

FLOOD DISASTERS AT HOUSING AREAS IN MALAYSIA: A PLANNING LAW PERSPECTIVE

Nuarrual Hilal Md Dahlan*

ABSTRACT

Floods in housing areas are typical in Malaysia, particularly during monsoon and tropical wet seasons. There are various causes for it. These include heavy monsoon rain, flawed drainage systems, an insufficient planning system, an inadequate flood risk management strategy, exorbitant rainfall, rapid melting snow and ice, dams or levees breaking, and rising ocean storm surge and sea levels. The catastrophe has resulted in pecuniary and non-pecuniary losses to purchaser residents. Flood is one of the important matters that developers must address during the development planning stage. The developer should obtain views and approvals from relevant technical agencies, including the agencies responsible for regulating safety and security against flood disasters, for instance, the Department of Irrigation and Drainage (JPS). This article aims to analyse the legal issues relating to floods and examines the related planning law in housing areas. It also provides suggestions for improving the current planning law in dealing with this catastrophe. This study uses legal and qualitative research methodologies, particularly eliciting information through available literature and interviewing the data sources from relevant departmental technical agencies in order to study the problem. The study finds that lacunae in the planning law have contributed to flooding occurrences in housing areas. Specific suggestions are provided to deal with the flood disaster problems. The findings can improve the current policy and planning law in housing development, particularly the housing development guidelines and the current National Housing Policy (DPN) (2018-2025).

Keywords: flood disasters, housing areas, planning law

* Professor of Law, School of Law, UUM College of Law, Government and International Studies, Universiti Utara Malaysia.
Email nuarrualhilal@gmail.com; nuarrualhilal@uum.edu.my

INTRODUCTION

It is indeed a trite fact that housing development areas are mushrooming in Malaysia due to the multifarious means provided by the government. The government aims to provide adequate housing accommodation to all its citizens as possible. Before housing estates can be provided, there are laws and procedures that the developers need to follow, including the planning law, building law, housing development law and the land law through various federal and states' legislations. The purpose of these laws is to ensure that housing development would be sustainable for the benefit of the public and the residents.

These laws require that the housing estates' locations be suitable and are not prone to flood and its disasters. Why are there still many housing estates that have been given legal approval for development being subject to flood disasters? Are the laws inadequate to face the issues of flood disasters? Or otherwise?

One of the reasons leading to flood disasters and mismanagement is inadequate coordination and insufficient integrated policies and practices (legal and administrative) between the State Authority, the Planning Authority, the Building Authority, the technical agencies, and the housing authority on housing development projects which can contribute to floods occurring in the housing estates. These agencies have separate jurisdictions and powers, and thus the issue of inadequate coordination arises. The conditions and requirements between these agencies are not similar and may be contradictory to each other. For instance, even if there is a view from technical agencies (Department of Environment ('JAS') and Department of Minerals and Geoscience ('JMGS')) that a certain location of the housing development project is not suitable for development and is prone to flood, this view may not be adhered to by the land authority if the land authority wishes to alienate the land for housing development projects.¹

¹ Sharifah Zubaidah Syed Abdul Kader Aljunid, "Controlling Changes of Use of Land in Malaysia: Dual Authorities and The Dilemma of Certainty vs. Flexibility," in *Land Use Planning and Environmental Sustainability in Malaysia: Policies and Trends*, ed. Hunud Abia Kadouf & Sharifah Zubaidah Syed Abdul Kader Aljunid. (Kuala Lumpur: International Islamic University Malaysia, 2006), 252; Nuarrual Hilal Md Dahlan,

Table 1: Flood Occurrences in Malaysia for 2019²

State	Floods by District	Highest Daily Average (mm)	Max Flood Period (Days)	No. of Evacuees	Loss Assessment (RM)	Max Flood Depth (m)
Perlis	7	91	1	146	-	0.6
Kedah	53	82	1	1,114	2,840,000.00	1.5
Pulau Pinang	31	111	1	388	-	2.9
Perak	65	91	1	2,279	-	1.2
Kelantan	18	82	7	18,683	18,290,400.00	2.0
Terengganu	9	180	8	11,384	2,305,000.00	3.0
Pahang	28	119	1	904	-	1.1
Selangor	93	85	1	537	-	1.0
Melaka	12	124	1	1,131	-	0.9
Negeri Sembilan	16	90	1.5	50	3,145,000.00	1.2
Johor	30	152	3	3,562	-	1.5
Sabah	39	143	8	7,443	5,000.00	2.8
Sarawak	118	117	20	1,328	-	3.7
WP Kuala Lumpur	10	99	1	212	-	0.9
WP Labuan	6	122	1	0	-	1.5
Total	535		Total	49,161	26,585,400.00	

“Alienation of Land for Housing Development Projects in Malaysia and New South Wales, Australia: A Comparative Legal Analysis”. *Malayan Law Journal*, 1(2006): xi; Nuarrual Hilal Md Dahlan, “Legal Issues in the alienation of lands for housing development projects in Malaysia,” *Malayan Law Journal*, 6 (2012): I & Ivii; Nuarrual Hilal Md Dahlan, “Extent of Liability and Responsibility of the State Authority in the Alienation of Lands for Housing Development Projects in Malaysia: A Case Study of Abandoned Housing Projects,” *Malayan Law Journal*, 2 (2014): ix, x, xii, & xxiii.

² National Flood Forecasting and Warning Centre (PRABN): Water Resources Management and Hydrology Division, Department of Irrigation and Drainage (JPS).

As illustrated in Table 1 above, flood occurrences in Malaysia have caused substantial losses to property and lives in many states. Many reasons have caused flood disasters. One of them is the mismanagement of forests and lands, which have caused an imbalance of environmental elements, resulting in damaging floods.³ Other reasons are the act of God which is beyond human control, for instance, heavy rainfalls and high sea tide. Nonetheless, as humans, we should strive our efforts to control flood disasters and their consequences. These efforts include the legal and regulatory framework that can manage the human behaviours and conduct that ensure orderly manner in the management of environment, which can protect all stakeholders' rights and interests who may be affected by flood disasters.⁴

RESEARCH METHODOLOGY

The research methodology used in this paper is a mixture of legal and qualitative social research methodologies. Legal research aims to explain, find, and analyse the law and the event related to the law.⁵ The legal research process includes gathering laws, analysing the law, analysing and interpreting certain events, phenomenon issues, ambiguities, and legal weaknesses, identifying the relevant laws to settle and solve the issues, and disseminating the legal findings to others for information, advice, and judgment.⁶ The primary sources are the statutory provisions and case law relating to housing development, planning, environment, constitution, land, and building laws which involve relevant statutes such as the Housing Development (Control & Licensing) Act 1966 (Act 118), City of Kuala Lumpur (Planning) Act 1973, Environment Quality Act 1974 (Act 127), Federal Constitution, and National Land Code 1965. While case law are the courts' judgments of legal cases reported in the Malayan Law Journal (MLJ), Current Law Journal (CLJ) and All Malaysia Reports (AMR). These

³ "High deforestation rates in Malaysian states hit by flooding," Mongabay, News & Inspiration from nature's frontline, accessed November 28, 2022, <https://news.mongabay.com/2015/01/high-deforestation-rates-in-malaysian-states-hit-by-flooding/>.

⁴ Jabatan Pengairan dan Saliran. *Laporan Banjir Tahunan 2019* (n.p.: Jabatan Pengairan dan Saliran Malaysia, 2020).

⁵ Iedunote, accessed December 13, 2021. <https://www.iedunote.com/legal-research>.

⁶ Iedunote.

cases are available from internet subscription. The purpose of these sources is to provide the relevant laws regarding floods at housing areas and their issues. The secondary sources include legal literature, journal articles, and other non-legal materials. In analysing these sources, the author used textual legal analysis of the primary and secondary legal and non-legal sources to explain and analyse the law and the legal issues.

Qualitative research methodology is used as the author wishes to do in-depth research on the issues of flooding at housing areas. The reason why qualitative is chosen rather than quantitative research methodology is that this type of research (qualitative) and selection will allow more access to details, due to convenience and time factor, geographic proximity, getting more intensive analysis and in-depth study about the facts, problems, issues, legal phenomena and legal analysis in term of the procurement process of the chosen project.⁷

As this writing involves qualitative research, it concerns exploring people's life histories or everyday behaviour, which quantitative research cannot grasp. Qualitative features involve soft, flexible, subjective, political, case study, speculative and grounded. On the other hand, quantitative research involves hard, fixed, objective, value-free surveys, hypothesis testing and abstracts. It limits the information that certain sources could offer. Using the qualitative method, the information gathered will be more enriching as it involves an in-depth study of certain phenomena.⁸

Because this research writing is qualitative, the data are often derived from a few cases, and it is unlikely that these cases have been selected on a random basis. The selective cases are purposive. Very often, a few cases will be chosen simply because of their accessibility. Qualitative research involves a few understudies because one of its philosophies is avoiding unfocused and exorbitant data to preclude intensive analysis. The approach and sample selection of this research are in line with the concept and belief of qualitative research--where it

⁷ Robert K. Yin, *Case Study Research, Design and Methods*, (London: Sage Publication London, 2nd edn., 1994), 75; Robert K. Yin, *Case Study Research, Design and Methods*, (London: Sage Publication, London, 3rd edn., 2003), 79; David Silverman, *Doing Qualitative Research, A Practical Handbook*, (London: Sage Publications, 2000), 105; David Silverman, *Doing Qualitative Research, A Practical Handbook*, (London: Sage Publications, 2nd edn., 2005), 6, 8, 9, 10 & 14.

⁸ Silverman, (2000), 105; Silverman, (2005), 6, 8, 9, 10 & 14.

employs purposive, not random, sampling methods. The phenomena of flooding in housing areas that involve selected housing development projects may not be uncommon, with the same aspect in other housing development projects elsewhere in Malaysia. In other words, this writing is designed to provide a close-up, detailed or meticulous view of flooding in some housing development projects in respect of its legal aspects and legal issues that have occurred which are relevant to or appear within the broader similar phenomena that have been experienced by other housing development projects in Malaysia.⁹

The data sources of qualitative research that this writing entails are the relevant government technical agencies, for example, the Department of Drainage and Irrigation (JPS), the Department of Public Works (JKR) and the Department of Mineral and Geo Science (JMGS). The method of eliciting the data is through direct interviews with relevant respondents. The respondents in the interviews are the officers at BDB Land Sdn Bhd, Jitra, Kedah, Department of Drainage and Irrigation (Jabatan Pengairan dan Saliran ('JPS') at Alor Setar, Department of Mineral and Geoscience (Jabatan Mineral dan Geo-Sains ('JMGS') at Alor Setar, Department of Public Works (Jabatan Kerjaya ('JKR') at Kuala Lumpur, Majlis Bandaraya Alor Setar (MBAS), Department of Environment (Jabatan Alam Sekitar ('JAS') and Plan Malaysia (Department of Town and Country Planning) at Alor Setar. The information given by these data sources are supported by primary and secondary documentary evidence such as official reports, statistics, internet sources, books, journal articles and other relevant data sources.¹⁰ This can ensure triangulations of data and data sources, data corroboration, chain of evidence of data and multiple evidence of data and data sources.¹¹ The data collected from the interviews with respondents were recorded and then transcribed. This method increases the reliability of the data.¹²

Through the above research approach and method, this research writing process, analysis and findings can become comprehensive, trustworthy, credible, valid, rigorous, and reliable.¹³

⁹ Silverman, (2000); Silverman, (2005).

¹⁰ Silverman, (2005), 177.

¹¹ Silverman, (2005).

¹² Silverman, (2000), 186, 188, 290.

¹³ Yin, (2003), 165.

The interviews with officers in the above departments were real and true. The data collected from the interviews were recorded and then transcribed. This ensures that false and incorrect data from the data sources can be avoided. Using anonymity is undesirable as this can eliminate some important background information relating to the data sources.¹⁴

PLANNING LEGAL ISSUES IN FLOOD DISASTERS – A DISCUSSION

It is opined that the inadequacy is due to the separate constitutional jurisdictions possessed by the Federal Government agencies and the states' agencies in approving housing development projects. For instance, the federal government, through the Department of Irrigation and Drainage ('JPS'), adopts policies against floods in housing estates, but these policies are not binding on the states' agencies. Thus, even though there are federal laws and policies, the states may not implement these laws and policies, as states are not duty-bound. For example, the JPS, being a federal agency, may require developers to provide certain retention ponds at every housing unit, but this may not be required for the issuance of Planning Permission and Certificate of Completion and Compliance (CCC) by the local planning authority (an agency of the state government).¹⁵

Further, there is no legal provision in the National Land Code 1965 (Act no. 56 of 1965) ('NLC') that requires the State Authority to refer to and be bound by the views of the technical agencies and the planning authority, including the policies against floods in housing

¹⁴ Yin, (2003), 158.

¹⁵ Adibah Awang, "Land Conversion, Subdivision and Amalgamation", *Bulletin Geoinformasi*, Penerbitan Akademik Fakulti Kejuruteraan & Sains Geoinformasi, Jld 1, No. 1 (1997): 38, 43, 44, http://eprints.utm.my/4851/land_conversion.pdf. April 1997; Nuarrual Hilal Md Dahlan, "Alienation of Land for Housing Development Projects in Malaysia and New South Wales, Australia: A Comparative Legal Analysis," xi, xix, xx, & xxi; Nuarrual Hilal Md Dahlan, "Extent of Liability and Responsibility of the State Authority in the Alienation of Lands for Housing Development Projects in Malaysia: A Case Study of Abandoned Housing Projects," ix, x, xii, & xxiii; Nuarrual Hilal Md Dahlan, "Legal Issues in the Alienation of Lands for Housing Development Projects in Malaysia," l & lvii.

estates. For example, section 108 of the NLC undermines the function of the planning authority. Thus, in the exercise of alienation of lands, subdivision and partition of lands and imposition of conditions and restrictions in interests, disposal of lands etc., for housing development projects, views, by-laws and restrictions of the planning authority on floods prevention may not be adhered to by the land authority. There may be views, by-laws and restrictions from the planning authority that certain preventive and curative measures against floods must be complied with by the developers before the purported housing development projects can be implemented. However, the views, by-laws and restrictions are not binding on the land authority or the State Authority. Likewise, currently, there is **no mandatory** provision in the Town and Country Planning Act 1976 (Act 172), the States' Planning Control Rules and the planning guidelines of the local planning authority in dealing with applications for planning permission to refer to the relevant technical agencies for comments and views for instance views in the face of flood disasters.¹⁶

In addition, as town and country planning falls under the concurrent list of the Ninth Schedule to the Federal Constitution (FC), except with respect to the federal capital, any circulars, guidelines, and

¹⁶ Nuarrual Hilal Md Dahlan, "Abandoned Housing Projects in Peninsular Malaysia, Legal and Regulatory Framework" (PhD Diss., International Islamic University, 2009), 222, 350, 360 & 361; Nuarrual Hilal Md Dahlan, Seeni Mohamed Mohamed Nafees, and Muhamad Hassan Ahmad, (2019) "A Planning Law Perspective on Abandoned Housing Projects In Malaysia", in *Selected Legal Issues in Indonesia and Malaysia*, ed. Dr. Anis Mashdurohatun, Dr. Sri Endah Wahyuningsih, Assoc. Prof. Dr. Mohammad Azam Hussain, Dr. Asmar Abdul Rahim (Semarang, Indonesia: Unissula PRESS, Universitas Islam Sultan Agung), 113; Nuarrual Hilal Md Dahlan, "Planning Case Law and Legal Issues in Abandoned Housing Projects in Malaysia", *4th International Conference on Education, Islamic Studies and Social Science Research and International Conference on Science and Technology (ICEISR & ICOST), 2019-Research Education: Opportunities and Challenges for Fourth Industrial Revolution*, 2-3 September 2019, Hotel Madani, Medan, Indonesia, 10; Nuarrual Hilal Md Dahlan, "Alienation of Land for Housing Development Projects in Malaysia and New South Wales, Australia: A Comparative Legal Analysis," xi & xx; Nuarrual Hilal Md Dahlan, "Legal Issues in the Alienation of Lands for Housing Development Projects in Malaysia," I & lvii.

directives of the federal authority must get consent and agreement of the states. Otherwise, the federal circulars, guidelines and directives are not applicable in the states.

Given that the highest authority in every state in Malaysia is the State Authority ('SA'), the SA is armed with jurisdictions and powers on vast matters, including lands and housing, pursuant to the provisions under the Federal Constitution and the States' Constitutions. According to section 5 NLC, 'State Authority' *inter alia* means the Ruler or Governor of the State, as the case may be. See also section 3 of the Street, Drainage and Building Act 1984 (Act 133) ('SDBA') and section 2 of the Local Government Act 1976 (Act 171) ('LGA'). However, in section 2 of the LGA, 'State Authority' is defined as, *inter alia*, the Ruler in-Council or Governor-in-Council. In *Lebbey Sdn. Bhd v. Chong Wooi Leong & Anor & other Applications*¹⁷, Abdul Wahab J stated that: 'State Authority...is defined...as the Ruler. For practical purposes, this means the Ruler acting upon the recommendation of the Exco of the State'. Exco means the members of the State's Meeting Council. This is also the meaning given in *Honan Plantations Sdn. Bhd v. Kerajaan Negeri Johor*¹⁸, and *Yee Seng Plantations Sdn. Bhd v. Kerajaan Negeri Terengganu & 3 Ors*¹⁹. In the practical sense, the meaning of SA is the members of the State Executive Council (Majlis Mesyuarat Negeri or EXCO). The Menteri Besar or Chief Minister may highly influence EXCO's decisions. Usually, a large number of the members of the EXCO are from the same political party.²⁰

The composition of members of the State Executive Council may also pose a certain degree of problem. Usually, a substantial number of members in the SA are from the same political party. The Chief Minister and his dominant political party control the SA. Any decision made by the SA may be restricted according to the wishes of the political party. Thus, decisions made may, in most probability, be influenced by political considerations, not by the professional agencies'

¹⁷ [1998] 5 MLJ 364 at p. 374 (High Court of Malaya at Shah Alam).

¹⁸ [1998] 5 MLJ 129 at 150-151 (High Court of Malaya at Johor Bahru).

¹⁹ [2000] 3 AMR 3208; [2000] 3 MLJ 699 (Court of Appeal at Putrajaya).

²⁰ Nuarrual Hilal Md Dahlan, "Abandoned Housing Projects in Peninsular Malaysia, Legal and Regulatory Framework", 214 & 215.

views, be it the Federal nor states' agencies. These decisions may also affect the approaches and measures for flood control and mitigation.²¹

Land use control and planning against flood disasters can also be effective with the introduction of land digital data available in the land authority office. This data is statutorily provided in the National Land Code 1965 (16th Schedule and section 5D). This provision requires comprehensive data on lands to be recorded into land databases by an electronic technology containing land titles, images, documents, or spatial and textual data. The digital data can facilitate the authority in making decisions relating to the relevant lands, including measures against floods and their consequences. Nonetheless, where there exists inadequate cooperation and coordination among the federal and states' agencies in regard to land use and planning control, the pool data may be incomplete and thus incapable of providing accurate information on the land in question. Thus, this will lessen its effectiveness.²²

Further, the lack of proper planning for housing development in Malaysia is also due to the absence of multi-criteria evaluation, multi-

²¹ Nuarrual Hilal Md Dahlan, "Abandoned Housing Projects in Peninsular Malaysia, Legal and Regulatory Framework", 213, 214, 215, 293 & 406. See for examples the Perak State Authority at Portal Rasmi Negeri Perak, accessed November 28, 2022 at <https://direktori.perak.gov.my/dp/politik/exco.php>; where the State Executive Council members are from Pakatan Harapan (PH-DAP) and Barisan Nasional (BN-UMNO); Perlis State Authority at Laman Web Rasmi Kerajaan Negeri Perlis, accessed November 28, 2022 at <https://www.perlis.gov.my/> where the State Executive Council members are from Perikatan Nasional (PN-PAS); the Pulau Pinang State Authority, accessed November 28, 2022 at <https://www.penang.gov.my/index.php/kerajaan/info-negeri/ahli-mmk>, where the State Executive Council members are from Pakatan Harapan (PH-DAP); Mongabay, News & Inspiration from nature's frontline, "High deforestation rates in Malaysian states hit by flooding"; Sharifah Zubaidah Aljunid, "Power to Decide on Development Applications Under the National Land Code 1965: The Position of Selangor," *IJUM Law Journal* Volume 12 (2004): 85, 86, 91 & 92.

²² Nuarrual Hilal Md Dahlan, "Abandoned Housing Projects in Peninsular Malaysia, Legal and Regulatory Framework", 217, 291, 340, 359, 420 & 421; Nuarrual Hilal Md Dahlan, "Alienation of land for housing development projects in Malaysia and New South Wales, Australia: A comparative legal analysis," 1, xii & xiii.

criteria decision when making development plans, absence of comprehensive criteria or multi factors affecting housing development projects and spatial multi-criteria evaluation method during the process of approval for alienation of the land and planning permission to face flood disasters in housing estates and providing counter-measures to resolve them on part of the land and planning authorities.²³

The above methods are to aid the land and planning authorities in the evaluation process for better decision-making and enhance the participatory process to leverage the decision-making context, thereby moving closer to transparency in decision-making processes in plan-making to prevent, eliminate, or mitigate flood disasters. For instance, the Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 1987 (PU (A) 362/87) does not require the housing developer to provide an EIA (Environmental Impact Assessment) report if the housing development project covers less than 50 hectares in area. It is opined that if an EIA report is required regardless of the size of the housing development project, the consequential problems and causes leading to flood disasters might have been discovered earlier. The developer would have taken certain measures to prevent and mitigate flood problems.

Despite section 22(2)(a) of the Town and Country Planning 1976 (Act 172), which requires the local planning authority to comply with the development plans (local and structure plans), if any, in considering applications for planning permission, the development plans need not be followed slavishly. This was the result of the judicial findings in *Majlis Perbandaran Pulau Pinang v. Syarikat Bekerjasama-Sama Serbaguna Sungai Gelugor* and in *Chong Co Sdn. Bhd v Majlis Perbandaran Pulau Pinang*²⁴. The decisions of these cases have marginalised the importance of development plans. Thus, even if there may be certain provisions in the development plans that the applicant developer shall have to comply with, such as provisions for flood control and its mitigation in housing estates, these provisions are not mandatory following the decision of the above case law. Nonetheless, the decisions in *Majlis Perbandaran Pulau Pinang v. Syarikat*

²³ Nuarrual Hilal Md Dahlan, "Abandoned Housing Projects in Peninsular Malaysia, Legal and Regulatory Framework," 211, 224, 296, 341, 350, 359, 360 & 421.

²⁴ [2000] 5 MLJ 130 (Appeal Board (Penang)).

*Bekerjasama-Sama Serbaguna Sungai Gelugor*²⁵ and *Datin Azizah bte Abdul Ghani v Dewan Bandaraya Kuala Lumpur & Ors and Another Appeal*²⁶ that the Local Planning Authority is not duty-bound by the Development Plan may no more be applicable following the latest decision of the Court of Appeal in *Perbadanan Pengurusan Trellises & Ors v. Datuk Bandar Kuala Lumpur & Ors*²⁷. In *Perbadanan Pengurusan Trellises*, the Court of Appeal held that the Local Planning Authority is duty-bound to comply with the development plan.

The current establishment of One Stop Centre (OSC) at the local planning authority level and the local planning authority level to coordinate and expedite the approval process of land development applications at the land authority and the local planning authority offices, including the applications for planning permission and plans' approval (building, infrastructure etc. plans), in the opinion of the author, is still insufficient to solve the problems of flood disasters. This is because even when there are guidelines (for example, "Guideline for Erosion and Sediment Control in Malaysia" and "Urban Stormwater Management Manual for Malaysia") against flood disasters and policies relating to flood mitigation and elimination are provided for the administration and operation of the OSC issued by the Ministry of Housing and Local Government (MHLG), these guidelines and policies **shall not** bind the State Authority and the local planning authority. Thus, it is opined that the prevailing circumstances, such as insufficient coordination and inefficient administration of the State Authorities and the local authorities in dealing with the applications for land development in their respective states, would continue.

Further, based on the latest guidelines issued by the MHLG, it is not a requirement for the OSC to refer to MHLG as one of the relevant technical agencies to provide views, suggestions and comments on flood control and mitigation in housing development. This lacuna, it is opined, may become a factor that could render the OSC ineffective in dealing with flood disasters' possible problems.²⁸

²⁵ [1999] 3 MLJ 1 (Federal Court).

²⁶ [1992] 2 MLJ 393 (Supreme Court at Kuala Lumpur).

²⁷ [2021] 2 CLJ 808 (Court of Appeal at Putrajaya).

²⁸ Md Dahlan, "Abandoned Housing Projects in Peninsular Malaysia, Legal and Regulatory Framework," 217 & 304.

According to Ruhaina Ibrahim, an officer at BDB Land Sdn Bhd, Jitra, Kedah, as long as the developer complies with the comments of the Department of Irrigation and Drainage ('JPS'), in particular the drainage design, in accordance with MSMA – Manual Saliran Mesra Alam (Urban Stormwater Management Manual for Malaysia), there will not be any possibility of flood occurrences at housing development projects. This manual serves as a best practice guide in dealing with contemporary stormwater management and issues. Among the contents covered by MSMA are rainwater harvesting, detention pond, erosion and sediment control, culvert and maintenance. Apart from this guideline, the Environmental Impact Assessment Report (EIA) provided by the developers may help the local planning authority examine the suitability of the project locations and provide appropriate measures and conditions to prevent any occurrences of flood and consequential losses.²⁹

It is noteworthy that drainage and irrigation falls under the Concurrent List (No. 8 List III) to the Ninth Schedule of the FC. Thus, any legislative directives of the JPS **shall** require the agreement of the State Authority and Federal Authority. In this respect, consultation and agreement between the State Authority and Federal Authority are required before the JPS legislative directives can be made enforceable both at the state and federal levels pursuant to Article 79 of the Federal Constitution (FC). Otherwise, these matters are **not mandatory** for the states or the Federal Authority to implement. Further water supply services are under the states' exclusive power pursuant to the List States to the Ninth Schedule of the FC.

On a dismal note, the developer's liability is only up to the expiry of the defect liability period, i.e., 24 months after delivery of vacant possession. Thus, if flooding occurs at housing development areas during the defect liability period, and this flood caused losses to resident purchasers, the developer will be liable. However, if the floods occurred after the defect liability period, unless the purchaser resident subscribes to insurance policy coverage against flood disasters, any liability for losses to the house residents may not be on the shoulders of developers.³⁰

²⁹ Md Radzi Othman, Personal Communication, February 22, 2018; Ruhaina Ibrahim, personal communication, March 8, 2018.

³⁰ Ruhaina Ibrahim, personal communication.

PERSPECTIVE OF THE DEPARTMENT OF DRAINAGE AND IRRIGATION (*JABATAN PENGAIRAN DAN SALIRAN* ('JPS'))

To Affrizal Amran, being a JPS officer, floods in housing development areas may happen due to the failure of the developer to comply with the conditions and guidelines as stipulated by Department of Drainage and Irrigation ('JPS') and Manual Saliran Mesra Alam (MSMA)(Urban Stormwater Management Manual for Malaysia), in that the drainage does not comply with the required size and no retention pond has been built. JPS acts as an advisory body and technical advisor to the local planning authority only, and their views are not binding on the local planning authority. Further political interference may also be a factor where the views of JPS are set aside.³¹

Affrizal Amran said:³²

"JPS has also carried out many joint inspections with developers. The inspections were done for JPS to inform the developers on how JPS controls and manages the groundwater movement. Nevertheless, when JPS checked and verified, JPS did not provide any supporting letter to the developers to proceed with the proposed projects. This is one of the aspects that I observe that can be made applicable to all developers. However, JPS was blamed when flood happens as people see that had JPS not supported the development proposal, flood would not happen. This is one of the challenges that JPS has to face. JPS provides the normal drainage development standard requirements to prevent flooding, but the developers do not comply with the requirements."

He further said:³³

"The Ministry of Natural Resources and Environment might not have approved the EIA report. Nonetheless, the local planning authority can still approve the proposed project. Similarly, the Department of Environment (*Jabatan Alam Sekitar*, hereinafter referred to as 'JAS') might not have

³¹ Affrizal Amran, personal communication, January 23, 2018

³² Affrizal Amran, personal communication.

³³ Affrizal Amran, personal communication.

approved the proposed project, yet the proposed project can still obtain the green light from the local planning authority. JPS only gives comments and advice regarding the developers' application, either JPS supports or not supports. However, the approval of the planning permission application is ultimately in the hands of the local planning authority. With the support of the State Authority and local authority, the local planning authority can overrule JAS's comments or disapproval if they wish to. The approval is partly political".

Additionally, he said:³⁴

"People must realise that when the authority opens a new housing area, indirectly, it has opened that area to a new greater plan area. Thus, how could we control and manage that enlarged area? We should allocate and identify certain shared responsibilities among the responsible parties to deal with flood problems. For example, in a housing development project estate, we have JPS to advise the local planning authority to manage and reduce the damage and losses to the people, their belongings, and property due to the flood. Therefore, there are various requests from JPS imposed on the applicant developers in the face of future floods. JPS requests the applicant developers to provide retention ponds and underground retention ponds, for example. All these are made to prevent floods. There must be cooperation between the local planning authority and the JPS. The local planning authority should also abide by the advice of the JPS."

Issues of possible corruption in the planning permission process were also highlighted.

PERSPECTIVE OF THE DEPARTMENT OF MINERAL AND GEOSCIENCE (*JABATAN MINERAL DAN GEO-SAINS*) ('JMGS')

According to Wan Salmi Wan Harun, being an officer at the Department of Mineral and Geoscience (hereinafter referred to as 'JMGS'), Alor Setar, Kedah, the comments of JMGS are based on

³⁴ Affrizal Amran, personal communication.

outdated guidelines that are inadequate to deal with climate changes and current issues in housing development areas, for example, flood disasters. JMGS also does not have comprehensive big data information and data analytics³⁵ on location suitability for housing development projects in Malaysia. This big data and data analytics include information on rock, sediment, soil fitness, soil suitability, soil issues, strengths, weaknesses, and other geologic specimens useful for ensuring sustainable housing development. The big data should contain information on the risk locations and factors that can cause development risks, including flood disasters. This may also involve Geographic Information System (GIS). This big data requires a current modern apparatus system and a suitable platform to store the data. One of the platforms developed by JMGS is the National Geospatial, Terrain and Slope Information System (NATSIS). This data can reveal risk areas, landslide areas, land erosion areas, slope areas, limestone areas, peat areas and sensitive geological areas. NATSIS involves two key elements:

- a) Geospatial Information Systems Application Development Terrain and Slopes Country (National Geospatial Terrain and Slope Information System – NATSIS)
- b) Geospatial Information Infrastructure Development Center terrain and slope (PMGTC), including the acquisition of hardware and software.³⁶

While information and communication technology (ICT) projects are under project components, Hazard, Risk and Slope Map (PBRC) are a part of the requirements of the National Slope Master Plan (2009-2023).³⁷

³⁵ 'Data analytics' means the science of analysing raw data in order to make conclusions about that information. See Data Analytics: What It Is, How It's Used, and 4 Basic Techniques, Investopedia, accessed on November 25, 2022, at <https://www.investopedia.com/terms/d/data-analytics.asp#:~:text=Data%20analytics%20is%20the%20science,raw%20data%20for%20human%20consumption.>

³⁶ "Portal NATSIS, National Geospatial, Terrain and Slope Information System", accessed August 13, 2021, <https://www.natsis.jmg.gov.my/en/FAQ2.jsp#>.

³⁷ "Portal NATSIS, National Geospatial, Terrain and Slope Information System".

The data from the above sources are incorporated into the National Slope Master Plan 2009-2023 (PICN). Nonetheless, this special data is only available for certain locations such as Gombak, Selayang, Rawang, Batang Kali, Cheras Selatan, Kajang, Bangi, Ipoh, Cameron Highlands, Kundasang and Kota Kinabalu, not for all districts in Malaysia. This project is called PBRC (Peta Bahaya, Risiko dan Cerun - Hazard, Risk and Slope Map).³⁸ Currently, JMGS only have data on slope hazard and risk mapping. JMGS also has a geology map that contains data on types of rock materials. JMGS can know the sensitive areas, limestone areas, geological process, areas' height, and geological situations of certain locations through this geology map. This geology map is currently the main reference for JMGS in providing views and comments for land development as the authorities require, including the local planning authority. The data in the PBRC are continuously updated. In short, currently, the geological big data available as references are NATSIS, PBRC and National Slope Master Plan (Pelan Induk Cerun Negara). However, the guidelines on PBRC for public and industry information are not yet available.³⁹

In another development, JMGS is monitoring a project known as the 'North East Monsoon Project'. The monsoon disasters have caused many flood disasters, geological hazards, and soil problems. JMGS is currently monitoring critical slopes and ensuring adequate maintenance works are periodically done. This project commenced in 2020.⁴⁰

Be that as it may, JMGS faces insufficient human resources, logistics and budget to carry out detailed investigation and assessments. As a result, the comments made may not be comprehensive and detailed to meet the current challenges in housing development projects, including measures to prevent occurrences of flood disasters.⁴¹

³⁸ Personal communication, Wan Salmi Wan Haron, January 10, 2021, & January 18, 2021.

³⁹ Personal communication, Wan Salmi Wan Haron; "Portal NaTSlS, National Geospatial, Terrain and Slope Information System", accessed August 13, 2021, <https://www.natsis.jmg.gov.my/en/FAQ2.jsp>

⁴⁰ Personal communication, Wan Salmi Wan Haron.

⁴¹ Personal communication, Wan Salmi Wan Haron. Nuarrual Hilal Md Dahlan, "Alienation of land for housing development projects in Malaysia and New South Wales, Australia: A comparative legal analysis," I, xii;

ROLES OF OTHER RELEVANT TECHNICAL AGENCY DEPARTMENTS

In addition, it is submitted that other relevant technical agencies such as the Department of Drainage and Irrigation ('JPS'), Department of Public Works ('JKR') and Department of Environment ('JAS') should also provide their respective big data and data analytics relating to their expertise and relevant information within their job scope on every district in Malaysia insofar as prescribed by government policies and the written laws. For example, JPS should provide updated big data information and data analytics for each district in Malaysia relating to River Basin Management and Coastal Zone, Water Resources Management and Hydrology, Special Projects, Flood Management and Eco-friendly Drainage. The data should provide the nature, features, issues, problems and measures to deal with the challenges in these respective matters. The data accumulated will help the planning authority to formulate comprehensive development plans and provide inclusive and practical conditions for the issuance of Planning Permission for housing development, particularly measures to prevent and deal with flood disasters that might happen.⁴²

Similarly, JKR should provide updated big data information and data analytics on their job scope and jurisdiction relating to road, building, infrastructure, highway and hill slope for each and every district in Malaysia. They also need to provide data on land geology insofar as relevant to their jurisdiction and power.⁴³

Nuarrual Hilal Md Dahlan, *Legal Issues in the Rehabilitation of Abandoned Housing Projects* (UUM Sintok: UUM Press, 2011), 140.

⁴² "Official Portal for Department of Irrigation and Drainage, Ministry of Environment and Water," accessed August 13, 2021, <https://www.water.gov.my/> 2021; Jabatan Kerajaan Tempatan Kementerian Perumahan dan Kerajaan Tempatan, *Manual OSC 3.0 Plus Proses Dan Prosedur Cadangan Pemajuan Serta Pelaksanaan Pusat Setempat (OSC)*, (Putrajaya: Kementerian Perumahan dan Kerajaan Tempatan, 2019); Department of Irrigation & Drainage, *Guideline for Erosion and Sediment Control in Malaysia*, (Putrajaya: Ministry of Natural Resources and Environment Department or Irrigation and Drainage Malaysia, 2010).

⁴³ "Portal Rasmi Kerajaan Malaysia, Kementerian Kerja Raya," accessed August 13, 2021; Jabatan Kerajaan Tempatan Kementerian Perumahan

Likewise, JAS will need to provide updated big data information and data analytics, for example, on soil, water, and atmospheric pollution.⁴⁴

It is evident that there is no statutory requirement imposing on the Local Authority, Local Planning Authority and the technical agencies to provide comprehensive big data and data analytics as a preventive way to avoid any occurrences of flood disasters in the future.⁴⁵ The only method is *ad hoc* planning, i.e. if certain areas are affected by flood disasters, only then will the Local Planning Authority and the technical agencies make the development planning conditions and requirements more stringent.

Even the Geological Survey Act 1974 (Act 129), pursuant to Section 6 of Act 129, reads:

a) **“Whenever it appears to the Minister** that a geological survey should be made of any area he may, **with the concurrence of the State Authority**, by notification in the Gazette, designate the area to be surveyed (hereinafter referred to as "the designated area") by the Director-General." (Emphasis added).

While section 2 of the Geologist Act 2008 (Act 689) defines ‘geological services’ as follows:

"The provision of geological advice and services pertaining to all or any of the following: (a) feasibility studies; (b) planning; (c) geological surveying; (d) implementation, commissioning, operation, maintenance and management of geological survey works or projects; and (e) any other services approved by the Board."

dan Kerajaan Tempatan, *Manual OSC 3.0 Plus Proses Dan Prosedur Cadangan Pemajuan Serta Pelaksanaan Pusat Setempat (OSC)*; Jabatan Kerjasama, *Pelan Induk Cerun Negara 2009-2023*, (Kuala Lumpur: Kementerian Kerjasama, 2009); personal communication, Su Faizah Sukor & Bakhtiar Affandi Othman, February 8, 2021.

⁴⁴ “Portal Rasmi Jabatan Alam Sekitar, Kementerian Alam Sekitar dan Air,” accessed August 13, 2021; personal communication, Norazizi Adinan, January 31, 2021.

⁴⁵ Personal communication, Ahmad Sujairi Md Hassan & Ramziah Abd. Rahman, February 15, 2021.

On the above basis, only if it **appears** to the Minister responsible for JMGS to request a geological survey be conducted for a particular area subject to the concurrence of the State Authority, that the JMGS shall conduct a particular geological survey, including it is submitted, over the flood disaster-affected areas. It follows that if the Minister does not become aware of any possible problem to any geographical area, no geological survey will be conducted by the JMGS. This shows that the survey will only be conducted on an *ad hoc* basis, not preventive. In another respect, if the State Authority does not concur with the proposed survey be conducted, the Minister cannot proceed with the intended survey.

Similarly, suppose the Minister disagrees with the request of the State Authority to have a survey conducted. In that case, the State Authority does not have any power and authority to force the Minister and the JMGS to conduct the survey. In respect of the duty and responsibility of the Local planning authority to carry out maintenance work over relevant locations to prevent occurrences of natural catastrophes due to flood disasters, it is doubtful that the Local planning authority has the means and capability.⁴⁶

According to Mohd Izham Abdul Hamid, being the Planning Officer at the Development Planning Department, Majlis Bandaraya Alor Setar (MBAS), changes to the conditions of the planning permission are inevitable to comply with the latest requirements of the technical agencies in accordance with the current changing needs and issues of the public, for example, flood, soil problems etc. In short, he explained that the new conditions might be imposed by the technical agencies such as the water authority, electric authority, and agriculture authority because new circumstances might have rendered new reasonable conditions to be imposed on the Planning Permission.⁴⁷

The new conditions also include the duty to provide Demographic Study Report, Economic Study Report, Traffic Audit report, Traffic Impact Assessment, Road Safety Audit, Social Impact Study Report and Environmental Impact Assessment report (EIA).⁴⁸

⁴⁶ Yeoh Su Guan, personal communication, February 4, 2021; Sukor & Othman, personal communication, February 8, 2021.

⁴⁷ Mohd Izham Abdul Hamid, personal communication, February 6, 2018.

⁴⁸ Mohd Izham Abdul Hamid, personal communication.

These reports will be studied by the technical agencies and Planning Authority, who may comment and request amendments to the proposed projects, if necessary, according to the requirements of their respective guidelines. The applicant developer must also comply with requirements under the Local Plan and Structure Plan (Development Plans). Only when all the conditions and requirements imposed by the technical agencies and the Planning Authority have been complied with will the Planning Permission be issued and granted.

According to Ruhaina Ibrahim, an officer in BDB Land Sdn Bhd in Jitra, developers must carry out several feasibility and estimate studies and several contingency budget provisions to lessen the impact of flood disasters and by accommodating the changing requirements. This also requires prudent financial management and planning of the developers.⁴⁹

It is trite fact that the Local Planning Authority, through its One Stop Centre ('OSC') can overrule the views of the technical agencies; for example, the Department of Environment (JAS) and Department of Irrigation and Drainage (JPS) are not binding over the Local Planning Authority. Johaimin Johari, an officer at JAS, Alor Setar, Kedah, said:⁵⁰

"I can give an example that a paddy factory must follow JAS's guideline in respect of the buffer zone that the zone must measure 200 meters from the proposed housing project. Nevertheless, when JAS provided the views to the Local Planning Authority that the proposed housing project encroaches the buffer zone, the Local Planning Authority rejected JAS's view. Similarly, this was the case that happened to a project that involved a landslide in Penang. In this project, the EIA report was rejected by JAS, but still, the Local Planning Authority wished the project to proceed."

Further, Johaimin Johari said:⁵¹

⁴⁹ Ruhaina Ibrahim, personal communication, March 8, 2018.

⁵⁰ Johaimin Johari, personal communication, March 1, 2018; Abd Talip Abd Rahman, personal communication, January 4, 2018.

⁵¹ Johaimin Johari, personal communication; Abd Talip Abd Rahman, personal communication.

“In respect of soil erosion, landslide... at the earliest point we (JAS) had provided conditions for the purported development, for example, we said that such an area was risky for such a development, like hill slopes, we provided with views that the purported development was not compatible with development. So, what can we do if they (the local planning authority) do not obey us?”

Thus, the above point supports the author’s earlier contention that the above problems might also be due to the absence of a specific provision in the Town and Country Planning Act 1976 (Act 172) (‘TCPA’), particularly section 22(2) of the TCPA, to require the local planning authority to consider the views from the relevant technical agencies in dealing with an application for planning permission.⁵² Due to the absence of such a specific provision, even though in practice there are planning rules and the current states’ planning rules and guidelines to refer to the technical agencies for views, the local planning authority may conduct *ad hoc* investigations. It may not seek any view from the technical agencies, or if there is any, only a limited and insufficient number of technical agencies are consulted. This is because the duty to refer to these agencies or parties is not mandatory but is a mere direction, i.e., it is subject to the planning authority’s discretion, either to refer or not to refer to them.⁵³ Hence, the judicial decisions in *Majlis Perbandaran Pulau Pinang v. Syarikat Bekerjasama-Sama Serbaguna Sungai Gelugor* and *Datin Azizah bte Abdul Ghani v Dewan Bandaraya Kuala Lumpur & Ors and Another Appeal* gives the local planning authority flexibility in exercising planning control. This would also give the local planning authority more flexibility, based on expediency and necessity, even where a gazetted development plan exists for the area, allowing *ad-hoc* planning control over the housing developments. However, it is opined that this situation may lead to certain unwarranted results. For this reason, too, it is opined that, following case law and the subservient authority of the planning authority to the State Authority, these may undermine initiatives and the need to adopt and apply the gazette

⁵² Nuarrual Hilal Md Dahlan, *Abandoned Housing Projects in Peninsular Malaysia: Legal and Regulatory Framework*, 222, 350, 360 & 361.

⁵³ Nuarrual Hilal Md Dahlan, *Abandoned Housing Projects in Peninsular Malaysia: Legal and Regulatory Framework*.

comprehensive development plans.⁵⁴ Thus, if this were the case, then the judicial policy and the policy of the local planning authority are in conflict with section 22(4)(a) of the TCPA, *viz*, ‘the local planning authority shall not grant planning permission if the development in respect of which the permission is applied for would contravene any provision of the development plan’.

In another situation, the development plans are not gazetted. Thus, the local planning authority and the State Planning Committee may provide *ad hoc* planning, not restricted to the ungazetted development of local plans. *Ad hoc* planning here means, it is submitted, the local planning authority plans and approves certain planning permission based on current expediency, necessities and needs and not dependent on the plans and conditions as prescribed under the development plans. Sometimes, the authority and Committee may refer to the development master plan. This happens in Penang.⁵⁵

In the author's opinion, it is good to have stringent conditions and requirements on the applicant developers before they can carry out the development to ensure that development issues such as abandoned housing projects, flood disasters and soil problems do not occur and protect the rights of resident purchasers. However, the conditions and requirements would surely add monetary responsibility and development costs to the developers. As a result, the cost of development will increase. This will mean the purchase price for the houses for sale will be higher to commensurate with the increasing development costs and may not be affordable for public purchase. This will indeed frustrate the national policy of providing sufficient housing accommodation. Thus, a balanced policy must be formulated and implemented to ensure safety, security, equity, justice, and sustainable development to the public and that the houses provided are sufficient and affordable.⁵⁶

⁵⁴ Sharifah Zubaidah Syed Abdul Kader Aljunid, “Controlling Changes of Use of Land in Malaysia: Dual Authorities and The Dilemma of Certainty vs. Flexibility,” 252.

⁵⁵ Abd Talip Abd Rahman, personal communication.

⁵⁶ Dr Hajah Asiah binti Othman, “Planning requirements in housing development,” In: Convention on Land development, 22-23 September 2003, A' Famosa resort, Melaka, 8 & 9; Ibrahim Mohd @ Ahmad, Ezrin Arbin & Ahmad Ramly, “Urban Housing Development: Town Planning

Projects that fall under 'prescribed activities' require an EIA Report. The EIA Report will be vetted and examined by JAS. If JAS is satisfied, the proposed project will be supported. If not, JAS will require the developer to amend the proposed development per JAS's views. Besides, JAS also invites other technical agencies to examine the EIA report. These agencies include the Department of Public Works (JKR), the Department of Irrigation and Drainage (JPS) and the Department of Mineral and Geoscience (JMGS). In some cases, JAS has found the report to be fake or inadequate. Thus, the report is rejected.⁵⁷

In other situations, even though developers might have submitted the Development Proposal Report (DPR) to the local planning authority, pursuant to section 21A of the TCPA, there is a possibility that problems (for example, prone flood areas) at the location of the project are not being emphasised nor envisaged. It should be noted that pursuant to section 21A(1)(d)(i) of the TCPA, the applicant developer shall have to describe, *inter alia*, the physical environment, topography, landscape, geology, and natural features of the said land. In other words, the report submitted to the local planning authority is incomplete, as the applicant developer did not carry out detailed investigation on the land in order to ascertain the 'suitability' of the purported project land against flood.⁵⁸

The author also finds that the information provided in the development plans are not updated, are inaccurate, inadequate, and not revised in meeting the contemporary development challenges. This is partly due to the absence of comprehensive data relating to the developmental elements, such as the nature of soil, geographical site location and their fitness and sustainability, particularly from the JPS, JAS and JMGS.⁵⁹ The above non-compliance is partly because some

Issues, Planning Malaysia, Journal of the Malaysian Institute of Planners” 5 (2007): 43-60.

⁵⁷ Johanim Johari, personal communication, March 1, 2018.

⁵⁸ Nuarrual Hilal Md Dahlan, *Abandoned Housing Projects in Peninsular Malaysia: Legal and Regulatory Framework*, 222 & 224.

⁵⁹ Abd Talip Abd Rahman, Personal Communication; *Chong Co Sdn. Bhd v. Majlis Perbandaran Pulau Pinang* [2000] 5 MLJ 132 and *Majlis Perbandaran Pulau Pinang v. Syarikat Bekerjasama-sama Serbaguna Sungai Gelugor Dengan Tanggungan* [1999] 3 MLJ 1; Mohd Izham bin Abdul Hamid, personal communication, February 6, 2018; Wan Salmi

states had yet, as at the date of the applications for planning permissions by the applicant developer, adopted the TCPA in full (section 1(3) TCPA).

Be that as it may, it is submitted that the decisions of the local planning authority issuing planning permission can be challenged if it is proven that the decisions were made not in accordance with the law, as happened in *Datin Azizah bte Abdul Ghani v Dewan Bandaraya Kuala Lumpur & Ors and Another Appeal*. In this case, the local planning authority failed to give the adjoining landowners the right to object to the development of the land that was being subject to the planning permission. This requirement was spelt out in the Planning (Development) Rules 1973, Emergency (Essential Powers) Ordinance No 46 of 1970, the City of Kuala Lumpur (Planning) Act 1973 and the Federal Territory (Planning) Act 1982.

The above principle was also adopted in *Mayland Valiant Sdn Bhd v Majlis Perbandaran Subang Jaya*.⁶⁰

It is opined that the local planning authority could be liable for negligence in their failure to exercise due care in granting planning permission and failure to exercise proper and sufficient planning control, which partly has caused the detrimental flood disaster. This is because no provision in the TCPA confers on the local planning authority immunity against any breach of duty and negligence, compared to and provided for the State Authority and the Local Authority, pursuant to section 95(2) of the SDBA. However, any action against the local planning authority shall be subject to the provisions in

Wan Harun, personal communication; Adibah Awang, Shahidah Mohd. Ariff & Ahmad Fauzi Nordin, "Geo-Spatial Data Accuracy and its Legal Implications in the Malaysian Context," Eighteenth United Nations Regional Cartographic Conference for Asia and the Pacific Bangkok, 26-29 October 2009 Item 7(b) of the provisional agenda Invited Papers, Economic & Social Council, United Nation; https://unstats.un.org/unsd/methods/cartog/Asia_and_Pacific/18/Papers/IP/IP%2014%20Malaysia%20GEOSPATIAL%20DATA%20ACCURACY.doc.pdf); Nuarrual Hilal Md Dahlan, "Alienation of Land for Housing Development Projects in Malaysia and New South Wales, Australia: A Comparative Legal Analysis," I, xii & xiii; Nuarrual Hilal Md Dahlan, "Legal Issues in the Alienation of Lands for Housing Development Projects in Malaysia," xlvii, xlix, & I.

⁶⁰ [2018] 4 MLJ 685 (Court of Appeal at Putrajaya).

the Public Authorities Protection Act 1948 (Act 198) (Revised 1978); for example, pursuant to section 2(a) of this Act, the legal action must be commenced within three years from the default of that authority. It is worth mentioning that, in *Wong Lup Tuck & Ors v. Majlis Perbandaran Pulau Pinang* [2016] MLJU 1382 (Planning Appeal Board (Pulau Pinang)), the Planning Appeal board held that the planning authority as a public authority needs to pay heed to public interest, sound planning practices, balance development and the law bearing in mind its responsibilities to the public at large.

FINDINGS AND SUGGESTIONS

The followings are key points that can be extracted from the above discussion.

- 1) There evidently exists some non-coordination between the federal agencies and the states' agencies as matters relating to land, town and country planning, drainage and irrigation, water supply and water services, whether they are placed under the States' List or Concurrent List to the Ninth Schedule of the FC as the policies and guidelines relating to flood control of the Federal agencies **are not binding** on the states. Thus, this problem will become a prolonged issue in Malaysia unless both the Federal agencies and States' agencies are aware of and respect the need to preserve the welfare and well-being of the public and protect the rights and interests of the people above their respective political interests and personal judgments.
- 2) Even though the requirement to refer to the technical agencies is not mandatory on the Local Planning Authority in the issuance of Planning Permission, they are still liable to ensure that the decision-making process in issuing Planning Permission is reasonable, fair, equitable, and for the benefit of the public, not otherwise. Thus, if there is evidence that the Local Planning Authority has acted unreasonably to the detriment of the public in the issuance of Planning Permission and other development control approvals, for example, preventive and curative measures to deal with flood disasters, they will be liable, at law.
- 3) The Court of Appeal case in *Perbadanan Pengurusan Trellises* reinforces the statutory requirement in section 22(2)(a) TCPA that the Local Planning Authority must comply with the

Development Plan. Thus, the case law that negates the importance of Development Plan, as evident in *Syarikat Bekerjasama-sama* and *Chong Co*, may no longer be relevant and may be superseded and overruled with the latest Court of Appeal case.

- 4) Some evidences prove the Development Plan, guidelines and views of the technical agencies have not been comprehensively prepared, done and updated as there is no periodic and updated big data information and data analytics provided by the Local Planning Authority and relevant technical agencies for each district in Malaysia that can provide comprehensive updated current information of the suitability of all geographical location for housing development projects. For this matter, new amendments of statutory provisions governing Local Planning Authority and relevant technical agencies are needed to the effect of imposing a duty on these parties to provide and prepare periodic updated big data information and data analytics in each district in Malaysia as sources and guidelines for consideration and analysis in the issuance of planning permission and other development control approvals.
- 5) Many new requirements, conditions, and laws will finally cause development approvals and planning permission to become stringent. As a result, this may burden the developers' monetary provisions, investment, logistics and time. This will cause housing prices to skyrocket. Surely this can affect the objective and policy of the government to provide sufficient and affordable housing to the people. Thus, a balancing policy, law and approach must be formulated to ensure that the houses provided by the developer are sustainable, adequate, and of quality and that the house prices too are affordable for public purchase.

CONCLUSION

The author submits that flood disasters are due partly to acts of God and human mismanagement. This article concerns the legal aspects in dealing with the issues of flood disasters in housing areas. The author contends that the preventive and curative legal management for flood disasters is inadequate in Malaysia. This article discusses the legal issues that have contributed to the problems of flood disasters in

housing areas in Malaysia. Among the legal issues are - the separate constitutional and administrative jurisdiction between the federal government and state governments, inadequate legal provisions to deal with flood problems and non-binding directives of the relevant technical agencies, non-coordination between relevant agencies in facing flood problems, incomplete big data and data analytics on flood areas and geographic suitable location for housing development, inadequate development plans and land development information and insufficient legal protection to resident purchasers in the housing law.

These legal issues, as highlighted, should be tackled to ensure that measures to deal with the problems arising from floods can be successfully executed by considering the discussion, analyses and suggestions provided in this article. Otherwise, flood disasters can be an unsettled and pervasive problem that can cause losses and irreparable damage to the stakeholders in housing areas in Malaysia.

Acknowledgement

This research paper was supported by the UUM Research and Innovation Management Centre (RIMC), Universiti Utara Malaysia (UUM), through a Matching Grant Scheme SO Code 13694 and Research ID 5932. Next, the researcher wishes to extend his gratitude to the journal editor and reviewers for their valuable suggestions on the paper.

Funding Statement

The author received funding from the UUM Research and Innovation Management Centre (RIMC), Universiti Utara Malaysia (UUM) with SO Code 13694 and Research ID 5932 with a topic entitled Housing Development in Malaysia and Thailand: A Comparative Planning Law Perspective - Issues and Prospect.