

Disaster Risk Management in Mega Cities: Lessons from Working with the Poor Vulnerable Communities, Mumbai, India.

Prof. Bijay Misra

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Abstract

The presentation is about working together with poor and vulnerable communities in the mega city Mumbai in order to promote self resiliency among them against disasters. The context of natural disasters including the catastrophic ones and their increasing impact on large cities has been a major concern. UN 2011 report says 450 cities having population of one million or more are exposed to high risk of natural disasters. Cities which are located coastal or are near the seismic zones are the most vulnerable. The report says the most frequent natural disaster is flooding and affects 233 cities and 633 million people across the world. UN IPCC reports world's three most vulnerable coastal mega cities are Rio, Shanghai and Mumbai. In them climate change impact particularly the rise of the sea level significantly adds to the problem. In Mumbai nearly one and half million poor people are directly exposed to this threat and their habitats are in constant danger.

Humanitarian systems are under significant strain in mega cities. Disaster risk reduction is seen as a means not only to reduce the continued pressure on humanitarian systems and effects that disasters have on poor families and communities in cities but also to protect urban investments, vital infrastructure and promote sustainable life styles.

Disaster risk reduction (DRR) is emerging as one of the great opportunity areas for architects and urban planners to be more responsible to the poor and deprived and make their public role more meaningful. DRR is a complex multi-dimensional task and demands working closely together with the affected people for improvement of housing, basic utilities, mobility, health care and above all, education and awareness and capability to bargain with the city authorities. Our Mumbai project has shown how significant and catalytic the role of architects and planners can be in the task.

The Mumbai DRR project (2009-13) is Human Security Engineering based on and focuses on five selected "hotspot" poor people communities in the city most vulnerable to disasters, particularly flood in and around the Dharavi slum. The project is undertaken in three stages, first, 'knowing the community and building rapport and communication platform', second, 'working together with the community to promote risk communication, internal organization and leadership building and scientifically analyze the DRR problems their living conditions face', and third, 'working with community to prepare a DRR plan using useful techniques such as risk mapping, conflict reduction and decision making etc. that can be operationally dovetailed into the city government's local development plan'. The project is currently at the end of the second stage.

Some important lessons learnt from the project so far are: (1) Architects and planners can play a critical role in promoting DRR at community level using very simple design and planning methods. (2) Architects and planners are well received by the community only when their purpose to work together for better is transparent, sincere and engagement is sustained. (3) Effective models for action at the community level can be developed with least cost using 'self efficacy' and 'collective efficacy' concepts. (4) Motivated architects and planners are best suited in the task provided they carry the sense of strong social responsibility.