

## **Government Agencies and their Discourses of Flood Disaster Preparedness: Impact on Response, Action and Community Empowerment**

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### **ABSTRACT**

One of the severe global threats facing the world today is flooding whereby the consequences in terms of property damaged and people's suffering are expected to be doubled in coming years. Malaysia is in the same boat as the occurrence of flooding is so common during the yearly monsoon season. Thus, monsoon and flash floods have been recognized as the most severe "climate-related natural disasters" in the country. Undeniably, government plays the main stakeholder role in disaster management and is known as the main provider in every disaster stage. Meanwhile, the involvement of the community is missing and being overlooked in disaster management. In this sense, we investigate the perceptions of government officials about their roles and involvement as well as the role of the community in flood disaster mitigation and management in Malaysia. Using semi-structured interviews, our respondents included two officials of different government departments that related to flood mitigation and management. The analysis draws upon Van Leeuwen's representation of social actors and social action framework to identify the discourses drawn upon by the officials when talking about their involvement in flood mitigation and management. The findings show that government officials employ various discourses, i.e., discourses of act of nature, act of man, relief and rehabilitation, sole responsibility and authoritarian which have a direct impact on their actions/ response during the floods. More specifically, these discourses draw on the traditional framework of relief and rehabilitation, top-down government centric approach that gives less focus on community empowerment. The study posits that the discourses not only show the positioning of the government officials as authoritarian called on to carry out their tasks, but that the discourses also construct flood risk communities as helpless victims awaiting assistance, thus removing the agency of the communities, and constructing them passive recipients. We call for more focus on a discourse of shared responsibility discourse for a proactive approach, that sees all parties as partners, in particular the flood risk communities. For this to happen, perceptions must first change, starting from top-down.

**Keywords:** Representation of Social Actors and Social Action, Discourse of Disaster, Government, Community Based Disaster Preparedness, Mitigation and Management

## INTRODUCTION

Flood is one of the most common and frequent disasters happening across the globe today (Kelman, 2015; Henstra & Thistlethwaite, 2017). In Asia, countries that are badly affected by floods include Nepal, Bangladesh, Japan, Indonesia, and Malaysia. The consequences of floods include loss of life and damage to property, loss of economy and agricultural produce, as well as the worsening deterioration of the environment (Abdullah et al., 2018; Guat & Ming, 2020). Socially disadvantaged and poor groups are the most susceptible to natural disasters which are the sources of temporary distress and hardship to the affected community (Iyer-Raniga & Vahanvati, 2021; Yusmah et al., 2020). In fact, in the future, flood losses are expected to increase extensively because of the development of economic activities in flood prone areas and the growth of population (Casey, 2015; Winsemius et al. 2016). As Saad et al., (2021) explain, the rise in flooding can be attributed to both natural and human factors. Natural factors include river characteristics, high tides, and heavy rainfall while human factors are such as deforestation, poor drainage system and improper engineering structures. Besides that, development activities especially on the riverside have caused deterioration of river capacity thus, river water overflow from its banks during convective rainfall seasons (Mohit & Sellu, 2017).

In Malaysia, floods have always been a major devastating hazard due to the combination of natural and human factors (Center for Excellence in Disaster Management and Humanitarian Assistance [CFE-DM], 2016). Even climate change has been related directly to flood causation (Bari et al., 2021; Guat & Ming, 2020 ). In other words, flooding is considered a common occurrence in Malaysia as history has shown that floods have been happening annually (Akhir et al., 2021; Ambu, 2015), and this has been accepted as part of the daily lives of an agrarian and riverine society (Chan, et al., 2019). This perception of flooding as a normal occurrence however changed when in December 2014, Malaysia was hit by one of the worst floods in over a decade (Center for Excellence in Disaster Management and Humanitarian Assistance [CFE-DM], 2016; Leman et al., 2016). Flooding was then declared as a ‘Disaster’ and disaster management and mitigation became a top priority for the government. Due to heavy downpours, several regions in Malaysia are constantly faced with severe floods (Sach et al., 2018). Malaysia is now considered as vulnerable and at risk to monsoon and flash floods. Hence, the government has sustained an annual budget for rescue and relief, flood disaster preparedness, post flood recovery, rehabilitation and public infrastructure (Shah et al., 2017).

Globally, the government is the main agency in handling flood disaster management activities and providing quick assistance to the affected communities during floods. Their

assistance comes in the form of rescue operations, relief materials and temporary shelters, financial aid, etc. In Malaysia, both central and state governments are responsible to reduce or prevent the impact of the flood (Sobian, 2016). Thus, they hold the status as legally affiliated volunteers (Salleh et al., 2020). In most of the countries, flood risk management which is a strategic framework is implemented to assess, evaluate, and mitigate the flood impact (Sayers et al. 2013). Generally, governments hold accountability in taking actions and decisions related to flood risk in every aspect (Nifa et al., 2018). Meanwhile, the roles of private sectors and non-government agencies can be limited. This is because, in many developing countries, flood disaster management is based on the reactive approach that responds to the existing disasters. Instead, a proactive approach should be introduced to develop collaboration of various government agencies, private agencies, non-governmental and public participation (Shariff & Hamidi, 2019). Following such trends, in recent years, Community-based disaster preparedness (CBDP) has been employed as one of the disaster management strategies in reducing community vulnerability. Hence, the participation of vulnerable communities in disaster preparedness has become a necessity nowadays. In other words, the involvement of the community in the disaster mitigation process is the priority of CBDP. Through CBDP, coping mechanisms and confidence levels among communities can be built up and then, lead them to a self-reliant community. The resilient community could reduce the psychological impact caused by flood (Akhir et al., 2021). In this light, community resilience is being given more attention recently as it is impossible to fully prevent floods occurrence (Parvin, 2017). Therefore, community resilience in flood prone area has become an important element of flood mitigation and management. Community Based Disaster Preparedness (CBDP) has been developed in many countries such as Cambodia, Nepal, Bangladesh, Thailand and more for the purpose of educating their community to be more ready for disaster. However, in Malaysia, such programs to assist the community in preparing for disaster and become a resilient agency are still in the initial phase (Akhir et al., 2021).

The current study was motivated to find out why community empowerment initiatives have not been fully implemented and effectively in Malaysia, despite research showing the multitude of benefits of CBDP, especially to flood-risk communities (e.g., Akhir et al., 2021; Parvin, 2017). We address Chan et al's., (2019) call for more research from the social sciences to look at human engagement in flood mitigation and management. We also draw upon previous studies on flood disaster in Malaysia (e.g., Chan et al., 2015 & 2019; Sulaiman et al., 2019; Chong & Kamarudin, 2018; Isahak et al., 2018; Lai & Chan, 2015; Sobian, 2016), and contribute to the field by taking on a social constructionist's approach to situate flood disaster preparedness as a social practice and as discourse. Our study is based on the view that it is important to investigate how government officials perceive of their own roles as well as the community and other stakeholders in dealing with floods. Put simply, we look at how government officials 'talk' about their involvement in flood disaster, and the 'talk' would employ specific discourses. To this end, we utilise the theory of social constructionism to situate flood disaster preparedness as a social practice and as discourse, to look at the discursive construction of flood disaster preparedness by government officials as representatives of government agencies that are involved in flood management.

Discourse of disaster, thus is the central theme for the study and is based on Paidakaki's (2012) views that discourse of disaster presents all-around perceptions, understanding, beliefs and responses to disaster. The discourses of disasters highlight the explanations on disasters, how to assess their effects, and how to handle the impacts efficiently. Aragon-Durand's (2009) point further explains our focus on discourse in that

plurality of discourses of an issue or matter not only shape but can impact the implementation of the type of policies, programs, plan, etc. we also refer to Chmutina et al (2019)'s standpoint on the role of language in discursive construction of disasters. They see that language does not only present people's belief, thinking and actions but also shapes the entire social practice. Basing on these views of language and discourse, we look at how flood disaster is perceived and the impact of the perceptions on the actions being taken or responses during a disaster. Taking on a social constructionist's approach, we use Van Leeuwen's (2008) Critical Discourse Analytic framework, namely representation of social actors and social action for the study of social practices and discourse. In this article, we present the findings of the discourses employed by officials from Government agencies that are involved in flood disaster management in Malaysia. We look at the discourses that are drawn upon (spoken) by the officials when talking about their involvement in flood disaster management. Thus, when the officers talk about their involvement in the floods, they draw upon specific discourses of flood disaster, and these discourses in turn shape and influence the type of response, policy and programs that are developed and implemented by their agencies. The study aims to answer the following research questions:

- i. What are the discourses employed by the officials from Government departments when talking about their experiences in dealing with flood disaster preparedness?
- ii. How do the discourses relate to their response and action to flood disaster preparedness, and to the empowerment of flood risk communities?

## **LITERATURE REVIEW**

This section presents information of the current practices of flood disaster management and mitigation in Malaysia. As our respondents for the study are from government agencies that are involved in flood disaster, the discussion gives an overview of the structure of key organisations, their roles, and programs for flood management as well as some explanations on why there has been less community empowerment for flood disaster preparedness and CBDP based on previous studies.

### **Current Disaster Management in Malaysia**

Starting from 2015, the authority of the National Disaster Management Agency (NADMA) has taken over the management of disasters under the regulation of Directive 2.0 (Sobian, 2016; Chong & Kamarudin, 2018). And, the hierarchy of disaster management is based on district, state and federal (Center for Excellence in Disaster Management and Humanitarian Assistance [CFE-DM], 2016). The main role of NADMA's is to undertake disaster preparedness, SAR actions and relief efforts between government entities, NGOs, and communities resourcefully (Sobian, 2016; Chong & Kamarudin, 2018). The formation of NADMA is basically a merge of three entities namely, Disaster Management Division of NSC, Post Flood Recovery Unit, the National disaster Command Centre and Special Malaysian Response Team (SMART) (Lee, 2019; Sobian, 2016). Disaster Management Structure is established based on seven service themes namely search and rescue, health and

medical, media, support, security control, welfare as well warning and alerts (Sulaiman et al., 2019; Chong & Kamarudin, 2018).

The cycle of strategic disaster management comprises five steps which are prevention, mitigation, preparedness, response, and recovery (CEDMHA, 2016; Chong & Kamarudin, 2018). Baharuddin et al. (2015) states that preparedness and prevention/mitigation are the most significant phases which should be given more attention. Our focus in this study is on flood disaster preparedness which is said to be lacking. Preparedness as part of the disaster management cycle is aimed at enhancing coping capabilities and response activities (Leman et al., 2016). On the other hand, disaster management is described based on three vital stages. The first phase is preparation and prevention before the arrival of disaster, the second phase is relief assistance during the disaster and the last phase includes reconstruction and rehabilitation of flood damages. Practically, the first stage of disaster management strategy is important as it assists victims to prevent injury or death during the disaster. The stage also helps to lessen emotional disorders such as depression, stress, fear, anxiety, and frustration among the community as they are already prepared for the disaster (Zakaria & Mustaffa, 2014). The during and post-disaster stages have always been crucial in the event of a flood. These are stages whereby the communities are inclined to a dangerous and defenceless situation. They are needed to move and stay in a safer place. Hence, relief, evacuation and rehabilitation activities are a necessary part of disaster management (Chan et al., 2012). As Chan et al., (202) elaborate, these measures come under what is called 'dependency type relief measure' that situate flood-risk communities as receivers of aids. It is also known as a reactive measure as it is only taken when a disaster occurs, in the post disaster stage. Our focus on preparedness in the pre-disaster stage thus is a means to highlight the importance of proactive measures as well. Pre-disaster stages indeed is a vital phase as communities can prepare themselves mentally and physically for the consequences of floods during and post disaster. This is the phase that flood education and awareness must be imposed on the community not only to face the aftermath of floods but take accountability to avoid the occurrence of floods. As Shafiai & Khalid, (2016), explain pre disaster deliver system need to improvise to reduce negative flood impact and damage in the future.

There are 68 agencies which carry out responsibilities and roles in disaster risk management based on management cycles (Chong & Kamarudin, 2018). As an example, in pre-disaster stage, Public Works Department (JKR), Department of Irrigation and Drainage (DID) and Department of Meteorology control the flood flow through dykes and dams as well conduct forecasting and warning system. In the event of a flood, rescues agencies namely, Police Department Search and Rescue team, Malaysia armed forces, Civil Defense Department and Fire and Rescue Department take charge to move the flood affected communities to safer ground. After evacuation, at the rehabilitation centre, departments such as Volunteer Corps (RELA), Social Welfare Department (JKM) and NGOs take over (Shafiai & Khalid, 2016). According to Othman et al., (2014) and Shafiai & Khalid (2016), most of these agencies emphasize the during disaster phases such as emergency relief, warnings, and rehabilitation. Consequently, most government agencies are operative at post disaster stage. It is because post disaster activities such as evacuation, welfare, logistic, medication and others need to be managed in an extensive manner. There are however, around 25 agencies that simultaneously during pre-disaster and post-disaster stages. Only NADMA, the Public Works Department (PWD) and the Department of Irrigation and Drainage (DID) engage in all disaster phases. Another point to take note is only a few agencies apply a bottom-up approach by involving local communities (Chong & Kamarudin, 2018). For example, NGOs such as

MERCY employ the bottom-up approach by involving the community in disaster risk management projects. Generally, the top down approach is widely used (Shariff & Hamidi, 2019; Chong & Kamarudin, 2018; Sach et al., 2018). Hence, there is a lack of balance between bottom-up and top-down approaches in disaster risk management in Malaysia which is one of the reasons for low community resilience and empowerment.

### **Non-structural measures**

Flood management activities are designed based on a mixture of structural and non-structural measures. That means the objectives of those activities are to control and minimize flood impacts together (Chan, 2012). Structural measures emphasize controlling the flood flows through engineering approaches while non-structural measures emphasize human activities in mitigating, legislation, flood insurance, flood forecasting and warning systems (Karki, 2020; Mohit & Sellu, 2017; Shafiai & Khalid, 2016; Chan, 2012). Despite such measures, Chan (2012) notes that as there is more focus on engineering and technical aspects, thus making structural measures the most practiced measure for controlling flood disasters in Malaysia. Non-structural measures such as community involvement should be given more focus on the mitigation of floods. As such, a multi-disciplinary approach in solving flood issues is needed, which is the focus of the current research (Chan, 2012). On the other hand, at pre disaster level, non-structural measures such as warning system and land policy are being focused. In summary, while the discussion on the role of the communities in disaster preparedness is limited, educating, and training the community at pre disaster level on floods are also still lacking in Malaysia.

### **Community Based Disaster Preparedness**

Community preparedness is not a novelty in the event of any type of disaster in most countries. In fact, the best practice of community preparedness could be seen in Switzerland, Norway, and Sweden (Durrer et al, 2019). A well-prepared community member would be able to participate actively in any disaster occurrence rather than be a 'victim'. Normally, during any disaster event, the first 72 hours are the most critical. Sometimes, it would be difficult to bring assistance from outside. Hence, the closest to the scene could bring effectual responses in a short time. Here is when the community members act as 'first responder' (Salleh et al., 2020; Shariff & Hamidi, 2019). They not only help themselves and their family but also the surrounding people, particularly those who are vulnerable people. When the community is well prepared, they can take care of themselves and the surrounding people even before they receive aids from outside (Sobian, 2016). Training and awareness programs come to light in Malaysia to nurture a prepared community. And the main goal is to develop a community that can take response actions during floods even before the main response agencies involve. Community members are given a chance to be volunteers after completing the training and awareness program. The Force appoints full time volunteers with one-year

contract that needs them to report to work when required. In addition, monetary and other special incentives such as free government hospital treatment are given to motivate volunteers serving the nation Chong & Kamarudin, 2018). However, a limited budget has been a hindrance for hiring full time volunteers and even for conducting training (Salleh et al., 2020; Chong & Kamarudin, 2018). This is because other entities are perceived as experts and important than community members. Hence, those entities are most likely entitled to a higher budget. This is so called an intergovernmental conflict that indirectly sabotages the importance of community role (Salleh et al., 2020). Unsurprisingly, this is one of the reasons why the people view government agencies as being solely in charge of disaster preparedness. Plus, the government is expected to provide all the assistance accordingly. Apart from that, community members from the flood affected areas regard themselves as the receiver of aid. One reason for this is because the traditional relief approach also looks at members of communities as 'beneficiaries' and 'victims' (Sobian, 2016). These perceptions of the members of the community should be addressed and changed. Therefore, the affected community members should be educated to be a well-prepared and resilient community. The more community members understand and are conscious of their responsibility and involvement, the less they are dependent on the government, and this is an important element that is missing in the disaster management practice in Malaysia.

The discussion in this section has highlighted the various government agencies and their roles and programs in flood mitigation and management. Some key issues have also been pointed out which have set the precedence for our study. It can be noted that in general there is more emphasis on top down, techno centric approaches, both in practice and in research about flood disaster in Malaysia, while less attention has been given to human aspects such as human involvement and community empowerment, especially at the pre-disaster stage. This information thus, forms the backdrop for our study that looks at government involvement in flood disaster, but from a social constructionist's perspective to look at the perceptions of government officials involved in flood disaster management. How they 'talk' about flood disaster would in turn reveal the discourses they draw upon.

## **SOCIAL CONSTRUCTIONISM AND DISCOURSE**

Social Constructionism elucidates that belief and thinking are the groundwork of meaning and knowledge and the nature of realism created within human relationships (Berger & Luckmann, 1966). In this theory, language, culture, and social process are emphasized in shaping constructions and understandings (Burr, 1995). Language which is a communication tool is a part of social construction. Through communications, the view and understanding of the world are established. Therefore, language is a mode for the exchange of ideas, information, and formation of meaning. It is stressed based on the perception such as '*the world gets constructed when people talk to each other*' (Burr, 1995). According to Edley (2001), talks involve the creation or construction of certain stories or descriptions of the world. Hence, discourses show the connections between language and social practice. In this regard, the dialectical relations between discourse (language, visual images, or body language) and social practices are revealed. Therefore, discourses in social practices need to be expanded through analysis (Fairclough, 2001). The construction and interpretation of a

text that is known as an important feature of the social practice, contribute to the establishment of the social world. The processes of discursive practice are comprised of explicit texts (linguistic objects) that are publicized, produced, distributed, and so forth. The text consists of speech, writing, visual image or any combination. At the linguistic level, text analysis covers grammar, vocabulary, sentence coherence and structure. Then, it proceeds to an analysis at the discursive practice level (Van Leeuwen, 2008).

As a social practice, discourse essentially relates to other social dimensions such as social actors, social actions, social structure, social identities, and social relations in a dialectical relationship (Jorgensen & Philips, 2002). This means discourse is observed as a discursive practice where texts are created, received, and interpreted to represent a social world. Besides that, discourse is also observed in its plurality, i.e., that realism is socially constructed and can be represented using different discourses (Van Leeuwen, 2008). For the central theme of discourse, we draw upon Van Leeuwen's (2008, p.193) view of discourse as "a way of representing social practice(s), as a form of knowledge, as a thing people say about social practice(s)". van Leeuwen (2005, pp. 94-6) states that the 'same' issue or object "can be represented differently through differing discourses". This relates to several different ways of knowing, and thus of representing the same 'object' of knowledge". van Leeuwen calls this the 'plurality of discourse'. Some examples related to the social construction of disasters and the plurality of discourses include 'disaster as complexity' (Oliver-Smith, (1999), 'flood disaster as social vulnerability' (Yang et al., 2010), 'disaster as social problems (Byrant et al., 2007) and as a social phenomenon (Café, 2012). These examples that show the plurality of discourses of disasters evince that flood can also be represented differently via discourses that are based on people's perceptions, beliefs, attitudes, and life experiences.

In this research, flood disaster preparedness is viewed as a social practice and therefore a discursive practice. The focus of the study is on how people talk about flood disasters brought upon by particular discourses. This research hence reports on 'flood disaster' from the perspectives of government officials. It looks at the basic relation between the discourses of flood disaster (how they talk about flood disaster) and how this relates to their flood disaster response and action. When people talk about their participation in the floods, they draw upon specific discourses of flood disaster, and these discourses in turn shape and influence the type of response, policy and programs that are developed and implemented. We also look at how their discourses impact community empowerment and resilience.

## **METHODOLOGY**

### **DATA COLLECTION PROCEDURE**

A qualitative approach is employed to identify the different discourses of flood disaster preparedness as constructed based on the experience narration of the respondents in floods. The research procedure is based on five key stages, embarking with Stage 1 – participants' selection for interview; Stage 2 – Conduction of interview; Stage 3 – Data transcription; Stage 4 – Data coding; and the final Stage 5 – Data analysis.

The main data is the transcription of two extended, semi-structured interviews of officers from the Government departments namely, Majlis Perbandaran Iskandar Putri and Jabatan Pertahanan Awam Negeri (JPAM). For ethical reasons, personal details of the respondents are concealed. Purposive sampling was adopted whereby the respondents were selected based on their experience and involvement in flood disasters. It must be mentioned at this point that we managed to get two interviews only as it was difficult to get officials to agree to being interviewed. For this reason, our study limited the interviews to agencies in Johor State only. Despite, just two interviews, there were quite a lot of similarities in the perceptions of both officials. The interview questions from Sunarharum's (2016) study were adopted for this research due to its high relevance. Therefore, the interview questions mainly comprised broad questions, probing questions and reflective questions. Besides these prepared interview questions, some spontaneous questions were asked during the conversations with the respondents.

The data are coded based on common themes or ideas found in the texts. Therefore, a structure of thematic ideas is established. As an instance, representation of flood is coded according to various themes related to the issue of the flood, i.e., flood causation, flood mitigation strategies and programs, etc. For example, when they talk about the main theme of the causes of the flood, they talk about subthemes such as poor drainage, rapid development, weather, and others. After thematic coding, another phase of coding is undertaken. We used Fairclough (1995) perspective for the coding and analysis, i.e., lexical refers to the patterns in vocabulary (wording and metaphor), grammar, cohesion, text structure (Fairclough, 1995). For this phase, this study focused on common nouns, verbs, adjectives and adverbs and phrases in the generated themes. The analysis began by categorizing the same types of nouns, verbs, adjectives and adverbs and phrases. From the subthemes, similar nouns, verbs, adjectives and adverbs and phrases were identified.

## **DATA ANALYSIS**

This study employs van Leeuwen's Critical Discourse Analytic framework, i.e., recontextualization of social practice and representation of social actors and action (2008), to identify the discourses of flood disaster preparedness evoked by government officials. According to Van Leeuwen (2008), social practice refers to what people do in a particular circumference and includes a set of actors and actions. Therefore, in a specific social practice, social actors carry out certain roles and engage in certain activities. The social actions as a set of activities form the core of social practice. In this light, flood disaster preparedness is the social practice in this study. And when the respondents narrate about their experience on flood disaster preparedness, they recontextualize flood disaster preparedness and represent various social actions and social actors through specific content words.

We investigate how the respondents (social actors) themselves as well other participants involved in flood disaster. In addition, we look at how they present their responses (actions) to the flood situation and community empowerment. Van Leeuwen's categories for the representation of social actors and social action are summarized in Tables 1 and 2. These categorizations are the main tools to analyze the social practice of flood disaster preparedness. Social actors and action can be represented in more than one way when as shown in these categories based on representations of self and others as well as their

activities. As an example, when the respondents explain their actions throughout each stage of disasters, their roles can be identified and then represented, either by being active and/ or passive based on the choice of words they use. According to Van Leeuwen (2008), actions or actors can be displayed either as being active (activation) or passive (passivation). Social actors are recognized as the dynamic agent or active doers in an activity through ‘activation’ representation while they are known as agentless through ‘passivation’ representation. In terms of social actions, some of the categories include ‘material action’ (action by doing), ‘semiotic action’ (action based on meaning), ‘agentialised’ (brought about by human agency) or ‘deagentialised’ (brought about by other elements).

TABLE 1: Selected categories from the Social Actor Network and their representative meaning (Van Leeuwen, 2008)

Categories of representations of Social Actors	Meaning
Functionalization	References of social actors by their actions and events like roles or occupations.
Identification	References of social actors in terms of what they are
- Classification	References of social actors by difference between a group of people within a specified society or organization.
- Relational identification	References of social actors by individual relationships, association or workplace relations.
- Physical identification	References of social actors by physical description to exclusively differentiate them from a particular background.
Exclusive/Inclusive	Include or exclude people through the ways in which they are discursively mentioned in the texts, explicitly or otherwise
Activation/Passivation	Activation refers to an actor who is active and plays a vibrant role. Passivation refers to an actor who is ‘patient’/ the ‘receiver’ that undergoes the activity or being positioned in the receiving.

TABLE 2: Selected categories from the Social Action Network and their representative meaning (Van Leeuwen, 2008)

Categories of Representation of Social Actions	Meaning
Reactions	Personal feelings
Specified	Cognitive, affective or perceptive
Unspecified reactions	Verbs like ‘react’ and ‘respond’
Activated Or Deactivated	Active and Passive actions
Material Action	Utilizes actions for doing
Semiotic Action	Utilizes actions for meaning
Interactive	Refers to actions via verbs that take humans as the goal
Instrumental	Utilizes the goal of actions that may be human or nonhuman or humans can be interchangeable with objects

## FINDINGS/DISCUSSION

This section presents the findings based on the analysis of the interviews with the officials from the government organizations. The objective is to identify the construction of discourses

by the officials when talking about their involvement in flood disaster preparedness and to discuss how the discourses relate to their response or action and impact on community empowerment. This discussion is based on four main emergent themes namely representation of flood causation, representation of flood mitigation and strategies, representation of government and flood prone community.

## DISCOURSES OF FLOOD DISASTER PREPAREDNESS

When the Government officers are asked about the causes of the floods in Malaysia, they mentioned ‘river, drainage and buildings’ as the causes. Respondents recall in the following examples:

*Apart from the river factor, the drainage itself. Some are related to new buildings. The water is connected to the old building (Government Official 1, lines 17-18).*

They discuss three main flood causations, namely the condition of the river, drainage system and development. Drawing upon Van Leeuwen’s categories for the representation of social actions, ‘agentialization’ and ‘deagentialization’ are used to explain the causes. According to Van Leeuwen (2008), agentialized actions are brought upon by human agency while deagentialized actions are related to natural forces. Hence, when the respondents talk about the causation of floods, they talk about natural forces and human agency as the active doers of the action. In this way, the drainage system and development are agentialized, represented as brought on by human agency; while causes such as rivers are deagentialized, thus represented as an act of nature. Therefore, they represent the causes of floods by drawing upon the discourses of *act of man* (development and drainage system) and *act of nature* (river).

Government departments carry out various flood mitigation strategies and programs especially ‘during’ and ‘after’ phases of the floods. When the Government officials talk about their involvement, they carry out material actions such as ‘*oversee, take solve, plan, respond and work*’. In the following examples they relate their involvement in flood management. These are ‘material actions’ (doings) to represent their involvement. According to Van Leeuwen (2008), social action can be represented as *material* or *semiotic*. *Material action* refers to the ‘doing’ while *semiotic actions* refer to ‘meaning’.

*When flood problems occur, the department oversees investigations into causes, takes actions to solve the problem and plans for the time being to avoid repeating it. (Government official 1, lines 5-7).*

*We will respond to the victim's evacuation to rehabilitation centers. In addition, we work with other NGOs like Mercy (Government official 2, lines 23-24).*

The government officials also talk about flood mitigation strategies based on the flood management cycles namely pre disaster, during disaster and post disaster. There are very specific actions that can be taken at each stage as a part of disaster reduction and mitigation. Pre-disaster is known as the early phase of the disaster management process. During-disaster phase starts immediately after a disaster happens. Post-disaster is known as the recovery phase. For pre disaster stage, government officials mainly concretize about those specific social actions to be taken before a flood occurs. Concretization is employed to describe the actions in detail, e.g., they *'take steps like pools, then drain'*. ... *'make it clean and take note of complaints'*; hold *'meetings'* to prepare themselves to handle major flood. These types of actions before the flood are mainly 'non-transactive' (Van Leeuwen, 2008), whereby only the doer, (government agencies, 'us') is involved in the actions. This draws upon a **preparedness discourse**. Respondents recall of their actions such as *'to prepare'*, *'take steps'* *'take note'* in the following examples:

*We take steps like pools, then drain. We make it clean and take note of the complaints (Government official 1, lines 25-26).*

*Every year we will make a meeting, minimum two or three times at the district and state levels to prepare us in the event of a major flood (Government official 2, lines 15-17).*

After pre-flood actions, government officials also concretize social actions in the during and post disaster phases based on the roles and duties of their respective departments. They talk about *'when flood occurs'*, *'in the event of a flood'*, followed by their action/response, such as *'oversee'*, *'take action'*, *'plan'*, *'go down to the site'*, *'investigate'*, *'respond'*. These actions are 'transactive' which include both doer (*'this department'*) and receiver (*'the residents'*, *'head of the community'*, *'headman'*, *'the villagers'*, *'head of the village'*, *'victims'*) in a social practice context. When the doer's social action affects another individual, such an action is called 'transactive'. Here terms/phrases such as *'victim's evacuation'*, *'rehabilitation centres'*, *'relief centre'*, *'welfare materials such as food ingredients, blankets'*, employ the **discourse of relief and rehabilitation**. Respondents recall in the following examples:

*When flood problems occur, this department oversees the investigations about the causes, takes actions to solve the problem and plans for the time being to avoid repetition. At my level, when I get information about the flood occurrence, we will go down to the site to investigate. (Government official 1, lines 5-6).*

*In the event of a flood, we get information from the residents or the head of the community or the headman. Usually, the villagers will be aware of the head of the village. He will be feedback to us. We will respond to the victim's evacuation to rehabilitation centres. (Government official 2, lines 23-25).*

*In Johor, there are over 600 evacuation centres. Prior to that, apart from the relief centre, the JKM identifies risky areas. He sets the welfare materials such as food ingredients, blankets in the area (Government official 2, lines 29-31).*

The officials also describe their roles and duties by placing emphasis on flood mitigation and management as being exclusively their responsibility '*The government agency is responsible*', '*We have to intervene as well*', in this way minimising the roles of others in flood management. They use 'semiotic action' (meaning) to convey the significance of their roles and duties. Hence, '*responsibility*' is a semiotic action to convey the meaning of roles and duties. 'Responsibility' is used to generalize all their roles and duties. According to Van Leeuwen (2008), social action can be 'generalized' by excluding the particular micro actions that form the main action. And the officers specifically mention their identity as a particular social actor before the word 'responsibility'. Therefore, this draws upon the **discourse of sole responsibility**, where the responsibilities for flood management are not shared with others.

*In Johor, we have already identified evacuation centres. This is JKM's responsibility. We have to intervene as well. The government agency is responsible. (Government official 2, lines 25-26).*

In short, the respondents talk about their roles as active doers of actions such as '*oversee*', '*take action*', '*plan*', '*go down to the site*', '*investigate*', '*respond*'. They represent their action as being dynamical where their functions are activated when a disaster happens. When they talk about what is being done as a part of mitigation strategies, they talk more about themselves, their roles as the foremost authority. Therefore, when they talk about their role, they construct themselves as having agency (Van Leeuwen, 2008). Government organizations represent themselves as the active doers, the once with agency via their responsibilities. The officials represent themselves as '*central government*' and '*government agencies*', which are forms of 'identification' (Van Leeuwen, 2008), in terms of who they are. They also 'functionalize' (van Leeuwen, 2008) themselves in terms of their roles and duties as the main authority in flood mitigation and management. Van Leeuwen (2008) sees actions as either being active (activation) or passive (passivation). In this sense, the social actors are either activated or passivated. In activation, social actors are known as the dynamic agent or active doers in an activity '*central government has to intervene in disaster management*'. This draws upon an **authoritarian discourse**. Concerning their roles, duties and authority, respondents recall in the following examples:

*In addition to the rescue, we are the disaster management secretariat at the state and district levels. If in central, we have a state disaster management agency. The central government has to intervene in disaster management. Government agencies raise awareness to victims for example what they are supposed to do before, during, after. All government agencies are directly involved such as the fire department, Meteorological department, hospital department and others (Government Official 2, 10-40).*

When the government officials talk about the flood-prone community, they 'collectivize' (Van Leeuwen, 2008) them as '*victims*' and as '*community*', '*villagers*' and '*residents*'. This are forms of 'identification', in terms of who they are. When describing the flood-prone communities as '*victims*', they represent them as recipients of the service, and without agency. Van Leeuwen (2008) sees passivation as representations that remove agency of the actors, where the activity is done onto them. When social actors are 'subjectivated', they are regarded as objects in the representation. Beneficialized social actors get benefits from a particular action positively or negatively (e.g. *We will respond to the victim's evacuation to rehabilitation centres*'). In this way, community becomes 'deagentialised' (Van

Leeuwen, 2008) thus constructing them as having little role in flood mitigation and as recipients of aid from governments. On the other hand, they also use the term ‘community’ to represent the flood-prone community to indicate a homogenous group of people with similar needs for assistance, which is a form of ‘collectivization’ (Van Leeuwen, 2008). ‘Community’, is described as having ‘very little awareness’, as they are late in alerting the government, or when asking for help, (*‘...when flood happens, then only they inform. They should inform early. If any drain is clogged near their house, they should ask the authority to investigate. Communities should pay attention to the floods.’*). In this way, community is ‘collectivised’ as a group of people belonging together through their associations as ‘victims’ and beneficiaries. In this way, they employ a **discourse of victimization** and ‘talkdown’ the role of flood prone communities. On the other hand, they do acknowledge that communities can be active doers, thus with agency but their roles are limited to alerting the government (*‘provide information’, ‘Community can give initial input’*) in the pre-flood phase, or to clean-up or evacuate in the post-flood phase (*‘cleaning’, ‘act during prolonged rain’, ‘they can move on their own’*). Thus, the role of community is described as minimal, and dependent on the government. This again draws on a ‘**discourse of relief and rehabilitation**’. In fact, there is little mention of preparedness, of what community could or should do, while government is the authority that has the sole responsibility in flood disaster mitigation and management. Respondents recall in the following examples:

*Communities should pay attention to floods. They can provide information* (Government official 1, lines 54-55).

*We made a simulation of how the evacuation center is functioned, how the displacement of victims from the home to the evacuation center and how the registration takes place and so on* (Government official 1, lines 67-70).

*Community can give initial input. Like an example, when flood happens, then only they inform. They should inform early. If any drain is clogged near their house, they should ask the authority to investigate. Communities should pay attention to the floods. They can provide information. For early warning during the flood... We want to involve all communities in the cleaning* (Government official 1, lines 52-57).

*To manage themselves 100%, they cannot. We have to intervene as well. The government agency is responsible. Like a start-up action. They can act during prolonged rains. If there is a possibility of flooding, they can move on their own. We can active the level but with ongoing programs... We do not direct the community but focus on the government agency departments in the area as well as the people who represent the community* (Government official 2, lines 52-56).

*In the event of a risk, the community will move first and they know what should happen. Sometimes, we have to remind them when heavy rains are moving to another place. There is little awareness of the community* (Government official 2, lines 77-79).

Table 3 provides a summary of the discourses of flood disaster preparedness, lexis/phrases, strategy, and Van Leeuwen’s categories applied in the analysis.

Table 3: Summary of Discourses of Flood Disaster Preparedness

Social Actor	Thematic Coding	Lexis/ phrases	Text Strategy	Van Leeuwen's Categorization of Social Actor and Social Action	Discourses of Flood Disaster Preparedness
Government Officials	Representation of Flood Causation	<i>drainage system, development, building river factor</i>	Noun, Descriptive words	Agentialization-Deagentialization-	Act of Man
					Act of Nature
	Representation of Flood Mitigation Strategies	<i>oversee, take solve, plan, respond and work responsibility</i>	Verb, Noun, Descriptive words	Material/ Semiotic actions Activation/Passivation Concretization Transactive/ non-transactive	Sole Responsibility
					Preparedness
					Relief and Rehabilitation
Representation of Government	<i>central government, government agencies</i>	Noun	Functionalization/ Classification	Authoritarian	
Representation of Flood Prone Community	<i>community, victims</i>	Noun	Collective Identification Activation/Passivation	Victimization	

### IMPACT OF DISCOURSES ON THE RESPONSE AND ACTION TO FLOOD DISASTER PREPAREDNESS AND COMMUNITY EMPOWERMENT

Our study is inspired by Chmutina et al (2019)'s perspective that language plays a significant role in the discursive construction of disasters where language embodies beliefs, thinking and actions and in turn also shapes the entire social practice. We also draw upon Paidakaki's (2012) and Aragon Durand's (2009) notions that discourses of disasters give insights into people's understanding, beliefs and responses which effect their response and actions, plans, programs etc. Generally, the government officials draw upon the *discourses of act of man* and *act of nature* when talking about flood causation. They evoke the *discourses of authoritarian, discourse of sole responsibility, the discourse of preparedness and discourse of relief and rehabilitation* when describing their roles in flood disaster preparedness. They employ a *discourse of victimization* when talking about the flood risk communities. The discourses are discussed in the following paragraphs.

When Government officials talk about flood causation, 'act of nature' and 'act of man' discourses are mainly drawn upon. In this sense, development and nature are given 'agency' of flood causation. 'Act of nature' brings the inexplicit meaning that it is beyond human control. On the other hand, 'act of man' refers to disaster events caused by human decisions (Taib at al., 2016). These two discourses bring an impact to flood mitigation strategies, in that structural measures, particularly, engineering approaches will be mainly emphasized to control the flood flows. This is because the flood causation 'nature' and 'man made' are big events. In a similar vein, Shen (2010) also reveals that when flood disaster is represented as a natural occurrence, the implication for mitigation focuses on physical events. This means the mitigation emphasizes on analysis of the scale and the occurrence of disaster

by using meteorological and hydrological science. Hence, technological measures such as dams and dykes are the resolutions to reduce the occurrence of floods. The relief and emergency stage, which is after the occurrence of the disaster, is thus emphasized through engineering and technical measures. Thus, the flood-prone community will not be included on flood related decision-making process as governance processes are state-centered, hierarchical and technocratic.

Government officials employ the 'authoritarian' and 'sole responsibility' discourses as they see themselves as not only as the major player in flood disaster preparedness, but also as being solely responsible. Through these discourses, respondents represent themselves as the active doers of flood mitigation and management. Respondents use nouns such as 'central government' and 'government agencies' when they represent themselves. They also mention their departments' roles and responsibilities such as '*oversees investigation*', '*take action*' and '*train all levels of society*'. These nouns and phrases are employed to distinguish respondents' roles as authority from others. When government officials functionalize, themselves based on their roles and responsibility, they represent themselves as the ones with the sole responsibility to manage the A to Z of flood mitigation and management through structural and non-structural measures. The discourses focus mainly on the roles and duties of the government in flood disaster preparedness, mitigation and management. But what this discourse does is it puts the sole responsibility of flood disaster on the government. In this way, they curtail the role of other actors such as flood-prone communities. This could explain Khalid and Shafiai's (2016) concern that many Malaysians are less worried about issues such as the floods and consider it to be the responsibility of the district or local authorities, and the government to be the sole authority to mitigate and manage the floods. For this reason, we concur with Henstra et al (2019) that government should not be solely responsible for flood mitigation and recovery but share the responsibility with stakeholders especially the flood prone communities.

Next, government officials also draw upon 'preparedness' and 'relief and rehabilitation' discourses while talking about flood management activities. These discourses represent the social actions that they carry out before, during and post flood. However, the relief and rehabilitation discourse is emphasized more. One reason for this could be because more government agencies are involved in the during and post disaster stages (Shafiai & Khalid, 2016). Government prioritizes relief and rehabilitation over disaster preparedness as there is more to be done in the during and post disaster phases that are full of complexity. In this way, although preparedness assists in flood risk communities' coping capabilities and response activities and motivates them to be resilient and independent in the stage of response and recovery (Blake et al., 2017), less focus is given to preparedness. Awareness of disaster preparedness has a direct impact on recovery activities after a disaster. Providing assistance for flood-prone communities every time when floods happen is not the only solution. The community should be encouraged to take part in disaster learning where their consciousness, knowledge and skill can be improved. For flood prone communities to develop awareness on disaster preparedness, government agencies need to give equal attention to disaster preparedness with a 'people-centred' approach (Haque et al., 2019). Currently, through use of discourses such as authority, relief and rehabilitation, and sole responsibility, there is more emphasis on top-down, government centric, and technology-based measures, instead of

proactive, bottom up that could engage others such as the community. Our findings concur with the findings of Shariff & Hamidi (2019), Chong & Kamarudin, (2018) and Sach et al., (2018), that the top down approach is most commonly used and a lack of balance exists between bottom-up and top-down approaches in disaster risk management in Malaysia. They have attributed this as one of the reasons for low community resilience and empowerment.

When talking about the flood risk communities, a discourse of 'victimization' is drawn upon. This constructs the communities as passive, vulnerable and dependent on the aid provided by Government agencies. While government agencies are represented as authorized organizations who are the experts, the affected communities are viewed as helpless. Salleh et al., (2020) and Chong & Kamarudin (2018), have also pointed this out that this is one of the reasons why people see the government as being solely in charge of all matters pertaining to flood mitigation and management. The representation of flood risk communities as victims and beneficiaries is due to the traditional relief and rehabilitation approach that is still practiced in Malaysia. The discourse of victimisation has become normalized in the context of disasters and is a common feature of the representations of communities as weak and helpless (Ali, 2014). Thus, it is up to the government agencies to tap into the abilities of community members to take charge in all stages of floods, i.e., before, during and after. The intergovernmental conflict that sees other entities as more important than community (Salleh et al.,2020), need to be addressed. Developing resilience should be prioritised. It is through well-structured community-based programs that the coping mechanisms and confidence levels of flood prone communities can be developed.

## CONCLUSION

In this paper, we set out to investigate how officials of government agencies talk about their involvement in flood disaster preparedness and how the discourses shape and influence their perception on community resilience. Our findings showed that when Government officers talk about their understanding of flood causation, they employ the discourses of act of human and act of nature. They mainly highlight that rapid development; drainage system and the condition of the river are the reasons for flood occurrence. Apart from that, government agencies employ discourses of authority and sole responsibility when talking about their roles as they see themselves as the major player in flood disaster preparedness. This discourse focuses mainly on the roles and duties of the government in flood disaster preparedness, mitigation and management. But what this discourse does is it puts the sole responsibility of flood disaster on the government. Although this discourse seems to be right as the government is the main flood management team in Malaysia, it could be one possible reason for the community being in the role of victims and beneficiaries. In addition, most of the time, members of the flood-prone community are represented as the receivers of aid. These discourses are all part of the traditional relief approach practiced in Malaysia that displays communities as victims and beneficiaries of aid only. There is less 'talk' in showing affected people as a resilient community. Considering this, a 'shared responsibility' discourse should be introduced. In a 'shared responsibility' paradigm, every level of society is accountable in disaster management. In this sense, every social actor has an important role in risk reduction and disaster resilience. In other words, shared responsibility is a key element to build disaster resilient communities.

This study also identifies discourse of flash flood as a disaster is missing. Government officials regard flash floods, not as a disaster and temporary phenomenon. A major flood is regarded as a disaster. Hence, the community is expected to deal with flash floods themselves. Government aids are provided for the major floods. For this purpose, the members of the community should be provided with adequate knowledge and guidance. They should be trained to work together whether they face flash floods or major floods. This will change their perception and attitude towards floods. As many of the community members take the seriousness of floods for granted. The children are allowed to play in the floodwater. Ahmad & Abdurahman (2015) explains most Kelantanese regard flood as entertainment. They do not view floods as a disaster. Thus, the government should regard the seriousness of flash floods. They can cultivate the seriousness of flash floods through community programs. The community should be educated to take some basic actions to reduce flash floods. For example, they should be taught to dispose of their rubbish properly rather than litter in the drainage or nearby rivers.

It is time for every level of the community to play an active role in disaster preparedness. The community members should improve from basic preparedness over the years to an advanced level of preparedness. For that purpose, hands-on training, emergency communication and response and neighbourhood response teams are necessary. Therefore, a community empowerment program should be implemented to bring all members of the community together. Community-Based Disaster preparedness is an example. Providing education and public awareness programs for the local community is one of the most efficient methods for a nation in disaster preparedness. Community awareness on disaster preparedness is a practice of teaching and empowering the people via information and knowledge sharing on different types of disasters and their possible hazards.

Van Krieken et al (2017) explains that the resource and inner strengths of the affected community members can be improvised when they perceive themselves as survivors and not as victims. This enables to rebuild a resilient and sustainable community even after a disaster. Malaysia government should initiate some transformation to improvise the current situation. As we can see, non-structural activities are still in early implementation. Hence, government should conduct effective community activities to instil resilience. These community activities should be expanded to those who are not affected by floods. The unaffected community members have not much involvement with the flood prone communities. Their roles are limited to donation as well as volunteer tasks such as cleaning, distributing things and so on. Again, it is more to be helpful to flood prone communities which push them into the state of 'victim'. We should understand that aiding flood-prone communities whenever floods happen is not the only solution. The community should be encouraged to take part in disaster learning where their consciousness, knowledge and skill can be improved. The government should employ a 'participatory approach' in disaster-related activities where the involvement of the community becomes more intense.

Through language, they talk about their experience. If we help them understand the situation better and change the way they talk about it. For example, community empowerment is an important concept. We give them more information on empowerment, so they will think of the role of community. Then they will understand it is not an individual effort but a community effort. Importantly, our study shows that to get them to change their behaviour and action, we need to change their attitude through the language they use to portray their thinking. Thus, we need to change their mindset through the language they use.

We need to introduce them to new discourses such as the discourses of empowerment, communitarian and responsabilization. To change the perceptions of its people, perceptions have to be changed from using a top-down' approach thus starting with the perceptions of government officials involved in flood disaster mitigation and management. Government must change its perception by emphasizing CDBP whereby they see themselves as part of the community. We assert that the role of communities in disaster preparedness should be improved.

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