

The organizational network legacies in response to flood inundation events in rural and urban areas of Sri Lanka

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Abstract:

Organizational networks are becoming increasingly recognized as important metaphor of disaster related studies. This is because the organizational networks have often been involved with the disaster risk reduction (DRR) and management activities in plenty. This empirical research reveals the factual evidences of interorganizational network practices in Sri Lankan flood disaster events. This study considered two flood affected rural district secretariat divisions (namely Kuruwita and Elapatha) and one urban district secretariat division (e.g. Colombo) for empirical research. This case study considered one of the non-probability sampling techniques called snowball sampling method. This is because it was quite typical task to select the appropriate persons/organizations with more comprehensive experiences and memories in a systematic way, despite this is with some of inheriting biases. Semi-structured interviews were conducted with selected respondents and their memories were recorded in note books and some of them, particularly their oral histories tape-recorded in accordance with their approval, and finally analyzed the contents. Primary data collected based upon questionnaire survey, focus groups interviews and self-observation with some of informal interviews in order to identify the organizational network activities of flood inundated study areas. There were 50 stakeholders (including local community organizations) and some of Grama Niladari Officers (GNOs, n= 10, Female = 4) were interviewed and also eight focus groups interviews were conducted in order to collect the primary data on the organizational network practices in the flooding events. Network data were analyzed and made some of network graphs by using UCINET software. Significant findings are revealed that Kuruwita and Elapatha DSDs have experienced with more organizational networks respectively compared to the urban Colombo DSD. In Particular, they have involved with the provision of information, food, water and other basic needs; evacuation and moving out belongings; provision of shelters; moving in belongings back; cleaning up contaminated households and public places; provisions of emotional and financial supports are strongly helped and mattered for securing and reviving flood-affected livelihoods. In this context, his study may be the first attempt of attending with analyzing of organizational network practices in the disaster management notion in Sri Lankan context. Therefore, more importantly this study bridges the gap of the existing body of literature on organizational networks behaviors in Sri Lankan disaster management discourse.

Keywords: Interorganizational networks, Social networks, Social capital, Sri Lankan Floods, Sri Lanka.

Introduction

Sri Lanka has been affected by several natural disasters such as floods, droughts, landslides etc. since decades. Flood disasters can be identified as one of the predominant natural disasters in the country (Karunaratne and Lee, 2019; Farley, et al., 2017). For instance, Sri Lanka experienced adverse consequences from 2016 and 2017 flooding events, leaving hundreds of lives and damaging hundred thousands of dwelling units. According to the Ministry of Disaster Management of Sri Lanka (2017), during two consecutive days (25th and 26th of May, 2017), Sri Lanka has experienced torrential rains in which recorded with up to 600mm magnitudes and leaving 219 lives (93 deaths and 117 people reported 'missing' in 2016) and over 230 thousand families were affected by flooding and landslides disasters. The magnitude of 2017 events is very high compared to the year 2016 (almost 500 thousand people were affected in 2016). Moreover, the report highlighted that in some areas, the flood inundation level has been remained up to 6 meters during 4 to 10 days, adversely affecting urban and rural dwellings, small and medium enterprises, micro (mostly informal) businesses, education and health services and public and private infrastructure in rural and urban areas. This is because, a range of mitigating activities have been occupied in order to reduce the adverse consequences of flood inundations. Among those helping activities, social support networks can be identified as one of the influential mechanisms by the ways in which reduced many of human and physical damages substantially. Since decades, community collaboration, reciprocation of resources and supports have made gigantic helps in terms of reducing impacts and reviving affected livelihoods in the flooding events particularly in rural areas (Karunaratne and Lee, 2019). In addition to that the human development level of the country is considerably high among developing countries in which also helped to enrich the social capital of society (Karunaratne and Andriesse, 2017). In particular, social networks play a crucial role in sharing of information and knowledge, evacuation, provision of foods and basic needs, provision of shelters and livelihood revivifying activities in the disaster situations (Misra, et al., 2017; Htein et al., 2018; Ceddia et al., 2017; Jones and Faas, 2017). For Jones and Faas (2017), social network analyses in disaster management is very specific and somewhat influential research foci.

Methods

Regarding the network data analysis, all the network matrixes (all were one-mode matrixes) were created in MS Excel program. Organizations' identification numbers entered in columns and rows similarly and asymmetric network matrixes were used. All the matrixes were imported into the UCINET program and Social Networks Analysis (SNA) techniques were occupied for analyzing network measures such as degree density, betweenness and closeness centralities etc. and for network graph analysis. In particular, Net-Draw version 2.168 (Network Visualization Software is attached to the UCINET) was used for the network graph visualization and related analysis.

Organizational practices in disaster situations can be identified as one of the key components in providing resources and facilities. In particular, organizational networks have been interlinked with ground level social networks at disaster events by fulfilling the vacuum of facilities provisions for the victims. In this context, organizations and their networks have been becoming more important on the context of disaster management and mitigation in terms of resilient and coping capacities at multiple levels (e.g. Doerfel, Lai, and Chewning, 2010; Htein, Lim, and Zaw, 2018). Regarding this study, I also investigated the organizational network behaviors on the flood inundation events. The information of organizational networks is mainly gathered through the discussions made with GNOs and from focus groups interviews. HHs respondents also explained their experiences about organizational supports. And also, I personally made telephone call conversations with some of identified organizations. In accordance with the facts that observed, the organizations have mainly functioned between during and after flood inundation phases. Therefore, mainly three organizational networks are identified in which related to Kuruwita, Elapatha, and Colombo DSDs.

Especially, many of supportive organizations have contacted mainly with relevant DSD offices and GNOs of inundated GNDs in order to provision of supports for the flood victims. Figure 4 illustrates the organizational support networks of Kuruwita flooding event. Especially the majority of organizations are belonged to the government sector, for examples, DSDs, GNOs, forces, police, CSF, MOH, and disaster management center (DMC) etc. Kuruwita DSD have provided for inundated HHs with processed foods and basics needs in cooperating with GNOs and public donations. More importantly, some of DSDs (e.g Matale, Bandarawela, Gampaha, Mahara Kadawatha etc.) which are located in faraway admin districts have made different supports such as dried foods, water, basic needs, cloths, and school items and stationary for flood victim HHs in collaborated with Kuruwita DSD office and GNOs.

Concluding Remarks

This research considered the organizational network behaviors and practices in the mass flooding events occurred in 2016 and 2017, in Sri Lanka. One significant findings of this study is that more dense organizational networks are observed especially in regional DSDs (for example, Elapatha and Kuruwita DSDs) compared to the urban DSD (e.g. Colombo). This is because regional areas have been experienced very high inundation depths (e.g. 10-20 feet) rather than urban areas. Similarly, adverse impacts can be seen in the same areas due to mass flooding events. Thus, it is observed that more dense and variegated network activities in rural/regional areas. Especially, Sri Lankan Army, Navy, Air Force, Civil Security Force and Police Department, related DSDs and GND officials, DMC, Buddhist temples, and the rest of government bodies/organizations have effectively been involved with the flood disaster events in terms of managing, facilitating and resource mobilizing. In particular, Buddhist temples play a pivotal and cardinal role in revivifying flood affected livelihoods. On the other hands, many of non-governmental organizations have also been involved with the existing community and government organizational settings in order to foster the facilitating process in reviving the affected livelihoods. In accordance with the extant literature, this study may be the first attempt of attending with analyzing of organizational network practices in the disaster management notion in Sri Lankan context. Therefore, more importantly this study bridges the gap of the existing body of literature on organizational networks behaviors in Sri Lankan disaster management discourse. The future study may sheds some lights on the household level network interactions with organizational network and their evolutionary characteristics (for instance, at the before, during, and after) in the disaster events.