



The Daily Star and Save the Children in association with C&A Foundation and Bangladesh Institute of Planners (BIP) organized a roundtable titled "Review of Earthquake Contingency Plan of Dhaka City Corporation" on December 13, 2017. Here we publish a summary of the discussions.

Review of Earthquake Contingency Plan of Dhaka City Corporation

Syed Matiul Ahsan, Deputy Director, Humanitarian Sector, Save the Children and Moderator



Bangladesh is a pioneer in disaster management. Standing Orders on Disaster (SOD) of 1996 paved the way of our disaster preparedness activities. Our disaster preparedness plans are mainly designed to tackle regular calamities such as flood, cyclone and so on. But another major threat looming over the city is earthquake for which we do not have adequate preparation. Notably, comprehensive disaster management programme (CDMP) prepared an earthquake contingency plan for undivided Dhaka city in 2010. Unfortunately the plan is yet to be implemented. In today's roundtable we will review the plan and discuss how to address its loopholes and operationalize the plan in the present context.

Dr. Akter Mahmud, General Secretary, Bangladesh Institute of planners



In reviewing the Earthquake Contingency Plan (ECP) for Dhaka City Corporation it becomes clear that disaster management is a multidimensional and multi stakeholder undertaking and everyone needs to work together to make it successful. When we discuss earthquake, we refer to CDMP and the three scenarios presented in the document. It outlines the nature of damage in terms of number of buildings collapsed, casualties and debris it will leave behind. Impact wise, if we experience 7.5 magnitude earth quake stemmed from the Madhupur fault then statistically the number of buildings collapsed will be 72,000. If we experience a quake of 8.0 magnitude stemmed from plate boundary two then 45,000 buildings will collapse and if a 6.0 magnitude earthquake stems from underneath Dhaka city, 38000 buildings will collapse. Potential damage of different scenarios of earthquake has been described in the ECP through four levels.

A number of experts conclude that the contingency plan is just a guideline. The hope is that this discussion will help prepare for the quakes and its aftermath. CDMP contingency plan is divided into three levels, national level, city level and agency level. The 64-page contingency plan has dedicated its third chapter outlining the required tasks by Dhaka City Corporation. The related documents to this plan are the Local Government Plan, RAJUK Approval Process, Disaster Management Act 2012, Disaster Management Policy 2015 and SOD. However, the problematic part is the interviews that were collected from organizations that work with this issue is purely qualitative. What's missing is a quantitative assessment of the situation. A scale was developed in an effort to quantify the method after probing into different areas of the plan. The interviews also inquired about the knowledge level of respondents, completeness, and appropriateness of the plan, man power and equipment of the organizations in implementing the plan.

The document also recommends how to form groups at the different stages of the disaster for example, formation of operation response group, developing of urgency services, urban crisis planning group, developing functional health group, health nutrition group, iteration services and how mass media communication should respond to the disaster, utility services, route planning etc. These major tasks will each have preparedness, response and recovery phase where the aforementioned groups will operate. The document minutely details these tasks.

The other organizations are not familiar with the process and stating that the completeness of the plan is in question. However, a unified conclusion reached by all parties concerned is that we don't have enough manpower to tackle such calamities. Even DCC doesn't have enough manpower to address this issue. In terms of equipment the preparedness level is

mediocre and the score is two. Training wise there's definitely room for improvement. But we're currently in the midst of training so there is hope. The government agencies partaking in the disaster management process has ensured that they are coordinating with other organizations. Organizations like REHAB and BIP has revealed that coordination can definitely be improved.

The overall score of preparedness is fifty five which translates to each organization scoring 20 to 25 on average. To summarize we're less than fifty percent prepared in all the tasks. The final observation is that emergency operation center that is mentioned in ECP should be available and ready 24/7. Experts agree that this center was built for unified DC but now there should be separate centers for Dhaka North and Dhaka South. All relevant organizations should have their own ECP. There is a disaster resilience committee in the local government and some groups are formed by other organizations and some voluntary organizations have been formed. It would be effective if these organizations can meet regularly for knowledge transfer and training sessions. All the stakeholders should pay attention to capacity building of manpower.

Tariq Bin Yousuf, Superintending Engineer, Environment, Climate Change & Disaster Management Circle, Dhaka North City Corporation/Project Head, Urban Resilience, World Bank



The name of the document might create confusion because when other agencies hear that its Dhaka City Corporation Contingency Plan, WASA and DPDC doesn't feel relevant. There's another contingency plan for Dhaka city which would've been more beneficial if it were reviewed. Regarding knowledge level of different organizations, other agencies are not cooperating since it's a DCC plan. In his experience interacting with different national and international NGOs working with disaster management, they're more active than government agencies. They're partnering with different agencies through MOUs.

However, earthquake disaster management is not yet a priority in terms of development perspective in Bangladesh. The Urban resilience project has four partners- Sylhet City Corporation, Fire Service and Civil Defense, DCCN and DCCS. There's another component of DDM and RAJUK. As part of preparedness and response all the zone offices have emergency warehouses. The first emergency operation center for earthquake will be established in DCCS. It is also a command and control center for fire service and civil defense. There will be one in Mirpur and the other one will be in Sylhet. One aspect of the plan is search and rescue and the other aspect is communication. VHF, UHF and UF and radio communication system is being procured. The process will be completed in the next three to four months.

Ministry of Disaster Management and Relief is creating urban volunteers. Capacity building will have to be addressed at organizational level. There should be a resource center in the Disaster Management Building. It will be called ERCC. There will be a national training center. At the field level, fire service and civil defense will provide the training in their own training centers. Local and international experts and consultants will provide these trainings. The training modules are constantly being improved. To work at the ward level ward councilors are being involved.

Kazi Hasiba Zahan, Urban Planner, Dhaka South City Corporation



The ECP for Dhaka city would be a better way to handle the issue instead of Dhaka City Corporation. The area of work needs to be identified depending on whether it's a metropolitan area.

Different areas will have different kinds of involvement and approach. Within the next

one year there will be an emergency operation center in Nagarbhawan. The city corporation have emergency response teams but other groups and teams can be improved.

Md. Mostak Hussain, Director, Humanitarian Sector, Save the Children



The eleventh goal of sustainable development goals is sustainable cities and urban spaces will have to be implemented. The guidelines available at the moment is scattered and not integrate. The dialogues and roundtables need to influence policies on a national level. The first attempt will have to be undertaken by the government, NGOs will have a supporting role in the process. The organizations need exchange information about their capacity, resources and gaps.

The document must include instructions for public that will be written in simple language so that they can receive help in the time of need. It is also imperative that the document details civil military coordination and elects an area where the coordination center will be situated.

Dr. Khurshid Zabin Hossain Taufique, Director, Urban Development Directorate



UDD works with all the urban areas outside of Dhaka to create a long term efficient usage of land. We're very happy to announce that Ministry of Disaster Management and relief has funded the project in coordination with CDMP which helped formulate disaster preparedness and response land usage guide in Mymensingh which is very close to Dauki fault. The possible magnitude of earthquake is 7.5 and its return period is 425 years. Almost half of the time has already passed. Based on scientific evidence, it's safe to say that Bangladesh will experience a major 7.5 or 8 magnitude earthquake in the next 150 years.

The contingency plan must have specific instructions on escape route, post disaster food supply, medical attention, disposal of dead bodies etc. We can use FEMA software to classify the buildings that are vulnerable. We have to continue retrofitting. Field medical attention is extremely important. We have to maintain the conduit lines and it has to be included in the map of the contingency plan. New buildings should be built to survive earthquakes. We can create red zones and provide the government with the information. We have listed one thousand buildings in Mymensingh and sent the information to the ministry of disaster management for review.

Lieutenant Colonel Raju Ahmed, PSC, AFWC, Joint Operation, Armed Forces Division



According to SOD, armed forces is expected to do an annual drill. Since 2010 armed forces division has been maintaining the drill successfully. Disaster Response Exercise & Exchange (DREE) has been continuing since last year in partnership with Ministry of disaster management. A total of forty five organizations participated in this drill and a total of 1900 people had a chance to get involved in DREE.

The challenge is that not all organizations are aware of their roles in terms of preparedness and response. To ensure successful implementation of the contingency plan all organizations involved needs to aware of the specifics of their roles. Disaster Response Emergency Communication System (DRECS) is underway through the armed forces. Last year a web portal was created in DREE and in the process a coordination is necessary with Bureau of Statistics to verify data. AFD also has a comprehensive web portal which can assist in retrieving crucial information. But there are still concerns about how data collected from surveys will be verified before

putting up on government websites.

Md. Ashraful Islam, Project Director, Detailed Area Plan (DAP), RAJUK



Narayanganj and Gazipur City Corporation must be included in the contingency plan as these areas are rapidly urbanizing. The industrial belt is in Narayanganj. When they give land clearance we notice a big physical boundary is missing. DCCS shares a boundary with Narayanganj. Contingency plan will be most beneficial if prepared for greater Dhaka.

Pre disaster action plans is more efficient in curtailing damage than post disaster management. RAJUK is basically approving all these architectural ruins. Engineers and Architects should supervise these building codes. BNBC should be vigilant about structural quality control and RAJUK should ensure making all buildings earthquake resilient. 90% of the 5000 cleared buildings are not following the safety code at the moment. RAJUK needs to mandate it as soon as possible. It can also be a separate authority. RAJUK can partner with the private sector to establish a monitoring system.

Engineer Ramiz Uddin Sarker, Executive Director, Dhaka Power Distribution Company Ltd.



ECP must consider how to protect the power lines and supply networks during and after an earthquake. It should detail the rescue plan for chemical explosions resulting from a natural disaster. DPDC does not have any preparation in protecting power supply systems at the moment.

Abu Sadeque, Director, Housing & Building Research Institute



ECP needs to be carried out in a participatory manner with contribution from all organizations. Strategic plan should be followed by action plan. All organizations involved should have their own contingency plan and must find a way to coordinate between themselves. National earthquake management plan will have two sections- risk reductions plan and response plan.

ECP must have a national umbrella plan which will include regional plans. Risk reduction should receive more importance to lessen the extent of damage.

Engineer Md. Kabir Ahmed Bhuiyan, President, The Institute of Engineers Bangladesh (IEB)



The work that has been happening in terms earthquake preparedness and response in Bangladesh is mostly theoretical. It's helpful in identifying the problems and finding solutions but we need to work on capacity building. Post disaster health management should be handled by Ministry of health. We should make a database of the equipments of all the concerned departments that can be used for disaster response. If any equipment is not operational we need to fix them.

Md. Shariful Islam, Superintending Engineer, DESCO



The utility agencies need to come together for ECP. DESCO has the logistics and manpower but lacks in training.

Brigadier General Ali Ahmed Khan, Director General, Bangladesh Fire Service & Civil Defense



Mitigation should be of utmost concern both structural and non-structural. Multiagency coordination is key in implementing ECP. Drills need to incorporate in all organizations involving every citizen in the country. Strategic planning needs to be translated into tactical plans. Roles need to be defined and transmitted at the field level. Once the action plan is tested on the ground, adjustments need to be made based on gaps and discrepancies.

The establishment of EOC (Emergency Operation Centre) is crucial in implementing contingency plan. The government should make it a policy to carry out a drill once a month for all organizations. Fire stations needs to be greater in number. Volunteer stations will help control the casualty in case fire service cannot reach the affected area on time. Old Dhaka can go through land adjustment plan which will significantly help risk management in terms of earthquake preparedness. Lastly, community training and volunteer training can save many lives during and after disaster.

Satya Brata Saha, Additional Secretary, Ministry of Disaster Management & Relief



ECP has guidelines on how to communicate with mass media in the face of earthquakes. Media will play a vital role in relaying information about disaster preparedness and response. Citizens should also be aware and do their part in terms of disaster preparedness and response.

Bangladeshi people can rely on each other during a crisis. However, there should be a strict dead body management guideline during rescue based on our previous experiences. To achieve the goals in disaster management, government and other agencies need to determine the number of resources for effective implementation ECP and likewise plans. Resource forecasting can aid the process.

National Emergency operation Center (NDMC) is currently being set up. National Disaster Management Council in a meeting reached a decision about forming a committee that will regularly discuss contingency plan during cabinet secretary meetings in coordination with CDMP.

Another important step is to institutionalize volunteer preparedness and response teams and put a structure to it. If Fire Service and Civil Defense operates under Ministry of Disaster Management and Relief it will yield better results in confronting calamities. If that is not an option then the government should initiate the process of creating a separate rescue force for earthquakes alone.

Planner A.K.M Abul Kalam, President, Bangladesh Institute of Planners



Space management is key in disaster risk reduction in both urban and rural areas. When extending cities and towns, the plan should always pay attention to adequate physical space for disaster

management. Any urban or rural development plan must include earthquake contingency plan by default. Institute of planners can open their workshops and knowledge transfer sessions to all other governmental and non-governmental organizations including the general public.