

# **THE IMPACT OF RE-SETTLEMENT PROGRAM ON SOCIAL AND BUILT FORM OF EXISTING FISHERMEN VILLAGE IN KUALA KEDAH**

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## **ABSTRACT**

A few studies are carried out on the planning pattern of fishing village in Malaysia. Chaotic and unorganized is the common perceptions conferred by outsiders to the fishing village. This research paper is to investigate and clarify the planning pattern of a fishing village in Malaysia and to understand how the settlement and living space are planned by the fishermen. The studied fishing village is located near to the Sungai Kuala Kedah, Kedah. Qualitative methods are applied focusing on gathering verbal and descriptive data. Semi structured interview and site visit was carried out to obtain the relevant data and information. Elements in the village such as road layout, retail activities and housing design were analysed. Furthermore, the physical changes of the fishing village from past to present is also discussed. It is discovered that there is actually a clear and organized planning pattern in the studied village.

**Keywords:** Fishermen Village, Malay, Settlement Morphology.

## **INTRODUCTION**

Due to Fishermen Relocation Program (Program Penempatan Semula Nelayan Seberang Kota) by the government, approximately 700 fishermen that lived in a fishing village are moved to a new neighbourhood as arranged by the government in 2004. The relocation program is a part of the government effort to create a structured and organized settlement for the fishermen. However, there is lack of knowledge on the effect of the relocation program towards the fishermen in different aspects. A study by the Food and Agriculture Organization of the United Nations (FAO) in 1985 on the Fishermen Relocation Program in peninsular Malaysia found out that there are substantial number of fishermen that failed to acclimate themselves to the relocated new environment. Therefore, it is important to carry out a study on

their previous living environment to find out the difference of it from the relocated fishing village.

Through the study of an existing fishing village just next to the relocated fishing village, it provides an idea of the planning pattern of fishing village around the area.. The research is focused on clarifying the space planning of fishermen village in order to understand whether the fishermen village is unorganized and chaotic in term of space planning; or does it actually has a clear and structured planning pattern. In addition, this study enable the comparison of the physical environment of the nearby village to the relocated village in order to understand how and what is the effect of changes in living space and place to the fishermen.

## **Aims and Objectives**

The aims of the research are to determine the underlying urban planning of an existing traditional fishing village located at the north river bank of Sungai Kuala Kedah and also to understand how the settlement and living space of fishing village is planned. Even though the fishing village looks chaotic and unorganized, there is actually a clear and organized urban planning pattern. The objectives of this research are:

1. To obtain and establish the latest layout of an existing fishing village.
2. To analyze the fishing village layout for any underlying pattern and morphology.
3. To investigate the factors that leads to the development of the village to its present morphology.

## **LITERATURE REVIEW**

### **Traditional Village in Malaysia**

The location of traditional village is scattered along the transportation routes, river banks or the coast. They can also be found in groups in the midst of large tracts of agricultural land. A traditional village is normally formed by a clustered of several groups of houses. Each group of houses is normally occupied by close relatives. The house owner and their family usually

participate in the erection process of the house. Lim (1987, p.96) has stated that occasions like these were important to maintain the close ties among the kampong dwellers and gave them a sense of belonging and identity. Most villagers are bonded by kinship into one social unit. They help one another and contribute to activities for common good. Lim (1987) argued that the homogenous culture of the villagers and subsistence economic activities like traditional paddy farming and fishing create highly interdependent relationships between the villagers.

The layout of the village is determined by social relationships, culture and lifestyle of the villagers (Lim, 1987). It is based on mutual agreement after the villager seeks permission from the community. Hassan (2004) said that the village layout represents the adjustment of physical and social parameters to environment factors. The territory of public and private space is hard to be distinguished. This is because of the preference for community intimacy. House compounds are often unfenced and the spaces in between houses flow into each other. The random layout combine with the natural setting and lack of physical barrier create an informal and open atmosphere which promote social interaction among the villagers. Children can play freely in the open space while activities like festival, religious ceremonies and social interaction can happen here. Lim (1987, p.95) argued that the kampong environment is an expression of the culture and needs of the users, unlike modern settlements which are expressions of a larger socio-economic world order which has imposed its physical, social and economic structures on us.

### **Fishing Village in Malaysia**

Fishing village is a village located near to the fishing ground with economy related to the activities of fishing. It has a highly personalized characteristic which distinguished them from other type of villages. Due to geographic reason, they are usually at remote location and access to outside will be difficult. Fishing villages have a higher density compare to the agricultural villages located in the inland areas. The fishing village's house density is approximately 50 units per hectare. In west peninsular Malaysia, there are 23 fishing district that consist of 442 fishing village that

has been identified by Fisheries Development Authority of Malaysia (LKIM) in 1995.

The high density of the fishing village is influenced by 2 important factors which are the environment and socio-economy. Since their main source of economy activities is through fishing, they need to live close to the river. However, it is difficult to find suitable area along the river for settlement. Therefore, each house is built close to each other. The layout of a fishing village is also influenced by the culture of community living. When entering a fishing village, it is hard to find one's orientation. There is usually no clear access road but houses are link by narrow pathways. There is no clear defining land area of one house to the other. The entrance veranda are usually quite large so that activities related to fishing like repairing fishing nets and maintaining fishing equipment can be carried out here.

The practice of fishing, culture and geographic plays a part on influencing the type of fishing village. However, there are many similarities between them such as:

*“(1) a variety of linkages of common residence on land with common place of work at sea; (2) strong cultural beliefs about the importance of fishing to the community even when fishing revenues are only a small fraction of gross revenues; (3) women's strong involvement in the resource enterprise - although that is changing; (4) and crew members as coventures and - although not universal - kinship as an important hiring criterion, creating a unique relationship of capital to labour.”*  
(Clay, 2007)

Most of the fishing village is characterized by poor infrastructure, poor transportation and communication system and weak access to development facilities and extreme poverty (Salagrama, 2006). There are some factors that contributed to the poor income and lack of basic needs of the fishermen. Firstly, fisheries are often unregulated and therefore exhibit characteristics associated with open access resource regime (Berkes and Jolly 2001). Land located close to the sea is often saline and not suitable for agriculture activities. As a result, fishermen have no other options but to only depending on the fisheries. When some of the fishermen manage to accumulate

wealth, they invest into activities such as fish trading, ice plant, boat building and etc. Most roads leading to the fishing village is in bad condition and not many attentions have been given for improvement. Therefore, the poor transportation network of the fishing village resulted in their main product which is fish could not be easily and quickly transported to places outside of the village for sales.

## **Planning of Fishing Village in Malaysia**

- **Morphology towards the land**

Morphology towards the land is the most common development of fishing village in west coast Malaysia. On the early stage of the development, the concentration of housing settlement is near to the river bank and grows towards inland. Houses are built on the river bank along the estuary because the area is suitable to build house by using available traditional construction technique similar to traditional houses built inland. Jetties are built along the river banks of the housing for fishing boats landing. However, due to the limited land area houses are built closely to one another to ensure each house has close access to the jetty. When suitable building land along the river bank is all used up, the housing concentration will move towards inland. The second layer of housing development is formed based on the topography of the first layer of existing housing. A main road connects the villagers who live near the river to the inland. Therefore, the main road becomes an important factor for next layer of housing development. The third layer of housing concentrate along the main road because it provides access to the river. At this stage of development, the village pattern are similar to a pyramid, the settlement near the river bank is wider compare to the settlement at the end of the main road. At the final stages of the development, strategic location near to the main road become less available and villagers start to build around empty spaces nearby. Secondary and small road also form to connect to the main road and to create short cut link towards the jetty. The pyramid pattern of the settlement gradually disappeared as all the available building space is used up. At this stage, the settlement has matured.



**Figure 1: Morphology towards the land**

Source: *Author*

- **Morphology parallel to river**

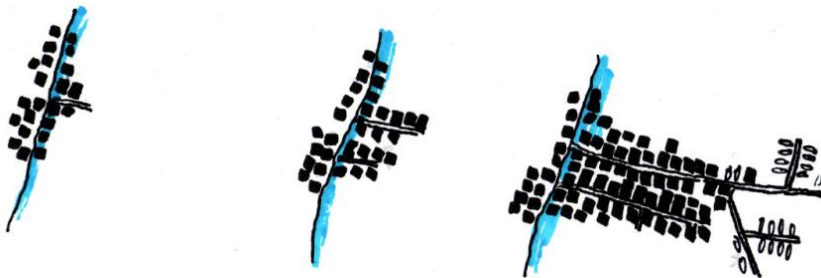
Some of the fishing villages are developed parallel to the topography of the river bank. This kind of settlement pattern is formed as the topography of the land nearby is either too sloppy or marshy therefore difficult to build house using available construction technique. It starts from along the river bank which is the most precious and strategic area. However due to limited space inland, the village therefore grow towards the side along the river bank. At the early stage, all houses are built facing the river with direct access to river. Small individual jetty are built in front of their houses and each of them are connected together by a platform which forms a continuous walkway linking the houses in the village. In some villages, the platform can also be built at the back of the house with the front portion just for individual jetty. This kind of variation is usually influenced by the site topography like the depth of water or slope of land. Due to the placement of houses along the river bank, the village can sometime stretch far along the river bank resulting in less communication between villagers living upstream and downstream. When all the available land along the river bank is used, the next layer of development formed where the houses are either build in front or at the back of the existing row of houses. Sometimes the houses can also be built at the same time in front and at the back of the existing row of houses. The forming of second layer of development may also happen when the river becomes shallower and unsuitable for boat landing, the villager will have to extend the jetty deeper towards the river. This will indirectly contribute to the formation of 2nd layer of houses. The commercial centre is usually located at the middle of the village. The location is strategic as it remains close to villager living upstream and downstream.



**Figure 2: Morphology parallel to river**  
Source: Author

- **Morphology towards the river**

The topography of the area is an important factor that influenced the formation of this morphology. The village is usually surrounded by mangrove swamp land which is not suitable for building. However, settlements are built on the river bank because it is suitable for fishing boat landing. The slope of the riverbed must not incline too high from the river bank to the end of the jetty. If the riverbed is too steep, morphology towards the river will not happen. Besides that, the river should be deep enough for landing of fishing boats. This type of morphology is more common in west peninsular Malaysia where the river is long and small. Another factor that influences this morphology is because of the pressure to provide more houses to accommodate the increasing number of population and also the increasing number of fishing boat. A long jetty that extends towards the river is built to accommodate the growing need of the village. The settlement is concentrate along the jetty. At certain stage, the existing jetty will not be able to extend because the riverbed is too deep. Therefore, new jetty and houses will be built around it.



**Figure 3: Morphology towards the river**  
Source: Author

- **Morphology on the river**

Some of the fishing village is built on estuary and separated from the land. This type of fishing village is built when the builder are exposed to advanced building technology and learned to build jetty and house with deeper pillar. At the early stage of this settlement, a group of fishermen build their houses at shallow water yet suitable for landing of small boat. They understand that the area is suitable for setting down based on their experience and observation of the tides. They have to make sure the area will not be flooded or the water level will not be too low during low tide. Most of the village is located at small strait and connected to the estuary. In front of them is usually a small island which helps protect their village from strong wind and big waves. The settlement will developed to the surrounding land that emerged during low tide. The jetty will extend to area where the water is deep enough for the landing of villagers' boat. The settlement is considered matured when all the suitable area is occupied by fishermen's houses. River is often the only transportation mode for the villager. There are no road that provides connection toward inland because the area is surrounded by mangrove forest and hills. The commercial centre is therefore located at one corner of the village. The location is random because there is no focal point in the village.



*Figure 4: Morphology on the river  
Source: Author*

- **Morphology along the estuary**

This pattern is formed when the surface of estuary on muddy land became higher due to the sediment that settles and accumulates along the estuary. When the estuary height reached a certain level, it became suitable for the forming of fishing village. This deposition builds the characteristic geography pattern of a



river delta. The river is usually small and narrow. The speed of the river water is usually slow which allowed fishermen to built their houses on both side of the river. The housing settlements are concentrated towards the delta and expand towards inland forming a housing pattern that is concentrated along the estuary. The settlement did not build across the river because the river will be used as the main water access road for fishing boat.



*Figure 5: Morphology along the estuary*  
Source: Author

Based on the study, the formation of a fishing village settlement is influenced by several key factors such as:

- The topography of the area allowed for expansion
- Abundance of resources for growing population
- Transportation road connecting to other villages and town

### **Fisherman Relocation Program in Malaysia**

Ministries of agriculture & Agro-Based Industry (MOA) and Fisheries Development Authority of Malaysia (LKIM) have the responsibilities to improve the socio-economic of fishing communities focusing on the income growth and developing advanced fishing communities. This is done in line with the objectives and mission of LKIM. Fishermen Relocation Program aim to creating a structured commercial fishermen town with complete infrastructure such as roads, electricity, telephone and etc. In addition, this program also improves the economy of the poor fishermen by improving their quality of life through large-scale Fisheries Industry Plan. Moreover, the main goal is for the fishermen to have their own house because at the moment, there are still many fishermen that live in slum areas. The Fishermen Relocation Development program involves many departments and agencies through three main components:

- to build an organized fishermen village
- to build fishermen economic growth centre based on fishing industry
- to provide local infrastructure and related facilities

## **RESEARCH METHODOLOGY**

This study adopted the qualitative research techniques where it generates non numerical data and focused on the gathering of verbal data rather than measurements. The data and information gathered is then analysed. Site survey is carried out mainly to assure the information on site and give a better understanding about the village through first-hand experience and communicating with the villagers. A set of interview question and maps are prepared and printed out before going to the site. Semi-structured interviews are conducted where a list of questions and topics that must be covered are prepared. This type of interview collects detailed information in a style that is somewhat conversational (Rand, 2009). Most of the respondent of the interview consists from the villagers who are with low educated background, therefore it is less intrusive to the respondent.

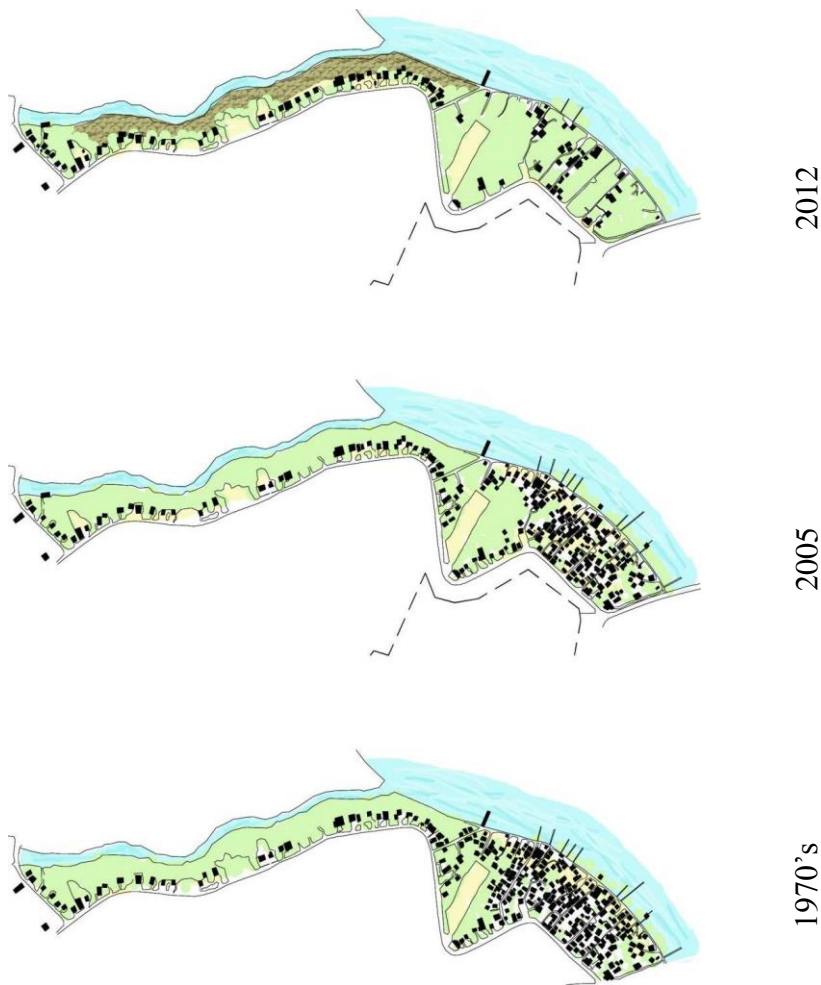
In order to analyse the layout pattern of the studied fishing village, a Google satellite image of that area is obtain from the internet. Then, the image is traced back using AutoCAD to create a site plan which shows the location of the buildings and roads. However, the source of the image in Google satellite was taken in 2005 which is not up-to-date and does not denote what is on the site. Thus, the researcher went to the site to confirm the physical changes of studied village. After collecting the information on site, another site plan which reflects the current situation of the studied village is then being produced.

## **DATA COLLECTION AND ANALYSIS**

### **Site plan of studied villages from past to present**

The research site is a fishing village located at Kuala Kedah, Kedah. It consists of four villages including Kampung Seberang Baru, Kampung Teluk Talipon, Kampung Bakar Kapor and Kampung Keluncor. The site has a clear boundary with Jambatan Tok Pasai to the south, Jambatan Kubang Rotan to the north and

Kedah River to the east. Adjacent village, Taman Kota Nelayan is where the villagers from Kampung Seberang Baru are relocated.



**Figure 6:**  
Source: Author

### **Road Layout Development**

The road layout development of the fishing village can be divided into several stages. During the early stage, the fishing village is concentrated along the river. Consequently, the village is developed towards the land area and the farming area. During that period, the means of transportation is depending on the river that connected them to the other side of the river. The villagers took 'Perahu tambang' or water taxi to get across the river. Over the

years, the transportation network evolved from a simple main transportation road facing river into a more complex layer of transportation network that influenced on the transformation of the activities pattern along the road.

## **Function and Development of Layer of Road**

- **Outer road**

The outer road is the perimeter road outside the residential area that acts as the main transportation road that connects the fishing village to the outside. At different period of village development, the function of road can interchange from main to secondary or vice versa. The outer road forms the boundary to the village expansion and it also separates the village from the river and paddy field.

During the early stages of the fishing village development, the houses are built along the river. As a result, a wooden platform along the river is formed. Small businesses to cater the villagers are mostly located here. However, most of the commercial centres are located at the town across the river. Therefore, villagers have to cross the river to get more variety of goods by using water taxi. At that time, the secondary road is the dirt road, unpaved and narrow road with trees on the both side, separates the fishing village from the agricultural land. During World War 2, a factory was set up by the Japanese at the village and the secondary road is used as the transportation route to deliver their product.

During the late 20th century, the modern vehicle such as cars and motorcycles became more common and the water taxi becoming less important. Subsequently, Tok Pasai Bridge (Jambatan Tok Pasai), the bridge that connects Seberang Kota with Kuala Kedah area was built on Kedah River and later became the main transportation road. As a result, the dirt roads are paved with tar and it replaced the role of the river as the means of transportation. Some of the houses near the road relocated their main entrance to face the wider road for easier access.



**Figure 7: The road at the perimeter of the village**

Source: *Author*



**Figure 8: Raised platform as walkway**

Source: *Author*

- **Inner road**

The inner road is the street layout of the housing area which consists of the streets that connect the road to the river and lanes that connect the streets to the houses. During the early stage of the

village development, wooden platform were used to connect land to the river. The access to the river is essential as the villagers rely on river for their livings. However, due to the limited land size facing directly to the river, the street which extends from the river into the land acts as a main connection road. The houses are built densely next to one another facing the street. As a result, it formed a clear path between the houses and the street is shared among the villagers. Besides that, there were also lanes which are connected to the streets. The lanes were usually located in between the narrow gap of the houses that located away from the street which provides access to the streets and river.

Raised platform walkway was built to avoid the mud and rise of water level during high tide. However, water level occasionally rose higher than the wooden platform which left the mud on it after the water had receded. In this situation, the villager will clean their feet before entering their house and unintentionally clean up the mud on the platform. Raised platform allows runoff water naturally discharged without needing a drainage system where the water recedes back to the river without any obstruction. After retaining walls are built, the river water no longer overflows into the village. The raised platform becomes less important and some of the villager converted the platform into tar road which is more suitable for the villager's need of using vehicle such as motorcycle and car. However, drainage becoming necessary as the runoff water does not discharged due to the tar road surface.



**Figure 9: Tar road replaced the use of raised platform**  
Source: Author

## House Design and Development

The way of living is reflected through the housing culture. When most of the house within an area is built with the same pattern, it will represent the style of that particular area. Besides that, it also suggests the ancestors' insight on the use of the land and the design of the house in the past are usually developed strongly in relation to the natural environment of the site. The functions and design of the house is altered to suit modern needs along with the changes of people's lifestyle and modernization. New structure or renovation is done to the old house that creates a new housing design and culture. Moreover, most of the houses have either been modified or changed and only a few houses still retain its old design.



*Figure 10: One of the old house design facing the river*  
Source: Author

During the early years, houses are concentrated along the Kedah River due to its strategic location. The houses are built facing the river with direct access to the river through the platform in front of their house which formed a linkage between the houses in the village. The old house along the river usually

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characterised with the river facing frontage and is built on stilts to prevent the river water from entering the house during the high tide. The houses are built by using natural material and helped by the family members and villagers during the construction. The village started to expand inward towards the land when the preferred location along the river bank is being occupied. The houses are built closed to one another with a small gap in between. They are built closely and densely so that every house gains access easily to the river.



**Figure 11: Design of earlier house**  
Source: Author



**Figure 12: Interior of a villager's house**  
Source: Author



Timber are used for the structure, wall and window of the earlier house because of its availability and the only known construction technique to be applied are based on timber. The houses are built on stilts to raise the floor level which left the ground floor open. In the olden days, villagers do not own much personal belongings, therefore they always left the house open all the time. The house looks spacious due to the minimum furniture and interior walls inside the house. After the retaining wall is built, some houses are extended to the ground level because the high tide water are effectively blocked from overflowing into the village.



**Figure 13: Renovated house that has additional living space on ground floor**  
Source: Author

On the ground floor level, living space is located at the front and the kitchen is located at the back of the house while the upper floor is converted into several larger bedrooms or just left the floor empty. The ground floor is built using brick wall to enclose the openness of the ground floor space. However, the floor height is a bit low because it is not intended to be built as a living space. Besides that, the gap in between the floor joists above is used to store stuff such as umbrella, plastic bag and etc.



**Figure 14: Interior of a villager's house on ground floor. The space between floor joists use for storage**  
Source: Author



**Figure 15: A villager seating on bench under the house**  
Source: Author

The front of the house is usually use as a seating area - 'serambi' where the villagers seat and have a chat with visitor. The seating area either made of bench or just casual seating. Besides that, the bench can also be used as table to put some snacks and drinks to serve the visitors. The front of the house is also use as a car porch. Moreover, there is a high threshold at the front door of houses near

to the river. This threshold is used to prevent the river water from coming into the house in case the river water rise above the level of the retaining wall.



**Figure 16: Space on ground floor is used as car porch**

Source: *Author*



**Figure 17: Threshold at front door to prevent water from getting in**

Source: *Author*

## **Retail Activities in the Villages**

The location of retail activities has changed over years. Previously, the shops are mostly scattered in front of the river bank due to the main transportation on the river. However, when the role of the river diminished, the shops gradually moved inwards along the road where it is more convenient to the villagers as well as passer-by. In the olden days, most shops are located along the road. However, due to the relocation program most of the shops moved to the new village in Taman Kota Nelayan. There are still some shops in the present day which scattered along the road. The nearest market to the village is the Tandop Kubang Rotan where the villagers usually obtain their necessity including fish, vegetable, fruit and etc. Besides that, there are some food stalls which serve the people going to the market.



**Figure 18: Tandop Kubang Rotan which is the nearest market for the villagers**

Source: Author



**Figure 19: Typical shops scattered along the road around the village**

Source: Author



**Figure 20: Pelantar ikan**  
 Source: Author

Across the river, there is 'pelantar ikan' - the platform for the fishermen to collect their catch of the day before sending it to market. Shops selling ice are located next to pelantar ikan because the ice can help to keep the fish fresh. There is a food stall facing the road, grocery store and also a small stall selling prawn at Kampung Keluncur near to the 'pelantar ikan'. All of these shops are located in front of their house and run by the house owner. Besides that, there are also shops selling 'keropok' at Seberang Kampung Baru.

### Physical Changes of the Village

Physical changes		
Description	Previous	Present
Population	Many	Less
Concentration of the houses	Houses are built closed to one another	Houses are scattered around
Open spaces around the house	Not much open space	A lot of open space is used for planting
Location of shops such as grocery store and food stall	Concentrated near to the river	Less and scattered facing the road
Main transportation mode	River	Road
Function of river as transportation road	River as main transportation road. The villagers use the ' <i>perahu tambang</i> ' to cross the river	The need of ' <i>perahu tambang</i> ' become insignificant

Function & condition of road	Dirt road as secondary road separating the fishing village from the farm land	Road upgraded to tar road and used as the main transportation mode replacing the river
Inner street	Raised wooden platform	Tar road
Drainage	The water flow naturally under the raised platform back to the river	Drains are dig by the villagers on the roadside
House design	Timber house on stilt raised above the ground level.	Spaced below the house are enclosed with the brick wall and used as living space. The floor above is mostly left empty and unused.

**Table 1: Physical changes of the village**

*Source: Author*

## CONCLUSION

The development of the fishing village throughout different stages marks a clear development pattern that fit and compatible to their ways of living. Even though the fishing village looks chaotic and unorganized, it actually creates a clear and organized urban planning pattern. The villages develop parallel to villager's lifestyle and modernisation. Due to the development in the means of transportation, the ways villagers travel have changed resulting in changes in the use of road in the village which also influenced the location of retail activities. Besides that, the design and function of the houses in the village has undergone major changes to suit the new lifestyle. Only a few houses that still resemble the old housing design can be found in present day. The village has undergone major changes since the relocation program which transfer most of the people out of the fishing village. Previously occupied houses are now abandoned and it has affected the social structure of the village as the family and friends are transferred. Furthermore, the government project that widen the river from Kubang Rotan Bridge changes the landscape of that area as well as makes the village narrower. There are some changes to the village and are described as below:

- Previously, the houses are built close to one another. However, since most of the villagers are transferred to

Taman Kota Nelayan, more lands are available for plantation.

- The children used to play near the paddy field and rivers are now using the sports hall.
- Relatives now live far from each other unlike before where they were used to live next door or in the same area with each other.
- Villagers used to be closer to each other creating a pleasing environment, however, now the bond between the villagers is less intimate.

Villagers are more comfortable staying in the fishing village as they pointed out that they have more freedom in renovating and expanding their house, more open space available for plantation and lower utility bills.

In conclusion, after going through a few development stages, the village is now at its declining stage. Most of the villagers moved out of the village to the new relocation area. The villagers are also becoming less dependable to the river as fishing are no longer their main source of income. The atmosphere becomes less vibrant and many sites are abandoned and overgrown with bushes. In the near future, the function and condition of the village could totally change and become unrecognizable.

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