



Tsunami and Tourism: Economic Aspects

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The paper extends the previous work (Yegorov, EGA2005), which was addressing the question of optimal location of hotels, taking into account the risk of their destruction by tsunami waves. Here the risk for lives of tourists is also taken into account. It depends on the existence of alarm system. A group of hotels can be served by autonomous system with cable connection for special cases of bottom relieves. The trade-off is between profits flow from tourism and risk to buildings and tourists. Theoretical model addresses the practical problem about investment in tourist industry into areas damaged by tsunami taking into account the risk from future tsunami. It uses both economic methods (investment and optimisation theory) and stylised facts from the theory of tsunami waves. The optimal location of hotels can be found. It depends on local topography (slope), probability distribution of tsunamis with different wave heights in current location, preferences of tourists and time discount for a country. The practical implementation would require interdisciplinary study for particular area taking into account local topography and probability distribution of tsunami waves of different heights. This method can also be applied to other natural hazards with the trade off between attractive location and hazard risk.