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The Impacts of Flood Disasters on the Poverty and Income Disparity in Malaysia: Fine-Tuning The Shared Prosperity Vision 2030

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Abstract

Reducing the income gap among the people has been one of the main aspirations of the Malaysian government since long ago through public policies such as the New Economic Policy, National Development Policy, and so on. Efforts to reduce this income gap require a concerted effort between all parties including the people. However, climate change that has occurred drastically in recent times has caused frequent floods to hit the country and subsequently has a great impact, especially on the poor. Therefore, this study was conducted to discuss the impacts of flood disasters on poverty and income disparity in Malaysia. This study found that the poor are more severely affected by floods than the rich which further widens the income gap among the people. This will have an impact on the government's achievement in achieving the main objective of the Shared Prosperity Vision 2030 which focuses on reducing the income gap and improving the well-being of the people.

Keywords: Flood, Income Disparity, Natural Disaster, Poverty, Shared Prosperity Vision 2030

Introduction

In recent years, climate change has attracted widespread attention around the world. Consequences of natural disasters are commonly observed across Asia, and this is just one way in which climate change is impacting the entire world (Mohamed et al., 2017). According to Sakar et al (2013), over the past few decades, Malaysia has witnessed climate change, much like the rest of the world, in the form of shifting rainfall patterns, rising temperatures, and potentially fatal weather. These causes contribute to the recurrent occurrence of global warming episodes, which in turn leads to an increase in the frequency of climate-related disasters, most notably floods. The risk of flooding for human societies is increasing due to

factors such as population increase and demographic transition in coastal and inland floodplains, in addition to the effects of a warming planet and a rising sea level (Neumann et al., 2015).

The homes and livelihoods of the poor are particularly at risk when natural disasters strike. By 2030, at least 325 million people will be living in extreme poverty in the 49 nations that will be hit hardest by a wide variety of natural disasters and climatic extremes (Shepherd et al., 2013). Researchers predict that climate change will exacerbate poverty by making already-disadvantaged people even less well-off (Hallegatte & Rozenberg, 2017; IPCC, 2018). A group's economic vulnerability is exacerbated when disaster strikes (Glewwe & Hall, 1998; Hulme & Shepherd, 2003). Loss of possessions and income, a decreased standard of living, and unemployment are only some of the negative outcomes that can result from natural catastrophes (Asian Development Bank (ADB), 2018). Due to this, low-income communities have fewer resources for weather crises (Banerjee & Newman, 1993; ADB, 2018). Disaster risk increases the likelihood of poverty, which makes it harder to prepare for future dangers (Fitrinitia & Matsuyuki, 2022).

Large losses are incurred every year due to floods in Malaysia induced by the yearly monsoon. The number of people living in poverty and in danger of being displaced due to rising flood risks, exposure, and possible damage is on the rise (Safiah Yusmah et al., 2020). Research has revealed that low-income people are disproportionately concentrated in places with high flood risks, such as floodplains and high-density urban neighborhoods (Satterthwaite et al., 2007). Some studies have explored how climate change would impact poverty in certain nations, while another study has demonstrated a link between poverty and natural catastrophes (Karim & Ilan, 2016; Hallegatte et al., 2010; Winsemius et al., 2015). People living in poverty are especially susceptible to the devastation caused by floods and other forms of natural disasters, as stated by (Dercon, 2004).

Some studies have indicated detrimental consequences of disasters on economic growth, while others have revealed no effects or even beneficial effects, as pointed out by (De Silva & Kawasaki, 2020). According to Hallegatte et al (2017), rising inequality and poverty disproportionately affect the poor and the vulnerable (Hallegatte et al., 2017; United Nations Office for Disaster Risk Reduction [UNDRR], 2009). However, researchers have paid less attention to how disasters affect economic inequality (Yamamura, 2015). Hence, the purpose of this study is to investigate how the floods in Malaysia have affected poverty and economic inequality. More specifically, this research hopes to investigate how floods can impede the Malaysian government's efforts to reach the goals outlined in the Shared Prosperity Vision 2030.

Flood Disaster in Malaysia

Besides natural flooding and man-made calamities, Malaysia is located in a rather safe geological region. Disasters of natural and man-made origin strike Malaysia frequently (Chan, 2015). Numerous lives are lost, diseases spread, crops are destroyed, and other intangible losses occur yearly as a result of flood disasters (Chan et. al., 2002). Severe flooding occurred in 2006, 2007, 2010, 2011, and 2014 as a result of the country's experience of extreme weather and climate events during the past two decades. Most would agree that floods are the most common natural disaster in Malaysia and also cause the most annual damage.

Floods are widely regarded as Malaysia's worst natural disaster. When rivers overflow their banks, they can inflict significant harm, disrupt daily life, and increase vulnerability on many levels, including physical, social, economic, and environmental (Chan et al., 2022). With each passing year, the monsoon season brings with it more and more flooding. It rains twice a year in Malaysia, during the country's two monsoon seasons. There are two distinct monsoon seasons: one in the north, from November to March, and another in the south, from May to September (Mohammed et al., 2017).

The annual average rainfall in Malaysia is on the rise, but the large seasonal and monthly swings are a problem. Sabah, Terengganu, Kelantan, Sarawak, Kedah, Perlis, and Perak are the most susceptible states to changes in precipitation and temperature (NAHRIM, 2006). It is poor and truly impoverished who work in agriculture and have large families who are at the greatest risk (NRS, 2001). Datuk Seri Mustapa Mohamed, Minister in the Prime Minister's Department (Economic Affairs), estimates that the country lost between RM5.3 billion and RM6.5 billion due to the recent catastrophic floods (Ikram, 2022).

Shared Prosperity Vision 2030

Having completed Vision 2020, Malaysia is moving on to the next phase, Shared Prosperity Vision 2030 (WKB). The new course of the national economy for a decade, 2021-2030, is outlined in the Shared Prosperity Vision 2030. To make Malaysia a country that continues to thrive sustainably and with fair, equitable, and inclusive economic distribution at all levels of society is a pledge made by WKB. Its primary objective is to guarantee all Malaysians a minimum acceptable level of living (Mohd, 2021).

The government's aim includes raising the living conditions of the B40 demographic, and it's been reflected in plans like the 10th Malaysia Plan (RMK-10) (2011-2015), RMK-11 (2011-2015), RMK-11 (2016-2020), and the Shared Prosperity Vision Policy 2030. In 2016, households having a monthly gross income of RM4,360.00 or less were classified as belonging to the B40 group, which represents the bottom 40% of all households (Ministry of Economic Affairs, 2019).

WKB 2030 has three key goals: development for everyone; the creation of a reformed, progressive, knowledge-based, and high-value economy; and, last, the widespread engagement of the local community at all levels to achieve these goals. WKB also seeks to close the income and wealth gap, or the disparity between people of different socioeconomic backgrounds, locations, and supply chains, so that those on the margins can be included in the tide of national progress, their wealth is safeguarded, and their economic agency is strengthened. To make Malaysia a unified, affluent, and dignified country and eventually emerge as the economic axis of Asia is another goal of WKB (Kementerian Hal Ehwal Ekonomi, 2019). From RM1,935 in 1989 to RM10,148 in 2016, the gap between the median monthly incomes of the T20 (the top 20% of households) and the B40 (the bottom 40% of households) has expanded fivefold, according to data from the Malaysian Department of Statistics (Mstar, 2019).

The Impacts of Floods Disasters on the Poverty and Income Disparity in Malaysia

Poverty and income inequality are two of Malaysia's biggest problems. The government of Malaysia adopted the New Economic Policy (NEP) in 1971 and continued it until 1990. The goals of this NEP are twofold: first, to drastically cut down on and ultimately eliminate extreme poverty; and second, to radically reorganize society to right economic wrongs. This issue, however, will never be solved (Islam et al., 2017). Although poverty and income disparity have decreased since 2014, they are still there, with the greatest levels in a select number of states, primarily Sabah and the Federal Territory of Labuan (3.9%), Kelantan (0.9%), and Sarawak (0.9%), as reported by the (Economic Planning Unit, 2015). According to Kawasaki & Rhyner (2018), floods are one of the most common and dangerous natural phenomena that harm people around the world. The national economy and the quality of people's social and economic life can both suffer from floods (Kawasaki & Rhyner, 2018).

Water damage causes poverty and usually hits the poor the hardest. Some people in communities may fall into poverty as a result of floods because of the destruction of their property, housing, infrastructure, livelihoods, and productive capital. A flood disaster is more likely to exacerbate the hardships of the impoverished than of the non-poor or rich (Dube et al., 2018). Disaster shocks exacerbate poverty, according to research by (Carter et al., 2007; Rodriguez-Oreggia et al., 2013). More people in low-income households are at risk from river floods (Erman et al., 2018; Osberghaus, 2021; Poussard et al., 2021).

Natural disasters, such as floods, have the potential to exacerbate class divisions by reducing economic output. The poorer population, of the two, had it harder after the flood. There may be two-way causality between low income and flood risk. Flood-prone locations may be more inexpensive for the poor to move in. Besides that, recovering from damage is more difficult from a position of financial hardship, thus low-income households who are hit by floods are at a larger risk of sliding into poverty or being trapped in it (Winsemius et al., 2018). Diana et al (2021) stated that throughout human history, inequality has persisted in the form of an uneven distribution of income and resources. According to Thye et al (2021), while facing adversity like a flood, the gap between the wealthy and the poor is likely to widen. Stress, anxiety, loneliness, disturbance, displacement, sadness, and a sense of helplessness are all more common in low-income persons, as demonstrated by Edwards's (2009) research.

The dangers of flooding are more readily apparent to those who make their homes in flood-prone regions (Sung et al., 2022). When people's means of production, such as farming, are disrupted by floods, as happens, for example, when crops fail, the resulting income inequality is amplified (Lechowska, 2018). The effects of climate shifts on various segments of society vary. Farmers are the most at risk because they relied on weather conditions, both immediately and in the long run (Alam et al., 2017).

Given that impoverished farmers are disproportionately hit by the negative effects of climate change, Alam et al (2017) argue that this income gap is growing as a result of climate change. Climate change has a significant impact on farmers' capacity to make a living and support their families since it causes wide variations in agricultural yields from year to year and region to region. The volume/yield, land area, and economic worth of agricultural production are all affected by climate change. Consistency in overall output, crop profit margin, final product profit margin, production, and import profit margin, farm and off-farm

wage rate, and so on may all be negatively impacted by unstable agricultural sustainability (Alam et al., 2017).

Agricultural sustainability in Malaysia is threatened by climate change, making those who work the land more economically vulnerable than other Malaysians (Alam et al., 2010). This wage disparity is growing even among farmers as a result of climate change, which has a disproportionately negative impact on already struggling farmers (Alam et al., 2011). Moreover, Alam et al (2017) argue that the loss of farm revenue due to climate change is a major contributor to the likelihood of people falling into poverty. On top of that, natural disasters have become more common as a result of climate change, leaving many farmers without work during the peak harvest season. Additionally, farmers may be put out of work for extended periods due to health problems brought on by the unpredictable behavior of climate elements, such as disease, disability, frequent sickness, and other health concerns. Warmer temperatures, more frequent disease outbreaks, and increased pest attacks on plants are all results of climate change and the rising frequency of floods during the rainy season (Ismail et al., 2019; Noremy et al., 2017; Muhammad et al., 2016).

Natural catastrophes disproportionately affect the poor. Vulnerability, as defined by Moser & McIlwaine (1997), is the state of having uncertain household well-being due to environmental changes that pose a threat to that well-being. Farmers with low incomes are more at risk when natural catastrophes reduce crop yields and sales, as noted by Ibrahim & Siwar (2017). A decrease in earnings is to be expected as a result of the disaster (Ismail et al., 2019; Ibrahim & Siwar, 2017; Mustaffa et al., 2012). When low-income people rely on their primary source of income alone, they increase their risk of falling into a precarious situation (Rospidah, 2017). Human communities' susceptibility to and exposure to flood hazards largely determine the latter's impact. Economic, social, geographic, demographic, cultural, institutional, governance and environmental factors all influence the degree to which a population is vulnerable and exposed at any one time (Koks et al., 2015; De Moel et al., 2011). Due to a lack of resources, the poor are disproportionately represented in disaster-prone areas, such as rural areas (Adelekan, 2010; Askman et al., 2018; Chan, 1995; Kim, 2018). Vulnerability studies focus heavily on the role that economic hardship plays in making certain populations more susceptible to the negative effects of natural disasters (Blaikie et al. 1994; Cannon 1994).

According to Bulling (2011), low-income persons who reside in flood plains, low-lying coastal areas, and steep slopes are more vulnerable to floods. In a contrast, the wealthy may afford to build homes higher off the ground, making them more resilient to the effects of flooding. Because of their greater wealth and access to flood insurance, the wealthy can also afford to replace their destroyed property. People in low-income brackets are more likely to reside in flood-prone locations, and studies show that they are more likely to be negatively affected by floods (Winsemius et al., 2015). As a result of their limited resources, low-income families are also more likely to be affected by floods. There is a correlation between poverty and a reduced capacity to deal with the effects of flooding without outside help. They have fewer options for retirement planning, credit, or social security (Highfield et al., 2014; Masozera et al., 2007). To improve the standard of living and quality of life in rural communities, it is important to reduce the negative effects of floods and end poverty within society (Dube et al., 2018).

According to Datuk Dr. Madeline Berma, a Fellow of the Academy of Sciences of Malaysia (ASM), billions of ringgit have been spent to reduce the negative effects of the floods on people's lives, property damage, and lost production. People tend to underestimate the full cost of floods, which has a multiplicative effect on social and economic disparities (The Malaysian Reserve, 2021). When it comes to political, cultural, and economic considerations, certain ratio/ethnic minorities and impoverished population groups are typically subjected to a greater degree of flood threat. It has been found that low-income persons are more likely to live in flood-prone areas because of the availability of services (such as jobs, schools, and transportation) and the low cost of real estate there (Winsemius et al., 2018; Beltrán et al., 2018). Meanwhile, those living in flood-prone areas are more likely to experience poverty or be kept in a low-income status as a result of flood risks (Masozera et al., 2007).

The disaster risk for countries, communities, people, and enterprises with fewer resources to manage their risks and build resilience is expected to rise in tandem with rising socioeconomic disparity. In addition to death and injury, disasters can devastate the lives of the poor by causing them to lose their jobs, relocate, suffer from ill health, and go hungry (Shepherd, 2013). Overemphasis on urban economic development at the expense of rural development and inadequate public policy are two factors that have contributed to and perpetuated poverty since colonial times. As a result of the correlation between poverty and flood risk, the vast majority of people who live in the country's floodplains are low-income or in danger of falling below it (Chan, 1995). Due to factors such as poverty, lack of vocational mobility, and inadequate education, current floodplain residents in Malaysia are likely to be limited in where they can choose to set up shop. So, these factors are what keep people stranded in floodplains, where they are more likely to be at risk from flooding and other hazards (Weng, 2011).

Conclusion

Inequalities are exacerbated and made worse by climate change and variability, and the poor will continue to bear the brunt of these effects (Oppenheimer et al. 2019). To recap, the New Economic Policy was implemented in the early 1970s and has been the impetus for the government of Malaysia's efforts to narrow the country's income gap. However, a growing disparity in wealth exists between the wealthy and the poor. As a result, the government of Malaysia implemented the Shared Prosperity Vision 2030 in the hopes of narrowing the wealth gap and bringing more prosperity to all its citizens. The goal of the Shared Prosperity Vision 2021-2030 is to reduce the economic disparity between the state, the rich, and the poor, as well as between the city and the country.

However, the government's efforts to narrow the wealth gap have been impeded by recurrent natural calamities, particularly floods. Many lives have been lost and the economic disparity has widened as a result of the recent catastrophic flooding in the states of Selangor, Johor, Kedah, Pahang, Terengganu, and Kelantan. As was previously mentioned, the poor are disproportionately impacted by the flood disaster due to their lack of financial means. Most of them were unable to resume their normal lives until they received aid from the government to replace or rebuild their ruined belongings and dwellings. Many of those who choose to make their homes in the countryside do so because farming provides the best economic opportunities. Damage to crops due to climate change and natural catastrophes like floods has had a significant impact on farmers' bottom lines. If this trend continues, disparities in

wealth will grow, making it harder for the government to realize the goals outlined in the Shared Prosperity Vision 2030.

The environmental injustice of differential flood exposure faced by different demographic groups was revealed by the assessments of the vulnerable population. Communities with asymmetrical socioeconomic structures face a greater risk of flooding, but the identified "hot spots" might help decision-makers devise diverse and focused initiatives to reduce that risk (Shepherd, 2013). Humanity has come to a deeper knowledge of the complex interplay between exposure, susceptibility, and resilience because of studies of socioeconomic differences in flood-prone populations. Important policy implications on flood risk management and environmental justice are derived from the quantification of trends and deviations in this study. There is a growing moral imperative for fair adaptation to improve economic productivity, social cohesion, health, and peace as impoverished people face a double burden of inequality from unequal development and climate change. Therefore, it is imperative that community-based adaptation directly address the needs of the poor, with these individuals at the center of decision-making and financial support (Pelling & Garschagen, 2019).

Reducing poverty, creating economic diversity, and new possibilities need raising the educational attainment rate and bolstering professional skill sets (Garner & Keller, 2018; Bradley et al., 2015). Hallegatte & Rozenberg (2017) note that eradicating poverty can be a highly successful type of climate adaptation, but that the success of this approach depends on whether or not the additional household wealth is used toward risk reduction and management techniques (Nelson et al., 2010). Housing rehabilitation can be costly for low-income communities, but financial incentives to secure properties (Sidle et al., 2017) might ease that burden. Designing and implementing an appropriate mix of adaptation responses for the most vulnerable rural communities is not only a technical task, but also a politically and value-laden social choice that involves trade-offs between multiple values, goals, and interests. This complexity can be mitigated by utilizing a mix of tried-and-true and novel planning, public participation, and conflict resolution practices, as well as decision analysis methods to promote fair and equitable outcomes (Oppenheimer et al., 2019). The country's economy, poverty, income inequality, and its progress toward becoming a developed nation are all hampered by the frequency and severity of natural disasters like floods, hence their occurrence must be mitigated.

Before the onset of crises like Covid-19 and widespread floods, the Shared Prosperity Vision 2030 was developed. Both of these phenomena have altered the economic landscape of the country and will have knock-on implications on the realization of the primary goal of the Shared Prosperity Vision 2030. So, it is important to dig deep to find out how the flood calamity has affected the economy of the middle class and the poor. The government of Malaysia has already granted some financial aid to the flood victims, and this would help them in the short term. However, a long-term policy needs to be envisioned and developed so that flood victims, particularly those in the low and middle-income groups, can recover, continue to live and help bring the economic disparity in the country down.

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