Making Guwahati Prepared

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Editorial Advisors:
Anshuman Saikia
Regional Programme Support Coordinator
ARO, IUCN (International Union for Conservation of Nature), Thailand

Dr. Ian Davis
Senior Professor in Disaster Risk Management for Sustainable Development, Lund University Sweden and Visiting Professor in Cranfield, Oxford Brookes and Kyoto Universities

Madhavi Malalgoda Ariyabandu
International Strategy for Risk Reduction (ISDR) – South Asia, Sri Lanka

Mihir R. Bhatt
All India Disaster Mitigation Institute, India

Dr. Satchi Balsari, MD, MPH
The University Hospital of Columbia and Cornell, New York, USA

Dr. T. Nanda Kumar
Member, National Disaster Management Authority (NDMA), India

Zenaida Delica Willis
Advisor, Disaster Risk Reduction, Asia and Pacific Regional Centre, Thailand

The views expressed in this publication are those of the author.
Emergency Management Exercises (EMEx) – What are they?

Emergency Management Exercises (EMEx) are a week-long series of trainings and workshops designed to explore and strengthen the emergency response systems in India’s disaster-prone cities. They bring together a variety of actors in disaster and emergency management - regional emergency responders, education institutions, hospitals, health 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 to emergencies.

EMExes were initiated to address the unpreparedness and unawareness of India’s cities to the ever-increasing risk of disasters. Such risks have arisen due to factors like rapid urbanisation, overcrowding in informal settlements, accelerated population growth, the lack of basic services and infrastructure, poor planning, weak building controls, environment degradation, and high urban poverty. They were also conceived to develop a greater appreciation of the nature of urban disasters and risks (which are quite different to the ones which arise in a rural context) amongst all stakeholders.

EMExes are the latest installment in a series of successful emergency 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, organised 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).

So far, EMExes have been held in some of India’s most disaster-prone cities - Mumbai (2008, 2010), Chennai (2011), Delhi (2012), and most recently, Guwahati. Their structure essentially consists of training courses in various aspects of emergency management, such as triage, school safety and preparedness, hospital emergency management, a table-top exercise, and a mock field drill. The latter two activities are the keynote features of the EMExes as they bring together each and every participant - amounting to hundreds of people - to apply what they have learned to a practical context, and to develop a cooperative, large-scale, inter-agency response to emergencies.

The EMExes held have shown that they are an extremely critical tool for examining, testing, evaluating, and assessing emergency response capabilities not just at the city level, but also at the personal, organisational and institutional levels. They are important because they develop emergency management skills and capacities. Most of all, they are important because they show emergency responders, NGOs, the community, government departments, professionals working in related fields, what the future of disaster and emergency management must look like in the city, their homes, their schools, and their workplaces. The present newsletter, devoted entirely to the proceedings of the Guwahati Emergency Management Exercise held in the city of Guwahati, Assam, is a testament to this.
SUMMARY

Guwahati Emergency Management Exercise

The city of Guwahati in Assam, India, is situated along the banks of the Brahmaputra River, one of the oldest rivers in the Himalayan Ranges. It holds the positions of being Assam’s largest city, the largest metropolitan area in north-eastern India, and one of the fastest developing cities in India. However, it is extremely vulnerable to storms, landslides, man-made disasters (for example riots) and especially earthquakes and floods. In July 2012, the city was severely affected the state’s worst-ever flood disaster, to the extent that even in September 2012 many of its residents could not return to their homes and remained in relief camps. As the flood recovery was in progress a number of moderate earthquakes were felt across the state as well.

The Guwahati Emergency Management Exercise (GEMEx) was held from October 29 to November 4, 2012 to address the city’s critical need for improving its emergency and disaster management capabilities. The event was attended by more than 700 participants from a diverse range of professional backgrounds e.g. doctors, hospital administrators, emergency medical personnel, school teachers, nurses and government officials. For the first time in the history of EMExes, school students also participated in the event. 55 domestic and 12 international experts from leading institutions in emergency management-related fields attended the GEMEx as trainers and expert observers.

The GEMEx was the fifth to be run in India and the key organisers were: the National Institute of Disaster Management (India), UNICEF India, the United Nations Disaster Management Team (India), the National Disaster Management Authority, and the Assam State Disaster Management Authority. A number of local and international organisations were also partners in organising the event, such as: the New York-Presbyterian University Hospital of Columbia and Cornell, the Harvard Humanitarian Initiative, the All India Disaster Mitigation Institute, Oxfam India, and RedR India. The event was held across a few of Guwahati’s local schools and colleges.

Over the first four days of the GEMEx, 15 individual training tracks covering various aspects of emergency management were conducted. These were:

- Industrial and Chemical Safety
- Basic and Advanced Life Support
- Minimum Initial Services Packages
- Emergency Nursing Care
- Emergency Hospital Management
- Advanced Trauma Management
- School Preparedness
- Search and Rescue
- Emergency Medical Services
- Coordination of Response for Senior Government Officials
- Incident Response Systems
- Community-based Relief and Public Health
- Introduction to Earthquake Safety of Buildings
- Multi-sectored Needs Assessments
- Higher Education Preparedness

These training courses were delivered through a combination of lectures, discussion sessions, practical exercises, group work, and live demonstrations. On November 2, 2012, a table-top exercise was held whereby all the participants were brought together to practice, with the students raised their questions and there was an interesting exchange between fire officers, school children and teachers.

assistance of trained facilitators, simulated scenarios and identify roadblocks in inter-agency communication, execution, and coordination. On November 3, 2012, a mass mock field drill simulating an earthquake and terrorist attack was conducted. Participants had to draw upon all the skills and knowledge they had learned to deliver an actual response to the ‘emergency’, such as carrying out triage on the 200 mock victims and executing hospital emergency management plans. It was a tremendous logistical feat as it involved each and every single person and institution involved in the GEMEx. These activities were unprecedented in Guwahati’s history and received a wide amount of press coverage.

The field drill was concluded by a ‘hot-wash’ session whereby participants had to reflect upon the strengths and weaknesses of their response actions. All of the other individual, GEMEx activities, and the overall GEMEx itself, were evaluated by participants, trainers and expert observers on its merits, key challenges, subject material, content delivery and areas for improvement. A report of their feedback and evaluations was compiled so that trainers and future GEMEx organisers to guide them in their future activities.

Overall, the GEMEx was a huge success as it achieved collective multi-stakeholder inter-disciplinary action-based learning, was highly participatory, and created new learning opportunities. Indeed such was the educative value of the GEMEx that across the board participants expressed their wishes that the training tracks could have gone on for longer, and that the amount of practical exercises would be increased – a clear indication that participants appreciated the value of ‘learning by doing’. They also urged the GEMEx organisers and trainers to widely share their training materials, experiences, and have follow-up activities, thus showing their commitment to continuous learning and improvement. Although in certain areas there were problems with communication (the wrong language of instruction was used), managing participants, and the appropriateness of the participants for some of the courses in terms of skills and seniority, these were overcome by the participants’ enthusiasm and willingness to learn. Similarly, though there were some technical difficulties in the field-drill and mock drill, they still managed to build learning and identify gaps at the system and sub-system level.

Nonetheless, perhaps the greatest accomplishment of the GEMEx is that participants, trainers and expert observers called for more EMExes to be held, thus affirming the usefulness and value of the exercises, and that EMExes certainly do have a firm place in disaster/emergency management practices at the city, state, and national level.

Follow-up for Better Risk Reduction

We were shown videos of previous EMEx, we all acted and were taken to hospital but the management was not good at all. The details which were given on the fourth day turned out to be opposite.

– Dibya Chakravarty
Gurukul Grammar Senior Secondary School, Guwahati

Participants did an on-the-spot assessment of the trainings conducted on the first day of the GEMEx.
Along with the National Disaster Management Authority of India, the National Institute of Disaster Management, the United Nations Disaster Management Team (India), and together with its local and national partners, in 2010 UNICEF India organised the nation’s first Emergency Management Exercise (EMEx) in Mumbai. Consisting of trainings, workshops, and mass simulation exercises, EMExes bring stakeholders from across the various sectors of disaster management to develop skills and test their response capabilities to urban disasters. Since then, UNICEF has remained one of the key organisers of EMExes in the country and has embarked on institutionalising these at the national and state level.

For the Guwahati Emergency Management Exercise (GEMEx), held in November 2012 in the city of Guwahati, Assam, India, UNICEF India provided technical support for the event and was instrumental in the design of the mass field-drill. It was the one who, together with the All India Disaster Mitigation Institute (AIDMI), pushed for children to be included in the exercise. UNICEF India assisted the UNICEF Regional Office for South Asia with running the multi-sectoral needs assessment workshop. It also supported AIDMI with its training programmes for the school and higher education preparedness tracks.

The GEMEx was a large success in terms of collective action, participation, and creation of learning opportunities. Some of the critical success factors were that the Principal Secretary from the Revenue Department in Assam demonstrated good leadership across all stages of running the GEMEx, the Assam State Disaster Management Authority handled the operations planning aspects of the GEMEx exceedingly well, and there was active participation and assumption of significant roles and responsibilities by local faculty members from Mumbai, Kolkata, Chennai, and other cities in India. These faculty members also worked well with those who came from overseas.

Great strides were made in building awareness about disasters amongst government authorities, schools, children, community members, and other stakeholders. The GEMEx also did much to enable learning at the individual level and to some extent, at the system level as well. However, its biggest highlight was the participation of over 70 children from 19 local schools in the school preparedness track and the field-drill. This not only drew attention to the importance of child-centred disaster risk reduction practices but also, having children's perspectives added more depth to the learning process.

The participants’ positive response to the GEMEx activities shows that the skills taught and subjects covered are highly relevant and useful to their work, and that EMExes are an effective means of promoting sound urban disaster/emergency management practices. It is recommended that future EMExes should have more pre- and post-EMEx activities so that there can be greater system-level learning and to give participants the opportunity to consolidate and practice the skills they have learned. It is also recommended that future EMEx training sessions should be run in the following manner: 15 to 20% of the class time is spent on delivering knowledge through interactive presentations or similar methodologies, the next 50% on building comprehension of frameworks, principles and systems through case studies, group work, table-top or classroom-based simulations, and the remaining 10% on reinforcing application-level learning. These should be followed with continuous learning activities and on-the job training opportunities.

-- Sarbjit Singh Sahota, Emergency Specialist, UNICEF India
How can we prepare for risk events in fast-growing major Indian cities? How can we reduce the impact of disasters – loss of life and limbs – in metro cities such as Guwahati, Mumbai, Delhi, Karachi, Colombo or Dhaka? One way to do so is to conduct well-planned mock drills to test the basic and life-essential services of health and education institutions and departments, the police, fire authorities, the National Disaster Response Force, the State Disaster Response Force. The Guwahati Emergency Management Exercise (GEMEx) was an effort which sought to examine and strengthen the urban disaster response in Guwahati, Assam.

On November 3, 2012, under GEMEx, a mega field mock drill simulating an earthquake and terrorist attack was conducted to identify the strengths and weaknesses of the city’s emergency management plans and to help with better preparing the city for future emergencies. The drill was conducted by the Assam State Disaster Management Authority with the support of the National Disaster Management Authority, the District Disaster Management Authority, UNICEF, the New York City Fire Department, Cornell-Columbia University and the All India Disaster Mitigation Institute. It was conducted at the Assam Engineering Institute. The special feature of the drill was that it included around 60 school children (age group 13-18 years) from 19 schools. They acted as their school’s earthquake victims. UNICEF with the support of the All India Disaster Mitigation Institute (AIDMI), Ahmedabad, trained the children for the drill.

Various venues like the St. Angle High School, Assam Petrochemical Limited, the Assam Secretariat and Heritage Complex, were prepared to make the drill realistic. A total of 1500 people participated in the drill. A total of 200 victims affected by the earthquake and terrorist ‘attack’ were taken to Guwahati Medical College Hospital, GNRC, MCM, Down Town Hospital, and Army Hospital and International Hospital, to test their emergency management.

GEMEx 2012 shed new light on urban humanitarian emergency settings and taught stakeholders preparedness assessments methods in a collaborative and cooperative manner.

– Mihir R. Bhatt

“I learnt what to do and how to act in a disaster situation. We need to save ourselves so that we can save others. We became victims so as to be able to judge how and what the Doctors do in such a situation. Whether hospitals are prepared or not. When we visited the hospital, they treated us very nicely and we are proud of them.”

– Reshma Khatun, Student, Class IX, Holy Child Higher Secondary School, Guwahati
KNOWLEDGE MANAGEMENT

All India Disaster Mitigation Institute and Emergency Management Exercises

The All India Disaster Mitigation Institute (AIDMI) has long been involved in making India’s urban environments safe from disasters. In 2004 it co-hosted a panel of eminent policy-makers at the World Urban Forum in Barcelona, Spain, to discuss urban disaster risk reduction strategies, following which it began campaigning for a nation-wide Urban Emergency Management Exercises programme.

In 2010, AIDMI together with the National Institute of Disaster Management, the National Disaster Management Authority (NDMA), the United Nations Disaster Management Team, UNICEF, and other local and international partners, initiated India’s first Emergency Management Exercise (EMEXes) in Mumbai. The institute has since been a key organiser in all subsequent EMEXes.

For the recently-held Guwahati EMEx in Assam, India, AIDMI was one of the leading coordinators and it conducted the training for the school and higher education training tracks. Upon its and UNICEF’s instigation, children were also included in the mass table-top simulation and mock drills - a milestone in India’s history of EMEXes.

AIDMI is presently working with the NDMA, UNICEF, and State Disaster Management Authorities to implement further EMEXes in other disaster-prone cities. With five EMEXes’ worth of experience under its belt, AIDMI is also developing tools, strategies and models which will enable EMEXes to be easily replicated not just in cities, but also in schools, communities, villages, and towns.

TRAINING MATERIALS

Making Education Institutions Safer

The GEMEx involved the Training of Trainers on 14 different Tracks of which the School Safety Preparedness is one. A total of 33 participants from Institutions of different specialization attended the training. The training was being done focusing on the need for Higher Educational Safety Institute. The focus was on clarifying the basic terminologies associated with disaster risk reduction, different tools and techniques used for Safety Audit and Institutional Disaster Management Plan. The uniquely designed module covered within two days a theoretical and combination of practical exercise related to disaster risk reduction education.

Disaster Preparedness for School Safety

A total of 88 participants including school teachers, administrators and students attended the training. The training was being done focusing on the need for making schools safety and reducing risks to students, especially girls during emergencies. The focus was on clarifying the basic terminologies associated with Disaster Risk reduction, different tools and techniques used for Safety Audit children inclusive school disaster management plans, participating in fire extinguisher demonstration and earthquake mock drills. The uniquely designed module covered within three days a theoretical and combination of practical exercise related to children inclusive disaster risk reduction education.
Preventing Guwahati's Schools and Higher Education Institutions for Emergencies

Since 2001, the All India Disaster Mitigation Institute (AIDMI) has worked in at least 45 cities from 11 states/union territories of India. Amongst the many participatory and policy advocacy activities it has conducted, the most important has been facilitating and sharing experiences in city emergency management exercises (EMEx). AIDMI has successfully facilitated the educational tracks at the Mumbai Emergency Management Exercises (MEMEx) in 2008 and II in 2010, the Chennai EMEx (CEMEx) in August 2011, the Guwahati EMEx (GEMEx) in October/November 2012, and the Delhi EMEx (DEMEx) in November/December 2012. In these educational tracks, AIDMI helped the organizers of the EMEx to reach out to 396 school staff and students from 186 schools and higher educational institutions, as well as municipal education department officials and administrators from the mega-cities Mumbai, Chennai, and Ahmedabad.

The educational track has built a knowledge base in disaster risk reduction in urban educational institutions.

To check the preparedness of Guwahati’s school stakeholders i.e. school administrators, teachers and students against prevailing hazards, a two-day preparatory workshop was organized from October 19 to October 20, 2012 at the Zila Parishad Conference Hall, Guwahati. The idea behind the preparatory workshop was to do the groundwork for the GEMEx by discussing the School Disaster Management Plans (SDMPs) prepared by participating schools from the kamrup (metropolitan) district area, and by practicing mock drill exercises with school staff and students. The workshop not only helped the participants polish and refine their respective SDMPs but also assisted them with preparing a basic plan for participating in the GEMEx.

As a part of the educational track in GEMEx, the ‘Training of Trainers (ToT) on Disaster Preparedness for School Safety’ course was organized at the conference hall of Don Bosco School during October 29-31, 2012. The ToT was attended by 30 teachers and 70 children from 16 public and private schools in Guwahati city. The training included in-depth knowledge and experience-sharing by teachers, students and facilitators on making schools resilient to local hazards, and in-house practical school safety exercises undertaken collectively by school administrators, teachers and students. The fire service team was also practically involved in demonstrating fire safety and using fire extinguishers. Students were very excited to learn the procedures and rules of handling the same and their keenness was such that they asked even more questions than their teachers. The training proceeded well with different lessons being covered using a participatory approach.
Parallel to the school safety track, a ToT on ‘Higher Education Preparedness’ was conducted from October 31 to November 01, 2012. It was attended by 41 teaching and non-teaching representatives from 15 higher education institutions in Guwahati. The ToT was conducted focusing on the need for safety in higher education institutions. Emphasis was placed on clarifying the basic terminologies associated with disaster risk reduction (DRR), and explaining how various participatory tools and techniques (such as safety audits and Institutional Disaster Management Plans) can be used by educators, administrators and students to make their institutions resilient to disasters. The uniquely designed module covered within two days a combination of theoretical and practical exercises related to disaster risk reduction education.

– Sanchit Oza

Participants also commented that they now knew the importance of all persons being prepared, safe, and helpful to other people during disasters. For them, learning about school safety audits, coordinating between different stakeholders, fire safety, and capacity-building were some of the key highlights of the training courses. They encouraged AIDMI and its partners to conduct more periodic training sessions at the school and district levels.

**How did the Participants Respond?**

Surveys of the participants showed that they responded extremely positively to the school and higher education training tracks. Most of them rated the overall subject balance, relevance of the skills taught, design and effectiveness of the practical exercises, coordination of the training sessions, trainers’ communication skills, and overall satisfaction with the training track as either ‘very good’ or ‘excellent’. The following diagrams show their overall satisfaction with the training:

![Overall satisfaction with school preparedness training](image1)

![Overall satisfaction with higher education preparedness training](image2)

Participants also commented that they now knew the importance of all persons being prepared, safe, and helpful to other people during disasters. For them, learning about school safety audits, coordinating between different stakeholders, fire safety, and capacity-building were some of the key highlights of the training courses. They encouraged AIDMI and its partners to conduct more periodic training sessions at the school and district levels.


The most notable aspect of the school preparedness training course was that it focused on creating ‘Master Trainers’ who could then train other teachers and students in school safety, thus ensuring that the lessons learned from the course would have a ‘flow-on’ effect and reach the grassroots levels. The majority of the teachers were very keen to learn and paid great attention to the training. There was one component where teachers themselves were involved as the trainers. A few of the course’s key achievements were:

- Participants developed comprehensive school safety plans which addressed children’s needs for psycho-social support and continued education during and after disasters.
- Participants learned how to identify and reduce their schools’ vulnerabilities.
- Participants learned how to prepare school evacuation plans and School Disaster Management Plans. They also acquired skills in search and rescue, fire safety and first-aid.

Challenges in communication and participant interaction were addressed in the early stages of the training. In future, school preparedness training sessions should focus on urban disaster risks, highlight the needs of children with disabilities, include methods for testing and practicing SDMPs and disaster response actions, and train teachers in ‘nuts and bolts’ best practices that can be institutionalised without long-term dependency on external assistance or resources.
GEMEx Table-Top Exercise: Some Lessons and Challenges

Of all the activities run at the GEMEx 2012 in Assam, India, the mass table-top simulation exercise posed the most challenges. Held on 2 November 2012, the exercise was meant to bring together leaders from Guwahati’s response agencies – the fire department, the police, heads of hospitals, doctors, nurses and NGOs – to discuss a simulated disaster situation and identify bottlenecks in inter-agency emergency communication, coordination and execution. It was expected that this would prepare participants for the next day’s field-drill.

The table-top scenario presented to participants raised important questions and no doubt, for many, illustrated the range of immediate concerns beyond their own functional foci that a disastrous event presents. For most, it probably even went beyond the topics that had been discussed in the training tracks that they had attended earlier during the week. The exercise highlighted the diversity of participants’ backgrounds and drew attention to the wide range of professional skills, the levels of responsibilities, and work experience amongst them. It also elicited considerable attention, interest and enthusiasm from participants.

Developing an exercise for 700 people, and managing such large numbers, were tremendous feats in themselves. However numerous challenges were encountered, some being:

- Having participants sit at tables according to the training tracks they attended prevented some from exercising the role they would usually play during an emergency.
- The table-top scenario was not linked well enough to the content covered in all the training tracks - the material was relevant to some tracks but not others. Thus not all the participants could be properly engaged in the discussions and for some, the exercise was not only abstract and largely irrelevant, but also confusing.
- Participants did not substantively interact or discuss concrete actions and some did not represent their actual roles. This may be due to a lack of understanding of what the table-top exercise was about and how Incident Response System protocols were meant to operate.
- The responses from participants were not reviewed or discussed, thus missing a good opportunity to address gaps in established protocols and identify additional protocols that needed to be developed. This also meant that the table-top exercise could not be used as an effective capacity and needs assessment tool.
- Acoustic and audio-visual set-ups made it difficult for participants to engage with the exercise. There were also language barriers.

Table-top exercises need very detailed advanced planning especially if the participating group is large. They need to have very clear purposes (for example preparing for the field drill, or address functions and key aspects of Emergency Response Protocols), and be directly relevant to the participants’ skills, roles and responsibilities. They must be designed so that everyone can be involved and learn from the experience. Proper consideration also needs to be given to better integrating the table-top exercise with the rest of the Emergency Management Exercise. As large participant numbers may actually limit opportunities for productive problem-solving, it may be better to hold smaller, mini-table-top exercises in the individual training tracks. This is of course, only if the exercise would be relevant to the course content covered.

– Dr. Jo-Anne Bennett,
Senior Research Scientist,
Monitoring and Evaluation
Office of IT Strategic Planning and
Policy Analysis, New York City
Department of Health and Mental
Hygiene
Guwahati Emergency Management Exercise: International Perspectives

I am grateful to the GEMEx organisers for the opportunity to participate and comment on the event. In general, I observed a dynamic relationship between Indian and international specialists, but I did feel that the program would benefit from more of a strategy for achieving long-term objectives and how best to use foreign experts to reach them.

In the simulated exercises, the most common comments made regarded improving communication. What was stated less often, was a need for a command structure. I think THAT is the key ingredient, the necessary though not sufficient condition for creating effective communication. Someone needs to be in charge and have identified responsibilities. Until that exists, it is unclear who should be responsible for what. This is true not just for the GEMEx exercise.

The National Disaster Management Authority needs to exert more leadership and set the nation’s strategic direction clearly. UNICEF can work them to achieve this, as they are the ones who are best able to coordinate with States, establish and polish curriculum content, and identify steps besides teaching for reaching a state of competence to prevent and respond to disasters. International staff should be consultants; locals should show them where and how to fit in, help them identify other staff who have the potential to become experts, and establish international relations with their counterparts to achieve that level. An ideal course would have 60 to 80% national faculty, with 2-5 internationals there if and as needed. Most States already have held a training exercise to identify 1-3 current or potential faculties to contribute to upcoming training programs.

By doing so, this can help resolve questions of high cost, control, and the quality of the training.

Needs assessments may not necessarily have a place in EMExes as they are more for large-scale disasters where the number and needs of victims are unknown. In tightly focused disaster and rescue operations like those simulated in the course, all victims are accounted for and there is no need to assess the conditions of the wider population from which the victims come. However, if it is decided to retain the needs assessment, then the appropriate candidates and learning objectives need to be specified in more detail.

I think the hot wash was valuable, but would be even more so if there is more participation from participants. This can be achieved through conducting a simple exercise like ‘name the top 5 goals’.

– Richard Garfield, Columbia University Mailman School of Public Health and School of Nursing

An Educator’s Perspective

Great awareness created. We can spread awareness to our mates and the community people. Some guardians asked how their children can be safe at schools when any such event occurs. One small child with his mother told me that today he came to know about 108 service. Crowd should be handled well as even after training there was too much of knowledge.

– Linu Bordoloi

Panbazar Girls Higher Secondary School, Guwahati

Mr. Garfield in discussion with Mr. Mihir Bhatt.
Guwahati Emergency Management Exercise: The Way Forward

The Guwahati Emergency Management Exercise (GEMEx) was held from 29 October to 4 November 2012 in the city of Guwahati, Assam, India, to address the city’s critical need for improving its emergency and disaster management capabilities. The event was attended by more than 700 participants from a diverse range of professional backgrounds, e.g., doctors, hospital administrators, emergency medical personnel, school teachers, nurses, and government officials. For the first time in the history of EMExes, school students also participated in the event. 55 domestic and 12 international experts from leading institutions in emergency management-related fields attended the GEMEx as trainers and expert observers. The event was organised by the National Institute of Disaster Management (India), UNICEF India, the United Nations Disaster Management Team (India), the National Disaster Management Authority, and the Assam State Disaster Management Authority. A number of local and international organisations were also partners in organising the event, such as: the New York-Presbyterian University Hospital of Columbia and Cornell, the Harvard Humanitarian Initiative, the All India Disaster Mitigation Institute, Oxfam India, and RedR India.

15 individual training tracks covering different aspects of emergency management were conducted, for instance industrial and chemical safety, basic and advanced life support, Minimum Initial Services Packages, and Incident Response Systems. They were delivered through a combination of lectures, discussion sessions, practical exercises, group work, and live demonstrations. Two large-scale simulation exercises, a table-top exercise and mock drill, involving every person involved in the GEMEx, were also held.

The participants, expert observers, and trainers were asked to evaluate the sessions they attended on the basis of their merits, key challenges, subject material, content delivery and areas for improvement. While the response was overwhelmingly positive, a number of recommendations were made for improving the training sessions and Emergency Management Exercises generally. Summarised they are as follows:

- Include more NGOs, Inter-Agency Groups and other stakeholders
- To ensure the appropriate level of participation and provide the impetus for pre- and post-EMEx activities, the Principal Secretary for Revenue and Disaster Management should issue a government order directing government agencies, institutions, and other stakeholders to be prepared for disasters and emergency management.
- Future EMExes need to give greater focus to organisation and system-level learning.
- Finalise curriculums for each training track.
- More advance notice should be given to trainers so that they have adequate preparation time.
- Duration of EMEx should be extended.
- Organisers need to work closely with trainers to ensure that appropriate venues are selected for the training courses.
- EMEx organisers need to work with trainers/facilitators to improve the design and implementation of the table-top exercise, such as clearly specifying the learning objectives.
- Strategies for selecting appropriate participants for the individual training tracks should be devised.
- For future EMExes in Guwahati, performance improvement agendas need to be brought into focus. This should be set and driven by the Assam State Disaster Management Authority (ASDMA) and the Department of Disaster Management.
- Announce future EMEx dates at least 6 months in advance and provide limited scope for change.
- To promote continued learning and to maximise the utility of EMEx trainings, devise pre- and post-EMEx activities e.g. monthly EOC-level regular meetings incorporating the participation of all ESFs, utilise trained persons on a day-to-day basis, provide on-job mentoring.

Feedback from children of mega mock drill exercise in GEMEx 2012.
• Rethink the inclusion of a needs assessment session. In a tightly-focused field drill like the one in the GEMEx (where it was specifically a medical emergency), needs assessments may not be necessary. However, if needs assessments are to be retained in the course, then further specifications of appropriate candidates and learning objectives are required.

• Do further work on addressing questions of high costs, poor control over the EMEx proceedings, training quality, and utility of training.

• While leadership and strategies from the national-level are still being developed, international experts/personnel should act as consultants and local staff should show them where and how to fit in. International experts/personnel should also identify local staff who can become experts and establish relations with relevant parties to help them achieve this.

• EMExs ideally should have 60-80% national faculty, with 2-5 international faculties if needed. Local staff should run the course while foreign experts will be consultants.

• ‘Hot wash’ exercise should include more participation time and participatory exercises e.g. ‘name the top 5 goals’

• Training sessions should be in local languages, be made more interactive, have more practical exercises and demonstrations, include participants from different sections of the community.

• Training sessions should build in follow-up activities.

• Trainers should ensure that the course is not overly technical or theoretical.

• Training courses should not be overly theoretical.

• Training courses should be run in the following manner:

(a) 15-20% of classroom time spent on delivering knowledge through interactive presentations or similar methodologies

(b) Next 50% used on building comprehension of frameworks, principles and systems through practical activities like case studies, group work, table-top or class-room simulations

(c) 10% used on reinforcing application-level learning through feedback sessions.

The All India Disaster Mitigation Institute suggests that all these recommendations should be used to develop guidelines for running Emergency Management Exercises. The proposed guidelines, devised jointly with other EMEx organisers, should set out a ‘pro-forma’ approach for designing EMExes by, for instance, listing a standard course subject list for the individual training tracks. The emphasis of these guidelines should also be on how to replicate EMExes at the district level, as that is the main site where disaster management actions are carried out. To supplement these guidelines, checklists of actions could also be included. Most importantly, AIDMI considers that even more important than the actual GEMEx proceedings is what happens after. Attention must be given to developing appropriate follow-up actions to reinforce what participants have learned and to maintain their commitment to emergency management.

– Vandana Chauhan with Hui Chi Goh
AIDMI at the Delhi Emergency Management Exercise (DEMEx 2012)

The All India Disaster Mitigation Institute (AIDMI) was invited by the Delhi Disaster Management Authority (DDMA) and the National Disaster Management Authority (NDMA) to facilitate the education track at the Delhi Emergency Management Exercise (DEMEx). Conducted from November 29 to December 5, 2012, this was the fifth EMEx to be held in India and the fifth time AIDMI has facilitated the education training tracks.

During the first day of the school safety training, Dr. (Shree) Muzaffar Ahmed, a Member of the National Disaster Management Authority, India, highlighted the important role educators had in building the capacity of India's youth and children. Based on the need and expectations of the participants the following points were emphasised:

1. Concept of Disaster Risk Reduction (DRR)
2. Safety Audits of education institutions
3. Preparing Disaster Management Plans for education institutions
4. Practical activities to build DRR education
5. Roles of different stakeholders.

Mock drills were also conducted to make people and the resident welfare associations aware of the things that should be taken care of in any disaster. Through these drills, we can make our emergency response services better,' said Shree Kuldeep Singh Gangar, Special Secretary, DDMA.

Emergency Management Exercises are important as large cities are becoming increasingly vulnerable to disasters due to unplanned urbanisation. This has resulted in environmental degradation (e.g. deforestation), over-exploitation of natural resources (e.g. water), ecological disturbances (e.g. pollution), and social destitution (e.g. increase in poverty). Increased population concentrations and poor construction can further increase the vulnerability of built environments and the fragility of socio-economic systems. At the same time, economic growth and the resulting social changes have exposed cities to various...
kinds of technological and fire hazards. Moreover, climate change has also increased the frequency and intensity of natural hazards. EMExes are especially important for Delhi as it is highly exposed to all these risks, is situated entirely in a Zone IV seismic area (indicating extreme vulnerability to earthquakes), and has large amounts of unsafe building stock, non-engineered structures, urban slums, and unauthorised colonies.

In order to make disaster resilient cities, it is important to adopt an integrated approach that takes into account multiple hazards and vulnerabilities so that comprehensive assessment, mitigation, and preparedness measures can be developed and integrated into sustainable urban development goals. Cities and local governments need to get ready, reduce the risks and become resilient to disasters. AIDMI has been heavily involved in the UNISDR’s on-going 2010 ‘Making Cities Resilient Campaign’, focusing particularly on making urban schools and higher education institutions a safer place.

– Sanchit Oza with Vishal Pathak

Role of Local Agencies

This exercise has made me to believe that the Fire brigade is ready for any disaster. From today’s experience, I believe that there are certain shortcomings in different departments which they have to improve. The Fire Brigade and Police were really ready, but, the major operation was not at all up to the mark, many of the students were not even taken to the hospital. The Drs took long time and the students with leg and hand collapse were not taken to the hospital.

– Risha Bora, Saint Mary’s Higher Secondary School, Guwahati

GEMEx in the Local News

Disaster Management Drill (GEMEx)
Conducted to Test Govt. Dept., NGO Efficiency

GUWAHATI: A mega mock drill was held in the city on Saturday to test the efficiency of the government departments and various NGO’s in combating disastrous situations.

The emergency exercise called Guwahati Emergency Management Exercise (GEMEx), 2012, held in the Assam Engineering Institute playground here is the third mega mock drill to be held in the country after Mumbai and Chennai.

The drill was conducted by the ASDMA with support of NDMA, District Disaster Management Authority of Kamrup (Metro), UNICEF, New York City Fire Department, Cornell-Columbia University and All India Disaster Mitigation Institute.

The mock drill had around 60 children (aged 13-18 years) of 19 schools play the role of victims of an earthquake that had affected their school. The children were trained by UNICEF with support of All India Disaster Mitigation Institute, Ahmedabad.

Inaugurated by state revenue and disaster management minister Prithibi Majhi, various government departments took part in the mock drill.

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Making Guwahati Safer under GEMEx 2012

Training of Trainers (ToT) on Disaster Preparedness for School Safety.

Lessons learnt from workshop.

Training of Trainers (ToT) on Higher Education Institutions for Emergencies.

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ALL INDIA DISASTER MITIGATION INSTITUTE
411 Sakar Five, Near Natraj Cinema, Ashram Road, Ahmedabad–380 009 India
Tele/Fax: +91-79-2658 2962
E-mail: bestteam@aidmi.org, Website: http://www.aidmi.org, www.southasiadisasters.net