

Flood Impacts on Economic Factor in Kelantan, Malaysia

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Abstract: Floods are common natural disaster occurring in most parts of the world. Report from Department of Irrigation and Drainage expressed that around 29,000 km² or 9% of aggregate land zone and more than 4.82 million individual's (22%) is influenced by flooding every year. Kelantan has experienced a massive flood on 2014, which made some colonies flooded with water during the monsoon season. The floods that occurred in this monsoon season had given a lot of impact towards the population of Kelantan itself, especially in terms of property destruction. So, the study was conducted to identify the impact of flood to economic factor in Kelantan, Malaysia. Based on this study, the result show effect on the overall economy. The outcomes of atmosphere change on the four market affect classifications (agriculture, river floods, coastal systems, and tourism) can be esteemed in financial terms since they specifically influence sectoral markets and through the cross-part linkages the general economy.

Index Terms: Economy, flood impacts, monsoon season, Kelantan, natural disaster.

I. INTRODUCTION

In ongoing decades, the quantities of extreme climatic events like storms, flood, dry spells and heat waves have expanded around the world [1]-[3]. These events become natural disasters when they seriously influence human lives and abilities [4]. Malaysians are generally a riverine people as early settlements developed on the banks of the significant waterways in the nation. Combined with normal factors, for example, heavy monsoon rainfall, serious convection rain storms, poor waste and other local factors, floods have turned into a typical element in the lives of countless.

Ordinary floods are occasional floods which happen yearly in Malaysia during the north-east monsoon season between November to March. The northeast storm (November-February) has a more noteworthy effect than the southwest monsoon (May-August) on the east coast of Peninsular Malaysia. Talking about flood, in 2014, Kelantan

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was stunned by extraordinary floods event and have cause streams wind up dim.

This in light of the fact that the rush of water in the high districts stream down and carried along immense amount of mud [5]. Over the previous century, floods leaves huge impact and the goal of this investigation is to break down the flood makes enduring human life and loss of materials and effect to individuals at the study territory. This appraisal points is economics. Floods are the most well-known happening is to measure the degree of harm and removal displacement events that influence human and its surrounding caused by the flood and their quick effect on flood condition.

Malaysia had a background marked by encountering significant surges in the previous decades. Among these surge occasions the 1926 and 2014/2015 surge were viewed as the most destroying [6], [7]. The 2014/2015 surges in Kelantan were the most exceedingly terrible recorded in the historical backdrop of the state additionally named as a 'wave like catastrophe' as uncovered by the Malaysia's National Security Council (NSC) in which around 202,000 unfortunate casualties were uprooted [8]. There are ten colonies in the State of Kelantan which is Tanah Merah, Jeli, Machang, Kuala Krai, Pasir Puteh, Bachok, Pasir Mas, Tumpat, Gua Musang and Kota Bharu and the most swarmed territory among the fundamental urban communities in east shore of West Malaysia with a populace thickness of 1,264 km² because of urbanization rate of 2.4% in 10 years is Kota Bharu.

II. LITERATURE REVIEW

The most extreme natural disaster encountering in Malaysia is flood. Two major type of flood happen in this nation are monsoon flood and flash flood. The Monsoon flood happen primarily from Northeast Monsoon which wins amid the long stretches of November to March with overwhelming downpours toward the east drift conditions of the Peninsular, northern piece of Sabah and southern piece of Sarawak. A portion of the recorded flood encounters in the nation happen in 1926, 1931, 1947, 1954, 1957, 1963, 1965, 1967, 1969, 1971, 1973, 1983, 1988, 1993, 1998, 2001, 2006, 2007 and 2010. Report from Department of Irrigation and Drainage expressed that around 29,000 sq. km or 9% of aggregate land territory and more than 4.82 million individuals (22%) is influenced by flooding every year.

Floods are among the most successive and expensive cataclysmic events regarding human and financial misfortune.



As much as 90% of the harm identified with natural disaster in Malaysia is caused by flood. Normal yearly flood harm is as high as US\$100 millions. These flooding have made significant harm throughways, settlement, farming and business. Harm caused by flood is assessed RM 915 million. While storm surge is represented by overwhelming and long span precipitation, more limited flooding which covers a vast region has been accounted for as of late. The effects of flood incorporate harms to homes, shops and ventures, particularly the rural segment [9]. What's more, from the point of view of economy, floods have made misfortunes worth billions Malaysia [10]. These floods impacts should be limited by improving the post-surge the executives framework, hazard the board and adjustment procedures.

The farmers in Kelantan confront troubles and harms as far as disturbed horticultural exercises, absence of street openness, sustenance deficiency and misfortunes of properties each time surge catastrophe strikes. Surges have given negative effect on the horticultural part in Kelantan. Surge will cause moderate reasonableness development in agrarian divisions, nourishment security, enthusiastic impacts and financial development. Distinctive literary works revealed that, Monsoon and glimmer surges are the most extreme atmosphere related cataclysmic events in Malaysia [11], [12], with a surge inclined zone of around 29,000 km² influencing more than 4.82 million individuals (22 % of the populace) and incurring yearly harm of USD 298.29 [12].

III. ANALYTICAL RESULTS & DISCUSSION

Every single cataclysmic event surges causes the best financial and social harm on the jobs of its exploited people particularly little scale families who ordinarily lives along the waterfront regions [13]. It represent about 47.80% of all the announced catastrophes on the planet from 2005-2015 [14]. Moreover it emerges to influence agribusiness part the most than all other catastrophic events with about 59.6% (rate offer of harm and misfortune to crops) in view of post-debacle needs evaluations 2003-2013 [15]. The accomplishment of any general public's surge debacle the board approach relies upon the surge harm evaluation of the influenced monetary division dependent on the influenced network understanding [16]. Henceforth, exercises gained from the influenced network on debacle affect is connected to fiasco situations to build up an enhanced comprehension of disaster flexibility erection.

Surge debacle the executives rehearses has been broadly recognized in both created and creating nations, for example, USA, UK, Japan, and Malaysia specifically. These administration rehearses are intended to moderate and decrease the unfriendly effects of surge catastrophe on the helpless family unit level and the economy when all is said in done. In the farming division, moderation systems are proactive estimates which incorporate supplementary (physical development estimates, for example, dams, dikes, levees, supplies, and so forth.) and non-basic (arrive utilize arranging, anticipating and cautioning, protection, and so on. [17], [18]. While recuperation needs assets are government mediations in the arrangement of money, nourishment and quick fix of fundamental homestead frameworks that are relied upon to reestablish wages, resuscitate monetary exercises and balance out sustenance supply [19].

Destitution has turned into a multidimensional issue in creating and immature nations. 2.4 billion Individuals live in a to a great degree poor condition spending less than US\$1.90 every day [20]. In particular, poor low-salary family units can't put resources into training and create openings because of constrained access to credit and budgetary help. In this manner, different associations, for example, United Nations (UN), World Bank, and non-legislative associations (NGOs) have been presenting distinctive projects, administrations, and approaches to address neediness issue [21]. Of every one of these activities, money related help is the most extreme significance. A solid connection between small scale credit projects and salary, which is liable to diminish monetary defenselessness was demonstrated [22], [23]. The manner in which individuals manage surges, and in this way the inputs included, are eventually controlled by the hazard adapting society of a specific culture [24]. "Hazard culture" [25]-[28] among others is an extremely expansive idea used to better see how unique networks live and adapt to chance. Hazard adapting societies vary contingent upon various social, financial, political and specialized angles and their proportional communications [29], [30]. Event of surges will in general increment people groups' acknowledgment that their property is in a region that is possibly in danger of flooding [31] both at the sizes of people and networks, which is one of the primary reasons why surge adapting moves are made.

Surges individuals have encountered actually might be considerably more important for driving danger adapting conduct than data on memorable surges [32]. Specifically, the enthusiastic furthermore, full of feeling forms included (counting apprehension and frailty) and also the substantial and elusive misfortunes might be more imperative than the intellectual appraisals of those dangers.

Another appearance that is appropriate both at the sizes of people furthermore, networks is the hazard taking state of mind, i.e., the measure of chance a network is on the whole eager to open themselves to hazard inclinations have imperative consequences for financial advancement. For instance, these dispositions may influence choices on building limitations which in their own turn impact urban and modern advancement, particularly in zones portrayed by rare land accessibility. They likewise noticed that hazard avoidance is affected by abstract convictions of the likelihood of a disaster to happen [32].

IV. CONCLUSION

Flood is one of the disasters that have a negative impact on the population including in terms of destruction of property, agriculture, loss of life and the economy. Communities have to bear the burden of the floods. Lots of them lost their property and also their work during monsoon flood. Referring to the loss of property and the destruction of dwellings, the population was forced to spend a lot to cover the destruction caused by the flood. Of each and every disastrous occasion floods causes the best money related and social mischief on the occupations of its abused individuals.

As a measure to overcome the destruction of property, loss of life, and severe economic losses some proposals need to be addressed. Preliminary information needs to be issued



before, floods occur as a precautionary measure for the population in the face of floods. **ACKNOWLEDGMENT**

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