where some men was gathering and tying up their water buffalos for feeding. The men said the water buffalos would often come back to the feeding grounds on their own but sometimes they had to search for them. Among the gathered men was Farin's brother, an old man, the father and son from a house next to the central paddy field, a fisherman with a scarred face, a friend of Samuel and some other men as well as another old man. Each of the water buffalos ate a bundle of *rumpu* weighing about 30 kilos. The gathered men had also had put up a net on each side of the open field where they could catch live birds, and a jungle pigeon had been caught and put inside a plastic bottle with breathing holes. One of the men was catching insects to feed the pigeon with. Three wooden planks were lying at the edge of the field as well as a hammock strung up between two palm trees. At 19:25 the men got on their scooters in order to get back for prayer time at 19:30 and said it was "dangerous to be outside". I walked back together with two men living nearby following a small jungle path, crossing small streams on narrow planks several times.

A couple of days later I went back to the cattle feeding grounds again. When I arrived two teenage boys was walking around trying to fetch water buffalos. After a short while some other men with bundles of *rumpu* on their scooters also arrived. Among them was Farin's older brother, who also owns the eatery at Jeti Tuba and is a part-time shipmate at Farin's ship. An old man, who supposedly was the wealthiest cattle owner at the island by selling cattle to wedding feasts, was also there. The old man told me he was going to search for his cattle and I followed him. He went into a patch of forest along a small path and on the other side was an open paddy field where 10-12 water buffalos were standing. He started yelling "*Hoh-hoh*", waving his arms up and down in order to make the animals walk back in the direction he wanted them to go. He told me to go back the same path as we came to prevent any cattle from running off in that direction, while he would follow behind the cattle in the open land next to the forest patch. Arriving on the other side of the forest I saw a steady stream of cattle walking in line into the "assembly field", which was surrounded by coconut and fruit trees. After 30 minutes it started raining heavily so a couple of the men walked over to the nearby trees taking cover from the rain. The old man went under another tree and stood there while the rain continued falling. A short time after one of the men invited me home.

## 4.12 Alternative activities: From cockfights to collecting honey and guano

There also exists a wide range of alternative activities which the Tubans take part in, some of which according to the Tubans themselves are merely hobbies. However I will argue that these also are possible ways of getting an income. One such activity is the rearing of fighting cocks, an activity which is illegal meaning I'm unable to name any of the persons involved in it. When seen by outsiders it might seem like an inhumane practice to breed chickens for fights to the death, but as I discovered in the field the owners of such chickens actually put much care into feeding, training and caring for these animals. Ranging through several weight classes the grown cocks will face other cocks within their same class when ready. The value of a fighting cock can be as much as 800 MYR and above, so the owner will rarely gamble with its life before it is fully trained. One of my informants actually had the cock inside his house for a few days before the fight. But a cock fight needs a winner and a loser so the fight is usually to the death for the involved cocks, which the men in the cock fighting arena make bets for. The owners themselves are also among the better off and the cost of losing a cockfight can be quite high, sometimes as much as 1 month's wage. Winning on the other hand potentially enables the owner to invest his money in other things or even to take part in activities which he didn't possess the capital to be involved in earlier.

There are also other species of chicken being bred on the island like *Ayam Kampung* (village chicken) and *Ayam Bantam* (bantam chicken). The former is a very common breed of chicken which almost every household on Pulau Tuba owns a few of and which are used for getting eggs and sometimes slaughtered for meat. The latter breed of chicken however is very small and mostly kept as a display pet or sold for high prices reaching as high as 2000-3000 MYR for one adult animal. Both in *Kampung Tenga* and *Kampung Lubu Etok* there were villagers who bred bantam chickens for selling. The catching of wild birds is also quite common on the island and several households have live jungle pigeons outside their house. In addition wild song birds are highly sought after as pets and even exported off-island sometimes. According to an informant the shape of the tail and singing abilities of the bird determined the price of these birds which ranged from 1000-3000 MYR. In the months September and October there is a bird-catching season during which large nets are put up near open areas and on the beaches and wild birds caught, most of which were consumed locally as delicacies. There was

also some small-scale breeding of caught *burung helang* (eagles) from which parts of dead specimens was used for traditional medicinal purposes.

Gathering of honey is also an activity, yet according to informants it had decreased in scale, as there were only a few people currently doing it. Honey gathering was also a seasonal activity which took place for a short time in the rocky hillsides around the settled area. One small bottle of honey cost as much as 120 MYR, meaning it was a nice side-income. Another activity which I was unable to determine the extent of was that of collecting guano, although not restricted to only bats and seabirds but also including excrements from poultry. According to Rosli the guano was used as a fertilizer in the garden boosting the growth of plants.

Other gathering activities include the collection of roots, flowers and herbs for medicinal use some of which were grown in gardens but also some which could be found within the far reaches of the jungle. A man referred to by Samuel as "the medicine man", not to be confused with a *Bomoh* (shaman and traditional medicine man) told me that some of the most potent medicinal plants could be found at the summit of one of the island's higher mountains. In order to get there he had to climb and be wary of poisonous snakes and spiders. One of the medicines he made was his own concoction which he accordingly had spent 12 years to refine and which he claimed could heal almost any disease, as long as the user believed it worked. When speaking about alternative activities I also need to mention drug trafficking which according to several informants was quite widespread. All these alternative activities co-exist with the other major activities as detailed above, themselves which are combined sometimes and are carried out by villagers in different combinations as alternative ways of income.





Figure 11: Fishermen pulling up a prawn net



Figure 12: Preparing for squid scooping



Figure 13: Two men in a middleman's employ weighing a fisherman's catch



# 5 Limits and possibilities within the Tuban ecosystem

In the following chapter I will draw upon the various activities which people take part in, as described above, as well as highlighting ways these are interconnected and part of shaping the reality of the inhabitants of Pulau Tuba. This will be done through attempting to draw links between various activities which together constitute event chains or processes. First however, I'd like to stress the importance of human resources, such as prior skills, knowledge, capital and tools required to engage with the various activities which people at Pulau Tuba partake in, be they subsistence-oriented or economically oriented. Availability of a particular set of given resources within the limits of the Tuban ecosystem also encourages the specialization and nurturing of particular skill sets within the Tuban populace resulting in their locale-specific ecological adaption. Some of these human resources can be said to be the fruits of inter-generational knowledge transfer through the socialization and education of children.

## 5.1 Becoming part of it

Kinship and inheritance then also becomes important in enabling access to potential capital, both in terms of inherited land as mentioned briefly in chapter 2 but also through the inheritance of tools and equipment supplemented by the knowledge of where and how to use it. Another facet of kinship-based relationships between people on Pulau Tuba as well as relations evoked through affinity and friendship is that they sometimes enable individuals access to subsistence goods or other useful resources in times of need. What about people from outside the Tuban ecosystem, lacking these social ties? Janet Carsten argues that the incorporation of outsiders through fostering, marriage, hospitality, feeding and having children has been an important process in shaping the community in Langkawi (Carsten 1997: 280). As I've mentioned earlier the Tubans eventually started referring to me by a set of familial terms like *anak angkat* (orphan), *Pak su* (uncle) and *adik* (younger sibling) while some of the women eventually began referring to themselves as *Mak su* (aunt) in their relation to me effectively meaning I also became part of the incorporation process and making me able to verify that such a social structure exists.

When talking with people in the village I discovered that they often were married with someone from outside Pulau Tuba, even from other states in Malaysia. At the same time these outsiders gradually became fully incorporated in the Tuban society, with some exceptions. Samuel's wife who was from the state of Johore actually mentioned how one woman in the village had become her aunt and another her mother. Some of the people I talked with explained such kinship by referring to the nature of a Muslim wedding in which a woman might lose her own family yet gain another through her husband. One exception was an informant who told me *"I'm not from Pulau Tuba, but was born in Kampung Padang Matsirat, close to the airport on Langkawi"*. He further told me that he didn't feel like a Tuban, however his close family like his ex-wife and children still lived at Pulau Tuba. Another point is that one part of his family actually descended from Pulau Tuba and I heard several people referring to him as uncle or cousin. Samuel who was about 20 years younger than this man told me they were actually cousins, a generational gap created by Sunni Muslim men being able to have up to four wife's, sometimes much younger than themselves.

The man mentioned above was a well-spoken man with prior experience from hotel and restaurant business. He had also been an accountant for the fishing cooperative which had operated a fleet of large fishing boats from Kampung Tepi Laut prior to Larsen's fieldwork in the 1980's. At the same time he opened a restaurant near the village square, which subsequently closed due to lack of profitability. During my fieldwork he was almost daily tending to his fruit plantation at the outskirts of Kampung Teluk Buyur. He would occasionally sell the mature fruit to Kuah, consume it himself as well as give or sell it to people in the village. His son had established a catering firm together with his mother, the man's ex-wife, and they were both chefs supplying food to the high school cantina in Kampung Selat Lubu Cempedak. The son and mother also had a general store in Kampung Lubu Etok within which everything from bicycle tires to food could be found.

## **5.2 Inbound resource flow and limitations**

It is actually quite interesting how there exists quite a few shops and general stores on the island. Most of the products sold within these shops are goods bought by shop-owners in supermarkets or shopping malls at Langkawi and freighted over to Pulau Tuba either on the passenger boat from Kuah or by fishermen who do it as a side job. The majority of the products sold within Tuban shops were sold at a slightly higher price on-island than the

buying price in Kuah. However when talking with shop-owners a notion that one should not take advantage of customers seemed to exist. Even so many Tuban housewives's tended to make the journey over to Kuah when they wanted to buy a significant amount of food and items for their household. Outside some of the general stores there were also fuel barrels from which fuel could be bought. The shop owners themselves bought this fuel from "the government gas station" across the hill in Kampung Selat Lubu Cempedak, which received fuel from several tank trailers being shipped over from Langkawi on a cargo barge once a week. A few times during fieldwork there were fuel shortages at Pulau Tuba during which demand got so high that the price fuel price sky-rocketed. During these times there was tendencies of people, both shop owners and others buying up and hoarding fuel, some even travelling to Langkawi and buying fuel there to bring back, but even so the supply quickly dwindled.

I would actually argue that fuel is one of the most important and potentially limiting resources for the inhabitants at Pulau Tuba. Even if every fisherman has oars in his boat meaning he can still move around potentially fishing near the island's shoreline, a fuel shortage means that access to fishing areas further away from the island is denied. Fishermen are also effectively barred from conducting business with middlemen in Langkawi during such times, making them reliant on selling their fish to local buyers. If a fuel shortage was to occur during the squid scooping season it would potentially be financially devastating due to the fuel-driven generators used in this type of fishing. Aside from fuel, another important resource being imported to Pulau Tuba is propane or other types of gas used in the household for cooking. Gas canisters are driven from a storage facility in Kampung Luboh Etok to houses around the island, either by a strong man carrying a canister in one hand and having two more between his legs on a scooter or by lorry. The lack of gas is however not as limiting as lack of fuel since wood can be easily acquired and used instead. Access to wood from the jungle in the hillsides surrounding the settled area is however regulated by government laws as well as regulations stemming from some of this area being part of the Langkawi Geopark.

### **5.3 Linking the Tuban ecosystem**

The flow of resources both within and extending to and from the Tuban ecosystem is partially cyclical but as shown above it can also be focused one way. Supply and demand is one of the exterior mechanisms which influence such flow of material goods. The following is an

attempt of generalization of the whole process of fishing and export or relocation of fish acquired through such activities. Depending on what kind of prior skill, knowledge, capital and tools a fisherman has he must decide the location and type of fish he should go fishing for as well as what techniques he should use. As shown in chapter 4, there is a huge variety of approaches to fishing both in terms of technique, location and type of catch. While observing and going with fishermen at sea as well as talking with them ashore, I discovered there are both commonalities and differences between various fishermen thereby making it very difficult to generalize the terms fisherman and fishing. I did however not encounter the issue Larsen faced, namely knowledge about good fishing spots being kept secret to me (Larsen 1994:120), however sharing of such knowledge between fishermen rarely occurred.

Seeing as buying an all new boat and net is very expensive, a fisherman on Pulau Tuba will usually be using his father or a relative's equipment for a period of time. One example of this was a young man in his twenties from Kampung Tenga whose father was listed as the primary owner of a large, expensive boat while the son was listed as the co-owner of a smaller boat. However a fisherman may also take work as a helper on boats owned by other fishermen or may work in other non-fishing related activities in order to get money to start his own business. There are also fishermen who don't own a boat and there are fishermen who periodically work alone. An example of a fisherman who at the time of my fieldwork didn't own a boat is a 50-year old man from Kampung Tenga. Instead he would occasionally assist other fishermen as a *tukang*, a deckhand performing manual labor such as putting the net into the sea, hauling it up as well as collecting the catch from the fishing net. At nighttime he was known as the master of *Urut* providing traditional Muslim massage to the villagers. The part-time fisherman and hairdresser Di from Kampung Lubu Etok mentioned in chapter 4, is also an example of a fisherman doing similar work as the 50-year old man as a *tukang* on Aro's boat. Another fisherman from Kampung Teluk Puyuh, the brother-in-law of Farin, went together with the fisherman Mahz for shrimp fishing, however this seemed more like good friends going for a fishing trip rather than him being a *tukang* for Mahz.

However the fishermen of Pulau Tuba also have ways of alleviating for the lack of initial capital through several external means. One is through being organized in programs getting funding through the government agency LKIM (Fisheries Development Authority of Malaysia) which is responsible for several programs on both local, regional and national level tied to modernizing, developing and creating new opportunities for fishermen. Other

organizations are the government investment company 1MDB (1 Malaysia Development Berhad) which however has become involved in a corruption scandal (Kashuerin: 2015) and AIM (Amanah Ikhtiar Malaysia), a governmental microcredit organization for women with 2 chapters on Pulau Tuba. Another potential source of capital is the single cash payments from the government initiative BR1M (Bantuan Rakyat 1 Malaysia) to eligible recipients earning less than a certain amount of income every month. Several other initiatives and programs maintained by both governmental agencies and non-governmental organizations also exist, effectively linking the inhabitants of Pulau Tuba to the mainland.

## 5.4 The women's microcredit organization- AIM

One of the most visible of these initiatives is the microcredit organization Amanah Ikhtiar Malaysia, to which women from several villages attend meetings in two different chapters every other Tuesday. The following is based on information gathered during the two occasions I observed the meetings of one of the chapters. One day as I was having breakfast at the Imam's restaurant while the Imam was sweeping the floor, talking with another man and Pazo's wife was working in the kitchen, several scooters with women clad in red hijabs and orange flowery batiks passed by. The Imam laughingly said they were going to a course to learn how to borrow money. I decided to investigate this further and walked over to the *Surau* (a small prayer house) in Kampung Teluk Buyur where I had been told the women were having their meeting.

Gathered at the *Surau* were 33 women from the three closest villages. Four of them were sitting in the front behind a table together with one woman from Kuah who was the meeting leader. At the wall pictures of the king and queen of Kedah was hanging. The meeting leader asked the women gathered to rise and they all uttered a short prayer "*Bismillah ir-Rahman ir-Rahim*" while standing. Some of the women gathered were people I recognized as Samuels wife, Samuels sister-in-law, the woman who rears goats, the shop keeper Yahida, Pazo's wife and an old lady from the village. A couple of the women were living in Kuah but had relatives on Pulau Tuba. Most of the women were wearing the same clothing, or uniform as some of them remarked to me and some of them had brought their young children along.

The meeting leader then asked for feedback from women who had lent money and asked if there were others who also wanted to borrow money. In order 12 women stood up and read

aloud what they had done with the money and whether they had finished their projects. Afterwards those who wanted to borrow money arose. Butterflies were flying around within the meeting room while the women were speaking followed by the meeting leader asking the gathered women whether they agreed to the loan. "*Sah, sah* (valid, valid)", they all said, none of them said no. All the women were pretty quiet and there was only some chatter. After one hour the meeting was over and the women went off in different directions. Some were walking but most of them were driving scooters. I was told a similar chapter of the organization existed in the village on the other side of the central paddy field. The meeting leader told me an NGO was behind the initiative and that it was a countrywide fund for lending money and that they had meetings every other Tuesday. I decided to come back for the next meeting they held a few weeks later, which is detailed below.

I was sitting inside the women's meeting waiting for it to start. A red car with several women just arrived and they are hurrying to get in, while the seats are gradually filling up. Some of the women are sitting on the floor and exchanging money between themselves while looking at a brochure where it's written how much each woman contributes every week. The women are split into smaller groups of five or six persons. Another car arrives with three more women, while there is much chattering between the already present women. Most of them have driven to the Surau with scooter, by car pooling and a few have walked. In the front the secretariat is sitting together with the treasurer and the meeting leader (who has not arrived yet) behind a table covered with a green cloth and a white cloth on top of this with flowers in a vase at the top. Almost all the women are wearing an orange batik with flowers and a red hijab. A woman carrying a baby is standing in the hallway for some moments and then walks in and sits down. According to the women, the men in the village are forbidden from entering the area while the women are gathered out of fear from them stealing the money. Some women are walking up to the secretariat with forms they have filled, while some of the secretariat is counting the money. The women are sitting on yellow chairs in four rows with five chairs on each row on both sides of the aisle. In order to talk with each other they sometimes have to turn around. Women from different villages are gathered and I recognize a couple from Kampung Teluk Puyuh and several from Kampung Tepi Laut.

The leader of the group then arrives through the door and I notice she is not wearing the same clothing as the other women and moments later all the women raise up and pray together while standing to attention. The leader asks if someone wants to borrow money followed by

Yahida, the shop keeper reading all the submitted applications aloud in order. The women must say something about how much and how long they want to borrow the money, sketching up a repayment plan. They must then walk up to get their money from the treasurer. From each single group one woman comes forth, first reading "*Bismilleh...*" followed by "wishes to borrow this amount of money" and walks up. The secretary reads this aloud again and all the assembled women say "*Sah (valid)*" for every single application if they agree. After all the applications have been read loud and validated all the women say "*Setuju (totally agree)*".

This is followed by a sudden silence, but there is still some chattering between the women and the sound of a child crying. Outside a scooter and a van pass by. A smile passes between the secretariat and the leader. She reads aloud the money going in and out of the fund followed by "*Orang kooperasi...*" and the women say "*Sah*". Towards the end of the meeting an old woman comes in, discovers she's legally late and walks out again shortly after greeting to some of the women and gets picked up by an old man on a scooter. At times there is a heated discussion going on across the room and the leader must wait for the women to calm themselves down. She finally raises her voice in order to be heard. At the end of the meeting the women rise again and say "*Bismilleh...*". The meeting leader also says "*Bismilleh...*" followed by "*Assalamu Alaikum*" and the women start streaming out of the room.

Money borrowed through this microcredit organization is used for several different projects. For instance a woman who wants to open a small shop in order to increase the household income might apply for a loan to get some initial funding. A fisherman's wife might borrow money on behalf of her husband so that he may invest the money in the purchase or repair of his equipment. Usually the loans women enter into are repaid through profit made from a successful investment. In some cases the women may also borrow money for projects not yielding direct profit like house repairs.

## **5.5 From the sea through middlemen to the market**

Assuming that the above explanation provides a sufficient identification of the origins of initial capital required to partake in different activities at Pulau Tuba together with prior skill and knowledge I will now lay forth an empirical example. This empirical example draws on the observation of several, partially similar occurrences throughout the fieldwork and is meant

to serve as a generalization of the flow of goods, material and biomatter as well as human resources to and from the Tuban ecosystem at one scale to other ecosystems.

Someone who has managed to get enough capital to make an investment in equipment such as a fishing boat, fishing nets and equipment, either by inheritance, earning money through alternative sources of income or through funding from both governmental and non-governmental projects and initiatives is almost ready to start fishing. The different types of catch that are possible to obtain by the fisherman differ in seasonal availability and varying price and demand, dependant on the availability of a certain marine species. Variations in weather conditions and what I've called natural factors in chapter 2 also influences the fishing. Assuming both wind and ocean conditions are good enough, which the fisherman checks by travelling to the jetty where his boat is moored and screening the ocean and the skies for some moments and also through the exchange of information on the conditions with other fishermen, the fisherman will fetch fuel as well as some food and drinks, the amount which will be dependent upon the duration of the fishing trip. After looking over his boat and equipment, fueling the engine and verifying it is fit for travel, the fisherman will unmoor his boat and begin travelling towards his fishing spot.

Sometimes these fishing spots are shared with other fishermen, but the locations can also be unique. Whether the uniqueness of a fishing spot matters, in terms of providing better fishing conditions is actually a good question. Depending on what kind of techniques and equipment the fisherman employs he might travel up to a few kilometers away from Pulau Tuba or only a few hundred meters before he starts fishing. Sometimes the fishermen also do overnight fishing by pulling up fishing nets laid out the day before the following day. If a fisherman manages to obtain a good catch at a fishing spot he might continue fishing at the same spot for several days, but if the catch is bad he might also try fishing more at the same spot or move on to another fishing spot.

Nonetheless when a fisherman has successfully managed to obtain a certain amount of catch he will sell it to a middleman at Langkawi or another middleman based at Pulau Tuba as well as directly to consumers in some cases, the two latter cases which will be exemplified below. However if the amount of catch is under an amount which can be considered economically viable for selling, the catch will be marked for storage in hope of a larger subsequent catch or consumed by the household of the fisherman. If there are more fishermen working as *tukang* on the same boat, the boat owner will usually get the largest amount of the catch while the



other fishermen get *Satu Plastik* (One plastic bag of fish) from the overall catch. In some cases before business can be conducted with the middleman, the fisherman and the middleman will have a meal together, for good fortune, paid by the middleman. Other cases involve the middleman providing the fisherman with some snacks, drinks, tobacco and fuel. Sometimes these initial exchanges are reflected in the final price paid for the catch by the middleman to the fisherman, but not every time. The middleman will depending on his available resources have several people under his employment, to carry out the weighing and transportation of the catch for further sale on the market. When the catch is sold at the market, the price asked by the middleman will usually become somewhat higher depending on the actual market conditions. Money received from selling the catch further increases the middleman's buying power, potentially enabling him to enter into transactions with additional fishermen in the future and may also lead to some increase in his position.

After receiving the money the fisherman will return back to one of the jetties at Pulau Tuba to moor his boat. Depending on the type of contract existing between the boat owner and the *tukang*, the latter might receive some part of the money earned by the fisherman in addition to *Satu Plastik*. Upon arriving at his household, the fisherman will give his wife the money earned in the transaction, which he can only access with his wife's consent. Sometimes a fisherman might keep some money on the side or spend some of it before he arrives back home, but most of the time he will give the entirety of the cash to his wife for safekeeping and managing. The money earned by a fisherman will sometimes be used for buying newer and better equipment and repairing existing gear. This money will also be used by the fisherman's wife to pay recurrent bills like school tuition for the children and water and electricity bills as well as food and petrol. Some of the money might also be given as weekly allowances to the fisherman and his children. The money might also be invested in alternative ways through roosters for cockfights or religious imagery like Quran verses.

In addition to the money received, the fisherman will gradually acquire more skill at the techniques being used during the fishing. Depending on whether he manages to obtain large catches, manages to secure good prices from the middlemen and sometimes shares parts of the catch with his family and friends, the fisherman's social status among the other islanders as well as with the middlemen can increase. However the impression gained from fieldwork is that the fishermen also seek to be as independent from other fishermen as possible.

## 5.6 Samuel's fish shop serving as a pivot of exchange

Initially during my fieldwork as mentioned in chapter 2, Samuel was working as a van driver and lorry driver carrying both passengers and goods to and from the main jetty. He also did occasional work as a wedding speaker and DJ as well as the transportation of tables, chairs and other assets to and from these weddings while his wife, Julie, helped the host with preparing food and decorations. However about three months into the fieldwork Samuel got an offer from a Chinese man, Hong, who wanted to rent Samuel's garage in order to set up a fish shop. According to Samuel, Hong had also come to Pulau Tuba the year before, but his offer back then had been turned down by several of the villagers. The Chinese man initially gave Samuel 700 MYR plus some free materials for the renovation of the shop locale as well as 1000 MYR for buying fishermen's catch, essentially acting as a middleman between the Chinese man and the local fishermen. It is important to note that Samuel in this initial period only bought various types of crabs, like *Ketam Nyor* (Coconut crab), *Ketam Harimau* (Tiger crab) and *Ketam Bunga* (Flower crab) as well as live *Udang Lipan* (Mantis prawn) from the Tuban fishermen and not other parts of their catch like fish, shrimps and squids. This meant mostly fishermen fishing for crabs either through the use of *Pukat Ketam*, like *Din* or *Bubu Ketam*, would sell their catch to Samuel. In the beginning fishermen selling their catch was limited to people living close to or in *kampung Tepi Laut* or people Samuel knew. During this period as well as for the remainder of the fieldwork I did daily visits to Samuel's fish shop.

However as I entered the fish shop almost a month after it had opened I suddenly discovered something different was afoot. Julie was hurrying over to the ice machine next to one of the restaurants at the village square and the shop's floor was full of *Tong* (crates) filled with *Sotong* (squid) under packing. Samuel told me that the Chinese man had asked for a "crab break" the day before. Later the same day I discovered the new buyer of the squid which Samuel had been buying throughout that morning was the friend who had visited him the day before and also bought 4 of his chickens, however I had wrongly believed the latter was the only business being conducted between them. After Samuel and Julie had finished packing the crates I helped Samuel drive the loaded crates, using a wheelbarrow, down to Ligga's boat lying at the beachfront in *kampung Tepi Laut*. A couple of fishermen were lying in hammocks or standing at the beach watching us loading the boat and one of them joined in helping us for some of the heaviest crates.

After this I travelled together with Ligga over to Langkawi and entered a shallow muddy river, along which many fishing boats were moored and pole houses were standing. Next to a curve in the river was a yellow concrete jetty upon which Samuel's friend was standing together with two young men and a woman beside his lorry. The men started unloading the crates, carrying them up onto the back of the lorry while Ligga was mooring and checking up on his boat. After finishing loading the lorry, Samuel's friend gave Ligga 60 MYR and we returned to Pulau Tuba. Samuel's friend would then repack and sell the catch at the market in Langkawi. However this new business relation became tested the next day as Samuel encountered some issues with fluctuation in the market prices of squid at Langkawi, as mentioned in chapter 2. Due to his friend's unwillingness to conduct potentially bad business, since the profit was reliant on the Kuah market price, Samuel was effectively forced to sell the squid to his cousin living at *kampung Kuala Sanglang*, at the Malaysian mainland. Samuel also sold fish and other marine species acquired to several restaurants located along the shorefront in Langkawi, whenever the other trade relationships he was involved in was not viable. However this trade had just begun as I concluded my fieldwork, so I was unable to observe this process and its possible effects sufficiently.

Some particularly interesting observations arise from the above, namely how Samuel through existing social networks like kinship and friendship conducted business which enabled the flow and export of marine resources caught within the Tuban ecosystem by Tuban fishermen to other ecosystems, of both regional and national scale like Langkawi and the Malaysian mainland. Through the business conducted with the Chinese man, Hong, the flow of some of the resources even extended as far as China. This was however limited to live mantis prawn which Hong bought from the Tuban fishermen through Samuel at prices as low as 11-14 MYR and sold further at 130 MYR. But as I observed in the field, firstly Mantis prawn was rarely caught and secondly was difficult to keep alive and also considered worthless when dead, meaning they were viewed more troublesome than profitable. Nonetheless it indicated the Tuban ecosystem was very much connected with both nearby ecosystems and those further away through the flow of goods.

Another point which should be highlighted is what happened with already existing relations and ways of selling fish between Tuban fishermen and middlemen at Langkawi. In the period before Samuel opened the fish shop there would also be some fishermen selling their catch at the village square to fellow villagers. The opening of Samuel's fish shop encouraged

fishermen to sell their catch to him and saved them the trip over to and negotiations with the middlemen in Langkawi. However some fishermen still continued selling their catch directly to the middlemen, for several reasons like getting a better offers and prices in Langkawi, already being at sea and closer to Langkawi than Pulau Tuba or in some cases because Samuel didn't buy a particular marine species. Some of the fishermen even juggled between selling their catch to Samuel and other times to the Langkawi middlemen. It should also be noted that these middlemen in most cases operate independently from each other.

There were also other people buying fish from Tuban fishermen, either acting as middlemen selling this catch further themselves to the market or to other buyers or middlemen in Langkawi. In chapter 2, the middlemen in Kampung Bagan Assam and Kampung Bagan Pau operating at the other side of Pulau Tuba was shortly mentioned. These middlemen also buy fish from fishermen passing by or having their boats moored at jetties close to them. However I did not manage to observe the Thai middlemen operating in Kampung Bagan Pau, but talked with the father of some of them, whom himself was living at Bacar Arang. Some of the other Thai living within the same cluster of houses would buy fish and live crabs from both other Thai fishermen and some of the fishermen having boats at the nearby jetty. When they had gathered a viable amount of catch they transported it to Kuah where they would either sell it at the market themselves or to other middlemen. The middlemen living alongside the road in Kampung Bagan Assam was on the other hand Malay and also fishermen themselves. They had bought a fridge where they could store fish they acquired and sometimes transported it for selling to Langkawi or sold it to other villagers on the island. In comparison with Samuel's fish shop these middlemen was conducting smaller scale operations, but at the same time due to handling less catch they were less susceptible to falling market prices.

Before Samuel opened his fish shop there would occasionally be fishermen selling their own catch at the village square in *kampung Tepi Laut*. One of these was Mahda's son, a young 23-year old man whose father owned two boats. He and his father would travel to the sea about 2-3 kilometers away from Pulau Tuba where they used a drift net to catch fish and crabs. Depending on how good their catch was they sold it to the villagers from a stationary street vendors cart next to Samuel's house. However after Samuel opened his shop and started handling fish, they would instead sell their catch directly to him, since the price was better than selling to the villagers. Interestingly villagers still bought the fish that Mahda and his son had caught even if the price increased somewhat. Another fisherman, the one who employed

the master of *Urut* as a deckhand, actually maintained trading relationships with middlemen at Langkawi at the same time as he sold some of his catch to the local villagers. But as I soon discovered this was due to him having an extra-ordinarily good catch one day. Still it meant the possibility of alternative, ad-hoc trading relationships was available for the fishermen.

## 5.7 A processual analysis of activities undertaken by Tuban fishermen

I suggest drawing on ideas laid out by Barth in his essays on "models of social organization" who argues that forms in social life consist of patterns of regularity through series of individual behavior. The models laid forth by Barth are generative in nature, the composition of variables which can be slightly modified in order to produce these different forms. Another part of these models is that they should mirror processes within the empirical reality being analyzed (Barth 1981: 32-33). Following his processual and generative approach of highlighting factors, conditions and mechanisms which affect the observed reality (Barth 1981:77) while using empirical data presented in previous chapters and retaining ecological concepts like ecosystems and flow, a diagram like below can be made. I've chosen to use fishing as an example of this process, however this model can also be applied to other activities within the Tuban ecosystem like for instance rubber production and growing of coconuts. It must also be noted that the initial *choice* between different activities is to a large based on a persons existing set of references and assets, seen together possibilities and limitations.

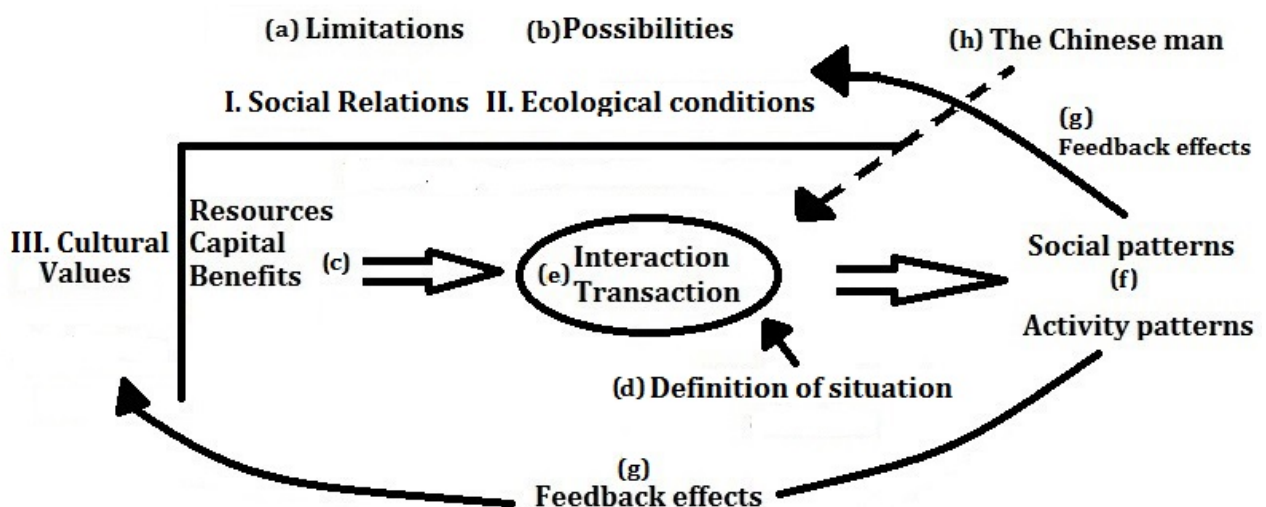


Figure 14: A generative model of Tuban transactions with feedback loops

I. Social limitations and possibilities should be viewed as part of the Tuban ecosystem and even if these stem from social institutions like kinship, religion and politics and affect the values and motivations of Tuban fishermen they are all but inseparable from ecological limitations.

II. Ecological limitations and possibilities stem from natural factors like weather, sea currents and moon phases outlining possible ways of ecological adaption. It also includes the birth, migration, growth and death of all populations of species within the ecosystem, which can directly affect the yield of an activity. The wax or wane of species can be influenced by activities people both within and outside the Tuban ecosystem engage in through positive or negative loops of feedback.

III. The values of the fishermen are linked to their cultural background and ties in with motivation towards fishing. They are influenced by social institutions within the society and are also linked to fishermen's socialization, integration and education. Local rules and norms, both written and unwritten, influence these values potentially limiting fishermen's room for action. Fishermen's motivation towards fishing is influenced by their values which act as a bottom canvas of reference when deciding whether or not to participate in an activity. It includes the evaluation of an activity's costs and benefits before, during and after engaging in it, the latter which can give the fisherman a positive impression of the benefits of conducting an activity.

(a) Limitations refer to both social and ecological limitations acting as inhibitors upon people living within the Tuban ecosystem as well as any outsider interacting with them (themselves possibly inhibited by similar limitations within their own ecosystems). These limitations may potentially hinder access to participation in activities or at least decrease the range of possible available activities.

(b) Possibilities include positive social and ecological conditions or institutions which nurture the viability of participating in an activity essentially enabling initial access to it

(c) Resources, capital and benefits are all means to enable fishermen access to activities within a particular niche in the ecosystem. Access to these assets is dependent on kinship ties, social status and roles among other thing. Alternative ways to get such assets is through external input like for instance government programs. Prior engagement and experience with fishing constitutes a variable where different levels of skill and knowledge possibly can influence the successful entry into and yield of an activity. These assets are also linked to social and ecological limitations.

(d) When a fisherman has successfully managed to obtain a viable amount of catch he will enter into what can be called interactional situations with middlemen wherein which the transaction of goods and social interaction between the involved parties happen. The involved parties must agree to a shared evaluation system as well as define the situation for a following transaction.

(e) The interactional situation is influenced by predefined cultural notions of behavior or codes of conduct. As observed in the field this often involved the exchange of items or consummation of food, possibly to sweeten the deal and reinforce relations between the actors. It is then also the moment in which goods originating from the Tuban ecosystem are converted to capital for the fishermen, increasing in value and becoming a way to gain even more capital for the middlemen. At one hand, the yield of the transaction forms part of feedback loops which can serve to increase a fisherman's future motivation towards participation in an activity. At the same time a fisherman may choose to reinvest his earnings and apply them to strengthen his initial assets for use in fishing.

(f) Activity and social patterns become manifest through repetition of this entire set of events by actors turning them into an aggregate level. Varying input by individual fishermen shapes and can slightly alter these patterns over time, effectively enabling adaptability to the process.

(g) Feedback loops are effects through which other components of the model are influenced and changed. The return of capital after a successful transaction can provide the fisherman with more positive attitudes towards fishing as an activity as well as more assets to be applied when repeating the activity. Several unsuccessful fishing trips with low or no yield are potentially destructive however possibly forcing the fisherman to take part in other activities to acquire capital. At the same time the feedback loop can play into both social and ecological factors in both negative and positive ways. Overfishing is an example of something which over time could adversely affect ecological factors like the stability and elasticity of the ecosystem potentially creating new limitations for the fishermen to cope with.

(h) The Chinese man represents an unknown entrepreneurial element, something akin to Barth's "Tomato man" (Barth 1981:177). Through interaction with Tuban fishermen by means of Samuel the notion of potential capital gain and other positive effects become embedded in fishermen's activity patterns. By feedback loops it inspires other fishermen to focus more on economically viable fishing with gaining capital as the main goal also enabling the flow of goods from the Tuban ecosystem into even more ecosystems. The introduction of this new

element into the process modeled above also carries with it the potential of changing ecological and social factors.

The generative model pictured above is a way to imagine the Tuban ecosystem and the way which interactional processes and external influences shapes both social and activity patterns within it, which over time through feedback loops have the potential of changing the very foundations of society in both positive and negative ways. Through the process of transaction, namely through the evaluation of goods and existing codes of conduct, values can become more systematized and integrated in future transactions according to Barth. Choices made by individual actors based on these values, themselves influenced by socio-cultural and ecological limitations and possibilities, have feedbacks effect which will modify and fine-tune these values. The effect of such modification can be the generation of new patterns of behavior and choice (Barth 1981: 51-52).

If viewed together with the empirical data presented in chapter 4, it then becomes clear that the choices of individuals to engage in activities are both influenced by existing values and dependant on the success or failure of such an activity, behavior and activity patterns can be modified together with their referential point represented by cultural values. For instance a fisherman who manages to catch a large amount of small fish and tries to sell it might discover that the small fish is not as highly appraised as larger fish and even get temporarily barred from a transaction. In the future he will then reconsider his approach to the activity, seeking to modify the techniques and equipment used in order to get as good a catch as possible. However his existing assets might limit him from doing so and he might have to choose among or combine his current activity with the wide range of other activities available. It should be noted that these activities are not limited to those mentioned in chapter 4, but also includes various kinds of wage labor. The presented model can also potentially serve as a tool of comparison for future researchers who study similar processes. But as can be seen below, the middlemen, one of the elements which enable transactions is facing change. This happens when the Malaysian state enters the process in a similar way to "The Chinese man" but rather than something entrepreneurial being something which can possibly restrict the existing flow.



## 5.8 Recent developments in the field and conclusion

After leaving Pulau Tuba there has been some recent developments in the field especially concerning the middlemen. *MOA* (The Ministry of Agriculture & Agro-Based Industry) in Malaysia has declared what they call "Jihad Memerangi Orang Tengah (Jihad against the middlemen)" trying to minimize the influence by middlemen and ensuring fishermen, farmers and livestock breeders can earn more (Daily Express: 2015). According to the current Minister Dato' Seri Ismail Sabri Yaakob the ministry will compete with an already existing private sector on logistics, food processing and retail by providing the same services through government initiatives. Another issue is that the middlemen allegedly cooperate to increase the prices of fresh goods to earn more (Mahavera: 2015). With the Jihad program the ministry aims to eliminate middlemen from all levels of the network chain from production level, support service, processing and marketing so the producers can deal directly with sellers or through *FAMA* (the Federal Agricultural Marketing Authority) (Daily Express: 2015). According to the minister "There is still a lack of awareness among farmers and fishermen about our campaign. This is because they are used to their middlemen" and "Some fishermen have been provided with loans and boats from middlemen. We had provided 40 million MYR to farmers and fishermen to settle the debts they owed to middlemen. But so far only 10 million MYR has been used", he said in a TV broadcast continuing with "Some fishermen, for instance, only have to go to sea to catch fish. When they return to the jetties, the middlemen will be there to buy it off from them" (Mahavera: 2015).

The effects this crackdown on middlemen remains to be seen, however I believe I have shown that they have had an important role in enabling fishermen to sell their goods. Even if the Malaysian government argues the effects of this "war" are positive for local fishermen, I wonder if a change from private entrepreneurship to state economic intervention is the right way to go in order to increase public welfare among the inhabitants of Pulau Tuba and other places in Malaysia. Perhaps this is also another project of development which, if seen in light of Larsen's article from 2002, reflects a Malaysian idea that progress must come about no matter the cost. It should however be noted that when asking some informants through social media one of them said "*The middlemen already have too much power*". This is then the real issue at hand, the middlemen are the ones who through the transactional process gains even more capital, potentially enabling them to control the market in their favor and through loans to fishermen also gain some control over the Tuban fishermen and their labor.

New infrastructure like an asphalt road linking the eastern and western parts of the island, improved fresh water supply, access to electricity from the local power plant 24 hours a day and almost island-wide cell phone coverage are among the most significant changes at Pulau Tuba since Larsen did her fieldwork in the late 80s. Together with increased connectivity with the rest of the world, both by means of transportation but also communication new opportunities are arising for the inhabitants. Tourism as mentioned in chapter 2 is a steadily growing field which even some fishermen are engaged in through providing island-hopping tours and fishing trips. Even if most of the tourism development is happening at the larger main island of the Langkawi archipelago, proposals have been put in motion to attract more tourists to Pulau Tuba. Among the developments which surfaced while I was in the field was the plans to build a luxury chalet at *Tanjung Pandan* and a lot close by at been allocated for building a large hotel. During my stay there was also several recurring wilderness adventure camps arranged by the Halim Mazmin group as well as "adoption" programs where young students from other parts of Malaysia was "adopted" by and lived together with several Tuban families. This latter initiative is part of the home-stay program endorsed by the Malaysian ministry of tourism and culture, which Rosli was the local leader of and which offers accommodation and activities throughout the island. All these developments within Pulau Tuba's growing tourism sector offers alternative ways to earn a living. Whether the inhabitants are facing the same extensive development as Langkawi, the effects of which has been both positive and negative to the local inhabitants remain to be seen.

The main argument through this thesis has been to show how my field site, Pulau Tuba can be seen as an ecosystem within which people engage in various activities in order to earn a living and how produce from these activities flow out of the Tuban ecosystem through interaction with middlemen. There is also a reverse flow of human resources like ideas, culture and manpower as well as goods and biomatter which impinges on already existing social structures within Pulau Tuba and which becomes even more visible when seen in light of the generative model presented above. When viewed in an ecological perspective these external influences can be identified as potentially disruptive to the existing balance of the Tuban ecosystem. My hope is that someone finds my approach in this thesis fruitful and that they can carry on where I stopped in order to observe how these external influences have impacted on the inhabitants of Pulau Tuba and their ecosystem.

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