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Flood Risk Reduction in Livelihood Risks: Thoughts and Insights from Mumbai

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Mumbai city, having an area of 437 Sq. Km with a population of more than 12 million, is the financial capital of India. In July, 2006, the city came to complete halt owing to the unprecedented rainfall of 944 mm during the 24 hours. According to Municipal Corporation of Greater Mumbai (MCGM), at least 419 people were killed due to flash flood and landslide only in Mumbai municipal area; moreover, another 216 people were killed due to water born disease during and after the flood. It is reported that 100,000 residential and commercial building were collapsed, 30,000 vehicles were damaged, the entire railway system, telephone line were collapsed and more than 60 % of the city area were directly or partially affected due to 2005 flood. The local Government, Municipal Corporation of Greater Mumbai became reactive and took counter measures in response to it, however, the city Government has realized that the Government needs to be proactive and along with structural or engineering measures, the local government must also emphasis and encourage individual and household disaster preparedness and local community's capacity building and resource mobilization.

The severest affected areas of 2005 flood are the poorest section of the city that are forced to live in the most vulnerable parts including along the railway track, marshy land, open storm water drain. More than 60 percent of Mumbai population lives in such vulnerable settlement or slum locally called as "Jhuggi - Jhopri". Such settlements are not only severely affected areas of 2005 flood, but flood is a common annual phenomena along with other disaster risks. Yet limited economic and social resources and capital often put their livelihood itself into risks, for example, living in vulnerable land, engaged in hazardous occupation, unemployment and economic insecurity and illiteracy and poor health condition.

The conventional studies on disaster risk reduction and preparedness often consider disaster risk as an isolated event or in other words, the prescribed counter measures for disaster risks reduction seldom consider linkage between livelihood issues and disaster preparedness. In our study we hypothesize that local community flood risks are very much related with their livelihood issues. We hypothesize that in order to reduce their disaster risks, livelihood risks must be minimized. Therefore, in our study we will show the level of vulnerability of the local community and its impact on their livelihood and vice-versa. This study will also show the possible countermeasures for flood risks reduction through the livelihood risks reduction. We will take two flood prone settlements of Dharavi slum, the biggest slum of the Asia situated in Mithi river basin of Mumbai, as our case studies.