

Coping strategies for constraints in disaster recovery of developing countries

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1. INTRODUCTION

Damage by large-scale natural disasters in developing countries generally exceeds ordinary capacity of local government and people. For quick recovery, the assistance of the central government and foreign aid agencies is required. In marginalized area, exceptional assistance from outside can be the chance of local development as well as the momentum of recovery. Unfortunately, it is hard to achieve even recovery goals as planned for various constraints. This research analyzes constraints in disaster recovery process of developing countries and coping strategies for each constraint. Housing reconstruction projects after Gujarat earthquake, India in 2001 and Indian Ocean tsunami in Sri Lanka in 2004 were case studied.

2. CONSTRAINTS IN RECOVERY

Constraints in developing countries can be classified under two types: internal and external constraints.

One of internal constraints is inadequate disaster management system. Under the limited budget of developing countries like India and Sri Lanka, preparation for unusual disasters is pushed back on the priority list before disasters. Temporary government agencies which had little experience in large-scale recovery made serious mistakes. For example, the buffer zone policy is blamed as the main reason for hampering recovery in Sri Lanka (Ingram J.C. et al. 2006). The disparity between social classes became another internal constraint. Generally, disaster aggravates relatively more vulnerable group's conditions than other groups. In both cases of India and Sri Lanka, disparity between social classes which left untreated became the cause of retardation through raising social turmoil including civil war during recovery.

One of the external constraints is the sudden influx and withdraw of international aid left its mark on the recovery process. Short-lived and highly media driven aids can be a double-edged sword. Sudden influx of aid involves not only materials but various participants with different objectives. Without proper coordination, influx of aid is easy to change into unequal distribution of recovery resources. Rapid withdrawal of many NGOs in Sri Lanka was referred as 'tsunami third wave' (Silva K.T. 2009).

3. COPING STRATEGIES FOR CONSTAINTS

In response to these constraints six coping strategies were revealed by case study.

(A) COPING STRATEGIES FOR INADEQUATE DISASTER MANAGEMENT SYSTEM

Both in India and Sri Lanka, exclusive new government agencies were newly established after disasters. However, unlike India maintained one agency, Sri Lanka established several taskforces and agencies (CNO, TAFREN, RADA, etc.) sequentially and it hindered policy continuity (Boano C. 2009). Under the frequently changed regulation policies without consistency, aid agencies had to postpone investment, thereby housing reconstruction was delayed. Additionally, recovery projects like permanent housing and infrastructure reconstruction which should be conducted with long-term plan require policy continuity of government. These results indicate that continuity of exclusive government agency for disaster management is essential to cope with inadequacy disaster management system.

In both cases, government could reduce the time and efforts to make the recovery roadmap with aid of experts in the World Bank, ADB, etc. At the same time, external agencies can contribute to retain objectivity through the feedback as independent third parties. It indicates that revision of recovery policy using aid agencies' expertise can be the second

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option for redeem the limited capacity in disaster management. Although it is practically hard to make initial policy with utilization of aid agencies' knowhow and expertise because of time pressure to take action, aid agencies' assessment on impacts and needs can be the guidance for policy revision.

(B) COPING STRATEGIES FOR SOCIAL CLASSES DISPARITY

In Gujarat, instability caused by communal unrest slowed down in recovery activities. Reducing disparity in social classes through disaster recovery can be one of key factor for sustainable recovery as well as a fair society itself. Regarding the disparity between social classes, improvement of vulnerable groups' socio-economic condition should be reflected in recovery plan for sustainable process. Awareness of discrimination in recovery process among ethnic groups in Sri Lanka became one of cause for resuming civil war. It became the main reason for retarded recovery process because aid agencies couldn't conduct projects in north and east coast.

In India, the *setu*, a network of village-level NGO centers, provided a flow of data, feedback and information to influence policy as the community's advocates. Because of the limited capacity of government to communicate timely with affected people, both of policy making reflecting people's opinion and convincing the policy to people were not easy. Regarding this issue, local NGO's network can be effective alternative means of communication which can supplement administrative capacity of government. This indicates the second option that local NGO's network can play the important role to reduce the disparity in social classes by bridging the gap between government and affected people.

(C) COPING STRATEGIES FOR SUDDEN INFUX AND WITHDRAW OF AID

To cope with sudden influx and withdraw of international aid, direct partnership between aid agencies and local NGO or company should be important. In India, partnership with local agencies played the role of a buffer when external agencies flow into local projects without enough information on local conditions which covers social customs and resources for recovery. At the same time, direct partnership is helpful to transfer temporary external capacity to sustainable local capacity. It can be the momentum to develop continuously even after the end of recovery projects.

Recovery policy for motivating aid agencies is required to prevent sudden withdraw of agencies. Because of aid agencies' dependency on donors, for instance, many housing projects in Sri Lanka were abandoned by some agencies which divert attention to other issues like the Kashmir earthquake the next year. On the other hand, Indian government utilized the same motive of aid agencies to promote their participation. By support half of budget for rehabilitation projects, Indian government promoted for NGO's continuous participation after the finish of project. It was the result of understanding NGOs motive which highly depends on funding. And it could reduce the sudden withdraw of external resources.

4. CONCLUSION

In the recovery process of large-scale disasters, developing countries share the similar constraints: inadequate disaster management system, the disparity between social classes and sudden influx and withdraw of international aid. However, through overcoming these constraints, recovery process can become the turning point of developing countries for sustainable development. As the countermeasures, six kinds of coping strategies were found based on the case studies of disaster recovery in India and Sri Lanka.

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