

# Poverty Mapping in the Border Region of the Country: A Study on Indonesia and Malaysia, Kepulauan Riau

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**Abstract.** This study aims to map poverty in the Indonesia-Malaysia border region in Kepulauan Riau. The existing policies in handling socio-cultural problems in border communities, including poverty, still do not touch isolated communities such as in remote rural areas inland and remote island areas of the country's borders. This reality is essential to be associated with sustainable development, which has been the jargon of national development, including poverty, alleviation, and zero poverty. The method used in the research is qualitatively descriptive. We collect field data through interviews and examination of secondary data publications from government agencies. This research indicates that poverty in the Indonesia-Malaysia border region in Kepulauan Riau is still occurring and structural. Sustainable development has been the jargon of national development, including poverty, alleviation and zero poverty.

**Keywords:** The border; mapping; poverty; women

## 1 Introduction

The number of poor people in Indonesia is still relatively high compared to other developing countries, where most of the poor people in Southeast Asia live in Indonesia [1]. This research is about poverty mapping in Tanjungpinang City, where this area is one of the strategic areas of the Riau Islands border. Poverty in Indonesia has been a prolonged issue, starting from the time of the struggle with Dutch colonization. However, due to poor administration, it has failed to reduce local and national poverty. Similarly, the country's border area stretches widely in Kepulauan Riau Province, a strategic stopover between countries such as Malaysia and Singapore. Poverty is a complicated problem of the Indonesian nation, which, until now, is still being pursued its resolution. Poverty is no exception in the border areas along with the Riau Islands. Poverty has been a problem for a long time, and it is not just a sign that can make only be evident as an economic fact.

Poverty is not only a symptom of limited employment, access to income, formal education, and public health but also structural realities and societal values, a cultural reality that, among other things, takes the form of surrendering to circumstances. Dynamic cultural factors cause poverty in the country's border areas. Poverty at the border also occurs because opportunities

are not to them. So the impact is massive, ranging from smuggling illegal goods and human trafficking to acts of terrorism [2]. During this time, the development situation in the border region puts more emphasis on economic development and pays less attention to human resource development. So that local communities in the border area remain spectators, not actively involved and representative in the development implementation process [3]. As a result, people living in the border area remain in a state of poverty and remain marginalized.

Limitations are not only economic problems, but some problems are already multi-dimensional. For example, even the problems of poverty faced by people on the border are cultural and structural poverty and multi-dimensional poverty. In this context, their position is very vulnerable to multi-dimensional poverty, where there are indicators such as; social dimensions, education, health, and quality of life standards. The measure of poverty in modern life today is that they do not enjoy educational facilities, health services, access to technology, and other conveniences available in modern times. There are various views on what poverty is and who the poor are. Furthermore, each has different benchmarks and criteria to look at poverty and the poor. The previous research conducted by Nainggolan [4] with the research title "Structural Poverty Analysis in Farmers" revealed that the structural poverty conditions faced by farmers are inseparable from limited access to education, differences in wages and low income, limited access to land (area and ownership status of agricultural land), as well as limited access to healthy housing and sanitation.

Limited income, unavailability of middle and high school schools, unavailability of public transportation, expensive transportation costs, and many family dependents are reasons for people in rural areas not to continue their studies after they graduate from elementary school. This condition is a form of poverty alleviation that then binds society structurally. Especially during the COVID-19 pandemic, the poor at the border is more vulnerable [5]. The country's border areas in the Riau Islands have advanced quite rapidly in terms of development by government development programs so that access to development priorities such as infrastructure, potential empowerment, social services, an economy, and education has improved considerably. However, poverty still binds some people with incomes that are only enough to survive daily. Moreover, due to the vastness of the border region, there is still a dearth of governmental management of potential and natural resources [6].

Furthermore, Rupita [7] stated that in the poverty of border communities, women have a layered vulnerability to face poor situations. That means that from the planning stage to the implementation of development, it must reflect equality between men and women. Therefore, in the development planning process, women's and men's aspirations, needs, and problems must be considered. However, in reality, access, benefits, participation in development, and control over resources between the male and female populations are not equal, and there are still differences. Tanjungpinang City, as the capital of the Riau Islands, also cannot be separated from poverty. Evidence that there are still many poor households that experience limitations both economically, socially, and politically.

This condition of poverty goes hand in hand with the poverty rate of women, which is still relatively high in Tanjungpinang City, so it becomes an obstacle to development. Despite women having a longer life expectancy than men, there are still few avenues for them to enter politics and a general lack of interest in fields such as science and math where they could make a significant impact. Women's poverty can also match low educational attainment and the persistent belief that men should have an advantage in these fields. As a result, low education makes women unable to have the ability to be competent, as well as limited special skills making women unable to innovate.

For example, even though women have small businesses, due to low education and lack of skills, women experience obstacles in innovation and marketing. In the end, conditions like this make women even more marginalized. However, when viewed from the other side, besides women's poverty in Tanjungpinang, some potentials allow women to develop and get out of marginal conditions. The potential in question is like the local wisdom possessed by the city of Tanjungpinang, such as culture, culinary, tourism, and others. In addition, the city of Tanjungpinang is an urban area located in the border area and is a tourist destination for tourists. Therefore, women can utilize this potential to generate economic value and get out of the poverty line.

## **2 Research Method**

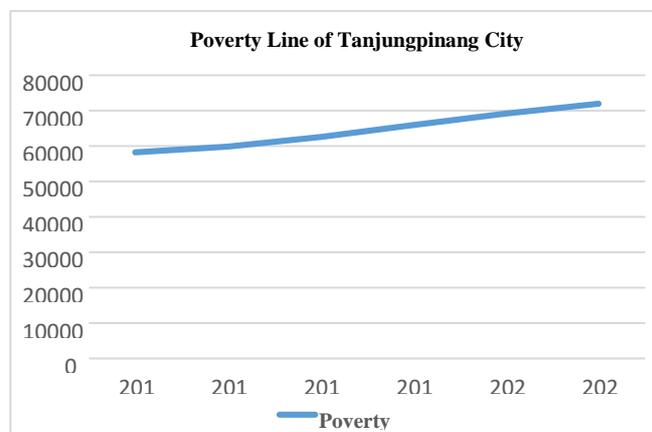
This research, in this paper, uses a type of descriptive qualitative research method with the exploration of primary and secondary data. Observational data and field interviews served as the sources of primary data. In contrast, secondary data for this research via tracking scholarly works such as journals and books relevant to the study's topic—informants in this study in selected by purposive sampling. Informants were selected based on their knowledge and experience of poverty in Tanjungpinang City. The interview process is estimated to take 35 minutes for each informant.

## **3 Result and Discussion**

### **3.1 Poverty Profile in Tanjungpinang City**

Poverty is an economic inability to meet basic food and non-food needs. In this study, we used the income indicator approach. Thus, through the income approach, poverty is the low level of income or expenditure of a person, family, and society that is below a specific size (poverty line); This poverty is primarily because of low expenditure on assets such as stocks and capital and lack of opportunity. Based on the income approach, the poverty line of Tanjungpinang City increased between 2016 to 2020 [8]. Tanjungpinang's poverty line was IDR 582,414 in 2016, IDR 691,738 in 2020, and IDR 719,776 in 2021.

Tanjungpinang City's income approach to poverty is increasing in the graph above. The upward swooping line in the graph illustrates this. From 2016 to 2021, Tanjungpinang City's population likes to have a rise in poverty.



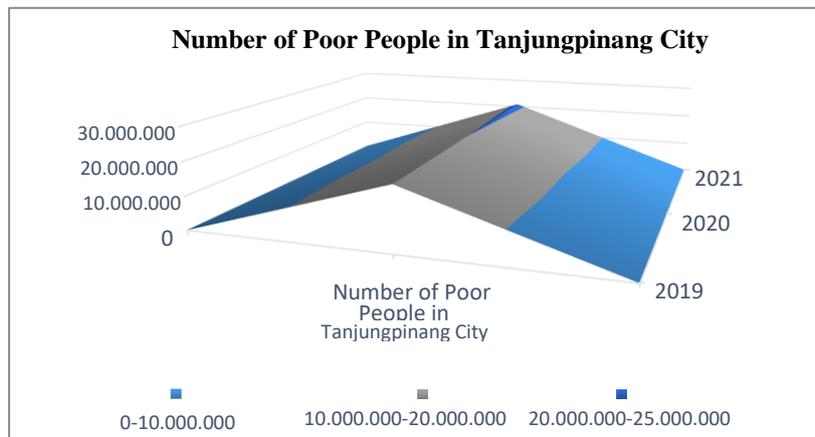
**Fig. 1.** Susenas data adopted by BPS Tanjungpinang City (2022)

### 3.2 Mapping and Poverty Reduction in Tanjungpinang City

Based on the concept of the Central Statistics Agency (BPS) [8] to measure poverty, BPS uses the concept of the ability to meet basic needs (basic needs approach). Therefore, an economic inability to cover fundamental food demands rather than food spending is considered poverty in this perspective. The method used is to calculate the Poverty Line (GK), which consists of two components, namely the Food Poverty Line (GKM) and the Non-Food Poverty Line (GKNM). Therefore, poverty in Tanjungpinang City can explain that the average poor population is at the non-food poverty line. This non-food poverty line indicates that every poor person can still meet their daily food needs but cannot meet other basic needs. Based on the results of an interview with the coordinator of PKH, Tanjungpinang City also mentioned the same thing.

"These poor people in Tanjungpinang City are not that they cannot meet their daily food needs. However, if they cannot meet other basic needs such as sending children to school, let alone have elderly people in the family, the economic burden will be even greater." (Interview PL, Coordinator of PKH Tanjungpinang City).

The Central Bureau of Statistics also defined a poor population as a population with an average per capita expenditure per month below the Poverty Line. Based on this definition, it can be seen that residents who are on the poor line in Tanjungpinang City have low incomes. The number of poor people in Tanjungpinang City has increased yearly. Based on BPS data, the number of poor people has increased drastically in the past three years. The increase in the number of poor people is as follows:

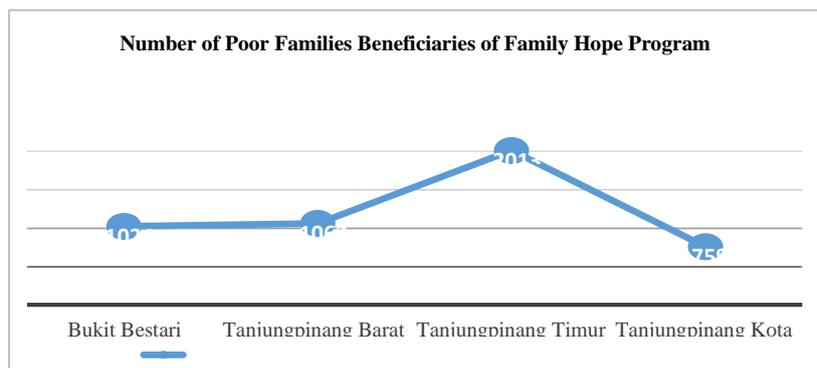


**Fig. 2.** BPS data processed by the author (2022)

The number of poor people in Tanjungpinang City, which continues to be dynamic yearly, pays attention to the city government. Since 2015, various poverty alleviation programs have been designed based on government regulations, for example, according to the Tanjungpinang. Moreover, based on field data, various poverty alleviation programs have been carried out in Tanjungpinang City. Among them is the Family Hope Program, initiated by the Ministry of Social Affairs. This program targets poor women in Tanjungpinang City as the spearhead of the program's success.

"In Tanjungpinang, the PKH program that is the cardholder is a woman. This mother or wife plays an important role in the family. So, almost the holders of this PKH card in Tanjungpinang are women. Unless there is no longer a woman in the beneficiary's family, it can be the man." (Interview PL, Coordinator of PKH Tanjungpinang City)

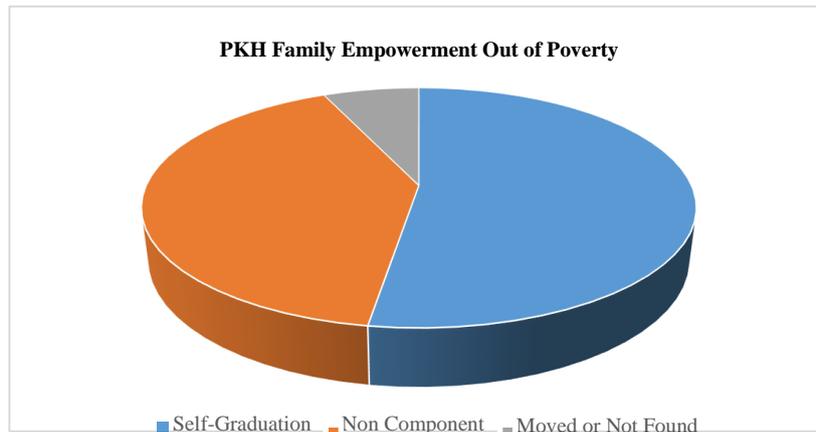
Based on PKH data from Tanjungpinang City, PKH beneficiaries can be mapped per sub-district in Tanjungpinang City as follows:



**Fig. 3.** Data on the Tanjungpinang City Family Hope Program (2021)

Based on the data above, it can explain that the highest number of PKH beneficiaries is in the Tanjungpinang Timur District [9]. That means the number of poor people in this sub-district area is more than in other sub-districts. When comparing BPS poverty data and data on layoff

beneficiaries in 2021, it found that the number of poor people in Tanjungpinang City was 20.85 thousand. Meanwhile, the beneficiaries of layoffs in 2021 amounted to 4.8 thousand families. Therefore, some low-income families are not participants beneficiaries of PKH.



**Fig. 4.** Derived Data from PKH Tanjungpinang City (2021)

Every PKH participant resident will receive PKH benefits within six years. Over time, some families have been empowered or independent during their time as PKH beneficiaries. However, it is undeniable that many families remain in a poor situation. Based on PKH data from Tanjungpinang City, here is the number of empowerment of the PKH beneficiary population.

Based on the chart data above, it can conclude that the level of independence of the poor beneficiaries of PKH is still low. Around 0.5% of PKH beneficiaries escaped poverty. However, the poverty depth and index of Tanjungpinang City in 2021 are still above the national average. The poverty depth index of Tanjungpinang City is 1.75 points. Meanwhile, the national poverty depth index is 1.71 points. Based on the statistic office (BPS) [10], the Poverty Gap Index is an average measure of the expenditure gap of each poor population against the poverty line.

### 3.3 Poverty Profile of Women Fishermen in Tanjungpinang City

"Every night, I go to sea with your husband. So I am my boat, my boat husband, and so respectively. Later, the results will be merged into one. After going to sea in the morning, I ate a salary at the cracker-making place" (YM, Female Fisherman in Bulang Village, Tanjungpinang City).

YM's story is one of the stories of fisherwomen who live in poverty. Women have a heavy and essential role in the processing of fishery products. Women fishers have an essential role in fulfilling their household economy to their involvement in development [11], [12]. They have to play a dual role, as a homemaker and breadwinner, to perform public roles such as being the head of the family (for those who no longer have a husband). Even in the social structure, they often carry domestic and public roles [13], [14]. Data from the Ministry of Maritime Affairs and Fisheries stated that women engaged in the processing of fishery products were more than 867,000 people, men as many as 486,000 people, then women who played a role in marketing fishery products more than 2.8 million people, and men 1.9 million people, with more women's positions as retailers of fishery products.

Nevertheless, most women who work as fish finders at sea are not recognized as fishermen because they are women [15]. Similarly, women prefer to be homemakers more often than professionals in other fields, such as merchants and farmers. That explains by UW, whose husband is a fisherman:

"My husband is a hereditary fisherman from the family. So every time my husband comes home to sea, I, who helps clean up the catch, also join the market. If my daughter, a girl, does the household kitchen work more." (UW, Female Fishers in Kampung Bulang, Tanjungpinang City).

Fishing women have inherited hereditary jobs, but their low income affects the poor's living conditions and inability to meet their family members' welfare. The stereotype of homemakers in the domestic sphere does not generate economic value [16]. Therefore, Mrs UW, despite helping her husband market their catch, is rarely referred to as a female fisherman. Because women's work in the fisherman's circle is only a compliment, not the main one. A fisherman's work is difficult because he or she is constantly at risk at sea, and sometimes large waves accompany typhoons. They cannot imagine other easier jobs due to many limitations, such as the level of education, knowledge, and skills.

Hereditary knowledge and skills as a fisherman are not too difficult to learn, even with the experience of following his parents or family can already be understood and carried out. Based on the results of interviews with traditional fisherwoman informants in Kampung Bulang, Tanjungpinang City, it can be that they use engine boats or Pompong to go to sea so that the zone (area) can reach a little far, which is approximately about 10-15 miles from the coastal boundary. Then, one's catch is 2 to 5 kilograms. One kilogram of catch costs about IDR 75,000. Bulang Village fishermen use shrimp spears, trawls, nets, and Bubu.



**Fig. 5.** House of Fishers at Kampung Bulang



**Fig. 6.** *Pompong*, a traditional boat used by Female Fishers in Kampung Bulang

Women fishers in developing countries live in poverty, including poor access to health and education, unequal access to capital, and marginalization from political access. A fisherman's job is much like living by the sea; most of his money comes from the sea. A risk for fishers because they depend on coastal and ocean resources, but it is also a natural result of how much they depend on these resources. The complexity of the problems faced by women fishers is multi-layered, ranging from the level of family, community and the market to the problem of division of labour, biased bureaucracy, and domestic violence [17]–[19]. Especially the economic problems of their families, traditional fishers in Bulang Village, the fishers' wives tried and were involved in helping their husband's business, such as participating in marketing (selling) their husband's catch. Some even opened a stalled business as a support for the family economy. In addition, the husband earns a living and is also a determinant of family survival [20].

In general, the living conditions of fishers, especially individual fishers or traditional fishermen in Bulang Village, are still deplorable. They still live below the poverty line. Fishers' lives are generally synonymous with poverty and economic uncertainty [21]. Then, the number of empowerment programs in the community only concerns certain parties without prioritizing the interests of fishing communities (especially women), who are the program's subject [22]. There is strong evidence that change begins to occur when women's work is valued when they can speak, be heard, and make and influence choices [23].

Primarily, if this is associated with the relationship between fishers and their environment (coastal and marine), which with a situation of uncertainty [24], their lives are very dependent on natural resources in the sea, namely in the form of fish, shrimp, the living conditions of individual (traditional) fishing women in Bulang Village are still deplorable. The problems they face are very complex. As a result of their low incomes from marine goods, the poor cannot provide for their well-being, much alone that of their families or the environment in which they live (which includes health, sanitation, and hygiene).

In general, many factors cause the low income of individual (traditional) fisherwomen in Bulang Village, namely, the facilities used to go to sea only rely on motorboats or Pompong fueled by gasoline, and the need for gasoline oil is also limited. It also significantly affects its range of operations in the sea, which is very limited, and, at most, only a few miles from the coastal boundary. Likewise, the fishing equipment (tools) used are fine nets (plastic trawls), fishing rods, and traditional spears. Therefore, it affects the type of catch they get in addition to the small amount and types and qualities of large and small, whose selling prices are relatively low.

With these two seasons, it is the habit of individual fishermen (traditional) of Bulang Village not to go to sea during the south wind. Their time to repair damaged fishing facilities and equipment (tools). With the limited activities of fishers to go to sea, especially only during the south wind, it has also been a problem for traditional fishers to improve their welfare.

Meanwhile, the needs of life that must be met daily for their family are quite varied and complex. The absence of recognition for women as actors in the fisheries sector (fishermen) creates gaps for women in participating and accessing economic opportunities. Similarly, access to empowerment is still minimal. Therefore, the empowerment of fisherwomen is essential to create and improve and provide opportunities to empower themselves in supporting family life [25].

Some informants explain the income from fishing women from going to sea and that the income earned in the form of money is erratic. For example, a fisherman's opinion of the kind and quality of fish caught since the type of fish affects the selling price. That means that the income earned by each fisher is not the same. It also depends on whether he is an individual (traditional) fisherman or a fishing worker.

## **5 Conclusion**

Based on the results and discussions in this study, the findings of this study show that poverty in Tanjungpinang City tends to increase from year to year. Mapping poverty in Tanjungpinang City based on the sub-district area, it was found that the distribution of the amount of poverty in the East Tanjungpinang District area. It is indicated based on indicators such as; social dimensions, education, health, and quality of life standards. This reality is notably associated with sustainable development, which has been the jargon of national development, including poverty alleviation and zero poverty. Based on the findings of this study, profiling

urban poverty in Tanjungpinang City can lead to the poverty of women fishers in Kampung Bulang, Tanjungpinang City. Women fishers in Kampung Bulang face a layered situation of poverty; double burden work as a housewife and fishers.

Based on these findings, we suggest: 1) the commitment of the Tanjungpinang City government to poverty alleviation should be the main agenda, and the mandate in Tanjungpinang City by-law Number 6 of 2015 concerning Poverty Reduction should be re-evaluated, considering the poverty rate of Tanjungpinang City which increases every year. Furthermore, 2) there needs to be dissemination between the Tanjungpinang City by law Policy Number 6 and Law Number 7 of 2016 concerning Fishermen Protection and Empowerment so that the poverty of women fishers can be overcome based on the existing situation.

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