adpc
Asian Disaster Preparedness Center

Community-based disaster management | Lao PDR
Asian Urban Disaster Mitigation Program

Safer Cities 9

Case studies on mitigating disasters in Asia and the Pacific

Reducing Fire Threats to Homes:

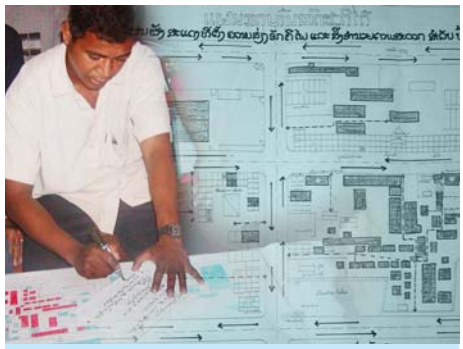
Piloting Community-based Fire Risk Assessment in Ban Hatsady Village

Introduction

In the late afternoon of August 1, 2000, fire raged across Ban Hatsady village of Vientiane, Lao PDR. About 26 single and multi-family structures, including a small market, were totally destroyed or irreparably damaged. Although fire suppression actions attempted to save homes, the high ignitability of most of the structures caused numerous simultaneous house fires that quickly overwhelmed the suppression forces. The damage was relatively high. This distressful experience left deep scars in the minds of the villagers as they helplessly witnessed their properties being burned down slowly to the ground. The incident is only one among the recurring fire events in Vientiane, Lao PDR.

The 2000 Ban Hatsady fire

Urban fires have devastating impact on the communities of the Lao PDR. The capital city of Vientiane is specifically susceptible to the recurring problem of fires. About 352 fire events were recorded between 1990-2002 with an estimated cost of loss at around US$5.4 million (LUDMP Baseline report, 2003). An analysis of disaster impacts on urbanizing areas show that fires cause the greatest loss of life and property. Dense building concentrations, narrow roads, flammable building materials, aging water supply and electrical system, as well as the lack of resources to upgrade preparedness and response skills have resulted in a growing risk of large scale, multiple structure fires.



Ban Hatsady fire risk mapping

Abstract

A fire risk zonation map of Vientiane was compiled under the People's Democratic Republic of Laos (Lao PDR) Urban Disaster Mitigation Project (LUDMP) for fire prevention, mitigation and preparedness at national and city levels. During this attempt, Ban Hatsady village was selected to undertake a community-based fire risk assessment process.

This study presents the practical experience of the Ban Hatsady villagers as they worked together to identify their own vulnerabilities and developed their own strategies for reducing impact of future fire hazards. It shows how a community-based fire risk management approach becomes a key to overcoming recurring problems of fire.

The inside story

July 2004

Reducing fire risks in urban areas: A challenge to the Lao PDR Government

Understanding the country's vulnerability

Lao PDR often faces a range of disaster events including flood, drought, landslides, fires and other man-made hazards. The physical vulnerability of the country's population and infrastructure is compounded by economic vulnerability. Lao PDR is one of the least developed countries in Asia, with an estimated per capita income of US$ 310 in 2002 (World Bank data). The lack of infrastructure and limited opportunities for planning add to the country's development challenges. The rapid urban growth greatly increases the vulnerability of the country's major population and economic centers. Increasing urbanization in the context of Lao PDR presents major challenges and opportunities for the reduction of disaster impact in the future.

While floods have the greatest impact to the country's population as a whole, fires cause the greatest loss of life and property in the urban areas. For example, two recent fires in Vientiane province destroyed 130 and 300 buildings, respectively. The situation posed a challenge to the Government of Lao PDR to initiate immediate and relevant measures of reducing impacts of future fire hazards.

Source: URI, Lao PDR

Government taking action: the LUDMP initiative

The Government of Lao PDR through its National Disaster Management Office (NDMO) initiated the Lao PDR Urban Disaster Mitigation Project (LUDMP) in July 2002. With funding support and technical assistance from the Asian Disaster Preparedness Center (ADPC), the project was also in collaboration with the other government entities, the Urban Research Institute (URI) and the Fire Prevention and Protection Police Department (FPPPD). These four organizations comprised the LUDMP Partners and each played specific roles in the implementation of LUDMP program activities. The LUDMP focuses on incorporating risk management and hazard mitigation into development planning of urban areas, with the city of Vientiane as the pilot. Under the current phase, replication activities have been implemented in the Luangphrabang province and Pakse.

Major activities of LUDMP
• conducting risk assessment at both city and community levels • promoting community-based approach to fire risk assessment and mapping • building capacity for prevention and response within • the city' s emergency service departments establishing public awareness campaigns improving regulatory and incentive systems for fire mitigation and accident prevention

LUDMP Partners: Roles and Responsibilities	
NDMO	• Lead partner agency • Ensure that good coordination is maintained between the project partners and government staff at all levels, the Vientiane Disaster Management Committee, and other organizations • Coordinate workshops and other events related to hazard assessment and mitigation planning process, and assist in obtaining relevant data from government ministries
URI	• Manage the detailed information requirements in relation to the project, including development of maps and other information resources • Ensure that good coordination is maintained between all organizations relevant to the hazard assessment and physical planning in Vientiane. • Provide technical assistance in the risk assessment and mapping process
ADPC	• Assist NDMO staff in the identification of resources and activities necessary for further development of activities to be initiated under the project. • Provide training resources and assist in their adaptation to Lao PDR. • Provide technical assistance in developing hazard assessment and mitigation planning activities. • Provide specialized technical assistance in information activities, including website development, process documentation, data identification and database development.
FPPPD	• Coordinate with other partners in the formation of community fire volunteers and the conduct of fire drills and rescue trainings. • Provide technical knowledge and practical skills on fire prevention measures and assist in public awareness activities

Fire vulnerability of Vientiane

Sited on a relatively flat plain in a bend of Mekong River, Vientiane is the capital city of Lao PDR and the largest city in the country. As the center of both national and municipal government administration, the city is experiencing a construction boom, particularly with respect to roads and larger modern buildings. The growth in infrastructure presents both challenges and opportunities. For example, construction of roads maybe considered essential feature of rapid urban development, yet unfortunately, rehabilitation of old water pipes under the road surface and replacement of fire hydrants upon its completion, have never been considered in the road improvement projects. Aging water supply and lack of access to fire hydrants contribute to the vulnerability to urban fires.

The lack of appropriate mechanisms to guarantee fire safety in new development remains to be one of the outstanding issues. These include building approval process, provision of additional fire fighting facilities, and fire safety regulations. The consequences had been dense building concentrations, flammable building materials, narrow roads, improper installation of electrical system, and others. These are only some of the visible issues connected with the high rate of urban fire incidences. Lack of funding to repair damaged infrastructure facilities, such as fire hydrants, electrical system, and roads also contribute to fire vulnerability.

Reducing fire vulnerability: LUDMP strategy

Recognizing that fire cases in Vientiane had been on the rise, which resulted to an enormous loss of life and property, LUDMP initiates activities to reduce disaster vulnerability of population, infrastructure and economic assets in Vientiane and other cities and urban communities of Lao PDR to fires. The challenge was to bring together community members and government agencies at the local level to prepare the ground for a joint development of fire protection initiatives. Community-based risk assessment and mapping initiatives had been undertaken.

Mapping fire risks in Vientiane

Recognizing that fire cases in Vientiane had been on the rise, which resulted to enormous loss of life and property, the challenge was to bring together villagers and government agencies at the local level to prepare the ground for a joint development of fire protection initiatives.

A fire risk zonation mapping process took place in Vientiane, covering 100 villages in the 4 administrative districts in the urban area, namely, Chanthabouli, Sikhottabong, Sisattanak, and Xaysettha. These areas were considered as they played the most important role in political and economic activities in the city. The four districts covered 24, 23, 38, and 15 villages, respectively.

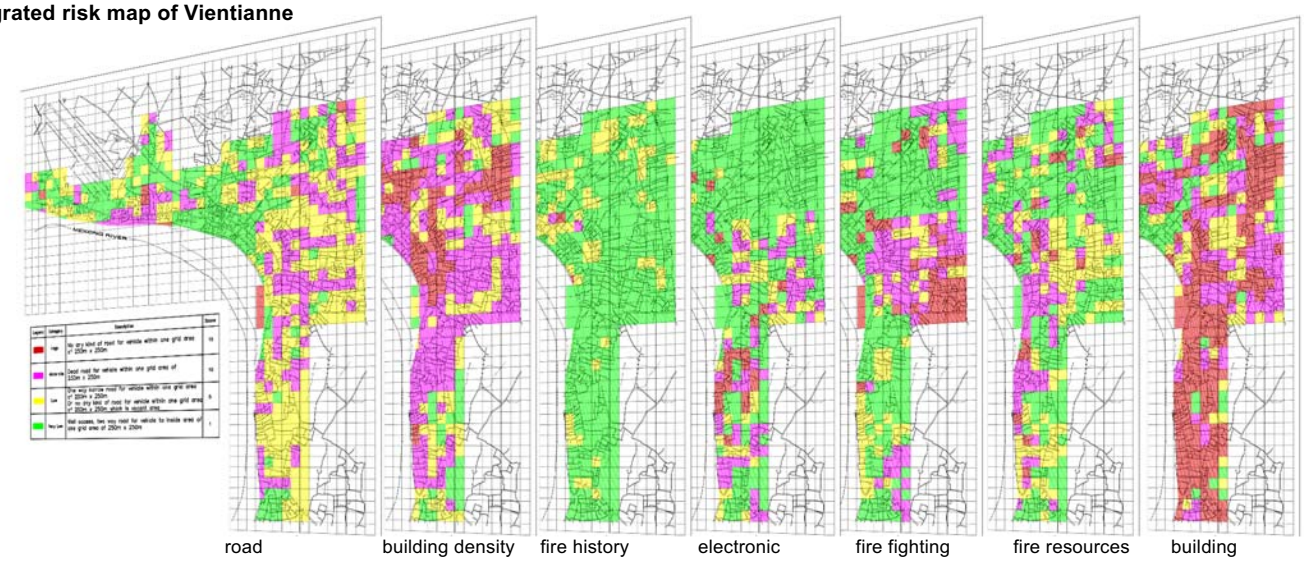
Under the overall direction of NDMO, with technical assistance from URI and ADPC, the Vientiane Fire Risk Zonation Map was produced based on a 1:10,000 (land use and infrastructure map) obtained from the National Geographic Department. The fire risk map was prepared through integrating seven layers of information (hazard attributes), mostly collected through field surveys. Since URI does not possess GIS capacity, integration was done manually. The zonation was prepared through identification of areas having relatively uniform characteristics from the fire hazard attribute viewpoints through clustering according to the total fire hazard rating. The overall rating showed that more than half of the communities covered in the zonation process were identified as "high risk", while six of them were labeled "very high risk" to fire hazards. The Vientiane Fire Risk Map served as the basis for the formulation of fire risk reduction strategies at the city and national levels.

Vientiane fire hazard attributes

- building material type
- availability of fire sources
- fire fighting scenario
- fire history
- electrical wiring
- building density
- accessibility

Among the fire prevention measures identified were regulatory development; community education and outreach; increased number of upgraded fire service equipments; and training and exchange programs.

Integrated risk map of Vientianne



From a list of priority communities identified as "very high risk" on the Vientiane Fire Risk Zonation Map, Ban Hatsady village in Chanthabouli district was selected to undertake the community-based fire risk mapping process. Major attributes considered were fire history and heightened awareness for fire protection activities. The presence of banks, market and other commercial entities had also been decisive factors, given that possible linkages with these establishments may help sustain the program activities.

Fire and an Unprepared Community

Mrs. Souvankham: then a victim, now an active fire volunteer

A single fire can destroy a thousand lives and livelihoods. The August 2000 fire in Ban Hatsady village left too many people homeless. A woman in her 50's, Mrs. Souvankham was one of the distraught victims. The memory was still vivid in her, recalling, "I didn't know what to do. I ran here and there and really panicked about how to save my family and my properties. I called out to neighbors for help, a few came but the others had also been very busy looking after their own safety. Thanks God, I was able to get my child into a safe place, but I lost everything that I'd toiled for." Mrs. Souvankham is only one of the many who experienced such agonizing incident in their community. In spite of the help extended by the Department of Social Welfare, Lao Red Cross and other humanitarian organizations, the mobilized resources were not enough to cover their loss, financially and emotionally. The plight of Mrs. Souvankham and the many other victims like her could have been prevented, had it not been for the community's ignorance in coping with a fire hazard.

Fire vulnerability of Ban Hatsady

Typical Ban Hatsady village

Situated at the heart of Vientiane, Ban Hatsady is a medium-sized community with some 242 houses in 15 subdivisions (as of 2002). The neighborhood is a mixture of residential buildings, administrative offices, service industries and commercial establishments, including the capital's biggest market, the Morning Market. As the city's business center, the village is densely populated and home to mostly poor people who avail themselves of the economic opportunities in the area. Some pockets of wood and partially wood structures are noticeable within the locality. Most of the houses do not have fire safety systems, such as fire extinguishers and smoke alarms. Electrical wiring was not properly laid out in some houses, thus posing a threat to fire risk. Narrow roads also become obstacles to the emergency service delivery. Additionally, there was no community level preparedness for fires. Although there already existed a security committee formed out of community volunteers, the committee was not trained on fire prevention, preparedness and response. These factors contributed to the community's high vulnerability to fires. In the last five years, four big fire events have been recorded in the Ban Hatsady community, the main causes of which were carelessness in using candles and faulty electrical wirings.

Preparing the community: Fire risk assessment and mitigation planning

Wherever people are exposed to the risk of fires, disaster prevention becomes a very important task. People at risk need to be optimally informed about the hazard characteristics, preventive measures and appropriate behaviors during the onset of a fire event, and they must understand their own responsibilities. The role of a community is of fundamental importance.

Community initiates fire risk mapping

The Ban Hatsady villagers worked together to produce their own fire risk map. The map was produced based on the same attributes used in the Vientiane city risk mapping with some modifications to suit the community situation. This preparatory process led to the formulation of a preparedness plan including fire escape routes and awareness-raising activities. The community risk mapping was carried out in few stages.

Ban Hatsady fire risk mapping process

- assessing level of preparedness
- identifying risk attributes and community resources
- mapping attributes and resources
- identifying risk mitigation measures
- risk reduction planning

Assessing level of preparedness

The community leaders and representatives from the elderly, women, youth, and the village security groups, took part in the process.

An information gathering was initiated to assess the community's level of preparedness and perceptions to risk. This was done through group discussions, interviews, ocular survey, and review of secondary data from the community office, FPPD and NDMO, and other related government offices. Community leaders briefly traced fire history, in terms of frequency, causes, the community's coping mechanisms and the degree of damage. They recalled that at least one fire incident happened each year, usually caused by faulty electrical wiring and unattended lighted candles. Traditionally, people only knew of wet blankets and fervent prayers as means of putting off a fire.

Identifying and mapping fire risk attributes

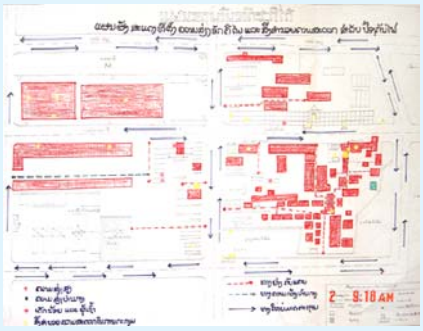
The community identified their own fire risk attributes and the resources within the community that can be used in the preparedness, mitigation and prevention activities.

Ban Hatsady fire risk attrributes and community resources

- Fire history
- Fire resources related to livelihood
- Building construction and density
- Quality of electrical wiring system
- Access in and out of community of fire truck, vehicles, people in the event of fire
- Houses where there are young children (7years and below) and elderly (65 and above) who should be put to safety in the event of fire
- Community resources: fire hydrants and other water sources, sand, buckets, fire extinguisher, ladder, ropes and public/private telephones
- Community resources that can provide support in the risk reduction process: community leaders, health professionals, teachers, and Security Committee

Having identified the risk attributes and resources, the community proceeded to marking on their base map the places where there is storage of flammable materials (lumber, chemicals, gas, etc.), houses made of flammable materials (wood, mixed concrete and wood), narrow roads which were inaccessible to fire trucks, areas with poor electrical system, and other factors which make the community vulnerable to fire. Mapping resources pertained to marking in their map areas where fire extinguisher, water containers, ladders, and ropes should be placed for ready access in case of fire emergencies. The location of fire hydrants and other water sources, and public telephones were also marked.

Ban Hatsady fire risk map



symbols used

- high risk
- medium risk
- low risk
- houses with children and elderly residents (priority to move to safety)
- community resources that can provide support to risk mitigation activities

Community fire prevention, mitigation and preparedness measures

While most disasters cannot be avoided, there are things people can do to lessen the loss of life and property damage. Preparedness to fires is obviously very important. Measures have to be taken to prevent and control fire hazards.

Ban Hatsady community initiates risk reduction planning activities to identify appropriate and workable measures to prevent, mitigate and prepare Ban Hatsady from future fire hazards. By way of a workshop conducted by the LUDMP partners, the community identified short- and long-term strategies. The participants set specific objectives which guided them through the strategy-identification process. These were to: (1) prevent the occurrence of fire especially in the residential areas, administrative offices and commercial areas, including the Morning market; and (2) undertake preparedness and safety measures at the individual, household and community level.

Defining Mitigation Planning

factfile

Mitigation planning is a collaborative process whereby hazards affecting the community are identified, vulnerability to the hazards are assessed, and consensus reached on how to minimize or eliminate the effects of these hazards.

Risk reduction planning is a very important aspect of a successful mitigation program. Communities need to set short and long-range mitigation goals and objectives.

Identifying risk reduction strategies

The community had to brainstorm on what were some examples of preparedness, mitigation and prevention measures that they could think of. This was to test the level of their perception on the subject area.

The group discussed among themselves their experiences, recalling fire events in the past, trying to quantify its costs and damages, the measures they had undertaken, the strengths and weaknesses of those activities. For example, they cited one fire event in the Morning Market, which they found difficult to quantify cost of damage, but they were able to identify preparedness measures to undertake (i.e. strict imposition of building code and fire safety regulations, public awareness campaigns through posters and other forms of media, and the conduct of fire drills).

Ban Hatsady fire risk reduction strategies

a. Increasing community awareness
b. Implementing a 24-hour fire preparedness measures in individual homes
c. Training and education
d. Organization and Strengthening of community fire volunteers brigade
e. Working for and enforcing fire safety regulations
f. Networking and resource generation

Risk reduction planning

A more detailed planning session for identifying specific risk reduction activities was done with participants listing down the activities, setting a time frame to perform such activities, identifying organizations or persons responsible, type of resources needed, and the agency or organization that could possibly support the process. The community also identified which of these activities were considered as short-, medium-, and long-term measures.

Implementing risk reduction activities

Increasing community awareness

Considered one of the most effective strategies for fire risk reduction is public awareness or community education on fire prevention. When properly implemented, information could successfully reach people in a wider extent.

- *Campaign posters.* A sticker poster on "Fire Safety Procedures" was developed by LUDMP and distributed to all households in Ban Hatsady. Some were posted over strategic corners in the community.

- *Fire emergency "190".* The fire emergency number "190" was disseminated during trainings and through the campaign posters. With proper access to telephone lines, anybody can make a call to fire services authority.

Poster on fire safety procedures

Implementing a 24-hour fire preparedness measures

All households were instructed to prepare water buckets and sand at strategic places in their homes to have ready access during fire emergencies. The community office also provide a ladder for emergency use.

Community watch: Formation of community fire volunteers

Twenty-four community volunteers composed of youth, women, and men were formed to guard the community against fire. These volunteers had been members of the existing security committee whose primary task was guarding the community against theft or any similar form of crimes. The village leader supervised the volunteers and monitored their activites.

Training and education

To enhance skills of community fire volunteers, fire drills and first aid trainings were conducted. The knowledge imparted included fire safety measures, proper use of fire extinguisher and other rescue apparatuses, stepwise procedures in case of fire emergencies, and applying first aid to fire victims. These training activities were conducted and supported by LUDMP partners. Fire volunteers actively participated in the trainings.


Fire drill training

Enforcing fire safety regulations

Specific activities identified under this category included: inspection and rehabilitation of electrical wiring system, widening of roads for easy access to fire services, installation of fire hydrants and regular community cleanup. The community worked together to implement these activities owing to economic reasons, little had been done so far. Only a portion of the street had been widened, further road rehabilitation is hampered by lack of funding resources. The community had inspected and reported the need for a safer electrical wiring system to the electrical services authority. however, only few were able to afford re-installation or ownership of individual electric meter. Upon the recommendation of the community, 2 fire hydrants had been set up in Ban Hatsady.

Networking and resource generation

The community had planned to carry out fund raising activities to augment savings of the Ban Hatsady Security Committee's existing welfare fund. This pooled resource have been used to support disaster- affected families in the community. The community also considered strengthening coordination and collaboration with other cooperative unions within the district. This may provide an opportunity for enhancing livelihood capacities for long-term sustainability. Not much had been done in this regard so far.

Incorporating community escape routes to the integrated fire risk and resources map

The Urban Research Institute noted and compiled the escape routes identified at Ban Hatsady and incorporated them in the integrated fire risk and resources map of Vientiane.

Fire and a prepared community

A small fire caused by faulty electrical wiring system happened in one house within the village just months after the risk mapping and mitigation planning activities at Ban Hatsady. Learning about the fire, the community fire volunteers rushed to the site without delay to provide immediate and initial assistance while waiting for the fire services authority. They brought buckets of sand which had been kept ready at their homes and used them to put off the fire. With the cooperation and coordination of community members, the flames easily subsided, and more homes were spared from any further damages.

Mrs. Souvankham, now an active community fire volunteer, when asked about differentiating fire events then and now, just cheerfully replied, "The recent fire was just like a practical demonstration of what we learned from the fire skills trainings conducted through LUDMP. People just laughed at the event, like it was just a drill. With the enhanced skills of community volunteers, the fire was easily put off even before the fire trucks arrived. The community now think of the overall safety, not anymore individually. The community members were working like a team, helping each other with one goal in mind - to prevent fire from causing more damages. With everybody's help and enthusiasm to apply their gained skills, the community is now safer than ever".

The experience brought about by the recent fire in Ban Hatsady tested the community's level of preparedness. No one was hurt, very minimal was the damage. People are no longer afraid of fire as

they already know what may cause it and how to prevent it, even how to reduce the effects of uncontrollable fires. Community now feel safe and confident that they can altogether prevent fire accidents from occuring.

The fire authorities commended the work done at Ban Hatsady for fire preparedness. The enhanced knowledge and skills of the fire volunteers helped them in carrying out their duty of protecting the community from fire threats. By the community's enthusiasm to help themselves and their neighbors, thereby, preventing occurrence of fire, their responsibilities had somewhat been eased at. Now, they are more confident that they can perform their tasks fully well, with the cooperation of the skillful community volunteers and members. They had wished that similar preparedness activities be replicated in all communities, at least within Vientiane so that fire hazards could be minimized, if not at all, prevented.

Monitoring activities of community fire volunteers

Lessons Learned and Future Challenges

Fire hazards are likely to happen, but if a community is prepared, its threat to life and property can be reduced. The following are some of the lessons learned from the Ban Hatsady fire risk mapping and risk reduction planning experience:

- ***Community-based approach to disaster mitigation***. Involving the community in the programs for reducing vulnerability to disasters is most effective because as direct beneficiaries, they can assess in detail their own physical, social and economic risks and can deal with it in a more personal, direct and effective way.

- ***Enhancing skills and knowledge on fire prevention.*** Traditionally, people in Ban Hatsady only knew of wet blankets and much prayers as means of putting off a fire. These measures may not cope with multi-structure and simultaneous fires. Improved and more scientific fire prevention skills are deemed necessary to prepare a community and an individual to future fire hazards.

- ***Community self-help: improving skills of fire volunteers.*** Local communities must establish their own fire management systems to reduce effects and prevent occurence of fires, encompassing both prevention and control methods. Well-trained, simply-equipped, community level fire volunteers are an effective and realistic beginning. Additionally, these trained volunteers could be utilized in the preparedness activities in the neighboring communities.

- ***Proper selection of community fire volunteers.*** As fire emergencies may happen anytime of the day, it is desirable that community fire volunteers are those people who could spend most of their time in their homes or within the community. Aged members could be more effective fire volunteers compared to young and strong people who flee from homes each day to earn a living as they stay at home most of the time. They may not be physically strong enough, but as long as they know the basic skills in fire rescue, as simple as calling the fire emergency number "190", they could save lives.

- ***Manual mapping works.*** The experience in Vientiane proved that there is no requirement for a highly sophisticated technology to generate a fire risk zonation map. Manual mapping not only produces the desired output, but also works in building and strengthening solidarity, coordination and cooperation among communities.

- ***Budgetary attributes for long-term sustainability.*** The LUDMP intervention in Ban Hatsady marks the beginning of an important development whose momentum needs to be sustained. This would entail budgetary requirements that which remains a challenge to the implementing government authorities.

- ***Replicating success to neighboring communities.*** As fire cannot be easily contained but can spread widely if left uncontrolled, there is a need to also prepare the neighboring communities on fire mitigation. Project activities in Ban Hatsady should be replicated to the rest of the communities.

  Following success of the Vientiane/Ban Hatsady project, similar activities are now being implemented in Luang Prabhang province under the current phase of LUDMP. Specific mitigation activities undertaken include fire risk mapping, formation of community fire volunteers and the conduct of fire drills and first aid trainings.

- ***Building a safe and sustainable community***. Economic situation may impede an individual or community to successfully implement major mitigation strategies (i.e. proper electrical wiring installation, strict adherence to building codes, widening of roads, etc.). Follow-up activities to enhance livelihood capacities are deemed necessary to build a really safe and sustainable community.

- ***Regular monitoring ensures long-term community safety.*** Regular monitoring, however simple, must have to be done to ensure sustained preparedness. In the case of Ban Hatsady, monitoring is done by the LUDMP partners, through occasional visits to the community, making informal chats with the village leader and fire volunteers and keeping track of any fire event happening in the locality.

- ***Holistic and integrated planning***. Vulnerability in the context of fire is often increased due to societal factors such as population density and urbanization. Incorporating disaster mitigation measures in the overall urban and city planning helps in reducing threats of fire in the homes of urban communities. Strategic planning (vulnerability identification, urban planning and emergency management planning) needs to be strengthened to improve emergency service delivery.

- ***Adherence to building and fire safety codes: an outstanding challenge.*** For long-term effect, strict enforcement of relevant codes, like the building and fire safety codes, by the respective authorities is necessary. Government authorities should recognize their vital role in the approval of the national strategy for disaster mitigation and firm implementation of its regulations.

- ***Importance of cooperation/coordination among stakeholders.*** The eagerness of the community members and the commitment of LUDMP partners to be of assistance to the community in the whole process of community risk assessment and risk reduction planning contribute to the successful implementation of project activities.

Further References

ADPC (2000) Community Based Disaster Management Course, Trainer's Guide

ADPC (2003) Asian Urban Disaster Mitigation News Quarterly Activity Highlights, January-March 2003

ADPC (2004) Briefing Notes: 9th AUDMP Working Group Meeting, 3-5 April 2004, Dhaka, Bangladesh – LUDMP Status Report

LUDMP (2003) Baseline Report
NDMO, Lao PDR

LUDMP (2003) Vientiane Fire Risk Assessment Final Report
URI, Lao PDR

Sounnalath, P. et. al. (2002) Regional Workshop on Best Practices in Disaster Mitigation: Lessons Learned from the Asian Urban Disaster Mitigation Program and other Initiatives, 24-26 September 2002, ADPC - Fire Risk Assessment in Vientiane Lao PDR, pages 97-102

Victoria, L. (2003) Community-based Approaches to Disaster Mitigation, Paper for the
Center for Disaster Preparedness, Philippines

Editorial Board

Safer Cities 9 has been reviewed by:
Dr. Suvit Yodmani, ADPC
Mr. Earl Kessler, ADPC
Mr. N.M.S.I. Arambepola, ADPC
Dr. Buddhi Weerasinghe, ADPC
Mr. Rajesh Sharma, ADPC
Mr. Phetsavang Sounnalath, NDMO
Mr. Thonephokam Inthasone, NDMO
Dr. Aphaylath Keophilavanh, URI
Ms. Suthira Suwanarpa, former ADPC staff
Ms. Lorna Victoria, CDP

Author: **Ms. Charina May Blanco**, ADPC
Designer: **Mr. Lowil Fred Espada**

LUDMP

The Lao PDR Urban Disaster Mitigation Project (LUDMP) was launched in July 2002 under the Asian Urban Disaster Mitigation Program (AUDMP) of the Asian Disaster Preparedness Center (ADPC). The main objective of the project is to reduce disaster vulnerability of population, infrastructure, and economic assets in the Lao urban areas to fire and traffic accidents. It focuses on establishing systems for risk assessment and disaster mitigation and incorporating such system into the urban development planning of Vientiane and other major cities and communities in Lao PDR.

Funding:

Office of Foreign Disaster Assistance (OFDA),
U.S. Agency for International Development (USAID)

Project Partners

National Disaster Mitigation Office
Ministry of Labor and Social Welfare
Pang Kham Road, P.O. Box 347
Vientiane, Lao PDR
Tel: 856-21-219450
Fax: 856-21-219525
E-mail: ndmo@laopdr.com

Fire Prevention and Protection Police Department
Km. 3 Thadeua Road, Ban Watnak
Vientiane, Lao PDR
Tel: 856-21-312016

Urban Research Institute
Ministry of Communication, Transport, Post and Construction
Dongpalane Road, P.O. Box 5067
Vientiane, Lao PDR
Tel: 856-21-412285
Fax: 856-21-416527
E-mail: urilao@lanexangnet.com

Safer Cities

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.*

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 2004. 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.

ADPC

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.

For more information, please get in touch with us at:

Asian Disaster Preparedness Center
P.O. Box 4, Klong Luang Pathumthani
12120
THAILAND

Tel: (66-2) 516-5900 to 10
Fax: (66-2) 524-5350
E-mail: adpc@adpc.net
URL: http://www.adpc.net

E-mail: audmp@adpc.net