

# Planning and Design of a Flood Resilient Building Based on Impact Study

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**Abstract:** *Over these years, the world has endured large number of natural disasters. Among them the most disastrous one is flood. Flood can cause a potential treat to both life and property. The influence of global warming is one of the major causes that appears to worry the world, especially the effect of flood happening at the river side that causes potential loses. It difficult to living against water, but it possible to live with water level rising. The rising water occupies the land surface. The land surface taken away by the rising water. The only way to live with rising water is by constructing houses on the water. Amphibious structures are becoming more popular among the people in Kerala. Amphibious structures are buildings that sit on dry land like ordinary buildings, except there is a flood. An in-depth study of permanent housing has done by studying the various ways that flood events affect housing in order to identify guiding criteria that flood resilient housing should address. Furthermore, it is needed to differentiate between flood zones since housing should respond and resist to flooding according to predicted flood characteristics. This project incorporates study of various flood resistant housing projects and the most effective design factors are identified and a new proposal is suggest for the resilient housing. The housing proposal through this study stands well within the boundaries of sustainability, and address the problems of flood related issues of housing in a most efficient way.*

**Keywords:** Flood, amphibious, flood resilient, sustainability, disaster

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