

## **Flood Risk Management: An Integrated Approach in Sustaining Human And Environmental Surrounding**

### **ABSTRACT**

Human environmental interaction exists in almost every part of the world. This illustrates that humans need the environment to survive and to carry out activities. This need can also be expressed through the exploitation process of a single area in the environment. The exploitation process performed by humans can either occur sustainably or unsustainably. Therefore, this paper aims to explore how the "flood risk management approach" helps to preserve the social surrounding and the environment, specifically in the context of the natural flood plains exploitation. To achieve the objectives of this study, the analysis includes a review of the characteristics and causes of floods in urban areas and flood plains, the types of flood management approaches implemented in Malaysia and how the "flood risk management approach" is considered an integrated and sustainable approach to be used in flood plains. In Malaysia, the "flood protection approach" is used as a medium to manage floods in urban areas that developed due to urban imperviousness. Unfortunately, this approach is unsuitable to be applied in all types of area, especially in natural flood plains. This is because, besides being unsustainable, this approach also typically fails to prevent flooding occurrence in flood plains. The characteristics and causes of floods in flood plains differ from urban areas. Therefore, the "flood risk management approach" which combines the paradigm of "keeping the water away from people" and "water-based lifestyle" is found to be more integrated and sustainable to be applied in all areas including natural flood plains.