

# Safer Cities 14

Case studies on mitigating disasters in Asia and the Pacific

## Public Awareness and Social Marketing Experiences from AUDMP

*We believe there are many ways to raise awareness using social marketing principles and tools to achieve the needed political will, and certainly do not mean to be prescriptive. We certainly do not want to write a Dale Carnegie book on "How to convince decision-makers to act" - so much depends on the target groups at any one time, in any one culture and environment, and this is where social marketing is so important.*

*-Dr. Suvit Yodmani, Executive Director of ADPC*

*Proceedings of the Regional Workshop on Best Practices in Disaster Mitigation, Indonesia, 2002*

### Importance of Building Public Understanding

It is ironic that, often, in the communities most vulnerable to natural disasters, the concept of risk management appears to be a foreign notion. In Bangladesh, issues like inheritance of land, closeness to workplace, cultural and social practices, poverty, or not being able to see any alternatives, play a role in keeping people on vulnerable soil in spite of relentless flooding.

In other instances, low understanding of risk can be the result of inadequate capacity of local-level community to understand the need for stronger infrastructure to protect vulnerable communities, or lack of resources for improvement of living conditions. In the Kathmandu Valley, unplanned growth and substandard construction that do not meet the building code requirements make the buildings increasingly vulnerable to potential events of earthquakes. Creation of public awareness of such risk in municipal ward 34 of Kathmandu led to removal of some of the substandard infrastructure. Community preparedness against potential natural hazards has become a low priority activity in the official city agenda due to its rareness, or unpredictability as well as due to other overwhelming problems of growing urban built up, as it was found to be with earthquake hazards in Bandung, Indonesia (Safer Cities 9) and the risk scenario of Nepal's Kathmandu Valley (Safer Cities 1). Inability of vulnerable communities to prioritize risk management over daily survival issues can serve as a cultural roadblock, but also provide an opportunity for a dialogue on unprepared communities when disasters strike.

Risk communication as a non-interventionist preventive measure can cross more boundaries (a skill once learned can be taught more easily than a safe building can be built) and ultimately make use of indigenous resources (awareness allows for community-based solutions). Indigenous methods may be more appropriate as well cost effective, as highlighted in the proceedings of the AUDMP regional workshop on best practices in disaster mitigation, Bali, September 2002: "the coping mechanisms of the community are often under-valued and at times ignored" such as informal warning systems. But an awareness campaign may be needed to bolster or spread the effectiveness of such methods.

### Needs and challenges in public awareness

Several needs and challenges arise from creative experimentation. In many small villages, people are still primarily reliant on their own families for knowledge rather than external groups. Creating trust and changing attitudes cannot happen overnight, and attitude change is the primary challenge in order for behavioral change to occur. Newsletters, TV and radio or organizations that already have access to and trust from the community like NGOs and schools can serve as a non-obtrusive channel to convey risk management (RM) messages. These can be complimented with more indigenous methods of transferring knowledge, such as street plays or village and city level action planning meetings.

There is a perception that "most people who fall victim to disasters are usually careless or unwilling to accept the fact of danger," which requires deeper probing. It is important to



### Abstract

This report distills the finer points of public awareness and social marketing in urban disaster risk management practice in Asia. It reviews more than dozen case studies of country demonstration projects that have been implemented as a part of Asian Urban Disaster Mitigation Program (AUDMP). It draws principles, methodologies, examples and lessons learned from each public awareness and social marketing component of country demonstration projects of AUDMP in 10 target countries, comparing various tools used in campaigns for their relative effectiveness and appropriateness in terms of context and target audience segments. The potency of these tools to tap into existing knowledge and expand consciousness is also evaluated.

### The inside story

- 📁 Public awareness and social marketing: Different terms and elements of each
- 📁 Comparison of various tools, benefits of each
- 📁 Lessons learned
- 📁 Conclusion

treat people as active receptacles of knowledge, which can be triggered, with the right message on impending danger and the right framing of the warnings, to become agents of risk communication themselves. Ignorance of alternatives can be related to the technical and knowledge void in certain communities. The challenge here is to fill those voids through networking and collaboration with the appropriate partners, sectors and authorities. Creatively engaging people according to their cultural, gender, or social sensitivity, through activities such as drama or other orally-based cultures, visually stimulating aids for children, or graphics rather than word-based

posters for the illiterate, is key in increasing the efficacy of awareness campaigns.

*It has been said that: "Ignoring cultural identifiers is like ignoring traffic signs: these provide clues into social hierarchy, economic issues, lifestyles and decision-making processes. Without them we cannot foresee roadblocks"*  
 -Suzanne L.Frew, ADPC consultant



## Public awareness and social marketing

Public Awareness is "the process through which people living in hazard-prone areas come to realize and understand that they live in areas of risk, know the specific dangers that they are exposed to and the warnings that are issued, and how the appropriate action can protect their lives and minimize property damage." Selection of and research on the target audience should be part of the campaign design and methodology. Otherwise, an inappropriate awareness tool may fall on deaf ears.

*"We intended to create a healthy environment through the application of effective public awareness mechanisms for the successful implementation of its activities during the demonstration and replication phases. Disaster mitigation was a new concept for almost all the stakeholders and vulnerable communities. Therefore, awareness creation on this particular theme had been a must at the very beginning of project activities in the country."*

*-Lionel Hewawasam  
 SLUMDMP, Project Manager*

that reaches out to more and more people, often in conceivable steps (i.e. a training workshop with evacuation drills and topical seminars that permit larger networks then may enable higher-profile exhibitions/simulations with media coverage).

Sometimes the flame, in the relay, will burn particularly strong: a chosen public awareness channel will have a 'multiplier effect' resulting in many more circles that the torch is being passed through. The "Multiplier Effect" of the Kathmandu Valley Earthquake Risk Management Program (KVERMP) training was projected in the following way: "If each mason built ten houses a year (after training), 20 could reduce vulnerability of 200 families." (Safer Cities 4). Such momentum is not always built up in a message conveyed to a crowded and survival-focused third world city communities. One champion, like an influential politician or a star, can take the flame far. Educating key stakeholders of the target audience so that they can become leaders and teachers themselves creates a high-multiplier environment. Therefore many risk management programs have targeted schools and other educational bodies by creating special programs for them. Such initiatives have found to be rather successful.

"The use of a customized approach for communication is known as social marketing. Social Marketing is the process of marketing the risk through communication of message to our audience by learning the cultural identifiers of our audience and crafting our outreach activities to meet their specific needs in a customized approach." In other words, it is a process of translating the general message into the local and meaningful message. Vivid penetration into the public imagination, level of consciousness and interest is the goal of social marketing.

All the public awareness mechanisms, through which knowledge is channeled, from television to training workshops, radio to street drama or exhibitions to skill trainings are part of a chain of learning

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**Elements of public awareness**  
 Involve community, customize, create effective tools, be creative and take risks, research on target segment and effective methodology, create ownership through a participatory approach, incorporate community perspectives, create two-way communication, aggressively involve community leaders, speak with one voice on message issues, review evaluate and modify the strategy if needed, repeat repeat repeat.

**Design principles of social marketing media**

- Keep it simple and short, say one thing, quick information retrieval, reinforce message.
- Use symbols and languages that are easy to understand, make them attractive but not funny, realistic and easy to understand.
- Follow national broadcasting system.
- Replicable: use various means of conveying the same message.
- Highlight problems but information is solution oriented.

**Cultural/environmental descriptors that should be considered in social marketing**  
 Sensitivity to messages and awareness levels: specific hazards exposed to, languages spoken, openness to change, formality such as caste, formal and informal champions, ethnicity race, group identification, acceptance of new technologies, religion, time, population changes, age and generation, different cultures, community networks, media, historical conflicts, globalization.



Community participation from the onset not only results in empowerment. It actually works in incorporating societal issues addressing cultural economic, religious, ethnic, gender perspectives as appropriate. Community-based disaster risk mitigation (CBDRM) has become an integral part of

the AUDMP. It helped to build a common organizational framework, combining formal structures like committees, or informal village meetings and discussions such as non-formal courtyard meetings of housewives or volunteers. Initial direct access to all levels of the community occurred in many of the projects through training workshops, household surveys, hazard mapping, vulnerability and risk assessments or posters, radio and TV messages and door-to-door recruitment of volunteers.

Use of Participatory Rural Appraisal (PRA) Tools in community disaster risk assessment invites community participation, lively exchange of ideas, and negotiated decisions between the community and other stakeholders. Most commonly used PRA tools are timelines of the disaster history and significant events, hazard and resources mapping, transect walks across the community, seasonal calendars about seasonal changes and fluctuation of hazard environment, diseases, community wealth ranking etc., ranking of problems and solutions or matrix ranking which is used to prioritize hazards or disaster risks. In the Cambodian case, the CBDRM committee's selection capitalized on existing social structures, electing credible leaders like village chiefs, commune leaders, elders, monks, members of temples, Red Cross Volunteers, health workers and teachers. This built trust between stakeholders and created a

strong foundation for volunteer that inspired financing ideas, promoted transparency and spread the word in an organic manner. Many missed opportunities for solutions result from non-availability of forms for communities to discuss and communicate solutions amongst themselves. Committees created in Cambodia served the same purpose and had a high degree of agreement on solutions in general, so reaching a common decision was not difficult. Such committees and formations also enhance a feeling of self-reliance, solidarity, and accountability and decrease the dependence on external agents. This ultimately increases the sustainability when continued supply of resources is ensured.

Apart from advisory committees and ward-level meetings, in the School Earthquake Safety Program (SESP), implemented as a component of KVERMP in Nepal, the school community itself was utilized as a "high multiplier" capable of involving a range of actors like masons, carpenters, and engineers. The school community had to effectively engage them in construction of school buildings, as well as other actors who supported the initiative from a distance such as education officers at the district or national level or the mayor or the minister of education. Involving masons in the decision-making process, paying attention to local traits and wisdom, recycling salvaged materials (stone-crete) during reconstruction or retrofitting, was discovered as a good livelihood option for the communities in Kathmandu valley. Organizing an exchange program with the organization Seeds in Patanka village in India, not only made possible and enhanced the skills training but also sharing the experience of newly discovered livelihoods. Red Cross Volunteers (RCVs) in Cambodia and youth groups in Sri Lanka both felt responsible and accountable to the community after receiving medical responders training by being able to communicate and offer assistance to their communities during disaster events. Disaster preparedness actions discussed in village meetings through participation of trained RCVs in Cambodia led to the dismantling of 10 most vulnerable houses on the banks of river Mekong.

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## Comparison of Various Tools, Respective Benefits



*"Raising awareness through public campaign is the process of bringing together all feasible and practical inter-sectoral social allies to raise community awareness of and demand for a particular development program, to assist in the delivery of resources and services and to strengthen community participation for sustainability and self reliance."*

*-Monzu Morshed, CARE Bangladesh*

### Action planning

Action planning can involve brainstorming sessions, networking among stakeholders, household or other surveys for risk assessment, and analysis of such data to develop risk scenarios and serves as an opportunity to introduce, clarify and sell risk management ideas. Local committees can be formed at this stage, encouraging participatory decision-making process. A disadvantage with this tool is that it may not reach or involve all sectors of the community, however, it can plan to provide opportunities so that linkages with bigger community groups are possible. The committees that were formed in Cambodia and Nepal initiated projects from planning sessions that eventually linked up with international and national donor agencies. The action planning in

Bangladesh showed the need for skill development of first responders and in Hat Yai Thailand emphasis was on developing neighborhood networks to support emergency services provided by the city government. One can assess a community's existing awareness through group interviews, discussions, ocular surveys and review of secondary data or by referring to community leaders, as was done in Ban Hatsady Village, Laos (Safer Cities 9). One can begin establishing links based on the findings, as in the case of Laos, where active interactions between community groups and markets were promoted based on their concern over impact due to sudden outbreak of urban fires. The most important aspect here is to have periodic updates of action plans to respond to the changing nature of risk and vulnerabilities in communities. The experience in Sri Lanka shows the need for policy changes in order to make such action planning become a mandatory requirement of municipality governments.

### Risk Mapping

Risk Mapping has been used as an assessment tool to identify the areas for priority interventions that can be used by everyone from senior urban planners to the local community and is a good way to combine scientific findings with community knowledge. In



Kathmandu Valley's Ward 34 (Safer Cities 1), community meetings led to identifying concerns that would hamper a quick response in case of occurrence of a flood or earthquake event, which they subsequently mapped. Such critical elements include gas storage, narrow streets, improper waste disposal sites, and areas with poor sanitation and health conditions, poor drainage and access due to narrow and weak structures such as bridges. Volunteers developed hazard

maps indicating such areas in red colour. Such maps were enlarged and posted at important places of the ward, with more copies for distribution. This led to quick action.

One good example for usage of risk mapping is the removal of an electric pole erected in middle of a narrow street by authorities in Kathmandu. The community often re-evaluated to see how maps should be developed to suit the given target audience and simplified for local understanding and viewing. Risk Assessment also included scenario-building exercises for extreme situations. It can create a lasting visual memory since communities know their own terrain well and may be more effective in places where there is a potential for rare devastating events, resulting in extreme consequences. The most important aspect here is the involvement of most vulnerable groups, such as the old, the poor, the disabled and women in the assessment. Each of them can add more value to the ultimate assessment of risk. For example elderly members, who have a long memory are aware of the history of natural disasters in their area, and can serve as spokespeople for younger generations. A disadvantage of this method is that it reaches only one segment of the community at a given time and when they do not have access to power base and resources it loses its face value as an advocacy tool.

### Training workshops

Training workshops are a traditional method of creating public awareness and should make use of other tools such as simulations, risk mapping, and more, for value addition and to color the learning process. Successful training workshops have been replicated in a larger scale in many AUDMP countries, such as the skill training workshops for artisans in Ratnapura, Sri Lanka, the DM training workshops in Cambodia involving the Red Cross volunteers, and the mason training workshops in Nepal and Indonesia.



It should be noted that while training workshops and lectures are good for professionals and the literate, hands-on experience is necessary for the illiterate such as masons. Occupation-based workshop programs were created for people like environmental officers, land-use planners, youth groups, forest fire-fighters, craftsmen, religious leaders, planners, surveyors, lawyers, etc. Training workshops for craftsman and artisans can be easily replicated as far as there is a demand to learn hazard resistant construction. Additional skills bring them additional skills and more livelihood opportunities. In Sri Lanka, with fifty workshops in four years, 1500 people were trained in hazard resistance construction. Topics and languages should be modified to match each occupational category: e.g. simplicity and demonstrations are key to success in craftsmen training workshops. In Indonesia, a mixed approach of informal education combined with formal training courses was observed to be more advantageous. Training is only a first step and more value should be added to the skills gained through experience. Long-term relationship between trainers and the community will provide opportunities to both to learn from each

other. Kathmandu school masons provided hands-on training on techniques to local masons in Patanka, India in a technological exchange program after the Gujarat earthquake through a productive collaboration between NSET- Nepal, Seeds India and UNCRD. Ceremonies following training workshops with the participation of important people, popular stars, its media coverage in national dailies and TV, and prizes and awards through competitions also add value in creating more public interest in training courses and workshops as it happened in Thailand, Nepal and Sri Lanka. Red Cross recruits were taken on tours to hazard prone areas in order to strengthen their classroom learning; in the same vein, shake-table demonstrations supported the Nepalese mason training and helped to convince the public in retrofitting technology. Demonstration of fire-escape routes was a key feature in emergency response training workshops held in Hai Yai, Thailand (Safer Cities 13). Post-training site visits; group meetings and refresher courses were used in Cambodia, Indonesia and Nepal to enhance the effectiveness of training.

### Disaster safety day activities

Special commemorative days, if integrated with significant cultural events, and community practices can become particularly effective interventions for creating public awareness since they provide good opportunities for mass communication. Such events can become a part of indigenous or local culture and can also link to international events such as UN Disaster day. Such days can be selected to coincide with past disaster events so that it can be remembered repeatedly annually, and subsequently may become a part of the community consciousness. Usually colorful exhibitions, ceremonies, all kinds of competitions, educational seminars and interactive simulations can be included as activities of such events. Such activities attract large and diverse segments of the community, including children and adults.

In Nepal Disaster Safety Day is a national event and organized to commemorate the earthquake disaster in 1934. Activities such as street parades, shake table demonstrations, exhibitions on safer construction, street drama, interactive seminars, posters, art and other competitions and presentations for children, earthquake simulation drills are the highlights. It is important to have prominent personalities invited to participate in the events such as the Kathmandu Safety Day where as many as 3000 onlookers from



several wards were present due to the scale of the event and the presence of well-respected dignitaries. This also brought in media coverage and boosted the credibility of the entire event.

*“At NSET’s request, Government of Nepal declared Jan 15(or 16) as the Earthquake Safety Day of Nepal, and established an Earthquake Safety Day National committee (ESD Natcom) for observing the day annually throughout Nepal. ESD Natcom draws representatives from all the emergency organizations and critical facilities management. The Hon. Minister of Science chairs it.”*

*- S.B. Pradhanang, NSET, Nepal*

There were similar activities in the Disaster Safety Day events in Sri Lanka, Thailand, and Bangladesh. Prizes were also given out to winners of various competitions during these special days. Safety Day events conducted in Ratnapura, Sri Lanka were organized to commemorate a day of occurrence of a fatal landslides in 1993. In addition to various activities such as school programs, marches, a drama, erection of a monument at the site of the event and speeches were organized to make it a significant public event in order to create



an imprint in people's mind. These disaster safety days are good opportunities to involve the private sector, who like the opportunity for marketing their products and services in a public arena.

**Posters, billboards, flyers and murals**

Posters, flyers and brochures reach a large, diverse community and can range from eye-catching graphics with simple messages of informative facts and culturally relevant icons. Their advantage lies in the easy replication and dissemination. They can be placed in municipal offices, schools, street corners, movie houses or clubs. Brochures and flyers, of course, can be more informative and usually indicate some future event, action or a program. In Gaibanda and Tongi in Bangladesh, CARE partnered with Bangladesh Urban Disaster Mitigation Project (BUDMP) (Safer Cities 8) to make creative use of six public awareness messages alternating in six placards at the back of rickshaws as 'vibrant visual reminders' of the need for risk management. The concept was novel and made use of public space and the most commonly used popular mode of transport. But the murals and billboards with the same messages were not as effective, as desired because it was found that there were already too many similar commercial billboards and murals



competing for attention. Also, such billboards seemed to be largely irrelevant to the illiterate who make up a great deal of the public in the area, as opposed to what would have been the case if they had been used for, say, a mostly literate public of Sri Lanka. Perhaps graphic images and icons or direct street theater would have worked better on the Gaibanda public. Other disadvantage of this method is the expenses involved in such advertising media and inclusion of too much information put into a single unit. It is more striking when a single message is strongly portrayed in this type of media.



**Newsletters, email and list serve**

Newsletters can be quite effective and sustainable as a source of regular safety information dissemination methodology and reliable risk communication tool for the literate, as the Sri Lankan case has shown. Customization of topic and language with variety of editorials and information is important. Also, these are relatively cheap to create and thus can be distributed for free with less costs than visual materials like video or tele-drama that require effort in planning, gathering of information and utilization of competent resource persons. This method is more useful when information products can be produced in local languages for wider reach as they allow for regular, up-to-date information dissemination. Since literacy is very high in Sri Lanka, a bimonthly newsletter in Sinhala has been selected for dissemination of news related information. It is called "Vipath Puwath" and was distributed for free. Similar practice has been initiated by CARE-Bangladesh too. Replication of this tool can be smooth only if a pre-assessment of the target audience and hazard types is carried out. Emails, websites and list serves are good for members of networks of practitioners or computer literate public.

**Leaflets, brochures, safety pamphlets and games**

Leaflets and booklets can serve as a briefer version of something that might be explored in more depth in a manual, but in greater depth than a newsletter or poster or brochure. Hazard specific leaflets and booklets where local hazards (whether flooding, fire or earthquakes) are highlighted and their risks assessed and solutions



discussed were used in Bandung, Ratnapura and elsewhere. With such media, different booklets should target different audience segments (those vulnerable to the particular disaster). Small landslide leaflets with basic knowledge was created in Ratnapura. Whole of the landslide information was consolidated in a four-volume pictorial landslide booklet for school

children, with colorful illustrations and diagrams to attract readers' attention. This was simplified and contained in a smaller booklet for easy reference by all other community groups. The same were published in two local languages, Sinhala and Tamil, and were distributed free to schools and other public. Due to their simple form they were easily replicated and disseminated. An advantage is the fact that one can easily modify such booklets to suit the specific case or hazard or community or target audience, and these can serve as reference material after workshops, special day events, exhibitions or dramas. They can also be incorporated into school programs such as in Bandung (Safer Cities 10) where leaflets, simple manuals and posters became a part of the school program for a safer environment. In Bandung, 1000 books were published, composed of picture dictionaries with eye-catching colorful cartoons, explained in simple terms and distributed during school seminars. In Bangladesh, BUDMP used audience profiles of children to create popular board games. Kids are easily attracted to such creative games and they can subsequently relay information to parents, friends and others. SESP in Nepal created an earthquake kit, training curriculum, manuals for house designers and builders.

**Door-to-door announcements**

Announcements through loudspeakers or village meetings are also a useful media tool popular among village folks. They are effectively used in collecting contributions or announcing events. They are followed up with door-to-door distribution of handbills brochures and leaflets. In the Cambodia Community-based Flood Mitigation and Preparedness Program (CBFMP), contributions in kind, labor or cash were asked using announcements in village meetings and Red Cross officers followed up on promised contributions from villagers through door-to door requesting. Loudspeakers attached to rickshaws are a common sight in Bangladesh and were effectively used to announce appropriate messages.

**TV, Radio and Mass Media**

Coverage of workshops in Nepalese newspapers triggered the idea for the self-initiated formation of the ward-level risk management media groups in Kathmandu. TV and radio can combine education with entertainment as effective social marketers of public awareness messages. However it requires sponsorship by private sector or the cooperation of journalists and actors. In a Sri Lankan program for schoolchildren, a training session for media personnel has been included before teaching kids. It led to a live discussion about using media for risk communication through popular media such as radio and TV through the involvement of Sri Lanka Broadcasting Corporation.

In Sri Lanka, the single-episode tele-drama to demonstrate the need for "Heeding disaster warning" was presented in national TV through the sponsorship of an insurance company. This form of social marketing was targeted at young people, with warning message integrated in a romance story in a soap opera style. This was perceived by youth as a strategy better than "another information jam-packed documentary." This **landslide-preparedness tele-drama "Of an Event Foretold"** was entered into an international contest of UNESCO and, replicated by other agencies in the sub-region with the help of UN-HABITAT after being initially broadcast nationally, The popularity of the film and the media dimension allowed it to be presented in a larger scale to the whole

community in different gatherings and repeatedly over time. Filmed at the local site and using new actors and actresses trained at a renowned national institute for more credibility, the tele-drama linked the local to the national and finally to the international arena. In Nepal, a half hour talk show on risk management by a FM radio called “SAGARAMATA” is aired everyday. ADPC in collaboration with Department of Disaster Preparedness and Mitigation (DDPM), broadcasts a five minute clip on risk management on TV in Thailand every week as well. In Hat Yai, Thailand, lectures were complimented with Vietnamese documentaries dubbed in Thai, providing an important and more detailed information cast in to a short film but in a more attention-grabbing manner than manuals or workbooks.

### School cultural events, public drama and street play

Street plays in public places can reach common people in a direct way. Street drama can be more relevant and accessible not to orally based cultures as in Sri Lanka but also to a poorer public as in Tongi and Gaibanda in Bangladesh. In most schools cultural events are often organized for celebration of special days or events.

While it serves as an extra curriculum activity it also can feature risk management as a theme to make it also a public awareness activity. In the Nepalese case, the Red Cross volunteers demonstrated, through a drama on stage, the capacity to serve as medical first responders to highlight the message of community safety during disaster events. However, such creations must respect the social norms, ethics, culture, and religions



by being meaningful to a diverse cross-section of the community

### Environmental clubs/school programs

Institutionalization of awareness programs in schools through clubs or as part of the curriculum or school calendar can be the promise of behavioral change due to ‘youth power’ in terms of spreading knowledge to friends and elders. This media is also successful due to the fact that they are more open to information. Keeping the awareness program at the level of extra-curricular events, competitions and clubs might be more effective than introducing

‘disaster’ tests or required quiz programs to gauge knowledge on the subjects since children often do not internalize this kind of knowledge. Whereas they can become quite serious about issues by participating in outdoor activities when their involvement is not evaluated in a traditional manner but allows them to demonstrate the acquired knowledge in an interesting way.

*“It is the social responsibility of the teachers to carry forward the work even after NGOs move out.”*

*-Kishore Solanki, teacher of Kuti Vidalaya*

SESP (School Earthquake Safety Program) initiative in Kathmandu Valley combined structural mitigation like retrofitting with non-structural mitigation like preparedness in schools. The school and community’s key stakeholders were consulted such as headmasters, engineers and international experts, in order to design construction surveys; local school educators and authorities were invited to seminars, and the masons, who are critical in their role as multipliers by training others, were given first-hand training. ‘Room to Read’ replicated the SESP model in two communities outside Kathmandu Valley. Minister of State for Education attended the hand-over ceremonies of one of the secondary schools in this project, highlighting its profile and thus facilitating the raising of funds. Student Earthquake Safety Club was created in the SESP. Preparedness-focused clubs can act as direct channels into school events, promote long-term behavioral change and provide continued support for future DM events and messages. They also offer a flexible structure for long-term risk communication for an important sector of the community-school kids. This section of society is termed “youth power” in ADPC lingo for a good reason as the youth carry a strong flame in the relay of information through the community.

Leaflets, simple manuals and posters formed a part of the school program in Indonesia Urban Disaster Mitigation Program (IUDMP) Bandung. Three training modules were used for various members of the school: workbooks (interactive for students), manuals (hands-on instruction) and resource books. Tests and questionnaires were used for evaluation. However, schools have their own time-constraint on the syllabus and students are busy with formal classes which must be considered during incorporating risk management themes in the syllabus. The DM themes should be integrated in an entertaining way rather than as tested materials although tested materials are sometimes effective. In Sri Lanka, risk management has been introduced as one of the six subjects upon which students can carry out their projects (with a practical field work component) for their university exams.

Activities such as essay and art competitions, debates, can be linked to regular practice of school competitions at various levels but need to be repeated as annual events. This is a good way to engage students actively in the theme of disaster risk management at the same time public awareness also is created among them by having them to produce some intellectual creations by way of art, essays or involving them in debates around the topic.



### Simulations/drills/shake-table demonstrations

Simulations and drills are among the more eye-catching and effective tools. They follow a strategy of learning by doing and participants themselves evaluate the effectiveness of events such as drills, simulations or learning by visualization such as shake table demonstrations. In the latter viewers can compare, the difference between the impact of a shock to a reinforced or retrofitted building and one that is not, in the case of an earthquake. It is strikingly shown by shaking two samples erected on the same table. As

### Activities and Tools Used in Ahmedabad Project



**Drawings** by students of what struck them most from hazard-sites

**Bulletin board** clippings related to industrial accidents that was updated regularly

**Skits** based on traditional mythological characters Ramayana modified for a disaster management message and performed on Republic Day where teachers, students and parents were assembled

**Kites** Students wrote and drew messages on kites and flew them during Gujrat’s Kite festival where everyone flies kites. The kites were displayed in the sky, and kept after being cut in various areas.



**A Teachers’ manual** from extensive background research, with an activity-oriented approach of survey formats and exercises that educators, and useful contacts, was created to serve as a ready reference

**Posters and Calendars** with directions for safety eventuality were put in public places like bust stops and hospitals. In the calendars, students wrote their own names, a slogan related to preparedness, and drew a disaster preparation scene on blank space. These customized calendars were very successful with the children and made into yearly calendars.



observed in the Nepalese case, present day 'school children need demonstrations more than storytelling.

Visualization through simulations is very powerful tool, especially for disasters that have not been witnessed by some or all in the target audience as they leave an unforgettable image of a reality. It was

found that whereas the books that were distributed in Bandung provided facts for the brain, simulations provided emotional memory. Drills must be repeated, especially in schools as schools may be used as evacuation centers in the aftermath of an event. In Nepal, hazard/vulnerability and hazard mapping was followed by an entire day of drills and seminars. Drills were combined with 24-hour preparedness exercises such as a community watch with volunteers. These drills provided a good learning experiences to communities in earthquake prone areas. In Lao, fire drills and first aid trainings were combined in the Lao Urban Disaster Mitigation Project (LUDMP) first responder training workshops.

*"We enjoy doing the earthquake drills. They are fun and we know that they are important because if an earthquake does happen, then we will be safe."*

*-schoolgirls from Sabang elementary school in Bandung*

### Exhibitions and commemorative monuments

In the SESP in Kathmandu, the retrofitting of vulnerable schools and training of masons, both events were celebrated with award ceremonies. A diverse cross-section of population representing officials to masons was invited to witness the event. School development committee has handed over the new building to authorities and graduation certificates were given out to masons. It demonstrated the successful collaboration with Nepalese NGOs. In Hat Yai, Thailand the disaster day ceremony was held with the participation of governor and helped to bring in media for publicity,

attracted municipal support and contributions from private sector. All that helped to enlarge the scale of the event in terms of outreach. Permanent exhibitions and commemorative monuments act as long-term visual reminders of risk management needs and are considered as good public awareness material. In Ratnapura, Sri Lanka, commemorative monument has been erected in memory of victims of a killer landslide at the site itself. Also the art and poster exhibition was permanently placed at a public site in order to have a wider outreach.

### Public lecture/seminars

Public lectures and seminars, if combined with other activities in an academic setting or community gathering, can become effective tools. Also, in terms of speakers and seminar participants, popular, respected or well-trained individuals can enhance the effectiveness of presentation. Such efforts can become right marketing products or advertisements of the event due to the talent in creative communication of the messages. In Bandung, IUDMP runs regular seminars in schools around risk management themes. Symposiums, seminars, demonstrations and scientific forums are regularly organized as a part of weeklong Earthquake Safety day event as a spiral-off from SESP in Kathmandu. Prior to orientation seminars, training materials must be translated into local languages to create public awareness more effective. It demands additional resources as in the Sri Lankan case, where considerable time was spent in translating and therefore customization of training materials must be considered as an additional activity before organization of such events.

*"Throughout the course of this project, we gave lectures about Kathmandu Valley's earthquake risk...giving such talks not only informed the public about the Kathmandu Valley's earthquake risk, but it also gave us feedback on the concerns and perceptions of the public, which helped us tailor our public awareness campaign subsequently."*

*-Mahesh Nakarmi, NSET, Nepal*

## Lessons Learned

1. Gain ownership and trust of the community by being culturally sensitive, showing tangibly useful methods and giving opportunities for voicing concerns and taking responsibility.
2. Use influential spokespersons in order to provide publicity and explore networking possibilities.
3. Trainees, trainers and contributors all have a stake in a successful campaign strategy. Avail both public and private sector support as possible
4. Create a potent volunteer base and support it in the long-term with reinforcements.
5. Make Training courses as short as possible. Such courses/seminars should bring more demonstrations, hands on experience with visual presentations.
6. Internalize risk management through simulations, on-site visits to hazard prone areas, enactments, commemorative days etc.
7. Use existing systems, customs, laws, practices and institutions to facilitate institutionalization and sustainability and keep good interpersonal relations with policy-makers.
8. Integrate Tools, as communication through various mediums is more likely to integrate all levels of consciousness and access all sectors of society.
9. Tailor-made workshops and messages to suit the target audience
10. Combine formal and informal approaches. A formalized event will increase transparency, credibility and outreach; informal gatherings encourage feedback and can be more direct.
11. Highlight awareness of funding needs to national and international sources of funding so that campaigns are not prematurely ended or ineffectively designed due to shortage of resources.
12. Undertake sound preliminary research to avoid target audience categorization problems, redundancy, and information overload, misuse of resources or irrelevant messages.
13. Maintain a quality control in translations while customization of manuals, leaflets or brochures to local language
14. Use consensus building or an enabling approach, which is better than confrontation or activism in certain cases where support of influential industries or stakeholders is vital.

### Conclusion

It is important to remember that real success in risk communication lies in setting up an agenda for changing attitudes and community perceptions, rather than achieving instant or outright success. There must be constant re-emphasis on principles and approaches of public awareness and social marketing. Monitoring and evaluation of success is needed for constant updating of plans and exercises. Certain flexibility should be allowed rather than sticking into a rigid strategy in order to accommodate new requirements and contextual changes. As all campaigns are creative experiments, due perspective is required, although success is difficult to

attain in risk communication within a short period. However, some of the model activities and inspiring ideas noted above have become a cause to celebrate success. When adopted in further projects, the tools mentioned above should be subject to modification, expansion and replication as required. Particularly long-term investment in public awareness campaigns is often out of the question for third world communities suffering economic severities. Therefore a key element that will continue to constrain success if not resolved, is the insufficiency of financial support and resources from key actors. Positive publicity should bring in more interest and understanding from donors, government and NGOs on the need for risk management.



## Further References

Safer Cities 1 Community-based Initiatives in Kathmandu Valley: Pioneers in earthquakes mitigation and preparedness

Safer Cities 2 Coping with Flood in Cambodian communities: Enhancing community solidarity through capacity building Kampong Cham

Safer Cities 3 Mitigating Flood Risk in Cambodian Communities: Empowering communities to manage disaster risk

Safer Cities 4 The School Earthquake Safety Program in Kathmandu Valley: Building safer communities through schools

Safer Cities 5 Community-based Disaster Risk Reduction in Central Sri Lanka: Mitigating landslide and rock-fall damage in urban Nawalapitiya

Safer Cities 6 Promotion of Disaster Mitigation Sri Lanka: Piloting disaster risk communication through empirical approach

Safer Cities 7 Can Small be Beautiful? Community based flood mitigation in Bangladesh

Safer Cities 8 Channels of Communication-a Challenge: Public awareness for flood preparedness in Bangladesh

Safer Cities 9 Reducing Fire Threat to Homes: Piloting Community-based Fire Risk Assessment in Ban Hasady Village

Safer Cities 10 Creating Earthquake Preparedness in Schools: A case study of Mitigation Efforts in Indonesia

Safer Cities 11 Towards Technological Hazard Risk Reduction in Ahmedabad: Schools as effective institutions for disaster awareness and preparedness.

Safer Cities 12 Demonstratiion Housing Construction for Landslide and Flood Prone Areas: A case study from Ratnapura, Sri Lanka

Safer Cities 13 What is the Appropriate Mitigation Mix? Structural and non-structural mitigation in Hat Yai, Thailand

Focus Article Words of Warning: SLUMDMP demonstration school project

Regional Workshop on Best Practices in Disaster Mitigation: Lessons Learned from the Asian Urban Disaster Mitigation Program and other Initiatives. 24-26 September 2002 Bali, Indonesia ADPC: 2002, BKK, Thailand.

## Editorial Board

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*Safer Cities is a series of case studies that illustrate how people, communities, cities, governments and businesses have been able to make cities safer before disasters strike. The series presents strategies and approaches to urban disaster mitigation derived from analyses of real-life experiences, good practices and lessons learned in Asia and the Pacific. This user-friendly resource is designed to provide decision-makers, planners, city and community leaders and trainers with an array of proven ideas, tools, policy options and strategies for urban disaster mitigation. The key principles emphasized throughout Safer Cities are broad-based participation, partnerships, sustainability and replication of success stories.*

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## AUDMP

*The Asian Urban Disaster Mitigation Program (AUDMP) is the first and largest regional program implemented by ADPC. The AUDMP started in 1995 with core funding from USAID's Office of Foreign Disaster Assistance (OFDA) until 2005. The program was developed with the recognition of increased disaster vulnerability of urban populations, infrastructure, critical facilities and shelter in Asian cities. In an environment where good governance and decentralization are high in most countries' political agenda, AUDMP aims to demonstrate the importance of and strategic approaches to urban disaster mitigation as part of the urban development planning process in targeted cities of Asia.*



*AUDMP supports this demonstration by building the capacity of local authorities, national governments, NGOs, businesses and others responsible for establishing public and private sector mechanisms for urban disaster mitigation as part of city management. AUDMP also facilitates knowledge sharing and dialogue between key stakeholders to promote replication of AUDMP approaches to other cities and countries worldwide. Currently, the AUDMP approaches have been introduced and sustained by national partner institutions in targeted cities of Bangladesh, Cambodia, India, Indonesia, Lao PDR, Nepal, Philippines, Sri Lanka, Thailand and Vietnam.*



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*The Asian Disaster Preparedness Center (ADPC) is a regional resource center dedicated to safer communities and sustainable development through disaster risk reduction in Asia and the Pacific. Established in 1986 in Bangkok, Thailand, ADPC is recognized as an important focal point for promoting disaster awareness and developing capabilities to foster institutionalized disaster management and mitigation policies.*

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