Measuring Cyclone Aila Recovery Progress in Bangladesh from People's Perception: A Score Based Recovery Assessment Tool Applicable for Limited Data Environment

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Bangladesh has a long history of tropical cyclone related disasters. In last 50 years the country has experienced several devastating (in terms of human lives and economy) cyclone including Bhola Cyclone (1971), 1985 Cyclone, 1991 Cyclone, Cyclone Sidr (2007), and most recently Cyclone Aila (2009)[1], [2]. The disaster management strategy of the country has been praised internationally for being gradually successful in saving human lives [3].

Though Bangladesh has shown a paradigm shift from post-disaster response to pre-disaster preparedness, mainstreaming the disaster risk reduction in the development process through recovery work is still a long way to go [4]. The statuses of disaster risk reduction and post disaster recovery are not well studied. Unavailability of multidisciplinary data on post disaster recovery is the main challenge of studying recovery progress. This research attempts to develop a composite methodology and a tool to measure the progress of recovery from the Cyclone Aila in Bangladesh. The methodology includes focus group discussion, analysis of cognitive content and a score-based quantification technique of recovery status.

This research considers the post-disaster recovery of cyclone Aila in a coastal Upazila, Koyra as a case study. Cyclone Aila was a sever cyclone with hurricane intensity (as per Bangladesh Meteorological Department's classification) struck the south western coast of Bangladesh with maximum 65 Knot wind speed and minimum sea level pressure as low as 974mb [2]. Since Aila hit in 2009, the international humanitarian organizations and the Bangladesh government have been providing an intensive support for recovery. In this research, a series of focus group discussion was conducted to measure recovery progress by analyzing the cognition of the participants. While conducting focus group discussions, cognitive contents which participants were mentioning and discussing to agree on the status and recovery of different sectors were documented. Finally, from the score based perceptions of the community, recovery progress curves were constructed for different sectors e.g. physical safety, infrastructure, economy, sanitation, disaster preparedness, etc. Scores are numbers quantifying the qualitative status of different sectors. The minimum score "0" refers to complete suspension, malfunction or out of order of a sector. The maximum score "5" refers to a quality which is considered as the best example and completely protected from cyclone disaster similar to Aila. Participants in the FGD gave scores in between "0" to "5" to quantify quality or status of a sector. Participants were asked to quantify the status of a sector in five different period: before Aila, immediately after Aila, one year after Aila, three years of Aila, five years of Aila and at present. Thus, a synthetic recovery curve (example Figure 1) has been constructed from these scores to illustrate the progress of the recovery. This score based assessment approach

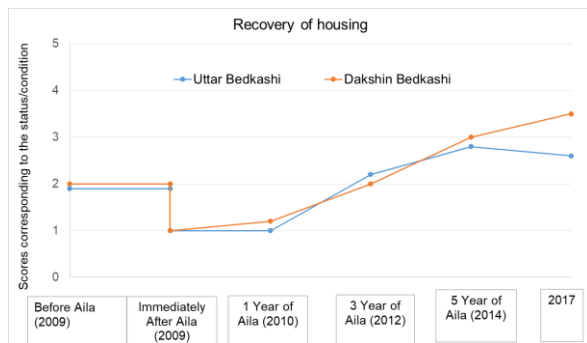helped to grasp the overall scenarios of the recovery and its outcome.

Figure 1. Example of a synthetic recovery curve (housing recovery) constructed from people's perception
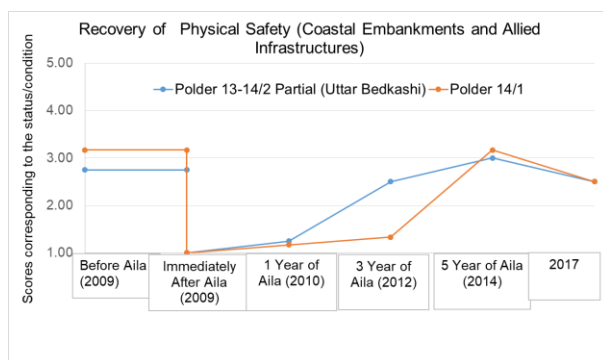

Figure 1. Example of a synthetic recovery curve (polder recovery) constructed from people's perception

Results clearly show a trend of development in most of the sectors. Whereas, the lack of disaster risk reduction measures and poor condition of coastal embankment prevail. This raises a strong concern in the community for the possibility of similar prolonged suffering from a recurrent cyclone in future. The results also suggest that the coastal embankments are once again becoming the central focus in the recovery which alarms a possibility of raising a false sense of security within the community.

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