Emergency Management Exercise (EMEx) in Assam: Building Sub National Preparedness
Cities are complex urban systems which harness the synergies among individuals, infrastructure and institutions for achieving human welfare. However, during disasters and emergencies the coordination between these stakeholders in a city gets extremely strained.

The Indian state of Assam is highly prone to disaster and climate risks. A burgeoning population and haphazard planning further drive up the vulnerability of Assam’s cities to such risks.

This issue of Southasiadisasters.net focuses on the theme of Emergency Management Exercises (EMExes) in Assam. The Assam State Disaster Management Authority (ASDMA) recently organized a series of EMExes across several cities of Assam. The objective of such exercises was to bring together various actors such as state and regional emergency responders, educational institutions, hospitals, health care professionals, humanitarian agencies, government departments, non-government organisations, civil society organisations and professionals from emergency management-related fields - to assess the cities' disaster preparedness and resilience, acquire new skills for emergency management and mass casualty events, and to develop a multi-disciplinary, inter-stakeholder, coordinated response during emergencies.

This issue highlights the recently held EMExes from the various cities of Assam such as Guwahati, Nalbari, Lakhimpur, Dhemaji, Dhubri, Sibsagar, Darrang, and Sonitpur. Preparedness and coordination are crucial for an effective response to emergencies. Read on to know more on how these EMExes are helping in inculcating a culture of preparedness among the first responders to disasters in Assam's cities.

– Kshitij Gupta, AIDMI

Guwahati Emergency Management Exercise (GEMEx)

His Excellency Mr. Traun Gogoi, Honourable Chief Minister of Assam and Chairman of the Assam State Disaster Management Authority (ASDMA) addressing the jam-packed crowd of participants from 11 different training tracks during the inaugural ceremony of GEMEx 2015. His Excellency Mr. BhumiMaharjan Barman, Honourable Minister for Revenue and Disaster Management, Mr. V.K Pipersania, Honourable Chief Secretary, Government of Assam and other dignified guests paying attention to CM’s inaugural address. The All India Disaster Mitigation Institute (AIDMI) being partner of GEMEx 2015 and also a facilitator of ‘School Disaster Preparedness’ track, joined the initiative to build the city disaster preparedness and also measure the impact from GEMEx 2012 to GEMEx 2015.

– Mihir R. Bhatt, AIDMI

Preface

I am happy that the All India Disaster Mitigation Institute (AIDMI) has dedicated an issue on the Emergency Management Exercise (EMEx) in Assam. National Disaster Management Authority (NDMA) has been closely associated with various initiatives of Assam State Disaster Management Authority (ASDMA), particularly focussed on Disaster Risk Reduction (DRR) and Mitigation. It is heartening to see that since 2012, the ASDMA has graduated on to conduct of EMExes at District level. Considering the vulnerability of Assam to multi-hazards, these exercises have enabled greater awareness of the community and enhanced capacity of agencies and various forces responsible for response.

While attending the GEMEx 2015, I was happy to see the zeal and enthusiasm of the people, particularly the youth. Table Top Exercise conducted as part of GEMEx validated the Incident Response System (IRS) which has been adopted by the ASDMA. Collaborative support extended by AIDMI to ASDMA and all DMDAs to conduct Table Top and EMExes in various districts has indeed enhanced DRR and mitigation capacity of all stakeholders. I am sanguine that such initiatives will contribute towards making Assam disaster resilient.

– Lt Gen NC Marwah, PVSM, AVSM (Retd) Member, National Disaster Management Authority, New Delhi

February 14, 2015
Journey from 2012 to 2015: A Sincere Effort in Improving Preparedness for Emergency Response

The recent misery visited to the residents of Chennai by unprecedented flooding highlights the fragility of India’s urban centres to the vagaries of nature. Ailed by haphazard urban planning, rampant encroachment of ecosystems for construction purposes and an unbridled increase in population, India’s cities have been rendered extremely vulnerable to climate and disaster risks. Climate change has enhanced this vulnerability even further.

Sustainable urban development echoes in the agenda of all the major humanitarian commitments finalized in 2015. These include the Sendai Framework for Disaster Risk Reduction (SFDRR), Sustainable Development Goals (SDGs) and now the recently agreed global climate actions during the Conference of Parties 21 (COP21). However, the commitments in these global frameworks can only be achieved through local actions. This is because disasters are local and the result of such global initiatives must translate into improved resilience at local levels.

Building urban resilience at the local level is a broad policy objective which can neither be achieved nor gauged through isolated initiatives. There is an inherent need for overarching initiatives that enhance preparedness and improve local emergency response in India’s cities.

Emergency Management Exercises have been one such tool which contributed in increasing the levels of preparedness for effective emergency response. EMExes were developed to promote awareness of urban disaster risks and to examine, test, evaluate, and assess a city’s emergency/disaster response capabilities. It was hoped that this would allow the system’s strengths and weaknesses as well as the areas which need additional capacity-building to be identified, ultimately leading to the overall improvement in managing disasters and emergencies. It was also hoped that bringing together the various key agencies involved in emergency management would enable them to network, coordinate and work more effectively.

EMExes are the latest installment in a series of successful emergency management exercises.

"Disasters have become really uncertain the way climate change is affecting their frequency and intensity. I believe this Emergency Management Exercise is the need of the hour to keep our system prepared for any uncertain catastrophe. Guwahati has grown to become the giant urban centre for the North-East. However, being in seismic zone V, our development is always at risk and we must keep ourselves prepared to face any eventuality in future."

– His Excellency Mr. Tarun Gogoi, Honorable Chief Minister, Government of Assam, during the Inaugural Ceremony of GEMEx, 2015
training initiatives devised by the United Nations Disaster Management Team in conjunction with the National Knowledge Commission of India, the University of Mumbai, the All India Disaster Mitigation Institute, and the Harvard Humanitarian Initiative. These were: training in disasters and mock drills for the Ahmedabad Civil Hospital (2007), a conference in emergency medicine (2007), organized jointly with the New York-Presbyterian Hospital and Hinduja Hospital), and Project Mumbai Voices (an on-going project organised since 2006 to collect the voices of survivors from terrorism incidents in Mumbai). EMEXes as city wide exercises were conducted in some of the most disaster prone cities Mumbai (2008, 2010), Chennai (2011), Delhi (2012), Guwahati (2012) etc.

**Localizing EMEXes – The Assam Context**

Guwahati, the capital of North-eastern state of Assam in India has witnessed its first Emergency Management Exercise in 2012 and since then the State localized this exercise as its DRR strategy. The impact of this citywide exercise was so powerful that it appealed to the policy makers and political leadership of the state as the need of the hour for the state and resulted in a series of EMEXes in various cities and towns of the State. The GEMEx, 2012 was a large success in terms of collective action, participation, and creation of learning opportunities. Inspired and energized by active and decisive response during the GEMEx, 2012, it was decided that such exercises should be conducted repeatedly in the city and commitments were made to re-organize such an event in near future. Moving further down scaling the modalities, the state also took further interest in covering up other major cities and district headquarter towns in a phased manner. Thus, from November 2012 till December 2015, the Assam State Disaster Management Authority successfully organized several EMEXes in cities and towns including Jorhat (2013), Silchar (2013), Dibrugarh (2014), Nagaon (2014), Barpeta (2015) and Bongaigaon (2015).

The second such exercise in the city of Guwahati was organized recently from 14th to 18th December 2015 to keep this movement of urban risk reduction alive. This was an event locally organized and nationally facilitated involving faculties from different expert institutions. This five day long exercise covered eleven parallel training tracks on themes like school disaster preparedness, search and rescue, hospital emergency preparedness for doctors, emergency management planning for hospital administrators, emergency nursing care, public health in emergencies, industrial and chemical disaster preparedness, minimum initial services package, coordination of response for senior government officials, orientation training for engineers on earthquake safety and community based disaster management. These tracks covered more than 800 participants from different institutions covering engineers, doctors, police, SDRF, Fire and Emergency Services, educational institutions, community leaders, humanitarian agencies and government officials.

This was again a unique opportunity for the city to test its state of preparedness and to fill up the gaps identified during previous EMEx in 2012. This exercise provided yet another opportunity for the emergency responders, hospitals and administration to improve coordination of response for minimizing losses during any disaster. This exercise has resulted in identifying areas of improvement for effective preparedness and profound response to any city level catastrophe.

– AIDMI Team

"I must congratulate Assam for being a leader in organizing EMExes in India. I have asked other states of the North-East to join GEMEx, 2015 to learn how these events are organized by Assam State Disaster Management Authority and to replicate the same in their own states."

– Lt. General N. C Marwah, Honorable Member, National Disaster Management Authority, during the inauguration of Field Drill of GEMEx, 2015

"I am thankful to Assam State Disaster Management Authority for successfully organizing this mega event. We must acknowledge that Guwahatis’ development is haphazard and is vulnerable to disasters like earthquake, landslides, floods, storms etc. We must find out whether our buildings can survive earthquakes, whether our roads will allow rescue vehicles, ambulances, etc. to move after any disaster. This is a real worry and this exercise is the best way forward to test our existing preparedness and gaps for being able to meet any catastrophe in future."

– His Excellency Dr. Bhumidhar Barman, Honorable Minister for Revenue and Disaster Management, Government of Assam, during inauguration of field drill of GEMEx, 2015
CHILDREN AND DISASTERS

Child Centered DRR–The Thematic Focus in GEMEx 2015

A couple of themes were given special attention during the recently concluded Guwahati Emergency Management Exercise (GEMEx). Just like in its previous version in 2012, children were included as key stakeholders in GEMEx 2015 as well. AIDMI, which leverages the experience and commitment to uphold the rights of children to a safe life was again invited by GEMEx organizers to facilitate the school disaster preparedness training track.

The school disaster preparedness track was re-designed in this EMEx to three days course where teachers were participants for the first two days and children were involved during the last day of the training. This was a unique opportunity for the teachers and students to explore the domain of school safety with special emphasis upon emergency response. AIDMI used its decade long expertise in structuring the module for GEMEx 2015 which has lessons and reflections from previous EMExes particularly from those held in Guwahati.

Around 80 teachers from different schools of Guwahati along with representatives from the department of education were taken through participatory and activity based journey of technical sessions which included concepts and background buildings; conduct of participatory hazard, vulnerability and capacity assessment of Don Bosco school (the training venue); school disaster management planning process; success stories from model SDMP implementation in schools of Guwahati; conduct of mock drills; fire safety protocols (by State Fire Service Organization) etc. The sessions were targeted to yield high relevance to the context of the EMEx and the role of educational institutions, teachers and department for ensuring effective disaster response through preparedness.

It was emphasized that the participants recognize and understand their roles in a city level catastrophe in ensuring safety of school children, coordination with responding agencies, the DEOC etc. Participants were also shown successful stories of prepared response resulting in reduction of loss of lives using audio-visuals. Participants were also active in sharing experiences and responding to queries raised in the mid of sessions.

Involvement of children brought another insight into the training on the third day. A house filled with more than 50 children from across different schools representing different age group and levels of understanding, was unique in itself for an important event. They were also given basic conceptual understanding and background, were involved in working out hazard, vulnerability and capacities of the Don Bosco School and were also given orientation on conduct of mock drills. What made the children more lively and involved was the conduct of mock drill practical. This was unique since the children not only learnt some basic skills and knowledge but also used it in practice.
to get hands on experience. Children were able to visualize and respond to catastrophic event through the mock drills.

The overall training was perceived successful both on the part of facilitators and participants. Feedback for the track as summarized based on participants and facilitators' responses include the following:

1. **Strengths of the training track:**
   a. All the topics discussed are very important for school.
   b. Experts are excellent
   c. Audio visual aid and presentations were objective and appealing as well as very much relevant to the theme

2. **Areas of Improvement:**
   a. Require more practice with teachers as hands on will improve skills
   b. Quality of food should be improved

3. **Recommendation for future EMExes:**
   a. More training should be provided for teachers capacity building and the support should be continuous and not limited to only one event
   b. Time of the training should be increased both for teachers and students
   c. Practical sessions should be more for teachers

   Involvement of children would be key in any such future event.

Children are no doubt among the most vulnerable if disasters are looked at, however, their involvement in preparedness will significantly contribute to minimizing risks to disasters. This initiative sets an example of child centered DRR gradually getting mainstreamed through concerted efforts of the authorities. AIDMI through facilitating the three days training track re-affirmed its commitment to uphold child's right to safety and involving children as agents of resilience building. In future events, AIDMI will emphasize on balancing time between theory and practices and should also work out an overall increase in duration for both teachers and students.

~ AIDMI Team

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**Urban Resilience**

**Scaling Down the Idea of EMExs in Districts of Assam—the Approach of ASDMA**

Emergency Management Exercises (EMEx) are a week-long series of trainings and workshops that are designed to explore and strengthen the emergency response systems in India’s disaster-prone cities. It brings together a variety of actors in disaster and emergency management – State and regional emergency responders, educational institutions, hospitals, health care professionals, humanitarian agencies, government departments, non-government organisations, civil society organisations and professionals from emergency management-related fields – to assess the cities’ disaster preparedness and resilience, acquire new skills for emergency management and mass casualty events, and to develop a multidisciplinary, inter-stakeholder, coordinated response during emergencies. The state of Assam being a multi-hazard state and all the 27 districts are vulnerable either to earthquake, flood, erosion, landslides, urban flood and storms besides various manmade disasters. Entire Northeast region falls under seismic zone V making the entire state prone to earthquake of moderate to very high intensity. Assam has a history of disasters ranging from large earthquakes to severe floods. This has impeded the development gains of the state by many times. Moreover, majority of the population of the state is vulnerable to perennial floods & landslides every year during monsoon season. This calls for the need of conduct of such EMExs so as to respond effectively in any type of eventuality and to minimize the losses.

Since 2008 EMExs have been held in Mumbai (2008, 2010), Chennai (2011), Delhi (July 2012) and Guwahati (October-November, 2012). The Guwahati Emergency Management Exercise was organized in collaboration with NDMA – Govt. of India, UNICEF and number of leading humanitarian institutions and international faculties. GEMEx 2012 involved approx 1500 persons from various responding agencies, district administrations and faculties of 15 training tracks. This was acclaimed to be the first ever mega-exercise of this type conducted in North-East India after Mumbai and Chennai EMEx. Looking at the ability of the EMExs in building strength and capabilities for emergency response during disaster & emergency situations, there was a felt need of spreading out effective disaster preparedness to other major urban localities & towns of the state. In this view, Hon’ble Chief Minister and Chairperson, State Disaster Management Authority (SDMA) directed ASDMA to carry out similar
exercises in all the major towns of Assam. Therefore, as a follow up action of Guwahati EMEx 2012, ASDMA conducted EMEx in Jorhat (April 2013), Silchar (November 2013), Dibrugarh (February 2014), Nagaon (September 2015) and Barpeta (February 2015). In December 2015, EMEx has been repeated in Guwahati city in order to test the gaps that were identified on the first Guwahati EMEx in 2012. Other than GEMEx 2012, all other EMExs were conducted with the help of the Regional & National level resources with the support of agencies and institutions like NDMA, Doctors for You, AIDMI, Academy of Trauma etc.

Though there are several reasons stated by various agencies for conduct of EMEx, but U.S. Department of Education cited seven most comprehensive purpose for conduct of EMEx viz. i) Clarify the roles and responsibilities among various agencies, ii) Evaluate plans and procedures to be followed by the responding agencies, iii) Development of effective agency relationships and coordination, iv) Assess resources and capabilities, v) Promote school and community preparedness, vi) Comply with State legislations and last but the most important vii) Identify gaps, needs and solutions during emergency like situations.

Community participation has been recognized as the necessary element in disaster management (Lodhi & Mazumdar, 2009) as communities are the first responders in any kind of emergency and community based approach for disaster management can act as a key element to envisage better management strategies (Victoria, 2002). Recognizing the importance of involvement of more grass root level officials of district administration and other district level institutions, in 2015 ASDMA has further downscale the Emergency Management Exercises (EMExs) in 10 selected districts of the state viz. Bongaigaon, Nalbari, Lakhimpur, Dhemaji, Tinsukia, Sivasagar, Sonitpur, Darrang, Dhubri and Karimganj. The initial four districts has already completed EMEx till first half of January 2016 and remaining will complete that by the end of February 2016.

In this 10 district level EMEx, eight training tracks were introduced to the participants’ e.g. i) Hospitals Preparedness & Emergency Management (2 day), ii) Mass Casualty Handling for Nurses & Paramedics (2 day), iii) Search and Rescue (3 day), iv) School Disaster Preparedness (2 day), v) Water & Sanitation (1 day), vi) Rescue Operation for Cattle & Carcass Disposal (1 day), vii) Managing Relief Operations & Communication during emergency (1 day), and viii) Safe Buildings (1 day). It is important to note that in these district level EMExs, the resource support was mostly from the state level resource persons of various organizations and institutions. The state of Assam has adopted the Incident Response System (IRS) in the month of May 2014 as the code for responding to any disaster in state and district level. Therefore, since Nagaon EMEx (September 2014) the response during field drill were practiced based on the IRS principle and so will be done in the remaining district level EMExs.

It is important to note that during any type & scale of disaster or emergency, local community and grass root level functionaries are the first responders, therefore their involvement in some components of EMExs are crucial. Therefore, downscaling the EMExs to the district level facilitate in mitigating those gaps. It will also help district administration and District Disaster Management Authorities (DDMAs) to develop new skills for emergency management and handling mass casualty events in more effective manner. It will also fine tune the approach of DDMAs to work together to develop a multi-disciplinary coordinated response during localized disasters and emergencies.

- Kripalijyoti Mazumdar,
  Project Officer, Assam State Disaster Management Authority (ASDMA), Assam Secretariat, Dispur, Assam

References:
HOSPITALS AND PREPAREDNESS

GEMEx, 2015: Learning Emergency Ways of Working of the Public Health Work Force

The main objective of sustainable public health system is to promote and maintain a healthier population even under the constraints of an emergency situation. But maintaining public health in emergencies is very critical as disasters can have both direct and indirect impact on the health care services of a community. First, apart from mass casualties, disasters can damage the structural aspect of the health system (infrastructure, resources) creating barriers of access to health services. Second, post disaster situations can lead to severe a threat to public health of the displaced population as the consequences of the breakdown of health facilities, water supplies and sanitation systems.

The role of the public health workers during the immediate phase of an emergency is limited yet crucial. Timely, well planned and well-coordinated public health interventions are decisive in reducing mortality, morbidity and disability and to restore the delivery of, and equitable access to, preventive and curative health care as quickly as possible and in a sustainable manner. With better preparedness and planning, the severity of disasters on public health can be reduced. Immediate access to guidance and information on public health in emergencies is essential for the public health workforce in rapidly establishing priorities of undertaking necessary actions during the response to an emergency or disaster.

Capacity building and disaster preparedness trainings pertaining to the issues of public health in emergencies will build the capacity of the health care providers and will instill a heightened insight into the preparedness and response phase of any disaster. As part of the disaster preparedness and capacity building process the District Disaster Management Authority in association with Assam State Disaster Management Authority (ASDMA), organises a district level 5 days Emergency Management Exercise (EMEx) to test the real time inter agency communication and coordination with all agencies, departments and stakeholders. In December 2015, the city of Guwahati hosted EMEx for the second time with trainings in 8 different tracks.

Public Health in Emergencies (PHiE) was one of the most important tracks in GEMEx 2015. The training of PHiE track was conducted by Doctors For You. The training was scheduled for two days and it covered some of the most crucial aspects and issues of public health arising during emergencies, i.e. Rapid need assessment, emergency ways of working, managing reproductive child health services during emergencies; Minimum Initial Service Package (MISP), outbreak investigation and management, and measles and routine immunization during emergencies. The training objective was to provide orientation and sensitization to practical aspects of preventing and controlling outbreaks in emergency situations. Topics like public health promotions during emergencies, water, sanitation and hygiene and addressing the needs of the vulnerable groups provided valuable insights to the participants for the table top stimulation exercise.

GEMEx 2015, accumulated a wide range of participants in PHiE track i.e. the Public Health Engineering Department (PHED), NGO's working in the field of public health, Social welfare department and students. However absence of participants from the health departments i.e. ANM/GNM, ASHA, Vaccinators, Pharmacists, health educators; MPW's and Nurses from government medical hospitals and health centres was one profound gap that was witnessed in the exercise.

One major achievement of GEMEx 2015 was to Leverage local resources in organising and implementing various phases of five days exercise including trainings, facilitation of the table top exercise and mock drill. The utilisation of local resources not only proved to be sustainable and cost effective but it also provided a platform for the participant to build coordination with other departments and clarified the roles and responsibilities of the concerned departments involved in response in emergencies.

GEMEx provided an opportunity for the participants of public health track to accomplish extensive theoretical and practical orientation on public health issues. The exercise also served as an excellent platform for the significant stakeholders of public health workforce to apprehend and experience the emergency ways of working in a strategically well-coordinated approach and encouraged community participation of the public health workers in disaster risk reduction strategies.

– Sunny Buragohain and Barnali Singha, Program Coordinator, Doctors for You NERO Office, Guwahati
CASE STUDY

Redefining Ownership–School Based Disaster Risk Reduction a Reality in Axom Jatiya Vidyalay

Time has seen enormous evolutions. New ideas came and ensured their established regime through reality tests. However, wonders are always clickable and delightful for the readers. Again, at times certain ideas when are delayed results tend to lose their attention in the timeline. There are many such ideas and concepts in the realm of disaster risk reduction which have faced this challenge and came strong. In the light of the above let us review the following story.

Axom Jatiya Bidyalay, a vernacular medium school in periphery of Guwahati city in the state of Assam has a story that can inspire thousand such schools in India and beyond. School based disaster risk reduction was accepted for the first time by the school in the year 2013 when it was selected as a part of a pilot project by Assam State Disaster Management Authority to plan and implement school based disaster risk reduction initiatives. The project was implemented by AIDMI on behalf of ASDMA in the year 2013-14. The School conducted its risk assessment for the first time in 2013 and was supported to prepare a comprehensive school disaster management plan based on the risk assessment conducted. The school was also supported with initial capacity building of teams formed as part of the plan. The identified non-structural mitigation measures were also implemented by the school which included fixation of vulnerable assets, evacuation planning, clearing of evacuation routes, conduct of evacuation drills etc. The activities were also thoroughly documented.

The above is a statement of background how the school was inducted with the concept of school based DRR. Till the project period the actions of the school were guided and supported. However, it has been almost two years since the project was over. The real validity of the idea of piloting school based DRR came to be witnessed when AIDMI revisited the school to see the present status in January, 2016. The process of school safety initiated by project partners now is a school mandate. The school management lead by the school president had initiated a host of steps since the project completed. Any new visitor the moment s/he enters the school can see the visible steps taken by the school management. Now, each floor of the multi-storied building has visible evacuation map and routes in place. Emergency telephone numbers (police, fire brigade, hospitals) are displayed in the entrance and opposite to the Principal’s room. Recently, the school management has connected the entire building with fire fighting infrastructure like water hose pipe particularly at vulnerable places like the kitchen, printing press etc. The school already had fixed the vulnerable tools and assets which could have been devastating during the earthquakes. These fixed assets and tools recently successfully passed two tests during the Gorkha earthquake (25th April, 2015) and Manipur earthquake (1st January, 2016).
CASE STUDY

When Disaster Reduction Became a Reality—the Story to Share

Evidence is always useful when it is brought to the lime light. The Disaster Risk Reduction community always had spoken about the reduction of vulnerabilities which are difficult to be eliminated. This story depicts how school disaster risk reduction has shown its impact. Ayya Vidyapith Higher Secondary School. It was a school which lies in low lying area suffering from frequent water logging in summers. As an old provincialized school of the town, the school has an old building. Being part of the ASDMA and AIDMI joint pilot on school based DRR, the school implemented certain measures addressing its vulnerabilities. One such measure was addressing the exposure of the school infrastructure to fire hazard. Thus, school placed certain numbers of fire extinguishers at identified vulnerable locations in the school which were identified during the school safety audit and school risk assessment process. The placing of extinguishers was followed by demonstrations to teachers and students along with other non-structural measures that were taken in the school.

In February, 2015, during the time when school was operational, an electrical short-circuit gave rise to a fire incident which was noticed immediately. As per the emergency response plan of the school, the classes were immediately evacuated and the responsible team members effectively used the fire extinguisher placed near the place of Incident which avoided a big tragedy and loss. The students who frequently practices evacuation drills were also active and disciplined in the evacuation process. Thus, this pro-active and time bound response of the school avoided a big disaster from happening.

The AJB provides a real example of how the idea of school based disaster risk reduction can be owned by a school while maintaining balance between academic excellence and safety of children. This school is offering a safer environment not only for the children to study in but also to contribute at their respective peripheries be it in their homes, neighborhood and communities. Though, this is not the end and still many more to come, every action in planned manner is enhancing children’s safety and providing the school with new scope for learning and development.

– Anand Prokash Kanoo, AIDMI

The school has internalized the idea of planning as its core committee on disaster management meets on regular interval and takes crucial decisions related to safety. It was by virtue of this seriousness that considerable investment has been made from the school development fund to improve safety aspects. The school has also established a state of the art early warning communication system under which speakers are placed in each floor at multiple locations. Crowd management has received central attention in the school since they conducted their first evacuation drill in January, 2014. Since then, the school regularly practices regular mock-drills. The school library is equipped with knowledge products on do’s and don’ts for different disasters and the children are guided and motivated to read those books. On the whole, an atmosphere has been created where safety and preparedness are of central value in the school. The school has potentially become a model for others to follow and the biggest difference is that the school management has owned the process and are Implementing planned actions. Since the school has its own publication and text book division, efforts are on for including DRR at different stages of the school curriculum.

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– Anand Prokash Kanoo, AIDMI
Assam, the north-eastern state of India has really mastered the art of taking disaster risk reduction as a policy priority in the State. After successfully completing the Guwahati Emergency Management Exercise from 14th to 18th December, 2015 which was the eighth in a row in last three years, the state moved rapidly to initiate the ninth emergency management exercise in yet another district headquarter town. The Nalbari Emergency Management Exercise (NalEMEx) was organized from 19th to 23rd December by District Disaster Management Authority (DDMA) of Nalbari in association with Assam State Disaster Management Authority. The AIDMI was invited as a technical resource agency to support the conduct of the EMEx.

This five day long EMEx was more localized and district centric where greater impetus was given to the established Incident Command System (ICS) of the district. It had eight parallel training tracks divided across themes namely; School Disaster Preparedness; Emergency Nursing Care and Comprehensive Trauma Life Support for Nurses and Paramedics; Hospital Emergency Management for Doctors; Coordination of Relief for government officers and community organizations like VLMCC; Training on Safe building Construction; Training on livestock management during disasters and carcass disposal; Training on Search and Rescue for Police, SDRF, SFSO etc. and Training on Water, Sanitation and Hygiene (WASH) for Public Health functionaries. These training tracks were carried out at different venues from 19th to 21st December. A Table top simulation was organized on 22nd followed by field drill and hot-wash on 23rd December, 2015.

AIDMI’s Role in Nalbari Emergency Management Exercise, 2015
AIDMI had established its distinct reputation in India as co-organizer of emergency management exercises. AIDMI had been one of co-founders for initial EMExes in India and had since then grown as a leading technical agency to support such exercises. The DDMA, Nalbari invited AIDMI to provide technical support in facilitation of the School Disaster Preparedness track in particular and overall exercise in general. Having a commitment to advocate for child centered DRR, AIDMI strived to the optimum extent possible in making the NalEMEx child centric. The training focused on building conceptual knowledge, planning skills, real time response experience through mock drills. It was indeed a joint learning experience. The distinct features of the training were as follows:

1. Presence of Inspector of School, Sub-Inspectors of school and District Project Officers of RMSA and SSA of Nalbari throughout the training course. The participation of such decision makers, administrators, monitors and evaluators enabled practical discussion on issues related to coordination and preparedness. This provided a greater platform for advocating child centered DRR at local level involving local decision makers and planners.

2. The teachers were attentive throughout the training duration which enabled pledges to initiate child centered DRR initiatives in schools. Each participating teacher had given one commitment on initial actions
that will be taken in his/her capacity after the training for promoting children's safety in school and for preparing the school for effective emergency response.

3. The teachers had shown active interest in audio-visuals used during the training which were later shared with them for use in classroom teaching learning process. The teachers were also provided reference materials developed by AIDMI in Assamese (local) language. Overall the interest and association with the topic was seen among the teachers.

**AIDMI as Observer in NalEMEx**

Beyond facilitating the training on school disaster preparedness, AIDMI also supported the conduct of Table top and field drill. AIDMI was requested by the DDMA to act as observer in the accident site created for the field drill. The observations made by AIDMI as observer include the following:

**Successful accomplishments in responding to the accident:**
- Reaction to the action was very smooth, timely and carried out sincerely
- Rescue team was active and handled the situation well
- Medical team also responded strongly
- Time gap was minimal for the rescue operations to begin
- Almost a real like situation was created and public were made to take the incident seriously
- Management of traffic post-accident was good and smooth
- Triage area was created along with rescue operations

**Major observations related to areas of improvement:**
- Response of Police was limited to smoothening of traffic. There was a lack of effective crowd management on site, resulting in difficulty in rescue and triage. It was recommended that Police should see cordonning off the accident site as a priority to enable smooth rescue operations.
- Triage confusion was visible. First patient taken to the ambulance was without triage. More practice at hospital level was recommended so as to improve field triage for effective management mass casualty.
- The road was not cleared till 11.33 am even after 18 minutes of the incident. The Police must keep time as a factor and should enlist site specific priorities to fast track normalcy
- The Paramedics didn’t keep record of triage at the initial stage. Documentation is also essential for mass casualty events
- Coordination gap was visible between the Police and rescue forces. The two forces must work in close coordination and should understand and cooperate with each as per SoPs.

Overall, the exercise was successful in highlighting many important areas for district to work and improve upon. The participation from all segments was energetic and regular which motivated the experts also to

**Time Sequencing of Response Actions**

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<td></td>
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<tr>
<td>Police arrives on site</td>
<td>11.17 am</td>
<td>5 minutes</td>
</tr>
<tr>
<td>NDRF arrives on site</td>
<td>11.16 am</td>
<td>4 minutes</td>
</tr>
<tr>
<td>1st two Ambulances arrive on site</td>
<td>11.16 am</td>
<td>4 minutes</td>
</tr>
<tr>
<td>1st two Ambulances leave for hospital</td>
<td>11.24 am</td>
<td>12 minutes</td>
</tr>
<tr>
<td>3rd Ambulance arrives</td>
<td>11.37 am</td>
<td>25 minutes</td>
</tr>
<tr>
<td>3rd Ambulance leaves for hospital</td>
<td>11.40 am</td>
<td>28 minutes</td>
</tr>
<tr>
<td>4th Ambulance arrives on site</td>
<td>11.41 am</td>
<td>29 minutes</td>
</tr>
<tr>
<td>4th Ambulance leaves for hospital</td>
<td>11.43 am</td>
<td>31 minutes</td>
</tr>
<tr>
<td>5th Ambulance arrives on Scene</td>
<td>11.43 am</td>
<td>31 minutes</td>
</tr>
<tr>
<td>5th Ambulance leaves for hospital</td>
<td>11.45 am</td>
<td>33 minutes</td>
</tr>
<tr>
<td>6th Ambulance arrives on site</td>
<td>11.49 am</td>
<td>37 minutes</td>
</tr>
<tr>
<td>6th Ambulance leaves for Hospital</td>
<td>11.51 am</td>
<td>39 minutes</td>
</tr>
<tr>
<td>Rescue completed</td>
<td>11.53 am</td>
<td>41 minutes</td>
</tr>
</tbody>
</table>

**Accident site where a goods carrier truck collided with a public career van.**
work hard. The DDMA will have to capitalize the learning and should work to integrate and improve its operation on recommended areas. Assam is ready to host another eight EMExes in the coming few months in different districts and AIDMI is committed to extend all possible support in this endeavor of making Assam prepared and its children safe.

— AIDMI Team

**POEM**

**Disasters**

Disaster! Disaster! Disaster! 
You are never welcomed!
Because you are terribly dangerous 
You spare none! 
You know none 
You have no kith and kin
You have no relatives.

No bigger, no ferocious animal can challenge you
But it is strange that some animals can sense you!
A dog in Galle refused to take morning walk,
Moreover report about few animals’ casualty comes to view 
Oh you disasters!

Any form of you- we welcome none of you 
We, the trained teachers shall make our efforts 
We will reduce risks to our children's lives and others, 
But, we never expect you, Oh you terrible disaster!

— Md. Rafiqul Islam, Subject Teacher (English), Govt. Gurdon HS School, Nalbari

**Background**

Lakhimpur is a multi-hazard prone district in the state of Assam. It is exposed to the risks of floods, heavy storms, earthquakes, fire accidents, food poisoning, boat capsizing besides bomb blasts. It falls under seismic zone V making the entire district very much prone to earthquakes of moderate to very high intensity. Apart from this hazard the district also faces acute floods every year. The district has a history of disasters ranging from severe floods to bomb blasts which have been a major impediment to the economic development of the state.

Thus, to sustain the pace of development by minimizing the losses from disasters, the District Disaster Management Authority (DDMA) had organized the Lakhimpur Emergency Management Exercise (LEMEx) to identify the potentialities and the gaps of the district while performing against any emergency situation. This exercise not only tested the potential of the district hospitals and doctors, but also provided them training on how to tend to the sick and wounded during disasters and emergencies.

**About the Lakhimpur Emergency Management Exercise**

The Lakhimpur Management Exercise which was held from 2nd January to 6th, 2016 January was a five day long exercise. The first three days were kept for 8 training track viz. Safe Building, Hospital Emergency Management for Doctors, Search and Rescue, School Disaster Preparedness, Water and Sanitation, Rescue operation for cattle, Managing relief operation and mass casualties. The fourth day was kept for table top exercise and the fifth day was kept for field drill followed by 'hot wash' and a valedictory session.

**Objectives of the LEMEx**

1. To harness the strength and capabilities of district level emergency responders such as educational institutions, hospitals, wings of civil administration as they prepare to meet a major catastrophe in the district.
2. To examine the level of preparedness of the responding
agencies, institutions and hospitals to tackle with an emergency situation in the district and identify the existing gaps along with the needed improvement.

3. To test in real-time the inter agency communication and coordination especially the Incident Command Structure, its various agencies and citizen groups

4. To push the hospital response system through the drill to identify and prioritize care during any disaster to maximize the savings of life and limb, under duress.

Training Tracks in Lakhimpur Emergency Management Exercise

A total of eight training tracks were carried out in LEMEx with support from various subject experts from specific fields. All the tracks were facilitated by both national and local institutions. These tracks were conducted in different venues within the district. Out of which the All India Disaster Mitigation Institute (AIDMI) facilitated the school disaster preparedness track. A total of 378 participants participated in these trainings. Track-wise numbers of participants are given in the table-1.

Table Top Exercise

The table top exercise on the fourth day was organized in Lakhimpur indoor stadium where the table top simulation was facilitated by Mr. Kripal Jyoti Mazumdar, project office, ASDMA. All the participants of each of the track were made to sit together in a circular manner according to the training track. There were total two scenarios presented where participants from eight tracks shared their response against the scenario.

Field Drill

This field exercise was designed to test the response procedure and incident command system. This field drill was organized at two sites, one at the PNGB School and another one at the district library. Firstly, a major earthquake scenario was simulated at the district library followed by fire simulation at the PNGB School of Lakhimpur town at 11.21 am. During the course of this simulation, 21 injured people were rescued from PNGB School site by NDRF, SDRF and were sent to two of the pre-identified hospitals. The responses in their totality were observed by observers placed at specific locations.

Hot-wash and Valedictory

The final part of the LEMEx was the hot-wash event which was organized at District library. The observers from incident site, ICP and Hospitals shared their observations. Few comments of observers regarding the field drill were cited below:

"Firstly I congratulate to DDMA for smoothly and successfully conducted the mega drill at Lakhimpur district. Areas were well selected for staging area. There was lack of coordination among the ambulances. Ambulances were rushed to the incident point without receiving any information from staging area. They were a bit confused where to go and where not".

- Mr. Basant Kumar,
NDRF Observer at Staging area

"I found gaps in coordination in the first phase and also there was lack of coordination among the response team and medical team. There was lack of crowd management. I also observed that initially yellow and green tagged patients were sent to hospitals prior to red tagged patients but apart from this paramedics had maintained well documentations of patients. At last I would like to congratulate all to participate of this drill".

- Sunny Buragohain,
Observer at District Library

In the valedictory session, participants were handed over a certificate of participation and DDMA expressed its gratitude towards all of them.

Conclusion

Overall it was an excellent initiative taken by the DDMA to create awareness among the people about DRR and resilience building. Such kind of exercises played a critical role in identifying our lacunas in the context of disaster, which will help in improving situation and recovering the gaps to deal with emergencies. But the DDMA alone will not be able to protect the district from any kind of emergency situation, it is also the responsibility of all the departments to tackle the situation together in order to fight back with any kind of disastrous situation. Better response will depend upon the follow up actions to fill the gaps identified at the end of the mega exercise.

- Sonali Das, AIDMI

<table>
<thead>
<tr>
<th>Track</th>
<th>Number of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safe Building</td>
<td>29</td>
</tr>
<tr>
<td>Hospital Preparedness</td>
<td>24</td>
</tr>
<tr>
<td>Search and Rescue</td>
<td>93</td>
</tr>
<tr>
<td>School Disaster Preparedness</td>
<td>62</td>
</tr>
<tr>
<td>Water and Sanitation</td>
<td>74</td>
</tr>
<tr>
<td>Rescue operation for cattle</td>
<td>46</td>
</tr>
<tr>
<td>Managing relief operation</td>
<td>60</td>
</tr>
<tr>
<td>Mass Casualties</td>
<td>83</td>
</tr>
</tbody>
</table>

"Children presenting the findings of joint HVCA exercise during the training at Inspector of school, Conference Hall at Lakhimpur district."
Dhemaji Emergency Management Exercise (DEMEx), 2016

Background
A weeklong preparedness and emergency management exercise, "Dhemaji Emergency Management Exercise (DhEMEx)" was held in Dhemaji between January 8th to January 12th, 2016. The exercise was designed to harness the strengths and capabilities of the district emergency responders, educational institutions, hospitals and humanitarian agencies, etc. in their effort to meet any possible disaster in the district.

The program involved a week long learning and capacity building exercise with seven parallel tracks at different venues of the district. Various learning tracks being included in DhEMEx were, School Disaster Preparedness, Emergency Nursing Care and Comprehensive Trauma Life Support for Nurses and Paramedics, Hospital Emergency Management for Doctors, Training on Safe building, Construction, Training on livestock management during disasters and carcass disposal, Training on Search and Rescue, Training on Water, Sanitation and Hygiene (WASH) for Public Health functionaries.

Overview of DhEMEx
This initiative was planned by the ASDMA to conduct 10 emergency management exercises in ten different hazard prone districts in the State of Assam. The first three days were planned with training on seven tracks. During the fourth day, all the trained participants came together for a tabletop exercise followed by a major incident- simulation drill on the fifth day. A debriefing session called "Hotwash" along with a Valedictory session was conducted on the fifth day.

Objectives of the DhEMEx
1. To harness the strength and capabilities of district level emergency responders such as educational institutions, hospitals, wings of civil administration as they prepare to meet a major catastrophe for the district.
2. To test the state of preparedness of responding agencies, institutions and hospitals to deal with a major disaster in the district and identification of areas where gaps exist and improvement is needed.
3. To test the real-time inter agency communication and coordination, especially the Incident Command Structure, its various agencies and citizen groups.
4. To push the hospital response system through the drill to identify and prioritize care during any disaster to maximize the savings of life and limb, under duress.

Methodology
The DhEMEx was conducted following a pre-defined methodology set out by the Assam State Disaster Management Authority. This includes the conduct of parallel training followed by a tabletop exercise followed by a major incident- simulation drill on the fifth day. A debriefing session called "Hotwash" along with a Valedictory session was conducted on the fifth day.

Mr. Victor Carpenter, Deputy Commissioner-cum-Chairperson, DDMA, Dhemaji, said "We must understand and functionalise our Incident Command System to deal with any eventuality. It is not about a single disaster like flood that we deal with every year, but, about a combination of unexpected and brutal events. We must be prepared and this EMEx is a strong step forward in this regard".

Training Tracks
There were a total seven training tracks devised for this exercise which were organized from 8th to 12th January 2016. This included:
1. School Disaster Preparedness
2. Emergency Nursing Care and Comprehensive Trauma Life Support for Nurses and Paramedics
3. Hospital Emergency Management for Doctors
4. Training on Safe building Construction
5. Training on livestock management during disasters and carcass disposal
6. Training on Search and Rescue for Police, SDRF, SPF etc.
7. Training on Water, Sanitation and Hygiene (WASH) for Public Health functionaries

Table Top Simulation
After the conduct of the three days training on several seven tracks all the participants of the various tracks were brought together for a Table Top exercise. The exercise was facilitated by Mr. Mridul Deka and Mr. Anand Prokash Kanoo where several simulated scenarios of emergencies were given and asked the participants of different tracks to respond the
situation. The participants of each track came forward with their own response mechanisms. It was an attempt to reveal the strengths and gaps in inter-agency communication and discrepancies and overlaps in response planning among the various stakeholders.

Field Drill
The brainstorming led to the groundwork for the drill simulated on January 12, 2016 at Port Field, Dhemaji. A real-time simulation/drill of a mass casualty was carried out with one mock drill scenario viz. Earthquake followed by fire at State Bank of India.

Over 46 victims injured during the incident, all the patients were triaged on the spot, applying their skills learnt on training during the previous three days and lastly was taken to the pre identified District Civil hospital Dhemaji, in order to test their emergency management plan. The victims were coded with colors like red, yellow, green and black. There were total 26 green patients, 12 yellow patients, 6 red patients and one black patient.

Hot-wash and Valedictory
At last the weeklong exercise culminated in a lesson learnt workshop on January 12, 2016, where all the participants assembled to make an appraisal of what went right and what went wrong. The lessons learnt during the various tracks also helped to identify the gaps in our strengths and capabilities of emergency response including inter agency communication and co-ordination. In the valedictory session, participants were handed over a certificate of participation and DDMA expressed its gratitude towards all.

Conclusion
To conclude this mega experience, it can be said that the exercise had offered lessons to improve upon for all stakeholders involved. Each stakeholder had an opportunity to judge how S/he had reacted to a mock emergency situation and could visualize his/her strength and weaknesses. This exercise was one of a kind for the participants who widely appreciated the lessons learned by them during the exercise.

- Sonali Das, AIDMI

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AIDMI is delighted to receive generous support of UNICEF (India) towards this issue.