

UNDERSTANDING WARD DISASTER MANAGEMENT COMMITTEE (WDMC) FOR COMMUNITY-BASED DISASTER MANAGEMENT IN DHAKA CITY CORPORATION (DCC): CONCEPT, FORMATION, EXISTENCE AND CHALLENGES

Atif Ibne Zoha Sreezon¹, Saraf Anjum Disha², Tasnim Tarannum Isaba³, Ahmad Mojtoba Riyadh⁴, Uttama Barua⁵ and Dr. Ishrat Islam⁶

ABSTRACT

In case of a disaster, community people face the immediate impact of damage or loss. They also act as the first responders to withstand in the situation before arrival of rescue and relief. As such, at present community-based disaster management is getting more and more popularity. Its underlying principle is to manage disaster at community level by integrating the community people in the process. Dhaka, the capital city of Bangladesh, experiences various dreadful disasters from time to time, including flood, earthquake, building collapse and fire incidents. Due to unplanned urbanization and high population density, Dhaka city is considered to be one of the most vulnerable cities to disasters. Vulnerability to these disasters has further been multiplied due to lack of preparedness and community-based disaster management. According to the disaster management legislations, there is a structured regulatory framework and institutional setup for disaster management in Bangladesh. In urban areas, disaster management at local level largely depends on the involvement of local organizations and coordination among them. Therefore, the existence of Ward Disaster Management Committee (WDMC) is crucial for effective disaster management ensuring stronger community awareness and participation. Considering the importance of community-based disaster management and risk of Dhaka city to disasters, the importance of establishing WDMC at all of the wards in Dhaka City Corporation (DCC) is undeniable. Despite such importance, WDMC cannot be found in all of the wards in the city. In this background, the focus of this research is to explore the existence, nature and challenges of WDMC in DCC. This research has been done through participatory approaches: focus group discussion and key informant interview. This study will help the policy makers to identify the wards of the necessity and absence of WDMC, and take necessary actions thereby to establish WDMC in those wards.

Keywords: Ward Disaster Management Committee (WDMC), community-based disaster management, Dhaka City Corporation (DCC)

Introduction

Natural disasters such as cyclone, flood, earthquake etc. cause immense destruction every year around the world. Apart from casualties, such events hamper the lifeline system, cause widespread loss of life and property by damaging social and physical infrastructures (Haque & Jahan, 2016). Bangladesh, a third-world country of 163 million of population, is one of the most disaster-prone countries in the world due to its geographical location, soil characteristics, diversity of rivers and monsoon climate (U. Barua, 2016). According to World Risk Report (2016), Bangladesh is the fifth most vulnerable country to disasters (United Nations, 2016). Between 1980 and 2008, Bangladesh faced 219 natural disasters – or more than seven disasters per year – causing a catastrophic US\$16 billion in damage (UNDP, 2011). Capital city of

¹Undergraduate, Dept. of Urban and Regional Planning, Bangladesh University of Engineering and Technology, Dhaka-1000, Bangladesh.

²Undergraduate, Dept. of Urban and Regional Planning, Bangladesh University of Engineering and Technology, Dhaka-1000, Bangladesh.

³Lecturer, BUET-JIDPUS, Bangladesh University of Engineering and Technology, Dhaka-1000, Bangladesh.

⁴Grad Student, Dept. of Urban and Regional Planning, Bangladesh University of Engineering and Technology, Dhaka-1000, Bangladesh.

⁵Lecturer, Dept. of Urban and Regional Planning, Bangladesh University of Engineering and Technology, Dhaka-1000, Bangladesh.

⁶Professor, Dept. of Urban and Regional Planning, Bangladesh University of Engineering and Technology, Dhaka-1000, Bangladesh.

Email of Corresponding Author - saraf.a.disha@gmail.com

Understanding WDMC For Local Level Disaster Management in DCC: Concept, Formation and Challenges

Atif Ibne Zoha Sreezon, Saraf Anjum Disha, Tasnim Tarannum Isaba, Ahmad Mojtoha Riyadh, Uttama Barua and Dr. Ishrat Islam

Bangladesh, Dhaka, is one of the most densely populated cities of the world with a population of 18.89 million (BBS, 2015). Rapid urbanization, unplanned physical development and high population density of Dhaka makes it extremely vulnerable to urban disasters (Rahman, 2006). Due to geographical location and historical earthquake events, Dhaka is among the 20 major world cities that are at the greatest risk (M. M. Rahman, 2018).

In urban context, nature of climate change and its effects transmute, accumulating towards secondary hazards causing further damages. With the recent awareness of Disaster Risk Reduction (DRR), it has been realized that to combat and reduce the effects of natural and man-made disasters, a local level disaster management body is an absolute necessity. In urban area such as Dhaka city which has an urbanization rate recorded for 2010 of 44 per cent (Zaman & Akita, 2011), disaster risk management is a crucial task which if not handled properly, can result in a catastrophic failure of the city in the event of a large-scale disaster. Among the hazards which is faced by Dhaka city are flooding and severe water-logging, earthquake, and fire are mentionable (Stott & Nadiruzzaman, 2014). These hazards are not isolated-events that occurs without any secondary consequences. These disasters can expose the residents of the city to a multitude of hazards such as road blockage, electrical failure and secondary fire hazards. To manage and reduce the damage, a local level disaster management body that can coordinate with the local community and the government institutions in times of natural disaster is vastly important.

Though government at all institutional levels are involved in disaster management, the role and activities of local government are particularly critical. Organizations at local level can play a key role in protecting life and reducing loss and damage through immediate actions (Col, 2007). Having profound knowledge about the area and community, local government plays an important role before, during and after the disaster. Effective collaboration between local community and local government authorities is an essential part of natural disaster management (Perry, 2007). This local level committee can interface with both the government bodies and people from local communities. This committee can also be utilized as the platform to bring together people who want to help out and are actively working for the community, so that a recognition can be given to them. Furthermore, it would help in raising necessary resources to work effectively and accountability of the people working of the community.

Despite the increasing importance of role of local government in disaster research, there have been few comprehensive studies, particularly with regard to developing countries. While managing the Bantul Earthquake (2006) in Indonesia, the capability of local government was very weak due to lack of training and experience in pre and post disaster management (Kusumasari & Alam, 2012). In China, effective preparedness, continuous monitoring and quick decision making of the local government helped managing the Tangshan Earthquake (1976) of magnitude 7.8 in Qing long County (Col, 2007). The inadequate capacity of local administration to deal with relief and rescue work caused immense destruction during Gujarat Earthquake (2001) in India (Tiwari, 2015). Previous research works have also addressed issues of public participation for sustainable hazard mitigation, resource capability of local government, local capacity building and involvement of local institutions in disaster management (Pearce, 2003; Messer, 2003; Allen, 2006; Kusumasari, Alam, & Siddiqui, 2010).

Considering the importance of local level community-based disaster management and risk of Dhaka city in Bangladesh, it can be said that disaster management committee at Ward level (smallest administrative unit of DCC) is required to coordinate mitigation, preparedness, response, and recovery activities at local level. But no research has been carried out till date on this issue. In this background, the objective of this study is to understand the current concept, existence, formation and challenges of Ward Disaster Management Committee (WDMC) for community-based disaster management in Dhaka City Corporation (DCC).

Methodology

For the purpose of this study, firstly secondary data on general profile of Dhaka North and South City Corporation (DNCC and DSCC) including Ward map (2015) and demographic information, etc. were collected from Capital Development Authority (RAJUK), Bangladesh Bureau of Statistics (BBS, 2011) . To understand basic concepts of local disaster management in DCC, the disaster management related legislations in Bangladesh were reviewed. For understanding the existence of WDMC in different Wards of DCC, key informants from DNCC and DSCC were contacted. For further detailed information, key informant interviews were conducted with the Senior Project Officers of SEEDS Asia and International Federation of Red Cross and Red Crescent Society: Bangladesh Delegation, through DNCC and DSCC. From the interview,

a detailed framework of the process of WDMC formation and structure of the committee were gathered. Then the Wards with WDMCs were contacted for a detailed understanding of how they performed their duties and what their roles and responsibilities were. From these interviews and discussions, the current nature of WDMC in Dhaka City Corporation area was analyzed and the challenges of disaster risk management and reduction were interpreted.

Study Area Profile

Dhaka city has rapidly grown in an organic pattern towards the north following physical configurations of the landscape after the liberation war (RAJUK, 2016). The city is classified into three hierarchies of coverage based on jurisdiction and administrative boundary – RAJUK area, Dhaka Metropolitan Area and then the Dhaka City Corporation (DCC) area. DCC area was divided into two sections of Dhaka North City Corporation (DNCC) and Dhaka South City Corporation (DSCC) in 2011 following the amendment of Local Government City (City Corporation) Act 2009 (Ahmed & Mohuya, 2013). A total of 92 wards forms the DCC area (Table 1).

Table 1. Geographical comparison of DNCC and DSCC

	DNCC	DSCC
Zones	5	5
Wards	36	56
Area	85.26km ²	48.63km ²

(Source: DNCC & DSCC, 2017)

Demographic information from Bangladesh Bureau of Statistics shows that 7.64% of the population are infants below 5 years of age, 8.49% in primary school are children of age group (5-9), 9.4% are in junior high school age (10-14), 10.55% are in youth age (15-19), 13.36% are in the age group 20-24, 12.92% are in age 25-29, 27.69% are in age 30-49, 5.64% are in age 50-59, 1.9% are in age 60-64 and 2.41% are in the old age group of above 64 (BBS, 2011).

Table 2. Demographic information for DNCC and DSCC

	DNCC	DSCC
Population	3,956,302	3,014,803
Literacy rate	75.23	75.31
Sex ratio	123.58	149.73

(Source: BBS, 2011)

Concept and Formation of WDMCs

National Plan for Disaster Management (NPDM) (2010-2015 and draft 2016-2020) has already been developed in Bangladesh which provides a simple model to guide disaster management and emergency response efforts in Bangladesh. Disaster Management Act (2012) provides the legal mandates for government agencies and non-government actors. Standing Order on Disasters (SOD) (first published in 1999 and revised in 2010) clearly outlines the responsibilities of public representatives, ministries, agencies and non-governmental organizations related to disaster management. According to these legislations, local level coordination in Bangladesh consists of disaster management committees at City Corporation, district, upazila, municipality and union level. Ward-level disaster management committee can be formed under City Corporation Disaster Management Committee (CCDMC) depending on local situations and has not made compulsory in SOD (GoB, 2010). Thus, from the review of the disaster management legislations in Bangladesh, it has been found that WDMC has not been made mandatory in DCC despite its importance. The city corporation authority might not be able to carry out immediate response operations in all the affected wards because of its limited capacity, resource constraint and priority of actions (GoB, 2014). Therefore, existence of a Ward level government organization is required for effective disaster management at the smallest administrative unit in Dhaka city.

From key informant interview with key personnel from DNCC and DSCC it has been found that in practice they do not establish or manage WDMC within their jurisdiction. The formation of WDMC first started in 2010 under the Disaster Preparedness European Civil Protection and Humanitarian Aid Operations (DIPECHO) program. As a part of the program, ten international non-government organizations (NGOs)

Understanding WDMC For Local Level Disaster Management in DCC: Concept, Formation and Challenges

Atif Ibne Zoha Sreezon, Saraf Anjum Disha, Tasnim Tarannum Isaba, Ahmad Mojtoha Riyadh, Uttama Barua and Dr. Ishrat Islam

established a consortium termed as the National Alliance for Risk Reduction and Response Initiatives (NARRI). The consortium consisted of ActionAid, Concern Universal, Concern Worldwide, Islamic Relief, Oxfam, Solidarités, Plan, Care, HelpAge and Handicap. The purpose of the consortium was to understand necessity of introducing local level disaster management committee. The committee acknowledged the importance of the existence of a local level disaster management organization for urban areas. But there was no act which will obligate in formulating such committee. Therefore, the consortium proposed the idea of WDMC in DIPECHO 6 and started forming committees in Sylhet, Mymensingh and Dhaka in 2011. During DIPECHO 7 and 8 of 2011 and 2012, the formation of WDMC expanded to the Gazipur City Corporation and some of the municipalities of Bangladesh.

From 2011, after four years of practicing WDMC under DIPECHO program, the Government of Bangladesh (GoB) realized the importance of it. In 2012, after the city corporation mayor election, the government declared a gazette mentioning the tasks that the mayors had to perform. The gazette included the formation of WDMC as a responsibility of the mayors but was not mandated. The NARRI consortium has been working to include the WDMC in a government mandate such as Disaster Management Act and Standing Orders on Disaster (SOD). The SOD mentioned the establishment of WDMC in every ward but since it was not imperative, so it mostly depended on the governing bodies.

Selection, Existence, Structure and Role of WDMCs

Under the NARRI consortium, a baseline study was conducted to identify which of the Wards in DCC were better suited for the committee formation. The factors considered for selection of Wards for establishment of WDMC were vulnerability of disaster, risk of damage, geographical location of the Wards which were more susceptible to disasters and few other parameters. The top Wards were then shortlisted and sent to the Mayor for the final selection. Based on the discussion with the Mayor the Wards were selected and the process of forming WDMC was started. Figure 1 shows the Wards in DSCC and DNCC where WDMC were formed (Map).

The structure of committees consists of total 35 members in 21 posts and the members would be selected such that they represent every stakeholder group in respective wards. It also has representatives of 200 trained volunteers who function as the working force for implementing any small initiatives. The structure was formulated by the NARRI consortium and later polished by the Government authorities. At present, the structure follows the government ratification.

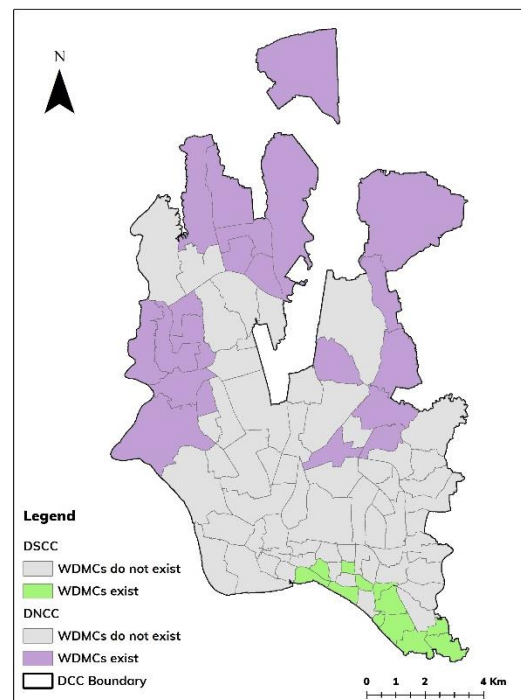


Figure 1: Location of the existing WDMCs (Source: Key informant interview)

Table 3: List of members of Ward Disaster Management Committee (WDMC)

Designation in Committee	Representative
Chairman	Ward Councilor
Vice-chairman/ Advisor	Reserved Ward Councilor
Member Secretary	Ward Secretary
Member	DWASA, TITAS Gas, Bangladesh Telecommunications, Company, Local health personnel, Ansar and VDP, Local mosque/ religious institution, Local volunteer Organization, Freedom fighter, Civil society, Local High School/ College/ Madrasa, Local NGO, Bangladesh Red Crescent Society (BRCS), Women representative, Physically challenged people

(Source: Ward Survey and Key informant interview)

The main role of WDMC is to act as a supporting body and ensure that every project, development initiatives are Disaster Risk Reduction (DRR) inclusive. The WDMC would be able to conduct their own study to find the vulnerabilities and needs of the communities, and recommend specific actions to the ward counselor. In case of any new construction or development initiative, the counselor would work with the committee to prepare the list of suggestions of which way the development effort should be directed. In case of any disaster, WDMC would work as a coordinating authority which will be organizing and systemizing all the relief and rescue operations. There would be bimonthly meetings, disaster risk reduction training programs, attending seminars on DRR and performing social works.

Challenges of WDMCs

While forming the committees and activating them, there were a number of constraints that hindered the process. The challenges can be stated below:

1. The interview pointed out the most crucial or root cause of challenges faced by WDMC and implementing authority that the existence of WDMC is not mandated in any of the government acts. Therefore, there are currently no incentive for the WDMCs to work actively for the community. As such, it generates all other challenges mentioned here.
2. The committee faced administrative and political hindrance in case of functioning and formulation. It resulted in to uncooperative counselors affected smooth nature of activities in the wards.
3. The criteria for selection of member proved to be too rigid sometimes.
4. People who were actively helping the community would not be included due to shortage of posts.
5. Training volunteers also proved to be difficult, as people could not relate to the significance of it. Availability of volunteers at times of necessity was also disappointing.
6. Inter-authority coordination gap was one of the major constraints.
7. There was not enough budget from the City Corporation authority which would able the WDMCs to accomplish tasks and avail necessary resources.

Discussion and Conclusion

WDMCs consisting of local people as volunteers, which can ensure community participation, can function like a bridge between governing bodies and community. The community people know the best for the community and has better knowledge about its resources. At times of disasters, it is the community which can reach out prior to other organizations. Supervising disaster management centrally is not possible and quite wholesome during and after any occurrence. Hence, the government needs to understand the indispensability of such organizations for easier and better performance.

References

- Ahmed, S. U., & Mohuya, F. A. (2013). *Growth and Development of Dhaka North: 1971-2011*. Dhaka: Journal of the Asiatic Society of Bangladesh.
- Akhter, S. H. (2010). *Earthquakes of Dhaka. Environment of Capital Dhaka—plants wildlife gardens parks air water and earthquake*. Dhaka: Asiatic Society of Bangladesh.
- Allen, K. M. (2006, March 1). Community-based disaster preparedness and climate adaptation: local capacity-building in the Philippines. *Special Issue: Climate change and disasters*, 30(1), 81-101. doi:10.1111/j.1467-9523.2006.00308.x
- BBS. (2011). *POPULATION AND HOUSING CENSUS*. Dhaka: Ministry of Planning.
- BBS. (2015). *Population & Housing Census-2011*. Bangladesh Bureau of Statistics.
- CDMP. (2014). *Scenario Based Earthquake Contingency Plan of Mymensingh Municipality Area*. Ministry of Food and Disaster Management, Government of the People's Republic of Bangladesh. Retrieved October 08, 2018, from <https://www.scribd.com/document/261613689/Earthquake-Contingency-Plan-of-Mymensingh-Pourashava-Area>
- Col, J.-M. (2007). Managing Disasters: The Role of Local Government. 67, 114 - 124.
- GoB. (2010). *Standing Order on Disaster*. Disaster Management and Relief Distribution and Disaster Management Bureau (DMB), GoB, Dhaka: Ministry of Food and Disaster Management (MoFDM).
- GoB. (2014). *Scenario based ward level spatial contingency plan (Ward no. 11, DNCC)*. Government of the People's Republic of Bangladesh, Ministry of Disaster Management and Relief. Retrieved October 8, 2018, from https://www.adpc.net/igo/category/ID848/doc/2015-oTKv4A-ADPC_CP_Ward_No._11_of_DNCC_English_Full.pdf

Understanding WDMC For Local Level Disaster Management in DCC: Concept, Formation and Challenges

Atif Ibne Zoha Sreezon, Saraf Anjum Disha, Tasnim Tarannum Isaba, Ahmad Mojtoha Riyadh, Uttama Barua and Dr. Ishrat Islam

- Haque, A., & Jahan, S. (2016). Regional Impact of Cyclone Sidr in Bangladesh: A Multi-Sector Analysis. *International Journal of Disaster Risk Science*, 7(3): 312-327.
- Jain, G., & Bazaz, A. (2017). *Urban Risks and Resilience in India*. Indian Institute of Human Settlements. India: Indian Institute for Human Settlements. Retrieved December 8, 2018, from <http://iihs.co.in/knowledge-gateway/wp-content/uploads/2017/10/Urban-Risk-and-Resilience-in-India.pdf>
- Kusumasari, B., & Alam, Q. (2012, January). Bridging the gaps: the role of local government capability and the management of a natural disaster in Bantul, Indonesia. *Natural hazards*, 60(2), 761-779. doi:<https://doi.org/10.1007/s11069-011-0016-1>
- Kusumasari, B., Alam, Q., & Siddiqui, K. (2010, August). Resource capability for local government in managing disaster. *Disaster Prevention and Management: An International Journal*, 19(4), 438-451. doi:10.1108/09653561011070367
- Messer, N. M. (2003). *The role of local institutions and their interaction in disaster risk mitigation: A literature review*. United Nations, Food and Agriculture Organization.
- Paul, B. K., & Bhuiyan, R. H. (2010, October). Urban earthquake hazard: perceived seismic risk and preparedness in Dhaka City, Bangladesh. *Disasters*, 34(2), 337-359. doi:10.1111/j.1467-7717.2009.01132.x
- Pearce, L. (2003). Disaster management and community planning, and public participation: how to achieve sustainable hazard mitigation. *Natural hazards*, 28(2-3), 211-228. doi:10.1023/A:1022917721797
- Perry, M. (2007). Natural disaster management planning: A study of logistics managers responding to the tsunami. *International Journal of Physical Distribution & Logistics Management*, 37(5), 409-433. doi:10.1108/09600030710758455
- Rahman, M. A. (2006). *State of disaster risk management in Dhaka city*. BRAC University.
- RAJUK. (2016). *Dhaka Structure Plan Report 2016-2035*. Dhaka: Rajdhani Unnayan Kartripakkha.
- Stott, C., & Nadiruzzaman, M. (2014). *Disaster Risk Reduction in Dhaka City: From urban landscape analysis to opportunities for DRR integration*. Dhaka: International Centre for Climate Change and Development. Retrieved November 2018
- Tiwari, A. (2015). Capacity Crisis After the 2001 Earthquake in Gujarat, India. In *The Capacity Crisis in Disaster Risk Management*, 19-29.
- UNDESA. (2017). *World Population Prospects: The 2017 Revision*. (P. Division, Producer) Retrieved from United Nations Department of Economic and Social Affairs: <https://population.un.org/wpp/DataQuery/>
- UNDP. (2011). *Supporting Transformational Change*. United Nations Development Programme. Retrieved November 2018, from http://www.undp.org/content/undp/en/home/librarypage/poverty-reduction/supporting_transformationalchange.html
- United Nations. (2016). *World Risk Report 2016*. Retrieved from https://collections.unu.edu/eserv/UNU:5763/WorldRiskReport2016_small_meta.pdf
- World Bank and Earthquakes and Megacities Initiative (EMI). (2014). *Legal and Institutional Arrangements (LIA) Framework Guidebook*. Dhaka: Bangladesh Urban Earthquake Resilience Project.
- Zaman, K. A., & Akita, T. (2011). *Spatial Dimensions of Income Inequality and Poverty in Bangladesh: An Analysis of the 2005 Household Income and Expenditure Survey Data*. International University of Japan, IUJ Research Institute. doi:10.13140/RG.2.1.3512.2004