

## Self-Help Adaptation to Flooding in Low-Income Settlements in Chiang Mai, Thailand

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**Abstract :** This study aimed to determine low-income housing adaptations for flooding, which causes living problems and housing damage, and the results from improvement. Three low-income settlements in Chiang Mai which experienced different flood types, i.e. flash floods in Samukeepattana, drainage floods in Bansanku, and river floods in Kampangam, were chosen for the study. Almost all of the residents improved their houses to protect the property from flood damage by changing building materials to flood damage resistant materials for walls, floors, and other parts of the structure that were below the base of annual flood elevation. They could only build some parts of their own homes, so hiring skilled workers or contractors was still important. Building materials which have no need for any special tools and are easy to access and use for construction, as well as low cost, are selected for construction. The residents in the three slums faced living problems for only a short time and were able to cope with them. This may be due to the location of the three slums near the city where assistance is readily available. But the housing and the existence in the slums can endure only the regular floods and residence still have problems in unusual floods, which have been experienced 1-2 times during the past 10 years. The residents accept the need for evacuations and prepare for them. When faced with extreme floods, residence have evacuated to the nearest safe place such as schools and public building, and come back to repair the houses after the flood. These are the distinguishing characteristics of low-income living which can withstand serious situations due to the simple lifestyle. Therefore, preparation of living areas for use during severe floods and encouraging production of affordable flood resistant materials should be areas of concern when formulating disaster assistance policies for low income people.

**Keywords :** flooding, low-income settlement, housing, adaptation

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