WORKSHOP ON COMMUNITY RESILIENCE AND HUMAN SECURITY

FROM COMPLEX HUMANITARIAN EMERGENCIES TO SUSTAINABLE PEACE AND DEVELOPMENT

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RSiS
Nanyang Technological University

S. RAJARATNAM SCHOOL OF INTERNATIONAL STUDIES

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This report summarises the proceedings of the Meeting as interpreted by the rapporteurs and editors of the RSIS Centre for NTS Studies. This report adheres to a variation of the Chatham House Rule.

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Community resilience has entered the policy arena to link empowerment and accountability. Building community resilience harks back to human security objectives – protecting and empowering communities and essentially enabling them to reduce the negative impact of both environmental and socio-political challenges on their lives, livelihoods and dignity. Yet there remain hurdles to turning these policy statements into action. The challenges faced across the Asia-Pacific are most pronounced in the wake of natural disasters and armed conflicts.

Critical infrastructure (such as public utilities, transport, water and health systems) serve as the "hardware" that supports the social resilience of communities. Sustainable public transport, flood and drainage management contribute to environmental security while infrastructure dedicated to urban renewal and upgrading as well as community market facilitates economic security. Infrastructure and services for supplying drinking water, sanitation and solid waste management supports health security goals. Street lighting and storm shelters help ensure personal security on a daily basis and in times of disasters. However, the provision of such infrastructure in many developing countries is often concentrated in affluent metropolitan areas and tends to have limited benefits for poor and vulnerable urban communities in terms of improving their quality of life. Moreover, when natural disasters or armed conflict threaten the safety of families and communities, the poor becomes more vulnerable and in effect, disproportionately affected – to the point of losing the foundation of their lives and source of livelihood. Amid vulnerabilities to climate change and internal socio-political challenges, achieving equity among urban communities thus presents a vital challenge to many city governments in Southeast Asia.

Many developing countries in the region may lose gains achieved with the Millennium Development Goals (MDGs) if communities miss out on building and reinforcing their capacity to contribute to their own long-term development. Communities benefit more when affected individuals and households, who are their own first responders, however informal and unrecognised, are organised enough to immediately act towards disaster recovery and relief efforts without having to wait on government assistance. Governments however should not be lax and rely on the social resilience that communities may have. As in any natural disaster, response needs to be coordinated and when there is no clear line of command and control, efforts at the community level usually go to waste because of lack of a holistic approach. Embedded social resilience however needs to be reinforced with continuous and sustainable building of technical and organising capacities that are necessary for the long run in supporting development initiatives.

The workshop included several policy recommendations:

For disaster resilience

1. Government and international humanitarian organisations or non-government organisations (NGOs) should conduct more technical and capacity-building programs to arm communities with adequate knowledge and training to address problems that may arise in a crisis or disaster. This can range from disaster monitoring to risk communication to first aid training.

2. Emergency transport infrastructure: In disaster-related disruptions of the regular operations of public transport, local and national governments, as well as businesses need to have an emergency response plan buttressed with regular simulation exercises that are coordinated with communities and prepare to provide alternative modes of transportation (non-motorised transport, i.e. pedicabs, boats, trucks) to affected communities.

3. Public-private-community partnerships. Private sector entities that have concessions on public utilities need to establish partnerships with local governments and provide technical training within community organisations to: (1) empower communities to maintain and protect the infrastructure for public utilities; (2) reduce service fees by reducing operational costs and; (3) ensure that public utilities remain operational during emergencies or disasters. To reduce the financial burden on the poor accessing privatised public utilities, governments at a minimum, should impose controls and regulate costs for services through a regulatory board.

4. Crowdsource as much as possible. Technology companies should support crowdsourcing in and by communities. If properly utilised and managed, crowdsourced data can enable public utilities and transport systems to adjust to disruptions and easily provide both responders and the communities with the necessary response and information, such as evacuation and relocation procedures before, during and in the aftermath of disasters.

For sustainable development

5. Participatory housing and urban planning: Governments and local authorities should involve households and communities in the planning process of public housing and relocating communities at-risk through enabling for the establishment of community organisations that can facilitate meaningful and credible public consultations imperative in urban planning.

6. National governments or multilateral financial institutions can seed revolving community financing mechanisms through encouraging community cooperatives and community organisations that can serve as channels for urban poor households to not only secure land but also improve their living conditions through enabling access to public utilities, water and sanitation, transport, livelihood and health services.

7. Governments seeking to boost a city's competitiveness and resilience needs to invest in networked transport systems and the hubs created by designing different modes of transport – bus, train or taxi companies that are connected, regulated and organised. In addition to building the necessary technical expertise, city governments need a central agency that promotes, coordinates and regulates different modes of sustainable public transport.

8. Governments must implement public information campaigns to communicate risk and raise awareness about climate change mitigation and adaptation to the general public through the cooperation of formal education and informal education systems. Educating the public about climate change and the need to adapt to climate change, for example needs to be an exercise of communicating science in simple terms to encourage a change in behaviour in communities.

Disaster and crisis resilience: Reinforce community capacities

When local communities are not equipped with the necessary knowledge and skills for disaster risk reduction, effectively communicating the risk to them and building awareness is crucial for helping them understand the need for and contribute local knowledge for disaster monitoring and systems for evaluating disaster response. Where necessary, technical and capacity-building programs can be conducted as a partnership between the government and international humanitarian organisations or non-government organisations (NGOs) to arm communities with adequate knowledge and training to address problems that may arise in a crisis. An enabling political environment and the necessary legal mechanisms can pave the way for long-term initiatives to take root. Moreover, including community members in these processes through technology-based platforms like social media can enable community leaders and other organisations to properly identify and assess who are at-risk.

In circumstances of limited disaster governance and when many public utilities have been privatised or are in public-private partnerships, technology companies are valuable in creating information systems for these public utilities. Rapidly urbanising cities in Indonesia, prone to earthquakes, volcanic eruptions and sea-level rise are slowly incorporating geographic information systems (GIS), global positioning systems (GPS), short message systems (SMS) and social media platforms (e.g. facebook, twitter), volcano warning systems and database mining utilised by technology companies to both gather from, and provide relevant information to communities through crowdsourcing. The use of mobile crowdsourcing and open data programs like Google Earth, OpenStreetMaps, and collaborative projects such as GeoNode, InaSAFE and the Open Cities Project, should thus be harnessed by governments not only to improve information dissemination and risk communication during disasters but also to map at-risk locations to aid in urban and regional planning. With the increasing ubiquity of mobile technology that has become a basic necessity even in poor communities, disruptions in critical infrastructure, especially in transport and public utilities and services can be better managed with the use of crowdsourcing. Crowdsourcing by communities, if properly utilised can enable these systems to adjust to disruptions and easily provide both responders and the communities with the necessary response and information such as evacuation and relocation procedures before, during and in the aftermath of disasters.

Moreover, there is a greater need to acknowledge the significant role played by civil society groups and informal sectors in supporting community resilience when public utilities and services such as water and electricity are disrupted during disasters. Studies[1] on the informal sector

[1] Sofiah Jamil and Gianna Gayle Amul, Community resilience and critical urban infrastructure: Where adaptive capacities meet vulnerabilities, NTS Insight, no. IN13-07 (Singapore: RSIS Centre for Non-Traditional Security (NTS) Studies, 2013); Sofiah Jamil, Connecting the dots: The urban informal sector and climate vulnerabilities in Southeast Asia's megacities, NTS Alert no.AL13-01 (Singapore: RSIS Centre for Non-Traditional Security (NTS) Studies, 2013); D. Parthasarathy, Rural, Urban and Regional: Re-spatializing Capital and Politics in India in Tim Bunnell, D. Parthasarathy and Eric C. Thompson (eds.) Cleavage, Connection and Conflict in Rural, Urban and Contemporary Asia (Dordrecht: Springer Science+Business Media, 2013).

- comprising mostly of the urban poor - demonstrate how they have made significant contributions to urban disaster recovery, acting as invisible hands and more often in the absence of support from the government or the private sector. Informal cooperative arrangements between local communities and the private sector are also significant when there is a lack of government assistance. As they are the most affected in times of disasters, the urban poor tend to be more resourceful especially when they pool their skills and resources to faster recovery as shown in the case of Mumbai during and after the 2005 floods as well as in the Bangkok floods in 2011. For example, households in slum communities in Bangkok during the monsoon floods were more capable of organising themselves to receive assistance and relief than the households in gated communities, and even contributed their time and resources to relief efforts.

With time and resources difficult to get hold of without a proper emergency stockpile, transportation during disasters is doubly critical. During complex humanitarian emergencies, public transport becomes less accessible, unsafe and insecure not only because of disrupted operations but also because of damaged infrastructure, lack or zero supply of electricity or gasoline for vehicles and the small number of public transport operators. In many of the flood-prone metropolitan areas in Southeast Asia like Bangkok, Manila and Jakarta, non-motorised transport, such as rickshaws (pedicab), are often used as alternative means of transport to provide emergency transport services and to transport supplies and relief during floods. Given advances in transport technology, governments along with willing and credible partners in the private sector need to develop alternative modes of transport that use renewable sources of energy such as solar, electric or hybrid vehicles and construct transport infrastructure that allows use of non-motorised urban transport such as bicycles.

In disaster-related disruptions of the regular operations of public transport, local and national governments, as well as businesses need to have an emergency response plan that is coordinated with communities and prepare to provide alternative modes of transportation (non-motorised transport, i.e. pedicabs, boats, trucks) to affected communities. Simulation exercises are useful not only in terms of building the capacity of communities in preparation for disaster response but also in raising awareness of the challenges and risks during disasters or crisis. Such contingency measures will allow for the safe movement of people to secure locations, for transporting emergency response teams and for delivery of humanitarian relief.

Healthcare services would be among the critical components of any humanitarian relief operation. However, health systems are heavily compromised during conflict and disaster situations. Not only would health-related infrastructure such as access to clean water and electricity be often damaged or lost, but the number of ready and able health workers may also dwindle to a minimum or none at all. A public health crisis (i.e. SARS, H1N1) puts severe stress on a country's health infrastructure that surveillance systems will be overwhelmed and people will panic if bombarded by information. This problem is exacerbated when there is no definite structure in charge of coordinating an appropriate and effective response. Thus, a centralised coordinating agency is critical for public health systems especially in risk communication.

Public health emergencies are further exacerbated when external humanitarian assistance is unable to access disasters within conflict zones, where the safety and security of the health workers can be endangered and compromised – as seen from the experiences of the International Committee of the Red Cross (ICRC) in conflict zones such as Afghanistan. As a result, access and quality of healthcare services will be at its lowest in these situations and humanitarian and relief workers acknowledge the fact that they can only do their best in minimising deaths and the physical and psychological trauma to survivors. As such, there is a need to acknowledge that communities usually are prepared to fend for themselves in the interim before external assistance, aid or relief arrives.

In minimising the breakdown of health systems, humanitarian organisations with strong local networks play an essential role in facilitating assistance. Where available, governments have to make use of existing networks, whether these are based on religion, formal political associations or humanitarian interests. These networks need not be in competition for resources with governments but instead serve to complement the gaps in disaster governance if response can be properly coordinated. Such networks currently exist in Indonesia, in which one of the country's oldest faith-based organisations has been able to provide critical and immediate humanitarian relief through its own disaster management centre. Part of their success is attributed to the organisation's existing internal capacities of providing education and health services in Indonesia. As such, the organisation is able to rapidly mobilise its network of health care professionals in hospitals and clinics as well as volunteers from its own universities throughout the country without the web of bureaucracy that usually hampers disaster response.

Reduce vulnerabilities through sustainable development

Effective cooperation towards sustainable development is mainly hindered by maintaining the interest of various stakeholders involved. This is particularly the case when ensuring continuity across different government administrations over time and sustaining the political will of elected government officials in continuing and sustaining the effective programmes of their predecessors. With these political impediments, there is an increased possibility that stakeholders such as the private sector and multilateral financial institutions will be more likely to work within their own networks. Thus, governments need to encourage and legally enable the establishment of community organisations that can facilitate more meaningful and productive consultations among stakeholders if properly leveraged towards objectives that benefit the communities first and foremost. Community organisations would also be effective channels to promote the establishment of community networks in metropolitan areas which can be mobilised not only during disasters but also for more long-term adaptive initiatives such as sanitation, sustainable community health services and social protection. Community-driven housing initiatives for instance are necessary for building resilience, whether supported by a national or local government or by non-governmental organisations. Enabling communities themselves to propose their own solutions from the start, with one initiative in the Philippines, providing technical assistance to develop relocation solutions and look for safer settlements, which are less vulnerable and in less hazardous locations in Metro Manila. It maybe time consuming but governments and local authorities should involve households and communities in the planning process of public housing and relocating communities at-risk through transparent public consultations to avoid a top-down process where local or national authorities or technical experts merely dictate where and why they will move. Political and technical guidance are necessary but should be supported by local knowledge and guided by local needs.

While this would be an ideal arrangement for community participation, other stakeholders, however, may have different interpretations of what counts as community participation. While NGOs may perceive it as local communities having the liberty to decide how initiatives are implemented, community members may not have the required capacities to engage with bigger or higher-level stakeholders. For instance, while there is an availability of funding amongst inter-governmental organisations for sustainable development initiatives, smaller NGOs need to increase their capacities to meet certain criteria before such engagement/cooperation can proceed. Moreover, given the difference in capacities of these various stakeholders, they also would have different levels of resources, reaction times and expectations of impacts. For example, while donors and the Asian Development Bank may have strong financial resources, these actors take a longer time to react to address issues at the local level. This is in contrast to NGOs who may lack financial resources but are able to mobilise quicker at the local level. These differences in capacities and expectation thus can result in difficulty in coordination.

This dilemma becomes a good rationale for community financing in Thailand which offered slum communities flexible financing mechanisms to secure land, access infrastructure and public services. Such financing mechanisms enabled the development of community funds and encouraged them to adapt financial management strategies for the benefit of their own cooperatives. Governments in the developing ASEAN countries need to provide the political and legal enabling environment for such community cooperatives and community financing schemes. With the programme's main thrust of slum upgrading that secured land for communities, urban poor communities were able to access basic services such as water and electricity and developed a sense of ownership among the households. Such value for ownership encouraged the residents' collective spirit and a sense of belonging. The sense of being provided social welfare and a perceived advancement in their socio-economic status motivated households and communities to organise themselves which increasingly helped them in their negotiations and interactions with city and development authorities. Such social capital also played a part in the decentralised but quick response of urban poor community networks in disaster relief and recovery during the monsoon floods in 2011 under the National Union of Low Income Community Organizations (NULICO)[2].

Aside from community financing, another component of this enabling process is involving communities in spatial planning especially in coastal areas and other at-risk areas, where communities and policymakers should be made more aware of the need for continuous monitoring of the physical development of these areas. Advocates of these community driven initiatives note that communities themselves should see the grounds for preventing the further development of vulnerable areas and exposing residents to unnecessary and avoidable risks in the future, given the impact of sea-level rise in coastal urban areas. Communities should see for themselves the incentive to relocate, but also be aware of the need to balance their freedom to choose to stay or to relocate and their freedom from natural hazards. Such choices are influenced mainly by accessibility to livelihood opportunities and public services which raises the issue of transportation

[2] NULICO also manages a revolving city-wide disaster fund for shelters which can further strengthen community ties and develop a social system for the development of the lives of the urban poor.

and mobility. Many public transport systems in developing countries in the region are unsafe and unreliable owing to the seeming lack of comprehensive planning to network transport systems.[3] Aside from being overburdened beyond capacity, public transport infrastructure is not built to be universally accessible which puts additional burden on people with disabilities and special needs and ageing populations. Governments seeking to boost a city's competitiveness and resilience needs to invest in networked transport systems and the hubs created by designing different modes of transport – bus, train or taxi companies that are connected, regulated and organised. In most of Southeast Asia's cities, the expertise to engage in such an intensive process of urban planning is still lacking. It is thus important for governments to invest in building the capacities of both individuals (i.e. technicians, engineers, planners) and institutions involved in providing public transport services.[4] Aside from the building the technical expertise, city governments need a central agency that promotes, coordinates and regulates different modes of sustainable public transport.

Despite the notion of costly interventions to improve the transport sector, the cost to build universally accessible and adaptive modes of transport and related public infrastructure is minimal – as long as there is long-term and efficient planning. Such planning however requires buy in from the private sector which is increasingly a valuable stakeholder in terms of both providing public transport infrastructure and delivering services. This is mostly evident in many public-private partnerships in Southeast Asia, where build-operate-transfer (BOT) schemes are becoming the norm.[5] However, instead of bringing the private sector into the process at the implementation stage, engaging them in public consultations along with affected communities before projects are even implemented could help encourage more fruitful collaborations that are not based merely on profit.

Implementing public information campaigns to communicate risk and raise awareness appropriate for a specific risk or issue to the general public is a must for policymakers. Educating the public about climate change and the need to adapt to climate change, for example needs to be an exercise of communicating science in simple terms to encourage a change in behaviour in communities. In terms of communicating risks and policies with long-term implications, there is a need for better articulation of intentions and values rather than with technical terms. For instance, promoting LED (light-emitting diodes) street lighting as a means of ensuring public and personal safety would be more viable and acceptable to communities, rather than promoting it merely as a way to increase energy efficiency. Thus, awareness and change in behaviour at the household and community level can make way for more efforts that can lead to more initiatives towards sustainable development at a broader scale.

Conclusion

There are best practices and models that develop practical solutions from local knowledge into urban community responses to housing, transportation, public utilities or health, which have been multiplying over the years. While the range of existing bottom-up initiatives to address community needs is commendable, there are concerns that too many initiatives may result in the possibility of duplication and wasted resources. In this regard, this issues brief suggests that a mapping of existing public programmes, private sector-driven initiatives or NGO-driven initiatives within the region[6] will be useful to take stock of what has been done, and to better direct donors and intended beneficiaries to specific and relevant resources – whether for financial, technical or organisational support for communities.

[3] Singapore is an exception in the region in this regard although Thailand is slowly following suit.

[4] In rapidly urbanising cities in the region, evolving into more intelligent transportation systems would involve not only technology companies but also the participation of experts to develop from a system with *static* service provisions and *passive* traveller information to a more *adaptive* system with demand–driven service and *active* travel advisories. Such collaborations exist between Singapore universities (e.g. Singapore University of Technology and Design) and relevant government ministries.

[5] Nutavoot Pongsiri, Public-Private Partnerships and Urban Infrastructure Development in Southeast Asia in Yap Kioe Sheng and Moe Thuzar (eds.), Urbanization in Southeast Asia: Issues and Impacts (Singapore: Institute of Southeast Asian Studies, 2012).

[6] As part of ASEAN community building, community resilience is at the heart of the ASEAN agenda, where regional economic growth and development is a means of enhancing economic resilience in the Southeast Asian region. Specifically, the ASEAN Socio-Cultural Community (ASCC) blueprint includes frameworks essential to enhancing community resilience such as disaster management, but is to date the most difficult blueprint to advance. ASEAN can therefore be a potential mechanism for stakeholders in the region to approach dialogue partners for assistance or collaboration on community resilience and human security, which would feed into discussions at the official bilateral level.

INTRODUCTION: FRAMING COMMUNITY RESILIENCE AND HUMAN SECURITY

This session provided the framework for analysing community resilience and human security in the workshop, highlighting the interlocking aspects of human security and community resilience, with a specific focus on disaster resilience.

Community resilience is potentially a means to an end in understanding how to better overcome human security threats in Asia and the complex challenges that come with it. Prime examples of human insecurity in the Asian region would include: the 1998 Asian Financial Crisis, where a case of extreme economic insecurity catalysed political instability in Indonesia; the Severe Acute Respiratory Syndrome (SARS) outbreak in 2003 that became a tipping point for regional cooperation on health security and the 2008 oil price hike that lead to food security concerns with price spikes of staple food items in most developing countries.

The concept of human security has gone through several revisions and evolves in line with contemporary affairs. It was first articulated in the 1994 Human Development Report, in which Dr Mahbub Ul-Haq outlined seven dimensions of human security (See Table 1):

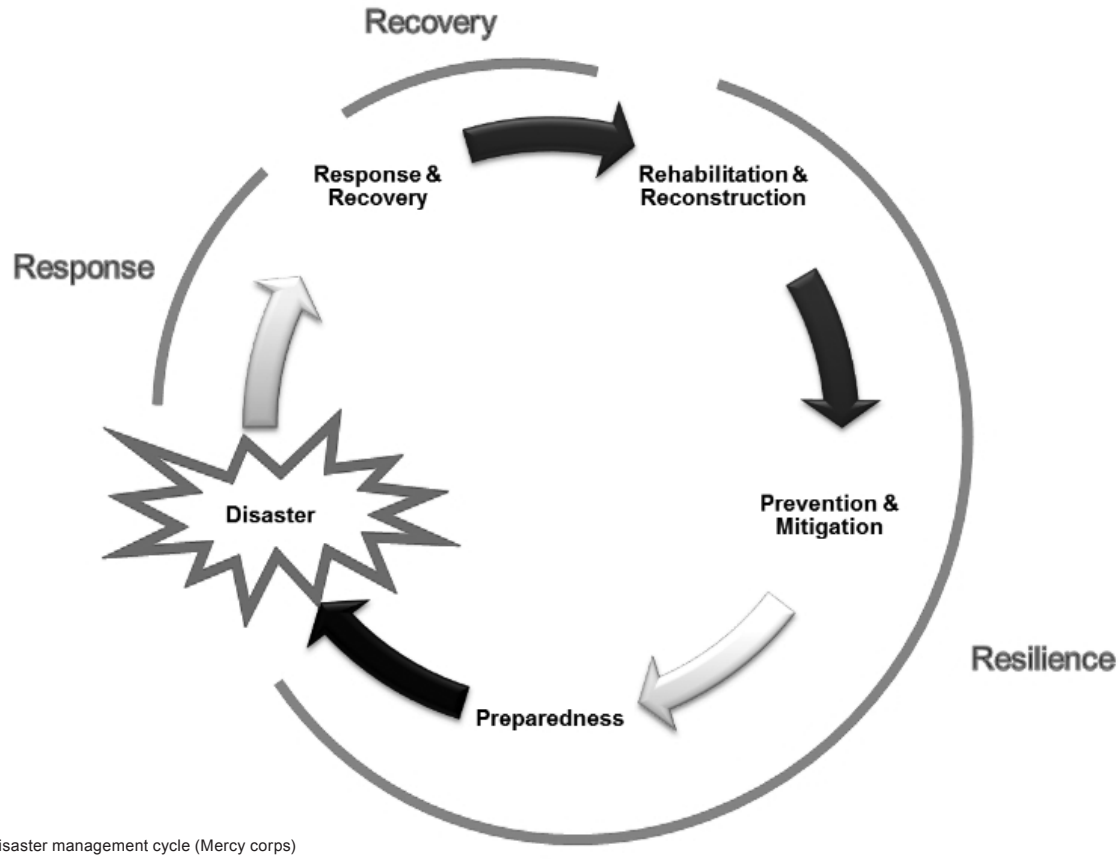
Economic Security	attaining basic economic livelihoods
Food Security	ensuring physical and economic access to food
Health Security	minimum protection from diseases and unhealthy lifestyles
Environmental Security	protection from short and long-term environmental degradation
Personal Security	protection from physical violence
Community Security	protecting people from the loss of traditional relationships and values and from sectarian and ethnic violence
Political Security	protection of basic human rights

Table 1 The seven dimensions of human security

By 2003, the Human Security Commission noted two pillars of Human Security – *freedom from fear* (resulting from violence) as espoused by Sadako Ogata, and the *freedom from want* (resulting from poverty) as articulated by Amartya Sen. In 2005, UN Secretary General Kofi Annan noted a third pillar of human security to better incorporate issues of the day – *freedom to live in dignity* (in an effort to address insecurity resulting from humiliation). *Freedom from hazard impact*, a fourth pillar that is relevant to the work on community resilience in light of environmental challenges was promoted by Bogandi and Bauch from the GECHS and Institute for Human Security at the United Nations University (UNU-IHS). This pillar highlights how human security is relevant in understanding vulnerability as a result of poverty, disease and lack of economic options due to weak governance and underdeveloped infrastructure (UNGA, 2004).

The relevance of this fourth human security pillar is reflected in statistics[7] on the rate and impact of disasters in recent years. While the people most affected are in developing counties, the greatest economic damage is predominantly in developed countries or major powers but the impact of disasters are greater for developing countries that are in the midst of industrialising – such as Bangkok and Jakarta – as both their economies and societies are adversely affected. East Asia and the Pacific's experience with disasters has had mixed results. While the risks of dying from floods and cyclones have decreased by two thirds since the 1980s, the numbers are still high with an average of 102 million people affected every year by floods, 37 million people by cyclones, hurricanes or typhoons, and nearly 366,000 by landslides. A worrying trend is that less than 0.7 per cent of total relief aid goes to disaster risk reduction (DRR) efforts – an area crucial for resilience and where money should be channelled.

[7] According to the UNISDR's global statistics on disasters occurring from 1992 to 2002, more than 226 million people are affected by disasters every year, culminating to a total of 4.4 billion in the last 20 years. From 2000 to 2010, economic damage as a result of disasters amounted to around US$ 1 trillion. Most of the 3.3 million deaths from disasters in the last 40 years have been in poorer nations. Flood and droughts have affected communities the most, which is a development that is of particular concern given the effects of climate change. Geographical vulnerabilities of coastal areas have also been emphasised, with 21 out of the 33 cities that will have at least 8 million residents by 2015 are in coastal areas. More than 680,000 deaths are attributable to earthquakes between 2000 and 2010 due poorly-built infrastructure. Statistics also highlight the plight of vulnerable sections of society as women and children are 14 times more likely to die than men during a disaster.



Inner cycle = Disaster management cycle (Mercy corps)
Outer cycle = Strategic Assistance Concept

Figure 1 Disaster Management Cycle

In light of these trends, the lack of financing for DRR can be analysed through the way stakeholders utilise or interpret the disaster management cycle. While the role of the military is highly important in disaster relief and response – to deliver a surge of resources over a short intense period of time, it is ultimately only one part of the entire disaster management cycle (See Figure 1). Thus, efforts in the long-term and plans 'to bounce forward' during phases of rehabilitation, reconstruction and prevention should be able to reduce the pressure to respond in the wake of a disaster.

When funds are channeled to long-term DRR, most policy makers and elected government officials may feel that results are not immediate, too complex and not necessarily successful. In fact, given the increasing frequency of weather-related disaster, the time frame to improve resilience is actually getting shorter. For instance, with the increasing intensity of annual typhoons, the Philippines often struggles to recover from a disaster before the next typhoon hits.

Turning to the concept of community resilience, we will find that the existing literature on the topic is immensely vast. What can be seen is that the literature generally fall into two categories – community resilience from a systems approach (such as infrastructure and organisations), and an approach based on community strengths, agency and self-organisation.

A systems approach such as the one promoted by the World Economic Forum's 2013 Global Risks Report highlights five sub-systems of resilience: *robustness* (reliability and ability to absorb/withstand shocks), *redundancy* (having excess capacity in terms of infrastructure and diversity of solutions and strategies), and *resourcefulness* (flexibility in terms of creativity, innovative, and the capacity to self-organise); as well as *response* mechanisms with open communication and inclusive participation and *recovery* plans embedded in a multi-stakeholder process and a responsive regulatory feedback system.

There have also been studies that examine community resilience in urban settings. The urban environment has similarly led to a reduced sense of community and attachment to place, which are vital components of cultivating social capital as an adaptive capacity. Where there is a low level of social capital, there will be a need for a higher level of 'redundancy' (i.e. excess capacity to cope with disaster) to create a semblance of a degree of social resilience. Urbanisation has created a doctrine of independence, in which a nuclear family unit's ability to be self-sustaining and supportive is reduced, such as in the case of migrants who often lose most of their support networks in the cities.

In an attempt to make sense of the vast literature on community resilience, Norris et al (2008)'s comprehensive framework of community resilience as a "network of adaptive capacities" (see Table 2) which includes: economic development, information and communication, social capital and community competence demonstrates how top-down approaches need to be complemented by bottom-up (community-based) approaches. This framework is useful in comparing community resilience in different countries or cities.

For instance, Singapore may be strong in top-down approaches (based on the economic development and information and communication categories) but lacking bottom-up approaches. As a result, Singaporeans tend to have a low level of resilience and preparedness for disasters and higher dependence on government to address issues – as reflected in recent polls on public perceptions on disaster preparedness and climate change. On the other hand, developing countries like Indonesia may be strong in its bottom-up approaches, but weak in its top-down approaches.

There are thus potential lessons for Singapore to learn from this. Singapore can build community competence by assisting regional countries with their disasters and thereby facilitate greater people to people contact to sensitise Singaporeans to disaster/poverty situations. Such efforts would not only serve to build community security within Singapore, but understand the regional community as well.

Area	Adaptive capacities
Economic development	• Fairness of risk and vulnerability to hazards • Level and diversity of economic resources • Equity of resource distribution
Social capital	• Received (enacted) social support • Perceived (expected) social support • Social embeddedness (informal ties) • Organisational linkages and cooperation • Citizen participation, leadership and roles (formal ties) • Sense of community • Attachment to place
Information and communication	• Narratives. • Responsible media • Skills and infrastructure • Trusted sources of information
Community competence	• Community action • Critical reflection and problem solving skills • Flexibility and creativity • Collective efficacy, empowerment • Political partnerships

Table 2: Community resilience as a set of adaptive capacities.

HOUSING INFRASTRUCTURE AND URBAN PLANNING: ENABLING COMMUNITIES

This session highlighted three important aspects of community-driven initiatives for building resilience through housing infrastructure and community planning, namely; the critical role that top-down policies can still play in promoting community empowerment; the importance of local knowledge coupled with technical support from external actors and the value of micro-level and participatory spatial urban planning.

Stimulating resilience with technical and financial support

Community-driven housing initiatives are necessary for building resilience, whether supported by a national or local government or by non-governmental organisations (NGO). Enabling communities themselves to propose their own solutions from the start would be ideal. For example, TAO-Pilipinas, an NGO in the Philippines, has been providing technical assistance to develop relocation solutions and look for safer settlements, which are less vulnerable and in less hazardous locations in Metro Manila.

Local knowledge combined with technical support from external actors provides support to community-based initiatives and enables communities to acquire security of tenure and move to safer settlements. This is based on the principle that supporting entities that can help build the communities' capacities to assess their own circumstances and let go of the fear of moving out of their comfort zone to find better housing settlements.

Drivers for community organising are also evident in Thailand especially in terms of financing and building social capital. One programme offers slum communities flexible financing mechanisms to secure land, accessing infrastructure and public services. Such financing mechanisms allow communities to develop their own funds and encourage them to adapt financial management strategies for the benefit of their own cooperatives.

With the programme's main thrust of slum upgrading that secured land for communities, urban poor communities were able to access basic services such as water and electricity and developed a sense of ownership among the households. Such value for ownership encouraged the residents' collective spirit and a sense of belonging. The sense of being provided social welfare and a perceived advancement in their socio-economic status motivated households and communities to organise themselves which increasingly helped them in their negotiations and interactions with city and development authorities. Such social capital also played a part in the decentralised but quick response of urban poor community networks in disaster relief and recovery during the monsoon floods in 2011 under the National Union of Low Income Community Organizations (NULICO). Their relief efforts were deemed more effective than the centralised and passive response of gated communities in Bangkok. NULICO also manages a revolving city-wide disaster fund for shelters which can further strengthen community ties and develop a social system for the development of the lives of the urban poor.

Common challenges that arise in community-led initiatives include legal obstacles over land ownership and the complications brought about by changes in political leadership that implies a possible redirection of national programmes for public housing in the Philippines. This is in contrast with the experience in Bangkok where one progamme's evolution as an urban poor housing movement developed from a national policy that focused on people-oriented housing in Thailand. The programme highlighted the critical role that top-down policies can still play in promoting community empowerment given the adequate support and enabling policy environment that was sustained even after former Prime Minister Thaksin Shinawatra was forced out of office. It is thus important for stakeholders – whether the communities themselves or other supporting organisations to seize the opportunities provided by a conducive political environment which ensures that the national and local governments will support such initiatives to reduce the vulnerabilities of urban poor communities to risks and hazards.

Participatory urban spatial planning

Also part of this enabling process is involving communities in spatial planning especially in coastal areas, where communities and policymakers should be made more aware of the need for continuous monitoring of the physical development of these areas. Advocates of these community driven initiatives note that communities themselves should see the grounds for preventing the further development of vulnerable areas and exposing residents to unnecessary and avoidable risks in the future. In Indonesian cities such as Jakarta, Semarang and Surabaya, sea-level rise will impose development challenges in coastal urban areas and critical questions need to be asked for urban spatial planning to be more catered to the needs of coastal communities and the larger metropolitan region.

Aside from sea-level rise, flooding from excessive rainfall and river overflow, land subsidence, saltwater intrusion on freshwater supply, water pollution and small island erosion can impact the coastal environment wherein socio-economic urban activities are highly concentrated. Such threats to coastal areas can cause damage to critical infrastructure and human settlements of which are mostly structures made of weak materials housing most of the urban poor. Local government imperatives in issuing development permits in vulnerable areas as well as ensuring socio-economic opportunities in relocation plans for disaster-prone communities in the city prove to be challenging for urban planning in Indonesia.

Discussion

Urbanisation, settlement planning and climate change adaptation are major issues of convergence where housing needs and urban planning are involved. It was argued that urban poverty needs to be analysed beyond economic parameters to incorporate issues of security, resilience and equity. Moreover, risks and vulnerability, participation and empowerment all factor into the equation of finding solutions for public housing and urban planning especially in Southeast Asia. Climate change and development agendas should then be brought together to avoid letting the impact of climate change to undo the outcomes of urban development.

Among the case studies, it was noted that the success of the case of Community Organizations Development Institute (CODI) in Bangkok was hinged on the creation of institutional mechanisms by the government that supported the ground-up initiative. Similarly, the support of NGOs to community-based adaptation is important because communities cannot do it alone no matter how resilient they are during disasters or crises. It is in the same vein that regional urban planning policies take into account the needs and vulnerabilities of urban poor communities. If compared to Singapore however, these cases highlight that because of the top-down nature of governance in Singapore, the city-state still lacks community resilience. Arguably, adaptation policies need to be included into principles of urban development planning so that urbanisation is transformed from a passive to a more responsive and flexible system.

Letting and enabling communities make their own choices was also emphasised in the discussion. National and local authorities should let communities propose solutions from the start of any initiative and develop these proposals into concrete practical solutions. Acquiring lands for relocation or resettlement for example should include the participation of the communities being resettled since economic opportunities, accessibility and availability of public infrastructure matter in relocating these communities. Communities should see for themselves the incentives to relocate, but also be aware of the need to balance their freedom to choose to stay or to relocate and their freedom from natural hazards. It is in this regard that norms for preserving cultural roots becomes mired in the process of deciding if households will relocate or whether developing a culture of ownership is preferred over personal security from the risk of disasters and natural hazards.

The planning and the process for public housing and of relocating at-risk communities should thus involve households and communities and not be a top-down process where local or national authorities or technical experts merely dictate where and why they will move. Political and technical guidance are necessary but should be supported by local knowledge and guided by local needs.

TRANSPORTATION SYSTEMS AND INFRASTRUCTURE: ACCESSIBILITY AND MOVEMENT

This session highlighted that an efficient and accessible public transportation system is crucial in building urban resilience, especially in times of complex humanitarian emergencies and disasters. It stressed that as a cornerstone in achieving economically competitive, socially inclusive and environmentally sustainable liveable cities, there is a need to sustain and constantly improve urban transport systems to make it safe, reliable and universally accessible.

Universal accessibility

Mainstreaming sustainable transport practices remains a challenge in many Asian cities. The transport needs of urban areas are dynamic and complex which makes them difficult to plan for. The common systemic barriers in the pedestrian environment, infrastructure and transport services in Asia's developing countries include the lack of accessible sidewalks and footpaths, inaccessible and unsafe roads, inadequate safe and accessible street crossings, inadequate and inaccessible bus and bus stop facilities, and irregularity or lack of transport services, among others. The principle of universal accessibility of transportation is primarily based on Article 9 of the UN Convention on the Rights of People with Disabilities. A universally accessible public transportation points to a system where people with special needs[8] could conveniently and safely use roads, sidewalks, and various modes of public transportation. Universally accessible transportation systems include access to fixed facilities and infrastructure, access to affordable and universally accessible transport modes, access to reliable information in various formats, and disability awareness and sensitivity training.

Contrary to common notions, it is not costly to build universally accessible modes of transport and related public infrastructure, so long as there is long-term and efficient planning. The marginal cost of mainstreaming universal access into transportation projects can initially be as little as 1%, where the cost to retrofit universal access afterwards being significantly higher. Multilateral financial institutions such as the Asian Development Bank (ADB) are providing technical and financial assistance to both national and local governments to improve public transport through its Sustainable Transport Initiatives (STI). Among these initiatives include developing guidelines on universal access and innovations on non-motorised vehicles (i.e. pedicabs) currently being piloted in the Philippines.

Intelligent and adaptive transport systems

Transportation systems in the region need to further evolve. There are four stages to this evolution. The current stage is a static transport system wherein services are not responsive to the commuters' needs, including relevant travel advisories. The next stage would be an adaptive system that addresses the demands of commuters and regularly issues accurate travel advisories. The third stage should be able to offer mobility as a service with the introduction of autonomous vehicles and dynamic routing. The final stage provides accessibility as a service and mobility needs are significantly reduced with greater accessibility to goods and services through advanced logistics and distribution.

Sensing technologies, ubiquitous mobile computing, petabyte-sized databases, and massive parallel computing technology present opportunities to better monitor, plan for and control transport systems. A proposed innovation that could be useful to manage the transport system is CloudThink, an open, secure and flexible way of projecting vehicle data onto the cloud. Through the internet and CloudThink, commuters and motorists would be able to utilise mobile applications that offer on-road fuel consumption and emissions monitoring, traffic monitoring, identification of congestion hotspots, eco-driving programmes and fleet management.

[8] Special needs can encompass physical attributes such as vision impairment or being wheelchair bound, a very young person or an elderly person, being restricted – such as needing to carry heavy loads or having children or gender specific such as being a pregnant mother.

Disaster resilience

Public transport systems must be disaster-resilient so that poor communities, often the most vulnerable to disasters can still access to public transport. Resilience, in this context, refers to providing alternatives to affected communities and building long-term transport preparedness to any disruption to the system induced by climate change. There should be accessible and disaster-resilient public modes of transportation in order to safely and effectively move people to safer places, transport emergency teams, and bring the relief items.

Disaster-response and crisis management could be enhanced by the emergence of mobile technological applications that would allow the transport system to adjust to any disruptions and easily provide both responders and the civilian communities with the necessary information in the aftermath of mega-disasters. Furthermore, making public transportation universally accessible would also partly be dependent on building intelligent transport systems through such applications. The goal is to understand and predict travel patterns (awareness of the state of the system), and create a system that self-regulates, particularly during periods of disruptions, to maintain quality of service.

Discussion

It was proposed that to make the transportation sector universally accessible, it should also be resilient to disasters. This would allow for the immediate evacuation of the affected communities and provide access to emergency responders. The need for disaster-resilient urban transportation networks was highlighted after the onslaught of Typhoon Haiyan in central Philippine provinces. There were delays in moving survivors out of their devastated communities and in delivering the much needed relief as a result of the destruction of Tacloban City airport.

Resilience entails providing alternative options to the affected communities and having an adaptive transportation system, one that is responsive to rising demand as well as the complexities of humanitarian emergencies. Nevertheless, raising the level of preparedness is crucial in realising a resilient transportation sector. It was recommended that cities must be able to adapt with emerging innovations to make their transportation sectors resilient, efficient and sustainable.

In the aftermath of a crisis, motorists with communication facilities equipped with GPS should be immediately deployed to redraw road maps and provide the latest information about which roads are inaccessible. Using crowdsourcing technology would also be an inclusive and participatory way of gathering relevant information from communities that would allow stakeholders, particularly commuters, to make informed decisions, even during humanitarian crises.

In order to effectively address competing demands, cities should be able to adopt a well-defined transport policy. Such a transport policy has to consider the marginalised sectors in urban areas such as poor families, PWDs, and the elderly especially in re-designing and constructing transportation infrastructure. The informal sector should be ‘documented’ or at least ‘organised’ so as to come up with a responsive urban transport plan that accommodates their interests as service providers. They should also be supported to innovate to raise their income and allow them to offer safer and more reliable services.

PUBLIC UTILITIES AND SERVICES: URBAN GOVERNANCE AND COMMUNITY ADAPTATION

This session explored providing public utilities and services in India, Indonesia and Mongolia in different contexts. It also examined the potential level of private sector involvement, difference in urban governance, how technology can make a difference and various adaptive behaviours of communities.

Involving the private sector and harnessing technology

Public-private partnerships have been vital initiatives to provide public utilities such as water, electricity and sanitation in many countries in Asia. In the cases of India, Mongolia and Indonesia, there were different levels of private sector involvement and partnership with the government and local communities.

Private sector involvement can offer more value and expertise which the government sometimes may not be able to bring. However, when there is a lack of detailed legal and institutional frameworks for the private sector as was observed in Mongolia, only sub-contracted projects were completed with the help of the private sector.

In Mumbai, scrap recycling became a useful tool not only for profit but also for rebuilding and recovery. Private sector involvement proved to have faster and more efficient service than the government. When services are privatized, the urban poor have access to public utilities – as long as they can pay. This caveat is balanced out when government-controlled public utilities cannot even be accessed.

Technology can play a role by aiding the efficiency and effectiveness of public utilities and services. It is also one aspect in which there is a lot of potential for the private sector to help and also invest.

In Indonesia, a list of different technologies are being used, which includes geographic information systems (GIS), short message systems (SMS), global positioning system (GPS), social media (e.g. Facebook), volcano warning systems and database mining. SMS is inexpensive and saves time in gathering information. There is also a lot of transparency in how the information was collected. Important information such as water quality and water pricing are examples which require transparency. Data mapped through GIS such as how many residents receive subsidies, water sanitation, community health, etc. Such demand driven information is most relevant for communities. Crowd sourced information gathering is able to quickly bypass one-way, government-based information sources.

After the 2005 floods in Mumbai, there was extreme resourcefulness through networks, planning and innovation. Scrap merchants and technicians, often categorised as part of the informal sector, demonstrated useful engineering and resource skills in recycling scrap metal. For example, counterfeit products became useful for recovery. As a result of the lack of financial and material support from the local government, the urban poor were more self-sufficient in re-building the city. Although the affected communities of Mumbai did not relocate, they became more aware of the hazards of flooding and became more mindful of segregating waste and garbage and installing flood warning systems.

Urban governance

Urban governance is an important aspect in post-disaster recovery and infrastructure planning. Institutional frameworks and policies are crucial in effective and efficient urban governance.

Disaster governance was clearly left wanting during the 2005 Mumbai floods where the government was not willing to handle the dirty work but depended on the lower castes and the urban poor. The role of the urban poor in disaster relief and recovery was ambiguous. The poor are often blamed for illegal encroachment and their settlements in flood-prone areas may have contributed to flooding but at the same time, they also contributed greatly to disaster recovery.

On one hand, the delayed disaster warnings from the Indonesian government could be one of the reasons for the heavy participation in contributing to information systems discussed above. On the other hand, a process of “engineering empowerment” that emphasised consultation with local communities was required to somehow address and compensate for the lack of expertise and experience in urban planning and development for adaptation within the local governments in Mongolia.

Differentiating community adaptive behaviours

The way in which communities adapt through participation is a key to building community resilience. The informal response but ordered resilience that the urban poor showed during and after the 2005 floods in Mumbai was predicated on the state's failure in disaster recovery. The urban poor communities were able to pool their skills and resources to contribute to disaster recovery. The quicker response from the informal sector can be attributed to the value given by the urban poor to their daily wages which was critical for their survival. In Indonesia, the huge amount of information that was contributed by and made available to community members became possible with the use of inexpensive and simple mobile technology. The transparency of the information shared added to the reliability and made the use of such mobile technology more viable to promote increase in community participation. Mongolians presented a challenge in terms of trying to *empower* them as they are inherently nomadic and too much intervention to "change" their way of life would be deemed inappropriate and insensitive.

Discussion

It was highlighted that the private sector can contribute to resilience building initiatives. This is because more often not, the private sector has the financial resources and technical expertise in terms of technology and skills. This is also an opportunity for the private sector to demonstrate and possibly deepen the breadth of corporate social responsibility. Through the inclusion of the private sector in resilience-building projects community participation can be cultivated where trust in government authorities is low.

There was also emphasis given on informal and community resilience. A question was raised about whether informal resilience could be formalized. The resilience performance demonstrated by the Mumbai poor was not due to coincidence, but it was the disastrous scenario which forced the community to behave proactively towards recovery. Finally, there is also the issue of how much government intervention is enough to encourage people to participate in implementing their policies and plans. In Mongolia, empowering communities to tell them that they have a voice and show they can tackle the problems with the government was actually more important than providing them technology or financing. Indeed, understanding the community, its culture and its spirit became more crucial in building resilience than development aid or technology in Mongolia.

HEALTH SYSTEMS IN DISASTER AND CONFLICT SITUATIONS

This session focused on the challenges in health systems during disasters, conflict situations and pandemics as reflected in the experiences of international humanitarian and national faith-based organisations, and an assessment of the response of various governments in East Asia to H1N1.

Healthcare services and humanitarian relief

Healthcare services are one of the critical components of any humanitarian relief operation. On one hand, health systems are heavily compromised during conflict and disaster situations. Not only can health-related infrastructure such as access to clean water and electricity often be damaged or lost, but the number of ready and able health workers may also dwindle to a minimum or none at all. Moreover, low quality health services can be expected in developing countries where they usually operate with no emergency funds due to budget limitations which affects the supply of medicines and other consumables.

Public health emergencies are further exacerbated when external humanitarian assistance is unable to access disasters within conflict zones, where the safety and security of the health workers can be endangered and compromised – as seen from the experiences in conflict zones such as Afghanistan. As a result, access and quality healthcare services will be at the lowest levels in these situations, and humanitarian and relief workers have to acknowledge they can only minimise deaths and lessen physical and psychological trauma to survivors. Dealing with trauma in the immediate phase of a disaster or conflict is a critical concern for humanitarian and health workers. As such, there is a need to acknowledge that communities usually fend for themselves in the interim before external assistance, aid or relief arrives. When there is war or armed conflict, good health systems will still experience a high level of immediate casualties. If such healthcare systems need to be heavily supported by community disaster and emergency preparedness, then a heavier burden falls on less equipped and poorly staffed healthcare systems.

Front Row (L to R):
Daw Rose Mary, Dr Lynette Cheah, Arch. Arlene Christy Lusterio, Prof. Dr Tommy Firman, Dr Mubariz Tariq,
Mr Danny Chian Siong Lee, Prof. Mely Caballero-Anthony, Associate Prof. Gopinath Menon, Prof. Koh Kheng Lian, Dr Lai Choo Malone-Lee

Second Row (L to R):
Ms Gianna Gayle Amul, Dr Rahmawati Husein, Dr To Kien, Mr John Taylor, Dr Ramji Prasad Neupane, Ms Nicola Williams, Mr Sasank Vemuri, Dr Alistair DB Cook, Dr Bharat Dahiya, Dr Nattawut Usavagovitwong, Mr Sean Tan Eu Chong, Mr Ari Mochamad, Ms Anne Lochoff, Ms Catherine Diomampo, Ms Katja Schechtner, Ms Sofiah Jamil


Catherine
Diomampo
Sasank Vemuri


Ari Mochamad
Arif


STATION 3

Mapping out the network

In minimising the breakdown of health systems, humanitarian organisations with strong local networks play an essential role in facilitating assistance. Where available, governments have to make use of existing networks, whether these are based on religion, formal political associations or humanitarian interests. These networks need not be in competition for resources with governments but instead serve to complement the gaps in disaster governance if response can be properly coordinated. Such networks currently exist in Indonesia, in which one of the country's oldest faith-based organisations has been able to provide critical and immediate humanitarian relief through its own disaster management centre. Part of their success is attributed to the organisation's existing internal capacities of providing education and health services in Indonesia. As such, the organisation is able to rapidly mobilise its network of health care professionals in hospitals and clinics as well as volunteers from its own universities throughout the country without the web of bureaucracy that usually hampers disaster response.

Thus, in countries where there are numerous actors involved in disaster response, getting a bigger picture of 'who's doing what and how' can be fed into a stakeholder-mapping exercise at the national and regional level to help in drawing out the amount of coordination needed for disaster response and recovery plans. On a more local level, a live system or database that identifies the strengths and additional skills of healthcare workers and matches them to capacities needed for emergency plans should be encouraged within public and private hospitals as well as communities. The need for such was specifically highlighted in the aftermath of Cyclone Nargis in Myanmar and of Typhoon Haiyan in the Philippines.

Pandemics and health systems

On the other hand, a public health crisis (i.e. SARS, H1N1) puts severe stress on a country's health infrastructure that surveillance systems will be overwhelmed and people will panic if bombarded by information. This might constrain the overall purpose of having a surveillance system that is supposed to help anticipate, contain and mitigate public health risks.

Moreover, establishing a good relationship with the pharmaceutical industry for emergency stockpiles can go a long way to support a health system's surge capacity during an epidemic. Mobilising resources and avoiding a waste of resources during an outbreak has proven difficult when people resort to panic buying. Protective personal equipment for example, has to be stockpiled inside and outside of healthcare institutions and be readily accessible and distributable during public health emergencies.

The problem of resource mobilisation is exacerbated when there is no definite structure in charge of coordinating an appropriate and effective response. The lack of structure for information presents a difficult situation. Thus, a centralised coordinating agency is critical for public health systems especially in risk communication.

Discussion

During the discussion, there was a sentiment that public health should really be a public concern and not just for health ministers or health practitioners. This pointed the discussion towards motivating other sectors and other disciplines outside the health sector to be concerned about health systems especially in times of disasters. This raised the concern about environmental health and other social determinants of health (population, urbanisation, education) as critical components of the health in public health.

It was highlighted in the discussion that coordination between the national, local and the community levels can be alleviated with a proper mapping of the network of health emergency responders. There is value in an existing system that defines decision-making during a public health crisis and being able to assess the needed extra healthcare specialists during conflict situations and disasters. Governments that try to coordinate with businesses can translate to lower costs especially when the private sector can contribute in terms of mobilising supplies and supplementing transport needs.

Given that healthcare and humanitarian relief can be hindered by insecurities for responders in conflict situations, a question was raised whether reinforcing community resilience in conflict situations is more challenging than during disasters, especially when communities are literally broken down in conflict situations. This pointed out the value of mental health care in such situations, such that a distress in and a breakdown of mental health may impose a greater cost on community resilience whether in disaster or conflict situations.

Disasters and conflict can invariably increase an individual and communities' psycho-social vulnerabilities which points

out the need of integrating mental health care into primary and preventive health care services even in peace time or in regular healthcare. Responders need to be reminded that the worst scars are in the mind and when coping mechanisms are heavily dependent on family links that maybe wiped out during disasters or conflict situations, providing assistance becomes more difficult.

There was consensus on the value of local practical knowledge and training to minimise casualties during conflict and disasters. First aid and evacuation training for the youth in formal and informal education systems not only increases capacity but also raises awareness. However that readiness among citizens cannot be relegated to table top exercises or simulation exercises and preparedness but a certain level of social responsibility must also be cultivated.

INFORMATION AND COMMUNICATION: RAISING AWARENESS AND COMMUNICATING RISK

Increasing awareness and communicating risk is one of the crucial pillars of community resilience as evident in many developing countries where communities are at-risk from threats such as conflict, adaptation to climate change and gender-based violence in conflict-torn communities. The cases of Indonesia, Myanmar and Nepal show that there is no "one-size-fits-all" approach in communicating risk for community resilience.

Challenges in communicating risk

One of the primary challenges in communicating risk is the need to assess and identify the capacities of the communities involved. The success of interventions and programs to build resilience is also dependent on certain capacities. When Cyclone Nargis hit Myanmar, for instance, communities were not well-informed and were unable to respond to the disaster.

Another challenge is conveying science or empirical evidence that can lead to concrete and feasible policies. The gap between science and policy is often cited as one root cause for the lack of political will to carry out and implement policies. Indeed, the ability to communicate scientific evidence to local communities is another element needed to build trust in the community. An example of this is evident in the formulation and implementation of adaptation policies in Indonesia. Given the complexity of climate change, there is a need to identify what kind of information should be disseminated to the general public and what actions the authorities can take. Indonesia's problem with communicating the importance of adaptation also exemplifies the importance of choosing the appropriate media for information dissemination and communicating risk.

Moreover, an effective information dissemination and risk communication strategy for building community resilience requires the correct identification of stakeholders as well as the target audience. This is prominent in the difficulties of implementing adaptation policies.

The appropriate identification of mechanisms and medium for effective information dissemination is another challenge in building community resilience. The media for example are a crucial element in risk communication and their role cannot be underestimated. They play an important role in developing media technology and improving access to reliable and evidence-based information that can help communities and local governments to act decisively, whether for immediate concerns such as disasters or long-term issues such as mitigation and adaptation to climate change.

Utilising local knowledge and building capacity

Another key level to build resilience is at the family or household level. This is reflected in the case of internal conflict in Myanmar. As a result of land disputes, at least 140,000 persons were displaced in the Rakhine State, 100,000 persons in the Kachin State and 400,000 persons along the Thai-Myanmar border. Mass displacement is further exacerbated by natural and man-made natural disasters such as Cyclone Nargis. Given these challenges, local communities can minimise risks by bringing in stakeholders in the disaster planning and disaster risk management process, whether public, private or non-government agencies to build trust and solidarity within communities.

Disaster risk reduction is impeded by a lack of risk awareness and the community leadership to improve their capacities in assessing vulnerabilities and monitoring and evaluating community-based initiatives. Most community members, organisers and leaders are not well informed of the risks in the first place and as a consequence, are unable to prevent damages and losses. This is an area where non-government organisations (NGOs) and donor agencies become a critical source of technical capacity building.

Translating science into policy and action

Climate change adaptation is complex and it is influenced by elements such as knowledge, expertise and governance. For example, while it is considered to be a priority for the Indonesian government, adaptation plans pose a challenge to inter-ministerial coordination for their successful implementation. The conflicting interests and objectives of stakeholders as well as limited resources restrict public institutions to effectively implement climate adaptation programmes.

Successfully communicating risk and disseminating the science about climate change are keys to improving adaptation strategies. However, policymakers often do not understand the science behind the risks and climate challenges. This is often attributed to weak coordination among different ministries involved. Such a challenge calls for a need to further downscale the results of studies to the local level to further increase the relevance of adaptation to communities.

Apart from the policymakers, the private sector can increase its role in contributing to risk communication and effective adaptation policy implementation through co-financing or financing adaptation initiatives. With resources from both the public and private sector, efforts to identify the right instruments for information dissemination will be more specific but far-reaching.

Incorporating stakeholders for a sustainable peace process

Aside from the Maoist conflict in Nepal, issues such as poverty and unemployment persist and continue to hinder Nepal's development. An informal grassroots justice system evolved to address the concerns and grievances of the people because there is a perceived lack of access to the democratic system. Women in the country continue to face high levels of domestic and public violence and it continues to be framed as a family affair and a private matter. Poor communities, often with inadequate resources and lack of access to education, hinder their capacity and right to be informed or be aware of gender-based violence and means to address it.

Existing policies that address this issue are often ambiguous and overestimate the implementing capacity of the government agencies involved. The presence of an informal justice system reflects the fact that building resilience is possible at the community level and that the state cannot do it alone. There had been efforts to improve communication between formal and informal justice providers, often aided by NGOs and international organisations which conduct and promote dialogue to build linkages and increase coordination between conflicting parties.

Discussion

Building community resilience and human security is possible through effective and efficient communication strategies and information dissemination mechanisms. In Myanmar, local community leaders were instrumental for technical assistance from NGOs and international organisations especially for disaster risk reduction management. In Indonesia, the proper identification of beneficiaries for adaptation measures and the mechanisms to convey the information is crucial for building trust among the stakeholders. The involvement of the stakeholders is crucial as highlighted by the emergence of an informal justice system in Nepal to address gender-based violence.

It was noted that there is no formula for building community resilience and human security. The policy success geared towards community resilience is hinged upon the inclusion of key stakeholders in the process as well as the incorporation of local knowledge and improving communities' capacities. Consequently, these elements are based on sound and effective risk communication catered to the needs and capacities of communities.

COOPERATION AND COLLABORATION: WAY FORWARD FOR REGIONAL FRAMEWORKS AND STRATEGIES

This session examined existing frameworks for cooperation among cities and communities in the region. Points raised by the speakers from the three regional organisations included the achievements and challenges in collaborative partnerships, and the opportunities for furthering human security through community resilience in these initiatives.

Potential areas for cooperation

Recent decades have demonstrated that there have been significant benefits for Southeast Asian countries to act regionally. In terms of potential economic cooperation, ASEAN as a whole has a higher growth population than India and China, and has seen promising and robust trends in investment. While China is ASEAN's oldest trading partner, intra-ASEAN trade has in fact been more significant. To build on the potential of regional cooperation, the ASEAN Charter was established in 2008 and seeks to establish an ASEAN Community[9] with a people-centred focus by 2015. There is also the potential for further cooperation on improving infrastructure as a means to increase human security. In terms of environmental security, infrastructure for flood and drainage management, and public transport is essential. Infrastructure dedicated to urban renewal/ upgrading and community markets facilitates economic security. Sanitation and solid waste management and drinking water supply infrastructure would support Health Security. Finally, street lighting and storm shelters would help to ensure personal security. Such efforts are evident from the work of Cities Development Initiative for Asia (CDIA) which provides assistance to Asian cities to bridge the gap between their development plans and the implementation of their infrastructure investments, particularly in providing support to medium sized cities.

There is also a high potential to increase cooperation on climate change adaptation (CCA) in Southeast Asia particularly in Myanmar, Brunei and Timor Leste – a few of the countries which have just started implementing such initiatives. Knowledge exchanges and mutual learning are also essential in better understanding CCA. In this regard, an association of city, local and metropolitan governments has conducted a series of workshops for participants from various countries and cities to share experiences and best practices in furthering sustainable development. Moreover, investing in more rigorous climate change education (i.e. communicating science in simple terms) is an important stepping stone in inducing behavioural change that increases cooperation. Equally notable in the association's activities has been the immense amount of online resources to assist cities in building capacity, as well as facilitating the sharing of knowledge and experiences amongst stakeholders in various cities.

There is also the potential to cooperate once there has been some reflection as to where existing efforts in building resilience are headed. At the very basic level, building adaptive capacities to manage and cope with disasters should evolve to increase resilience and eventually possibilities of developing communities that can capitalise on shocks and disasters rather than be left as victims. It would thus be useful to have a regional exchange of experience and ideas of how such benefits can be attained without jeopardising the security of others.

[9] This is based on three pillars – ASEAN Political–Security Community (APSC) which provides structure to ASEAN, ASEAN Economic Community (AEC) which seeks to catalyse regional economic development and narrow economic disparities, and the ASEAN Socio-Cultural Community (ASCC), which gives the human face of ASEAN and comprises of various frameworks related to disaster management and environmental security.

Challenges in ensuring effective multi–stakeholder cooperation

Given the different capacities of stakeholders involved, they will have different levels of resources, reaction times and expectations of impacts. For example, while donors and regional financial institutions such as the ADB may have strong financial resources, these actors take longer time to react, while NGOs may lack financial resources but are able to mobilise quicker at the local level. These differences in capacities and expectation thus can result in coordination difficulties. This is particularly significant given that countries in need of building climate change adaptation capacities often lack technological, human and financial resources, and are thus dependent on external aid.

The top-heavy nature of regional institutions can also impede effective multi-stakeholder cooperation. In the case of ASEAN, the top-heavy approach is reflected in the range of inter-ministerial meetings. In 2011, about 1,100 official ASEAN meetings were held while 1,300 meetings were held in 2013. The substantial manpower and resources needed to organise these range of high-level meetings in turn has meant a limited effort in increasing public awareness of ASEAN and limited engagement and coordination with civil society groups in ASEAN. Moreover, in terms of the three pillars of the ASEAN Community, implementing the blueprint of the ASCC is the most difficult. Given these circumstances, various stakeholders are encouraged to reach out and engage the ASEAN Secretariat in a bid to support and enhance the level of multi-stakeholder engagement for regional community resilience.

There is also a challenge in terms of multi-stakeholder communication. Different stakeholders may use similar terms but have different meanings, thus resulting in cases of miscommunication. For example the term ‘participation’ may be perceived by NGOs that local communities have the liberty to decide how initiatives are implemented, whereas donors may provide a limited role for community involvement, as the former hold the purse strings. In this regard, it is necessary for stakeholders to define terms at the beginning and have the willingness to compromise and thereby be better able to understand what the overlapping areas and incentives are. Moreover, there is a need to understand the occupational incentives of the people from the other organisations and explicitly state the objective of the organisations, rather than general statements such as ‘helping the urban poor’.

Discussion

While there is an extensive range of multi-level initiatives contributing to increasing human security by building community resilience, there are possibilities of a duplication of initiatives. In this regard, it may be useful to have an audit to map out these various initiatives – and specifically looking at how much interaction is actually happening and how resources are potentially being wasted whether in formal or informal initiatives. Association like the International Council for Local Environmental Initiatives (ICLEI) has made some effort in this regard with its own database of CCA initiatives mapped worldwide, which is freely accessible online.

In terms of translating science into policy and outreach, three points of discussion are worthy of note. First, changes in political appointments may slow down the process of translating science into policy as additional effort is needed to re-orient and update newly appointed government officials. Secondly, effective mainstreaming requires more discussion about the value for stakeholders rather than a discussion of the definitions of terms. For instance, highlighting street lighting as a means of ensuring public /personal safety would be more valuable to communities, rather than pitching it as a means of ensuring energy efficiency. That said however, while there is an availability of funding from existing inter-governmental initiatives, it is necessary for stakeholders – such as smaller NGOs – to increase their capacities to meet certain criteria before such engagement/cooperation can proceed. Thirdly, ASEAN can be a potential mechanism for stakeholders in the region to approach dialogue partners for assistance or collaboration, which would feed into discussions at the official bilateral level. Moreover, community resilience is at the heart of the ASEAN agenda and coincides with ASEAN’s efforts of achieving socio-economic resilience.

Politics has on many occasions impeded the level of cooperation. For instance, there is the challenge of conflicting stakeholder agendas where governments that are approached by various donors, are ultimately choosing which donor will give them the best deal or are more interested in the improving their image of clinching an internationally funded project. Moreover, there is also the tendency that donors would also tend to fund/support their own people as a means of protecting their turf and thus end up working in silos. This is true given the fact that some regional institutions encountered similar experiences where meetings are often with the same group of people in the network, and rarely engaging new individuals or organisations from other sectors as much. Nevertheless, it is perhaps good to let donors compete to meet the needs of states, rather than the tendency of states to have to meet the needs of donors rather than the needs of their people.

BREAKOUT STATIONS: IDENTIFYING CHALLENGES AND BUILDING COMMUNITY RESILIENCE

On Day 2 of the workshop, participants broke into groups to examine five issues: how community resilience informs human security; the challenges of implementing equitable and sustainable urban housing plans that affect community resilience; recommendations on building sustainably resilient and accessible transportation systems; the implications of privatising public utilities on long-term sustainability and in disaster situations and; the critical elements for health systems resilience.

Community resilience and human security

With a question on how community resilience informs human security, participants asserted that community resilience and human security are mutually reinforcing. Resilience enables community members to be protected from hazards, shocks and fear and enhances their capacity to deal with these vulnerabilities. The multi-dimensional development and strengthening of community resilience are likely to help attain human security. Conversely, addressing human insecurity can help build community resilience. If a community is insecure in too many dimensions, it will not have the capability to absorb shocks.

Resilience also facilitates the identification of talents and assets within communities in peace, which will help them in crisis. Resilient communities are more empowered through self-sufficiency during disaster, resulting in increased human security despite interruption. Community resilience addresses the aftermath and impacts of disasters, especially "freedom from hazard impact." Furthermore, the development of sense of ownership towards strategies by the community could enhance security, or even progress.

Resilience also enables the community to meet its needs. It leads to economic security and empowerment of the marginalised sectors which are equipped to satisfy their basic needs. A resilient community is open to economic diversification, providing its members with alternative sources of income and revenue. This gives rise to the concept of 'community self-sufficiency'. Resilience promotes societal cohesion as it also holistically addresses 'cultural security.' Communities should be able to empower the marginalised sectors of society and effectively address divisions within the society to foster social cohesion.

Being part of the community, policy-makers should therefore be able to come up with and implement policies responsive to the community's vulnerabilities and needs. To achieve community resilience, it is essential to craft people-oriented policies.

Urban housing challenges to community resilience

Asian Cities have limited success in implementing equitable and sustainable urban housing plans. The challenges to implementing equitable and sustainable urban housing plans clearly affect the level of community resilience in an urban area. In particular, the challenges that affect community resilience are the following:

Lack of inclusion

The urban poor have limited access or representation in the formulation, implementation and monitoring of sustainable urban housing plans. Oftentimes, the community members are not consulted or included in dialogues in the preparation of such plans. Aside from the limited participation of the urban poor in the planning and implementation process, they also lack access to basic services such as health, electricity, water and sanitation. This also reflects their degree of participation in the planning and implementation of sustainable urban housing plans.

Insufficient planning for rapid urbanisation

One of the challenges that affect the implementation of equitable and sustainable urban housing plans and community resilience is rapid urbanisation. Population growth and the inequitable development of areas in developing countries lead to the rural-to-urban migration. Most urban housing plans lack a long-term vision and fail to integrate across different regional, national and local levels. Apart from this, the planning system itself lacks elements of regulation, enforcement and link to other policies that would be beneficial to the community.

Limited resources

The influx of rural migrants to urban centres results in the increased competition for resources such as land, water, public transport and others. This has implications on government urban housing plans and its capacity to intervene to provide equitable and sustainable housing.

As a result, these challenges affect the level of community resilience in urban areas through the diminished inclusiveness for the community. Hence, there is a need for adequate planning that will include community members in the process and harmonise the relationship of providing housing and the environment. This can be achieved through the establishment of community networks within urban housing facilities. Through these networks, community members can be included in the planning process and their knowledge and experience can be considered.

Building sustainably resilient and accessible transportation systems

Transport systems in Asia can be durable and environmentally sustainable as well as accessible and affordable by carrying out the following initiatives:

Policy and strategy planning

Transport systems are essentially government-provided public services. As such, proper planning, policy, and strategy are critical in creating ideal transport systems. Policy emphasis has to be on public transport, and a central agency overseeing public transport is needed. Designs for networked transport systems, through connectivity among different modes of transport such as bus, MRT, train, taxi, among others, need to become part of the planning. Further, ease of transport can be enhanced by providing reliable information such as bus timings, routes, and fastest way of travel. In Asia, there is a lack of human resources capable of making such planning. More investment is needed to increase the capacity and capability of both individuals and institutions working on transport systems.

Alternative modes of transport: bicycles, electric vehicles, non-motorised transports (NMT)

The government needs to seriously develop alternative modes of transport. With technology advancement, more environmentally-friendly energy sources such as solar and electricity can be applied in vehicles. More attention can be given to non-motorised transport, such as bicycles, by making provision for bicycle lanes. Further, territorial characteristics have to be carefully considered. Island-based transportations such as boats, for example, need to be given priorities in isolated areas accessible only through waters. Constructing bridges and roads, and providing proper types of transport, are needed to create connectivity within islands. Learning from success and failure from other countries or regions that have already developed alternative modes of transport will serve as a useful source of information.

Governance and multi-stakeholder engagement

As the government plays a central role in the provision of public transport, governance, political will and leadership are paramount in ensuring implementation and achieving the ideal vision. Stakeholder engagements and good collective leadership among politicians, decision makers, and legislators, need to be fostered to align goals and enable the smooth-running of planning and policies. Multi-stakeholders engagements will also create an enabling environment for the much-needed public-and-private-driven financial incentives.

Privatising public utilities for long-term sustainability?

The advantages of privatisation

Privatisation raises the issue of affordability to poor communities but in terms of quality of services, it seems to lead to reliable provision of good quality water in the long run. With privatisation maintenance, management may improve but may make services more expensive and less accessible to the poor. Price controls and regulations need to run parallel with government evaluation of privatised services that are open to the public. Privatisation of utilities may be more efficient when it provides additional financing sources to invest in improvements, whether in infrastructure or service delivery. It also is useful during disasters such as the recent triple disaster in Japan where privatised utility providers were able to relieve the government in disaster response. Privatised utilities can also serve as hubs for research and development, where new technologies can be piloted and contribute as a public good.

The disadvantages of privatisation

There are concerns on how privatisation affects the ownership and distribution of resources in crisis situations. Moreover, privatisation may increase vulnerability especially when the poor cannot afford public utilities and thus further reducing their levels of resilience. Privatisation becomes a bane when it leads to a corruption of the utilitarian principles attributed to privatising public goods and services. In this regard, there are instances when private providers of public utilities do not have incentives to continue services after disasters due to higher operational and manpower costs. Efficiency of services from privatised utilities come with higher costs in the short term but are welcome in the long term when prices stabilise. As such, governments remain responsible for ensuring availability and affordability of public utilities. In disaster situations, private companies tend to fall back on the government. Services may not be guaranteed since loss of direct control by the government can hinder response plans in time of emergency. With privatisation, public accountability becomes more problematic.

Precautionary note on privatisation

Privatisation of utilities will need government regulation and oversight. The government will have to ensure or at least strive for equity when encouraging privatisation of public services. Private service providers need profitable incentives to invest in bringing services to poor and remote areas despite higher maintenance and operational costs – a challenge equally faced by the public sector. Privatisation of public utilities may lead to sustainability of services but not necessarily community resilience. Privatisation can facilitate greater access to resources but cooperative frameworks will need to be structured appropriately to avoid increasing vulnerabilities. Given the fact that the private sector is primarily profit-driven, the interests of the collective good may not be prioritised enough.

Strengthening health systems resilience in disaster and conflict situations

With universal health coverage and health sector risk reduction and emergency preparedness as a background, participants highlighted the importance of 'hardware', 'software', 'heartware' or capacity and planning, social financing and adequate procurement of resources in their recommendations.

Decentralisation

Among the priorities highlighted is the decentralisation of (or tiered and buffered) services and facilities and to some extent decision-making and delegation. The redundancy and flexibility of the 'hardware' or physical critical infrastructure were also emphasised, which includes a robust supply of electricity and a dedicated water supply and sanitation services for health infrastructure. In times of crisis, there is a need to decentralise as much capacity and resources and also improve coordination at the community and neighbourhood levels. Mobile health units or facilities are also imperative in times of crisis. Maintaining the 'software' or local communication systems which includes ICT-supported responses such as maintaining local wireless communication (WiFi) for early warning systems or basic radio infrastructure is also vital for decentralised implementation.

Capacity and knowledge building

A third factor for resilient health systems is the 'heartware' or the capacity and planning which needs to incorporate the knowledge of local communities. The heartware must also enable the networking of these communities for emergency and contingency planning that incorporates local assessments and adequate data through focal points. Frameworks for responses and standard operating procedures for re-prioritising in times of crisis is also essential. This also involves empowering local communities through increased public awareness and training for basic health knowledge and skills such as first aid and CPR among students that can alleviate the burden on local hospitals and other healthcare services and facilities during disasters or crises. Advancing the training of humanitarian personnel engaged in logistics and engineering during non-crisis situations is also crucial.

Health coverage and investing in health

Moreover, social financing or insurance mechanisms were identified as an important element of health system resilience. Universal health coverage should be prioritised by governments to further extend social protection for vulnerable families and communities in times of disasters. Finally, the procurement of resources for all the above was also highlighted by the participants. Adequate investment in health infrastructure is imperative. Developing mechanisms to include civilians and the business sector to pool resources with the government can help speed up response to crises.

PROGRAMME

Day 1, 10 April 2014 (Thursday)

08:00 **Registeration**

09:00 **Welcome Remarks**

Prof. Mely Caballero-Anthony
Associate Prof., S. Rajaratnam School of International Studies (RSIS);
Head, RSIS Centre for Non-Traditional Security (NTS) Studies; and
Secretary-General, Consortium of Non-Traditional Security Studies in Asia (NTS-Asia)
Nanyang Technological University, Singapore

09:10 **Introduction: How Does Community Resilience Inform and Contribute to Human Security?**

Ms Sofiah Jamil
Adjunct Research Associate
RSIS Centre for NTS Studies
Nanyang Technological University, Singapore

09:45 **Session I**
Housing Infrastructure and Urban Planning
With housing issues making the urban poor more vulnerable in times of disaster, this session seeks to examine issues and trends at the household and community level that feed into improving the quality of life in urban areas, with a critical look into the value of urban planning for both community resilience and human security.

Moderator:
Dr To Kien
Senior Research Scientist
Singapore University of Technology and Design

09:45 **Housing by People in Thailand: From National Policy to Empowerment**

Dr Nattawut Usavagovitwong
Director
Center for Integrated Socio-Spatial Research (CISR)
Sripatum University
Bangkok, Thailand

10:00 **Promoting Community-Based Initiatives toward Secure and Safe Settlements in Metro Manila**

Arch. Arlene Christy Lusterio
Executive Director
TAO-Pilipinas, Inc.
Diliman, Quezon City, Philippines

10:15 **Potential Climate-Change Related Vulnerabilities in Large Cities in Java's North Coast Region: Implication for Urban Development Planning**

Prof. Dr Tommy Firman
Bandung Institute of Technology
School of Architecture, Planning, and Policy Development,
Bandung, Indonesia

10:30 **Discussant**
Dr Lai Choo Malone-Lee
Director
Centre for Sustainable Asian Cities
National University of Singapore

10:40 **Q & A**

11:00 **Session II**
Transportation Systems and Infrastructure: Accessibility and Movement
This session focuses on an efficient and accessible public transport system as a necessary element in ensuring urban sustainability and in securing access to goods and services in times of complex humanitarian emergencies and disasters. This session also seeks to shed light on the challenges of building resilience through the introduction of a city wide public transport system, the stakeholders that are involved, and the impacts of transportation infrastructure projects on small players in the business and the informal economic sector.

Moderator:
Prof. Koh Kheng Lian
Honorary Director
Asia Pacific Centre for Environmental Law
National University of Singapore

11:00 **Mainstreaming Universal Access: Making Transport Inclusive**

Ms Katja Schechtner
Urban Mobility Expert
Asian Development Bank

11:15 **Adaptive Urban Transportation**

Dr Lynette Cheah
Assistant Prof.
Engineering Systems and Design Pillar
Singapore University of Technology and Design

11:30 **The Transport Sector in Cambodia**

Ms Kem Monovithya
Deputy Director, Public Affairs
Member, Permanent Committee
Cambodia National Rescue Party

11:45 **Discussant**
Associate Prof. Gopinath Menon
Adjunct Associate Prof.
Division of Infrastructure Systems and Maritime Studies
School of Civil and Environmental Engineering
College of Engineering
Nanyang Technological University

11:55 **Q & A**

13:15 **Session III**
Public Utilities and Services: Urban Governance and Community Adaptation
This panel will examine issues relating to providing and sustaining access to public utilities such as water, electricity and sanitation. What have been the challenges in promoting initiatives such as privatization, public-private partnerships and viable technologies to further community resilience, whether in times of disasters or for long-term adaptation?

Moderator:
Dr Jonatan Lassa
Research Fellow, Centre for NTS Studies
S. Rajaratnam School of International Studies
Nanyang Technological University, Singapore

13:15 **Informality, Resilience and Disaster Governance: Lessons from failures and successes in Mumbai**

Prof. Devanathan Parthasarathy
ICCR Chair Prof. of Indian Studies
Visiting Prof.
South Asian Studies Programme
National University of Singapore

13:30 **Empowering Local Communities for Climate Change Adaptation: Lessons from Evolving Urban Governance in Ulaanbaatar**

Dr Bharat Dahiya
Visiting Fellow
Faculty of Architecture
Chulalongkorn University
Bangkok, Thailand

13:45 **Harnessing Crowd-Sourced Urban Data Gathering and Making Information Accessible to Improve Public Services and Promote Community Resilience**

Mr John Taylor
Founder and Director
Yayasan Kota Kita (Our City Foundation)
Solo, Indonesia

14:00 **Discussant**
Mr Sean Tan Eu Chong
Chief Operating Officer
Singapore Office Leader
The Good Water Company

14:10 **Q & A**

14:30 **Session IV**
Health Systems in Disaster and Conflict Situations

This session discusses the impact of both disasters and conflict situations on health systems at the community and city level. It aims to deliberate on the challenges that are common and what sets apart responses to public health emergencies and non-emergency health care provision. It also aims to come up with best practices that can be replicated to address the human security needs of vulnerable groups (women, children, elderly) in crisis and conflict situations.

Moderator:
Prof. Mely Caballero-Anthony
Associate Prof.,
S. Rajaratnam School of International Studies (RSIS);
Head, RSIS Centre for Non-Traditional Security (NTS) Studies; and
Secretary-General, Consortium of Non-Traditional Security Studies in Asia (NTS-Asia)
Nanyang Technological University, Singapore

14:30 **Health Systems in Disaster and Conflict Situations and the Role of the ICRC**

Dr Mubariz Tariq
Detention Doctor
International Committee of the Red Cross(ICRC)
Kuala Lumpur, Malaysia

14:45 **The Role of Muhammadiyah in Disaster and Conflict Situations in Indonesia**

Dr Rahmawati Husein
Vice Chair
Muhammadiyah Disaster Management Center (MDMC)
Indonesia

15:00 **Organizational Capacity and Health Security**

Dr Allen Yu Hung Lai
Director
Institute of Health Economics and Management
ESSEC Business School (Asia Pacific)
Singapore

15:15 **Discussant**
Ms Adrienne Mendenhall
Country Manager
ACCESS Health International, Singapore

15:25 **Q & A**

16:00 **Session V**
Information and Communication: Raising Awareness and Communicating Risk

This panel will examine various approaches and challenges in raising awareness about community resilience and sustainability and communicating risk in disaster and conflict situations and share best practices and recommendations to improve risk communication.

Moderator:
Mr Kwa Chong Guan
Senior Fellow
S. Rajaratnam School of International Studies
Nanyang Technological University, Singapore

16:00 **Resilience Starts at Home**

Daw Rose Mary
Emergency Coordinator
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Catholic Bishops Conference of Myanmar

16:15 **Current Efforts on Climate Change Adaptation at Various Levels in Indonesia**

Mr Ari Mochamad
Secretary
Adaptation Working Group
National Council on Climate Change
Indonesia

16:30 **Community Security and Justice work in Nepal**

Dr Ramji Prasad Neupane
Former Director of Programmes
International Alert
Kathmandu, Nepal

16:45 **Discussant**
Dr Shirley Ho
Assistant Prof.
Division of Communication Research
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College of Humanities, Arts, & Social Sciences
Nanyang Technological University

16:55 **Q & A**

End of Day 1

DAY 2, 11 April 2014 (Friday)

09:00 **Session VI**
Cooperation and Collaboration: Way forward for regional frameworks and strategies
This session looks at current frameworks for cooperation among cities and communities in the region. What have these collaborations achieved? What are the challenges and gaps to these partnerships? What are the opportunities for furthering human security through community resilience in these initiatives?

Moderator:
Dr Alistair Cook
Research Fellow
RSIS Centre for NTS Studies
Nanyang Technological University, Singapore

09:00 **The ASEAN Community**

Mr Danny Chian Siong Lee
Director, Community Affairs Development
ASEAN Secretariat

09:15 **ICLEI SEAS: Towards building resilience in Southeast Asia**

Ms Catherine Diomampo
Project Officer
ICLEI-Local Governments for Sustainability Southeast Asia

09:30 **Alleging Expectations across Institutions: Finding Real World Solutions for Collaboration among Organizations with Differing Operational Logics**

Mr Sasank Vemuri
GIZ Climate Change Specialist
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09:45 **Discussant**
Prof. Mely Caballero-Anthony
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Head, RSIS Centre for Non-Traditional Security (NTS) Studies; and
Secretary-General, Consortium of Non-Traditional Security Studies in Asia (NTS-Asia)
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09:55 **Q & A**

10:30 **Break-Out Sessions**
The break-out sessions aim to engage workshop participants to draw out recommendations to address the challenges in up-scaling or mainstreaming human security objectives in building community resilience.

Moderator:
Dr Alistair Cook
Research Fellow, Centre for NTS Studies
S. Rajaratnam School of International Studies
Nanyang Technological University, Singapore

11:30 **Recommendations/Way Forward from Break-out Groups**
(5 minutes for each break-out group discussant)

11:55 **Q & A**

12:15 **Closing Remarks**

Prof. Mely Caballero-Anthony
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ABOUT THE CENTRE FOR NON-TRADITIONAL SECURITY STUDIES

The Centre for Non-Traditional Security (NTS) Studies was inaugurated on 6 May 2008 by Dr Yaacob Ibrahim, Minister for the Environment and Water Resources. It conducts empirically-grounded research to produce policy-relevant analyses aimed at furthering awareness and building capacity to address non-traditional security issues in the Asia Pacific and beyond. These issues are challenges to the survival and well-being of peoples and states. They arise from non-military sources such as climate change, resource scarcity, infectious diseases, natural disasters, food shortages and transnational crime. The dangers are transnational in scope and require comprehensive – political, economic and social – responses, as well as the humanitarian use of military force.

Vision

To mainstream and advance the field of non-traditional security studies in regional and international security discourse to complement traditional approaches to security that emphasises sovereignty, political and military independence, and defence.

Mission

To conduct research and produce policy-relevant analyses aimed at furthering awareness and building capacity to address non-traditional security issues and challenges in the Asia Pacific region and beyond.

Research Activities

To fulfil this mission, the NTS centre aims to:

- Advance the understanding of non-traditional security issues and challenges in the Asia Pacific by highlighting gaps in knowledge and policy, and identifying best practices among state and non-state actors in responding to these challenges
- Provide a platform for scholars and policymakers within and outside Asia to discuss and analyse non-traditional security issues in the region
- Network with institutions and organisations worldwide to exchange information, insights and experiences in the area of non-traditional security
- Engage policymakers on the importance of non-traditional security in guiding political responses to non-traditional security emergencies and developing strategies to mitigate the risks to state and human security
- Contribute to building the institutional capacity of governments, and regional and international organisations to respond to non-traditional security challenges

The Centre's research activities focus on the following programmes:

- Climate Change, Resilience and Sustainable Development
- Energy Security
- Food Security
- Health Security
- Water Security
- Peace, Human Security and Development

Networking and Outreach

The Centre serves as the Secretariat of the Consortium of Non-Traditional Security Studies in Asia (NTS-Asia), which brings together twenty research institutes and think tanks from across Asia, and strives to develop the process of networking, consolidate existing research on NTS-related issues, and mainstream non-traditional security studies in Asia. The Centre is also the Coordinator of the ASEAN-Canada Research Partnership (2012-15), which is supported by the International Development Research Centre (IDRC) of Canada. It also serves as the Secretariat of the initiative.

ABOUT THE S. RAJARATNAM SCHOOL OF INTERNATIONAL STUDIES

The S. Rajaratnam School of International Studies (RSIS) was established in January 2007 as an autonomous School within the Nanyang Technological University. Known earlier as the Institute of Defence and Strategic Studies when it was established in July 1996, RSIS' mission is to be a leading research and graduate teaching institution in strategic and international affairs in the Asia Pacific. To accomplish this mission, it will:

- Provide a rigorous professional graduate education with a strong practical emphasis,
- Conduct policy-relevant research in defence, national security, international relations, strategic studies and diplomacy,
- Foster a global network of like-minded professional schools.

Graduate Education in International Affairs

RSIS offers a challenging graduate education in international affairs, taught by an international faculty of leading thinkers and practitioners. The Master of Science (MSc) degree programmes in Strategic Studies, International Relations, Asian Studies, and International Political Economy are distinguished by their focus on the Asia Pacific, the professional practice of international affairs, and the cultivation of academic depth. Thus far, students from more than 50 countries have successfully completed one of these programmes. In 2010, a Double Masters Programme with Warwick University was also launched, with students required to spend the first year at Warwick and the second year at RSIS.

A small but select PhD programme caters to advanced students who are supervised by faculty members with matching interests.

Research

Research takes place within RSIS' six components: the Institute of Defence and Strategic Studies (IDSS, 1996), the International Centre for Political Violence and Terrorism Research (ICPVTR, 2004), the Centre of Excellence for National Security (CENS, 2006), the Centre for Non-Traditional Security Studies (Centre for NTS Studies, 2008); the Temasek Foundation Centre for Trade & Negotiations (TFCTN, 2008); and the Centre for Multilateralism Studies (CMS, 2011). The focus of research is on issues relating to the security and stability of the Asia Pacific region and their implications for Singapore and other countries in the region.

The school has five Prof.ships that bring distinguished scholars and practitioners to teach and to conduct research at the school. They are the S. Rajaratnam Prof.ship in Strategic Studies, the Ngee Ann Kongsi Prof.ship in International Relations, the NTUC Prof.ship in International Economic Relations, the Bakrie Prof.ship in Southeast Asia Policy, and the Peter Lim Prof. ship in Peace Studies.

International Collaboration

Collaboration with other professional schools of international affairs to form a global network of excellence is a RSIS priority. RSIS maintains links with other like-minded schools so as to enrich its research and teaching activities as well as adopt the best practices of successful schools.

RSiS
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