Utilization of Social Capital to Reduce Disaster Risks in the Slums of Chennai, India

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Key Words: Urban Slum, Community-Based Disaster Risk Reduction, Social Capital, India, Slum Policy

1. Background and Objective

Nearly 30% of the urban population in India lives in slums. Slums are the encroachments which are constructed by mostly low income people, and the areas have characteristics such as inadequate access to safe water, lack of infrastructure and housings without satisfying building code. Consequently, disaster risks in slums are very high. On the other hand, slums are generally considered to hold strong social capital among the dwellers: "social networks", "norms of reciprocity" and "trust" arise from the network to survive daily life in slums. Due to social, economic and political barriers, it is difficult to make significant improvement or rehabilitation programmes for all the slums. Therefore, this study focuses on utilization of social capital to reduce disaster risks in slums.

2. Study Area and Methodology

The study area consist of three slums along a canal (Slum P, A and K) in Chennai city of Tamil Nadu State, India. Chennai is the fourth largest urban agglomeration in India, with an area size of 426 km² and its population is around 6.5 million. Among the three slums, P and A slums are notified slums by local government and K slum is non-notified. Methodology consists of literature review, field survey of about 20 slums, household questionnaire survey which targeted head of household or his/her partner (sample size: 363 households), and interviews with three NGOs working for disaster risk reduction (DRR) in slums of Chennai.

3. Results: Functions of Social Capital and Disaster Risks

According to the questionnaire results, the leadership of community leader in evacuation and recovery from disaster, and the cooperation of people for community recovery marked highest in A slum, followed by P slum, while it almost did not work in K slum. It became clear that the components of social capital which play an important role in DRR (Table-1) are: (1) neighborhood-based network with strong norms of reciprocity; (2) community's networks and norms composed of various social networks; and (3) strong leadership within the slum. On the other hand, in K slum, kinship-based groups have the strongest norms of reciprocity in the area, besides there has no leader within the area. It is also found that the function of such social capital in K slum works negatively, for example, the participation rate of Self Help Group (SHG) which cannot be created by kinship-based networks is the lowest among the three, and the people in the area need police power to solve their personal conflicts. Furthermore, the correlation between DRR and

existence of local governments' slum improvement or early warning system in the notified A and P slums was also indentified. And, the interview results showed local NGO-supported SHGs and children' group have been effective in DRR of other slums in Chennai.

Tuble 11 uneuons of Social Capital In1,11 and 11 Status of Component											
$\left \right $		"Visit each other every day" Personal social network			"Can leave (him) my ch lend money" Tru			always will ask at		nelp him"	"Participation in SHGs" (Participation in CBOs)
\	Sample No	Relatives	Friends	Neighbors	Relatives	Friends	Neighbors	Relatives	Friends	Neighbors	Community's network
Ρ	116	51.7%	35.3%	87.9%	61.2%	58.6%	62.1%	54.3%	34.5%	56.9%	29.3% (36.2%)
А	134	67.2%	50.0%	67.9%	87.3%	74.6%	79.9%	62.7%	50.0%	63.4%	37.3% (42.5%)
К	104	70.2%	42.3%	84.6%	74.0%	74.0%	77.9%	56.7%	26.9%	49.0%	16.3% (21.2%)
\backslash	Sample No	Most reliable community leader					Decision making in water problem			Decision making in personal conflict	
Ρ	117	Local councilor (living outside the slum)(31%), No leader & no idea (30%), Family or Relatives (20%)								Those who are concerned (78.6%), Police (32.5%)	
A	139	Local group leader (living inside the slum) (48%), Local councilor(35%),								Local group leader (46.0%), Those who are concerned (36.0%)	
к	107									Police (72.0%), Those who are concerned (78.6%)	

Table-1 Functions of Social Capital in P, A and K slums by Component

4. Conclusion

To reduce disaster risks in all the slums including non-notified slum, the following points need to be implemented: (1) utilization of SHGs and children' groups for DRR activities in slum; (2) public assistance to local NGOs for DRR activities in slums; and (3) local NGOs' support to SHGs and children' groups for their DRR activities in slums.