

**Climate Change and Pro-Poor Urban  
Governance Capacity Development  
Workshop:  
Promoting Sustainable Human  
Development in Asian Cities**

**Workshop Summary Report**

**Monday 29th October 2012**

**UN-Habitat Bangkok Office and UNDP Asia-Pacific Regional Centre**

## **Climate Change and Pro-Poor Urban Governance Capacity Development Workshop: Promoting Sustainable Human Development in Asian Cities**

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**Background:** Asia has some of the world's fastest growing and most dynamic cities. Urban centres in Asia are experiencing high rates of economic growth and sustained urbanization mainly from rural-urban migration, yet pre-existing and rising urban deprivation and exclusion threaten their prosperity, especially for the urban poor. Added to this, Asian cities are highly exposed to climate impacts, and poorer residents are not only much more vulnerable, but are also found in more sensitive areas, such as in informal settlements or 'slums', with limited capacity to adapt. National climate change policies often do not recognize the unique vulnerability of the cities – especially the urban poor. While most Asian countries have developed national-level climate change policies, city-level policies and plans to cope with the adverse effects of climate change are still developing.

The objective of this workshop was to assist select Asian cities to strengthen their public planning institutions to address climate change in a more inclusive manner. It aimed to support urban/municipal government actors to develop multi-stakeholder climate change response strategies that are pro-poor and inclusive; identify ways to upstream local level plans into national level policies so they can respond to the challenges of urbanization, including economic growth; and facilitate the exchange of experiences of national and international initiatives at the city level, managing economic growth and addressing climate change vulnerabilities.

Representatives from the following primary and secondary cities, attended the workshop:

- Dhaka and Chittagong, Bangladesh
- Sihanoukville, Cambodia
- Makassar, Indonesia
- Kathmandu, Nepal
- Sorsogon, the Philippines

- Negombo and Balangoda, Sri Lanka
- Bangkok, Thailand.

At the workshop, speakers set out the issues currently faced by countries across Asia. This was followed by a representative from each city set out the specific challenges they are facing. This report concludes with the findings of a group work session, where cities worked together to develop action plans for multi-stakeholder climate change responses.



## KEY ISSUES

Ms. Mariko Sato, Chief of UN-Habitat's Office in Bangkok opened the workshop by highlighting the issue that cities bear the brunt of climate change impacts disproportionately. Productive cities generate a large proportion of a country's GDP and provide homes to many people, and need appropriate mitigation and adaptation measures in order to sustain this growth. The workshop was to provide an interactive space to discuss how to achieve sustainable and resilient cities.

Ms. Pauline Tamesis, Democratic Governance Team Leader, from UNDP's Asia-Pacific Regional Centre presented two key messages:

- 1 **Climate change and urbanization are closely interlinked**, and therefore need to be addressed in a multidimensional and intertwined manner, taking into account economic, social and environmental dimensions. People are moving to cities in search of better economic opportunities; however, cities become host to the vulnerable and poor as they engage in informal economy without adequate social and climate change protection measures.
- 2 **A political response is required** to address challenges and competing priorities faced at the local level, such as access to resources, land tenure issues etc. Global instruments should be adapted to the context within which local governments operate, which also necessitates vulnerability and poverty

assessments to provide adequate protection, especially for migrants and those residing in informal settlements.

Mr. Omar Siddique from the Inclusive Growth and Poverty Reduction Team at UNDP's Asia-Pacific Regional Centre provided a greater understanding of **key regional trends and linkages between climate change, poverty and inclusive urbanization** which included insights from the latest Asia-Pacific Human Development Report on climate change 'One Planet to Share'.

**Half of the world's population lives in cities in Asia:** a large population concentration has been observed in mega cities, and a new type of cities called 'meta cities' with over 20 million people are emerging in places like Delhi and Shanghai. Although the urban growth rate has slowed down recently, the urban tipping point is happening faster in Asia than in Africa. There are positive associations between urbanization and human development, but caution must be exercised when considering trends at the aggregate level, as they may hide groups of observations telling a very different story.

For example, as more people migrate to cities in search of better education and livelihood opportunities, or to escape the distress caused by climate change and conflict, **urban areas also capture wide extremes of wealth and poverty. Urbanization is also positively associated with better aggregate health outcomes**, but qualities are uneven even though access to services appears enhanced. Poor nutrition associated with non-communicable diseases is also not necessary improved as many low-income dwellers rely on high calorie but nutritionally poor foods.



**Measuring urban poverty** is difficult as mobility of the urban poor makes accuracy of reliable data a challenge. Many countries do not have separate poverty base lines for urban areas and the cost of goods and services is much higher in urban than rural areas.

Urban poverty can be ‘invisible’ as many Asian countries like to project their cities as centres of prosperity to attract foreign direct investment. We also witness widespread poverty in peri-urban areas which have distinct governance challenges as they often fall outside the authority of the metropolitan boundary.

**Vulnerability** to climate change was seen as a function of exposure, sensitivity and the reciprocal of adaptive capacity. Climate change, if left unaddressed by countries, could push more people into poverty. Asian cities are vulnerable as inhabitants often reside disproportionately in low-elevation coastal zones (LECZs).

In the area of access to improved **sanitation**, the region’s cities are second worst after Africa; this requires attention not just for public health issues but to preserve human dignity. On metrics necessary to monitor and plan for **urban climate change mitigation strategies**, regular city inventories of Green House Gas (GHG) emissions remain a serious data gap. While per capita urban emissions remain low in Asia, energy inefficiency is more of a barrier to building low carbon cities.

**Deepening decentralization** processes, especially political and fiscal devolution, are fundamental in assisting cities to make more sustainable and resilient futures. However these processes often fail as they are designed by central governments. There are particular capacity constraints in raising urban finance.

Ms. Sujala Pant, from the Democratic Governance Team at UNDP’s Asia-Pacific Regional Centre, focused her presentation on the interface between sub-national governance and climate change, giving examples from the region. Local governments are usually not included in the discussion on climate change even though the impact is felt most at the local level. But it is local communities that have the knowledge and experience to deal with the issues, regardless of what policies are in place.

Three main areas where there are obvious **links between climate change and governance interfacing at the local level** are: local planning and regulation; delivering goods and services (which requires additional capacity due to technical specificities); and local fiscal revenues (although capacities to enforce regulation is very difficult due to underlying political dynamics).

**Climate change’s impact on vulnerable populations is not clear** at present. However, vulnerability perspectives must be reflected in the planning, implementation and monitoring of programmes and projects. **Improving coordination** between line ministries and municipal governments is key to addressing climate change issues in the

local setting and ensuring an equitable response, although the cost for adding the climate change dimension is unpredictable.



Mr. Kibe Muigai, Technical Expert at UN-Habitat Nairobi, addressed **multi-level governance for city level climate change decision makers**, presenting tools and examples of working under national level frameworks. Climate change responses should be included within the context of multi-level governance, as opposed to the traditional state-centric governance patterns.

**At the urban level**, climate change adaptation strategies include ensuring climate proofing of urban infrastructure (e.g. seawalls and storm surge barriers) developing early warning systems, enhancing community resilience, and developing insurance schemes, investing in storm water drainage, upgrading slums, and relocating extremely vulnerable settlements and infrastructure, and accessing financing mechanisms such as the UNFCCC Adaptation Fund.

**At the local level**, long term planning and vision of the local development scenario is required, the scope of community participation and action by representatives of the private sector, neighbourhoods (especially the poor) and grassroots groups, as well as opinion leaders of all kinds must be expanded, to ensure a broad-based collection of perspectives, and participatory processes would facilitate inclusive vulnerability assessments identifying common and differentiated risks to urban development plans.

**National climate change strategies** must anticipate and plan for more substantial climate change impacts and adaptation needs in the longer term, offer tax incentives for investments in green economy, enhance coordination and streamlining between sectoral and administrative entities, develop partnerships, and encourage local action to

contextualize national (or regional) policies and priorities, considering the backdrop that local governments' ability to act is often constrained, as emissions sources or different aspects of land-use planning fall outside of their jurisdiction.

**Regional strategies** should disseminate greater technical and financial capacity, and environmental know-how, and assemble and develop strategies that can link policies and programmes that could otherwise operate in isolation.



The **overarching principles of an urban climate change strategy** include:

- **Autonomy and coordination:** urban climate change resilience is more easily built where national, state and city levels can work together quickly and effectively (as opposed to common municipal/local/regional governance structures)
- **Transparency and accountability:** openness in financial management in key climate sectors such as urban planning, water and waste, and accountability to citizens
- **Responsiveness and flexibility:** establish an interagency cross-government body to tackle the potential and impact of climate change, for issues such as sea level rise, coastal erosion, floods and droughts, human health and food security, climate refugees
- **Participation and inclusion:** involve marginalized groups in decision making and monitoring of adaptation plans, people-centered early warning systems.

**Financing adaptation measures** in Multi-Level Governance can be done through:

- Funds under the UNFCCC: the 'Special Climate Change Fund' aims in particular to support adaptation, energy, forestry, industry, technology transfers, transport, waste management and efforts to diversify economies.

- Global Environment Facility (GEF): the ‘Least Developed Countries Fund’ supports least developed countries in preparing and implementing National Adaptation Programmes of Action (NAPAs).
- ‘The Adaptation Fund’ will finance implementation of concrete adaptation projects aimed at avoiding forest degradation and combating land degradation and desertification.
- Non-compliance fund.
- Disaster relief and risk reduction: predominantly from the ODA and development bank initiatives, as well as efforts at the national government level.
- Public expenditures: including public–private partnerships (PPPs) and partnerships with NGOs.
- Insurance and disaster pooling.
- Development assistance: the EC has identified adaptation as a relevant strategy in development cooperation for EU partner nations.
- Foreign direct investment (FDI): e.g. climate risk can be reduced if building codes and land-use regulations for real estate, including hotel resorts in the coastal zone, are applied. An attractive scenario for investors would be if small subsidies, provided through loans from development banks, complemented such regulations, compensating for the extra investment costs.

Ms Pakamas Thinphanga, from the Thailand Environment Institute, explained that the **concept of resilience** is not just about tackling climate impacts; rapid urbanization and development leads to more climate threats. Resilience is multi scale, dynamic, and has an emphasis on learning and adaptation. However, care is needed in interpretation and application: it must address concerns for development in a socially just and environmentally sustainable way.

The **Climate Resilience Conceptual Framework** is a shared learning dialogue (SLD) between resilience building and understanding the vulnerabilities of urbanization and climate change - an iterative process of assessing vulnerabilities and identifying resilience actions. SLD must acknowledge the different meanings and values in urbanization; inter-generational implications; the requirement for many different disciplines and types of knowledge, and that distribution of risks is a justice issue requiring informed public deliberation. Together, urbanization and climate change influence the causes and characteristics of vulnerability and poverty. Not just assets, but also wellbeing, knowledge and power. Building urban climate resilience is about strengthening governance – public participation processes, public pressure and dialogues to influence change.



‘Urban’ is often translated as city municipality, but urbanized areas do not correspond with city municipal boundaries. Urbanisation is contested, and driven by global and regional economics, and several urban administrations are responsible for city planning.

Climate vulnerability: impacts will be distributed unevenly, leading to issues of justice and rights. If we struggle with the linkages between poverty and vulnerability now, urbanization and climate change will create new sources of vulnerability. There are risks in putting climate resilience and vulnerability at the heart of public policy though, without a commitment to justice and rights. Also, climate risks/hazards must be understood in the complex urban system context. Most work on climate change impacts is sector specific: agriculture, health, water, natural disaster.



## CHALLENGES

**Common themes** arose in each city presentation of the key issues and climate change challenges they are currently facing:

1. **High rates of population growth** are expanding the cities; of particular concern is the increasing numbers of slum dwellers. These people live in inadequate housing, with limited or no access to clean water, sanitation, health and education provision, and a large proportion can only find employment in the informal economy. Female populations face disproportionate risks, with less capacity to mobilize resources.
2. Unplanned development activities have resulted in **inadequacies in city infrastructure**. Solid waste management and sewage facilities are not sufficient, leading to transmission of communicable diseases. Insufficient drainage is causing surface and ground water problems. Limited access to piped water

means reliance on tube wells. Traffic congestion, air, water and noise pollution are experienced in every city. Uncontrolled tourism expansion is promoting illegal construction.

3. In addition to the above, all the cities are also **highly vulnerable to climate change effects**. Frequent natural disasters are causing inundation and landslides, threatening infrastructure, homes, industry and trade centres, epidemic diseases are spreading, there is a reduction in agricultural yields and loss of biodiversity, and livelihoods are threatened or lost.
4. Of fundamental importance in dealing with these issues is to address the **lack of coordination of different levels of governance**, and a need to increase the effectiveness of local governments:
  - Local governments' **powers to make laws, raise finances and decide budgets** range from none, to being previously agreed by national government providing they 'do not violate national law and disturb public interest'.
  - **Revenues** are derived from local taxes, and provided by national government. Limited funds constrain the implementation of climate change activities, limiting local governments' responses to crisis management and immediate short-term issues.
  - Local governments face **lack of coordination** between urban authorities and agencies, and lack of collaboration between public and private sectors.
  - The level of **direct participation of the urban poor in city governance** varied in the cities, from none to committees and specific council sections created to ensure their involvement.

**Discussions** highlighted the following issues faced by the cities:

- Egocentrism in local and national government departments needs to be dealt with through focusing on recognizing the issues as more important than an individual's authority. Some experiences have suggested that the Ministry of Finance is more supportive of cities in raising finances than the Ministry of Environment, threatened by the independent resource mobilization efforts by cities. Starting to use the language of finance and economics may help in mobilizing more resources.
- Dealing with slum dwellers in highly vulnerable locations, such as next to a river, is a joint responsibility of central and local government, and community groups. When local communities are formed to deal with informal settlements, the

municipality ought to be more accountable for dealing with evictions; this is a very complex challenge and must be a combined effort.

- Consultation with local people can create expectations which must be managed throughout implementation. This can be done through awareness raising and transparency, and adapting methods to a public with a lower education level or illiteracy; through mass media, seminars, etc.
- National budgets and resources need to be mobilized to support slum dwellers. Cities have successfully done this through bidding and agreements between private corporations and local governments for commercial activities; non-commercial activities come from national and local governments.
- Climate change is inherently cross-sectoral and does not respect geographical borders. Municipalities currently do not coordinate, but there is a need for this. For example, floods occur across borders, but what strategies are in place to plan together with “neighbours”?
- It takes time for national governments to give more power to their local governments, but there are many examples where this is progressing.
- It is important to remember that national politicians are often funded by climate-unfriendly companies and therefore their approach to climate awareness is not a comfortable issue. It is essential that national governments are able to raise resources, and dependence on donors is an important issue.
- Therefore, successful local responses to climate change must be rooted in the realities of levels of decentralization, and the powers that are retained by national government.



## THE WAY FORWARD

The presentations set out initiatives the attending cities have already implemented:

- to address poverty and inequality,
- to improve social services for their populations,
- to strengthen the resilience of their infrastructure to climate change impacts,
- to forge effective relationships with UN agencies, NGOs, and other government and private bodies

In spite of this work, it is recognized that this is an on-going learning process and further work is needed to strengthen planning institutions to tackle climate change in a more pro-poor and inclusive manner.

However, looking back to 2008 when the Cities and Climate Change Initiative was set up, it is clear how much had been accomplished by so many cities across Asia, and covering so many issues. The collaboration between UN-Habitat and UNDP in particular is a small indication that there was much coordination in the region.

While the current issues and challenges that local governments face are not going to become easier, climate change offers an opportunity to consider urban challenges in a new light, with a longer term perspective. Climate change does not respect the 3 year cycles of elected officials, nor does it stop at political boundaries. This is why coordination across different tiers of governance is critically important.

The Workshop has highlighted issues of coordination and funding. Local government officials state 'we do not have power' but the preparation of stakeholder matrices for priority planning revealed there is much that cities and CBOs can do now. The key sectors identified are: water, slums, infrastructure, road, sanitation and housing. The primary and secondary stakeholders differed from country to country, which is not surprising, given the different cultures, attitudes, types of decentralization, devolution and multi-level governance in the different countries. However, **almost all stakeholders were identified as being involved in all the issues** – even if not the lead stakeholders, then at least to be consulted or involved in implementation. This is the next challenge for sustainable development: the governance dimension, coordinating all the stakeholders, and the different level of government, and securing funding.



**UN Moderators and Speakers:**

- Ms. Mariko Sato, Chief, UN-Habitat Bangkok Regional Office
- Ms. Pauline Tamesis, Democratic Governance Team Leader, UNDP Asia-Pacific Regional Centre
- Mr. Bernhard Barth, Human Settlements Officer, UN-Habitat Nairobi
- Mr. Omar Siddique, Programme Specialist, Inclusive Growth & Poverty Reduction Team, UNDP Asia-Pacific Regional Centre
- Ms. Sujala Pant, Programme Specialist, Democratic Governance Team, UNDP Asia-Pacific Regional Centre
- Ms. Thusitha Pilapitiya, Governance Advisor, Democratic Governance, UNDP Asia-Pacific Regional Centre
- Mr. Kibe Muigai, Technical Expert, UN-Habitat Nairobi
- Mr. Liam Fee, Cities and Climate Change Initiative Regional Knowledge Management Advisor, UN-Habitat Bangkok

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## **APPENDICES**

- Summary of cities' presentations
- Outputs from group work session
- Evaluation summary of feedback questionnaires

**Appendix 1: Summaries of presentations from the cities’ representatives**

<b>CHITTAGONG, BANGLADESH</b>	
<b>URBAN DEVELOPMENT ISSUES &amp; CLIMATE CHALLENGES</b>	<ul style="list-style-type: none"> <li>• Numbers of slum dwellers are increasing, currently they are 35% of the city’s population. 0.5 million garment workers live in vulnerable coastal area and are very low paid</li> <li>• Sanitation, health and education are not adequate in slum areas; irregular and limited access to energy for urban poor</li> <li>• City Corporation funded the construction of low cost housing project, which was threatened by the increasing trend of landslides due to hill cutting, soil erosion and excessive rainfall</li> <li>• City is highly vulnerable to climate change effects; frequent natural disasters include tropical cyclones, norwesters, storm surges, floods, droughts, tornadoes</li> <li>• Decreasing navigability of Karnafully river due to siltation by soil erosion in upstream hills</li> <li>• Sea level rise is causing inundation of roads and houses</li> <li>• High rainfall is causing flooding and long-lasting water logging</li> </ul>
<b>GOVERNANCE ISSUES</b>	<ul style="list-style-type: none"> <li>• City Corporation is a statutory body; it can formulate by-laws (with prior approval from Government) and decide its Annual Budget.</li> <li>• Revenues come from the Corporation’s taxes, with 25% from the National Government. City Corporation’s provision is limited due to funds, and a larger allocation is needed from National Government</li> <li>• Limited decentralization, lack of stakeholder participation in decision-making, poor coordination between development agencies, organizations and Government departments, funding constraints, and delay in Government approval of their development projects all hamper the Corporation’s work</li> </ul>
<b>RESPONSES &amp; STRATEGIES</b>	<ul style="list-style-type: none"> <li>• Working Womens Hostel planned by City Corporation, with help of the Climate Fund</li> <li>• Joint venture between City Corporation and donors, partners</li> </ul>

	<p>and NGOs to provide sanitation, health and education services to urban poor</p> <ul style="list-style-type: none"> <li>• City Corporation-funded excavation of canals and drains, to address drainage issues and minimize water-logging. Digging of new canals proposed under Master Plan</li> <li>• City Corporation, UN agencies, ADB and NGOs collaborating on better livelihoods for urban poor</li> <li>• ‘City Authority should be established like those of Developed Countries for better coordination, integration and sustainable programme implementation’</li> </ul>
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<b>DHAKA, BANGLADESH</b>	
<p><b>URBAN DEVELOPMENT ISSUES &amp; CLIMATE CHALLENGES</b></p>	<p>High rate of population growth, including rural-urban migration, has expanded the city in all directions by filling up low lying areas. 55% classified as poor; 12% as extremely poor; high levels of illiteracy; 60% employment in informal sector; only 12% have access to government health and education services and 58% do not attend school due to lack of funds for tuition fees</p> <p>Unplanned development activities have resulted in:</p> <ul style="list-style-type: none"> <li>• Solid waste management for only 23% of population</li> <li>• Many living in slums without access to municipal sanitation services.</li> <li>• Only 10% of population has sewage facilities, leading to transmission of communicable diseases</li> <li>• Surface and ground water problems</li> <li>• 30% with access to piped water, others rely on tube wells; water supply and pollution problems</li> <li>• Traffic congestion; air and noise pollution</li> </ul> <p>Vulnerabilities caused by climate change and climate variability (droughts, heat waves, uncertain rainfall patterns, water scarcity, saline intrusion):</p> <ul style="list-style-type: none"> <li>• Population migration leading to settlements in low lying areas; loss of homes due to flooding and cyclones</li> <li>• National economy, business, industry and trade centres, health and education facilities and international</li> </ul>



	<p>communication exposed to climate hazards and infrastructure damage</p> <ul style="list-style-type: none"> <li>• Spreading of epidemic diseases</li> <li>• Drainage problems, flooding, water logging and water supply pollution</li> <li>• Reduction in agricultural yields, loss of biodiversity</li> <li>• Loss of livelihoods</li> </ul>
<b>GOVERNANCE ISSUES</b>	<ul style="list-style-type: none"> <li>• Dhaka City Corporation (split into North and South, in December 2011) to deal with slum improvement, mosquito control, sanitation and solid waste management, amongst others</li> <li>• Funding from taxes, tariffs, fees, fines and rental income. Also government grants and donor funds</li> <li>• No power to formulate rules or law</li> <li>• Lack of coordination between urban authorities and agencies, and lack of collaboration between public and private sectors</li> <li>• No direct involvement of urban poor in participating city governance</li> </ul>
<b>RESPONSES &amp; STRATEGIES</b>	<ul style="list-style-type: none"> <li>• Extensive water and solid waste management initiatives</li> <li>• Dhaka as the lead city in climate change cluster CITYNET</li> <li>• Clean Air, Poverty Reduction, Health Care and Labour Projects and Programmes</li> </ul>

<b>SIHANOUKVILLE, CAMBODIA</b>	
<b>URBAN DEVELOPMENT ISSUES &amp; CLIMATE CHALLENGES</b>	<ul style="list-style-type: none"> <li>• Only 40% of waste generated in the city is collected</li> <li>• Increasing population increases demands on water supply and sanitation</li> <li>• Illegal fishing is destroying marine and coastal habitats</li> <li>• Uncontrolled tourism expansion is promoting illegal construction and extending the built-up zone into the beach zone</li> <li>• Beach erosion, sea level rise, storms and flooding damage</li> <li>• Increasing size of the informal economy</li> <li>• People are only appreciating environmental importance after they see concrete economic benefits</li> </ul>

<b>GOVERNANCE ISSUES</b>	<ul style="list-style-type: none"> <li>• The recently set up National Climate Change Committee structure needs to strengthen the implementation of policy, strategy, planning, capacity building, information campaigning and funding at the local level</li> <li>• Insufficient finance from the government to implement national and sub-national climate change activities, leading local governments restricted to immediate short-term issues</li> <li>• Effective coastal and marine management and climate change responses requires coordination and cooperation across sectors</li> </ul>
<b>RESPONSES &amp; STRATEGIES</b>	<ul style="list-style-type: none"> <li>• Vulnerability assessment has been carried out</li> <li>• Beach Zoning Plan has been implemented, and is now being voluntarily followed by others</li> <li>• Enhanced information systems and planning for storm resilience</li> <li>• UN-Habitat and Cambodia Climate Change Alliance is supporting the incorporation of climate change responses into the City Masterplan</li> </ul>

<b>MAKASSAR, INDONESIA</b>	
<b>URBAN DEVELOPMENT ISSUES &amp; CLIMATE CHALLENGES</b>	<ul style="list-style-type: none"> <li>• Population growth increasing, especially numbers of urban poor and slum settlements</li> <li>• 38% without access to clean water; 12% without access to sanitation services</li> </ul>
<b>GOVERNANCE ISSUES</b>	<ul style="list-style-type: none"> <li>• City Government has law making powers, as long as they ‘do not violate national law and disturb public interest’</li> <li>• No power to decide budgets and raise finances; most local development finances come from Central Government</li> </ul>
<b>RESPONSES &amp; STRATEGIES</b>	<ul style="list-style-type: none"> <li>• Sustainable Urban Public Transport System</li> <li>• Restoration of public space for leisure uses, including beach with integrated coastal management</li> <li>• Wastewater treatment plant</li> <li>• Energy centre</li> <li>• Green City Development Programme</li> <li>• Balang Tonjong Lake – open space and reservoir</li> <li>• Tallo river – environmental rehabilitation, flood control and housing upgrade</li> </ul>

	<ul style="list-style-type: none"> <li>• Solid Waste Management Programme</li> <li>• Air pollution programme</li> <li>• Energy Efficiency Programme, retrofitting government building and street lighting</li> <li>• On-site slum upgrading into multi-story flats</li> <li>• Programme for the urban poor: including health service, free school transport, free legal assistance, free ID card service</li> </ul>
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<b>KATHMANDU, NEPAL</b>	
<b>URBAN DEVELOPMENT ISSUES &amp; CLIMATE CHALLENGES</b>	<ul style="list-style-type: none"> <li>• Numbers of informal settlements are growing, particularly along river banks vulnerable to climate change. Untreated sewage is a problem. Most waste is dumped in the river which is also vulnerable to flooding</li> <li>• Poor water, sanitation and hygiene practices make water and vector-borne diseases common</li> <li>• Water demand is 3x supply; groundwater extraction rate is 2x recharge rate</li> <li>• Infrastructure, especially drainage and roads, are vulnerable; undependable electricity supply and 16 hour powercuts per day</li> <li>• Landslides are happening on steep slopes</li> <li>• Loss of agricultural land is threatening productivity and food security; fires and encroachment is threatening forests and biodiversity in surrounding hills</li> <li>• Urban issues are not a priority for the government and donors; limited resources – both financial and human; municipality is usually busy with crisis management</li> </ul>
<b>GOVERNANCE STRUCTURE</b>	<ul style="list-style-type: none"> <li>• Kathmandu Metropolitan City has a city council; no local elections for past 15 years, so managed by Executive Officer from the Ministry of Local Development</li> <li>• KMC can formulate by-laws and is responsible for urban management, including infrastructure development and provision of basic services such as solid waste management</li> <li>• Urban poor can participate in local governance through elections and community meetings</li> </ul>
<b>RESPONSES &amp; STRATEGIES</b>	<ul style="list-style-type: none"> <li>• Kathmandu Valley Development Authority was recently formed for overall planning and development of the valley;</li> </ul>

	<p>detailed ToR and work programme yet to be formulated</p> <ul style="list-style-type: none"> <li>• Vulnerability assessment and adaptation planning carried out, working in partnership with UN-Habitat</li> <li>• Promotion of waste composting, rainwater harvesting and urban agriculture</li> <li>• Mobilisation of youth and local communities</li> <li>• Promotion of green homes</li> </ul>
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<b>SORSOGON CITY, PHILIPPINES</b>	
<b>URBAN DEVELOPMENT ISSUES &amp; CLIMATE CHALLENGES</b>	<ul style="list-style-type: none"> <li>• 43.5% of the city's population are living below the poverty threshold; over 22,000 women at risk, with less capacity to mobilize resources</li> <li>• 45% of households do not have rights to land; informal settlements appear along coast/rivers; 27.8% have no access to safe drinking water; 25% have no sanitation; and 24% are vulnerable to multiple hazards</li> <li>• 36.6% of population are vulnerable to flooding; also tropical cyclones, storm surges, increased rainfall and sea level rise are experienced, increasing water and vector-borne diseases</li> </ul>
<b>GOVERNANCE STRUCTURE</b>	<ul style="list-style-type: none"> <li>• City Council has legislative powers and City Mayor has executive powers</li> <li>• Budget is from national government and local revenues raised</li> <li>• Local governance mechanism for urban poor : Urban Poor Affairs Section and City Council accredited NGOs</li> </ul>
<b>RESPONSES &amp; STRATEGIES</b>	<ul style="list-style-type: none"> <li>• Partnerships with national government agencies, UNDP and UN-Habitat, NGOs and Sorsogon State College</li> <li>• Vulnerability assessment and adaptation planning carried out, working in partnership with UN-Habitat, together with processes for setting climate change priorities</li> <li>• Upgrading of informal settlements and relocation</li> <li>• Livelihood Programmes, including skills to develop non-climate sensitive livelihoods</li> <li>• Energy efficient environmental management projects</li> <li>• DRR training</li> </ul>

<b>BALANGODA, SRI LANKA</b>	
<b>URBAN DEVELOPMENT ISSUES &amp; CLIMATE CHALLENGES</b>	<ul style="list-style-type: none"> <li>• Cyclones, droughts, floods, thunder storms, landslides and rockfalls affect vulnerable housing and informal settlements, health (solid and liquid waste, dengue epidemic) and loss of jobs</li> </ul>
<b>GOVERNANCE STRUCTURE</b>	<ul style="list-style-type: none"> <li>• Decentralisation, with Balangoda Urban Council managing its own budget</li> <li>• Committees formed to allow urban poor to participate in city governance</li> </ul>
<b>RESPONSES &amp; STRATEGIES</b>	<ul style="list-style-type: none"> <li>• Vulnerability assessment has been conducted</li> <li>• Strategic and financing plan, and dialogue with national level stakeholders, and partnership with UN-Habitat</li> <li>• Disaster Preparedness Committee and community DRR centre follows Hyogo Framework for Action 10 Point Checklist; Disaster Minimization and Preparedness plans 2011-2015 implemented; DRR/CCA plans prepared for Urban Development Authority's city development plan; funds from council budget available to implement DRR/CCA Plan.</li> <li>• Urban Council recognized as a 'role model for education programmeme/training to raise awareness on multiple hazards' for schools, government officers and private sector</li> <li>• Flood control pilot project</li> <li>• Solid waste management: composting, recycling, buying and selling waste, public-private partnerships, school programmemes, NVQ training. Waste water management and low cost night soil treatment plant</li> <li>• Buffer zones, replanting, and new construction building plans to minimize landslides</li> </ul>

<b>BANGKOK, THAILAND</b>	
<b>URBAN DEVELOPMENT ISSUES &amp; CLIMATE CHALLENGES</b>	<p>Population growth, migration and economic growth, combined with climate challenges, are impacting on the environment:</p> <ul style="list-style-type: none"> <li>• Air pollution: particulate matter along main roads and land use change has resulted in 2°C increase in the suburbs. Transport accounts for 49% of GHG emissions</li> <li>• Solid waste management unable to keep pace with waste</li> </ul>

	<p>production</p> <ul style="list-style-type: none"> <li>• Water pollution is severe, especially canal water pollution, due to effluent from commerce, industry and homes. 58% of the city is not served by wastewater collection</li> <li>• Lack of green areas</li> <li>• Flooding caused by heavy rainfall, overflowing rivers, high tides, land subsidence and inefficient drainage; coastal erosion caused by sea level rise</li> </ul>
<b>GOVERNANCE STRUCTURE</b>	<ul style="list-style-type: none"> <li>• Bangkok Metropolitan Administration comprises two branches: the executive (or the Governor of Bangkok) and the legislative (or Bangkok Metropolitan Council). The administration's roles are to formulate and implement policies regarding the management of Bangkok, these include: transport services, urban planning, waste management, housing, roads and highways, security services and the environment.</li> <li>• BMA cooperates locally with ministries and private sector; international cooperation includes World Bank and UNISDR</li> </ul>
<b>RESPONSES &amp; STRATEGIES</b>	<ul style="list-style-type: none"> <li>• Bangkok Development Plan – a framework for improving Bangkok in 12 years (2009-2020) through: becoming the regional centre of economic and social infrastructure development; an environmentally-friendly green city (efficient flood control and drainage systems, water quality management, waste reduction and recycling, increased air and noise pollution control, increased green areas, mangrove forest conservation and restoration, global warming mitigation and energy conservation) with a self-sufficient economy and transparent urban management; a place to learn, earn and participate in urban development.</li> <li>• 7 Strategies for Green Bangkok Development, based on Bangkok Metropolitan Administration Plan (2009-2012)</li> <li>• BMA Action Plan on Global Warming Mitigation (2007-2012): goal is 15% reduction in GHG emissions through 5 initiatives: expand mass transit and improve traffic system; promote use of renewable energy; improve building electricity consumption efficiency; improve solid waste management and wastewater treatment efficiency; expand park area. Climate change adaptation includes preventing damage to physical environment, educational programmes, capacity</li> </ul>

	<p>building/study and research</p> <ul style="list-style-type: none"><li>• Next steps = Bangkok Master Plan on Climate Change (2013-2023); projects to create a Low Carbon Society and enhance capacity of BMA officers to assist in disaster risk reduction</li></ul>
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## Appendix 2: Outputs from group work session

- Group A = Participants from Indonesia and Thailand
- Group B = Participants from Cambodia and Nepal
- Group C = Participants from Bangladesh, Sri Lanka and the Philippines.

In the above 3 teams, workshop participants joined an interactive session, comprising 2 exercises: carrying out a rapid assessment of the vulnerable people, sectors and infrastructure in their cities; and completing an issue-stakeholder matrix to priority plan successful implementation of climate change responses.

### Rapid assessment of vulnerable people, sectors and infrastructure

#### Exercise 1 – Group A – Indonesia and Thailand

Vulnerable area	Vulnerable components	Triggers	Responses
Road networks	<ul style="list-style-type: none"> <li>- Flood prone areas</li> <li>- Drainage system</li> <li>- Quality of infrastructure</li> <li>- Landslides near coastal areas (sea erosion)</li> </ul>	<ul style="list-style-type: none"> <li>- Climate shocks</li> <li>- Rainfall</li> <li>- Tidal surges</li> <li>- Sea water intrusion</li> </ul>	<ul style="list-style-type: none"> <li>- Regular maintenance of drainage and water pumps</li> <li>- Sea wall</li> <li>- Stronger construction materials</li> <li>- Vehicle restrictions</li> <li>- Focus on smaller roads in slum areas</li> </ul>
Slums	<ul style="list-style-type: none"> <li>- High density is fire risk</li> <li>- Quality of houses</li> <li>- No WATSAN</li> <li>- Health – disease</li> <li>- Illegal tenure</li> <li>- Exposure at river banks</li> <li>- Low income</li> <li>- Low education levels</li> <li>- Crime</li> <li>- Violence against women</li> <li>- Low levels of knowledge about climate change</li> </ul>	<ul style="list-style-type: none"> <li>- Flooding</li> <li>- Access to energy</li> </ul>	<ul style="list-style-type: none"> <li>- Community development on climate change</li> <li>- Free education and health services</li> <li>- Library</li> <li>- Transport</li> <li>- Housing upgrade</li> <li>- Child centres</li> <li>- Vocational training, especially for women</li> <li>- Small and medium enterprise development, including micro-finance</li> </ul>
Waste management	<ul style="list-style-type: none"> <li>- Burning</li> <li>- Open dumping is bad for health</li> <li>- Methane explosion</li> <li>- No RRR; no integrated</li> </ul>	<ul style="list-style-type: none"> <li>- Rainfall</li> <li>- Flooding</li> <li>- No segregation of waste</li> </ul>	<ul style="list-style-type: none"> <li>- Support for waste industry from private sector supply chains</li> <li>- Gas flaring (bio fuel)</li> <li>- CDM financing</li> </ul>



	household waste recycling system - People living in waste cities (waste pickers)		- Community development around waste sites - Waste-to-energy projects - Household waste separation programme - Open dumping area to 'green area'.
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### Exercise 1 – Group B – Cambodia and Nepal

Vulnerable area	Vulnerable components	Triggers	Responses
Water	- Supply - Source - Infrastructure - Water quality - Drainage	- Change in rainfall patterns - Storm water surges - Waterlogging	- Construction and maintenance of drainage canals - Expansion of green areas - Source protection - Water demand management - Water recycling
Governance	Decentralisation process	Money	Municipalities' role in disaster preparedness and recovery
Women and children (particularly those in coastal areas)	- Incomes - Social security - Health	Social and cultural inequalities already present	- Special programmes to empower women - Safety nets - Education

### Exercise 1 – Group C – Bangladesh, Sri Lanka and the Philippines

Vulnerable area	Vulnerable components	Triggers	Responses
Drainage, water supply and sanitation	- Underlying issues - Inadequate and unplanned - Poorly maintained SWM = - drainage blocked/improperly used - damaged infrastructure and leakage - overflowing pit latrines - contamination	- River flooding - Storm surge - Rain - Drought – groundwater not recharging	- Improved guidelines and regulations - Improved design - Highest flood consideration - Wastewater treatment - Improved sanitation - Protected infrastructure - Coordination - Increased capacity - Groundwater recharge - Rainwater harvesting
Health	- Health units destroyed - Water/vector borne diseases - Health services not accessible	- Storms - River flooding - Storm surge	- More resilient health facilities - Improved infrastructure - Improved drainage

	<ul style="list-style-type: none"> <li>during disasters</li> <li>- Respiratory/pollution related issues</li> <li>- Women and children have lack of mobility</li> <li>- Lack of devolution, financial and human resources</li> </ul>	<ul style="list-style-type: none"> <li>- Rain</li> <li>- Drought – groundwater not recharging</li> </ul>	<ul style="list-style-type: none"> <li>- Stocks of food and medicine</li> <li>- Immunisations</li> <li>- Medical personnel for crises</li> <li>- Specialised care</li> <li>- Birthing facilities</li> <li>- Health education</li> </ul>
Housing	<ul style="list-style-type: none"> <li>- Construction in vulnerable locations</li> <li>- Inundation, damage and destruction</li> <li>- Overcrowded</li> <li>- Access to communication</li> <li>- Built with inappropriate building materials and technologies</li> <li>- Lack of tenure security</li> <li>- Female headed households</li> </ul>	<ul style="list-style-type: none"> <li>- Storms</li> <li>- River flooding</li> <li>- Storm surge</li> <li>- Rain</li> <li>- Drought – groundwater not recharging</li> </ul>	<ul style="list-style-type: none"> <li>- Improved site selection</li> <li>- Improved building codes</li> <li>- Affordable, resilient low carbon homes</li> <li>- Raising of houses</li> <li>- Retrofitting</li> <li>- Multi-purpose facilities</li> </ul>

### Issue-stakeholder matrices

#### Exercise 2 – Group A

<b>Issue 1</b>	<b>Roads in slums / low income areas</b>
<b>Stakeholders</b>	
<b>National government:</b>	Need to align country infrastructure programme better with local plans, and cost share
<b>City government:</b>	Provision of maintenance equipment 'Green and Clean' programme: community education awareness
<b>NGOs:</b>	Implementation Monitor development programmes Education and anti-corruption
<b>Local community:</b>	Maintenance and public works
	Monitoring roads and lighting
<b>Academia:</b>	Study
	Public service
<b>Private sector: (developers)</b>	CSR with communities Road building
<b>Issue 2</b>	<b>Improving health in slums</b>
<b>Stakeholders</b>	
<b>National government:</b>	Health insurance programme for the poor
<b>City government:</b>	Sanitation: clean waterways, provide toilets, improve infrastructure Free health centres in slums, with separate provision for mothers and infants Recreation centres in slums

	Reimbursement for transportation of health care workers (so will work in slums)
<b>NGOs:</b>	Women's groups to provide health and education in slums Role in capacity development and promotion of health education, and addressing gender-based violence
<b>Private sector:</b>	Free provision of milk and nutritious food
<b>Media:</b>	Fund raising campaigns Publish stories on bad and good conditions in slums (including development projects progress), particularly around election times Collect volunteers to run community health centres
<b>Issue 3</b>	<b>Community development around waste sites</b>
<b>Stakeholders</b>	
<b>National government:</b>	Little involvement (especially in Thailand) Money for household education In-kind support – donation of garbage cars/trucks Sell waste
<b>City government:</b>	Training and education for communities near waste sites Use waste to barter; 'trash for cash' – borrow money for savings and pay waste in return Health monitoring of waste community, and call centre
<b>Private sector:</b>	Buyers of waste Provide CSR Support waste bank Support green areas
<b>NGOs:</b>	Education, especially for children Training for waste pickers Act as link between the people and the government
<b>Media:</b>	Disseminate awareness of issue through local news
<b>Mosques:</b>	Zakat for slum communities

## Exercise 2 – Group B

<b>Issue 1</b>	<b>Drains</b>
<b>Stakeholders</b>	Primary = city Supporting organizations = national Government, CBOs
<b>Issue 2</b>	<b>Climate resilient water supply system</b>
<b>Stakeholders</b>	Primary = city Supporting organizations = national and regional agencies, private sector, NGOs/civil society
<b>Issue 3</b>	<b>Disaster preparedness and recovery</b>
<b>Stakeholders</b>	Primary = city Supporting organizations = national and regional agencies, private sector, NGOs/civil society

<b>Issue 4</b>	<b>Special programmes to improve adaptive capacity of women</b>
<b>Stakeholders</b>	Primary = city, CBOs Supporting organizations = national government

### Exercise 2 – Group C

	National government	City government	Ward	NGOs, CBOs, civil society	Private sector	Media	Other
Improved roads and bridges	Y	Y		For some roads	Y		
Maintenance of drainage	Y	Y	Y	Y	Y	Y	Local rich educational institutions
Housing retrofitting	Y	Y	Y	Y	Y		Universities, philanthropists
Waste water treatment	Y	Y	Y	Y	Y		
Improved sanitation and pit latrines	Y	Y	Y	Y	Y		Volunteers
Immunisations	Y	Y	Y	Y	Y	Y	Y
Rainwater harvesting	Y	Y	Y	Y			UN-Habitat, Development partners
Guidelines and building codes	Y	Y	Y	Y	Y	partially	Academia

### Appendix 3: Evaluation summary of feedback questionnaires

#### Post workshop evaluation

**UN-Habitat Bangkok Office and UNDP Asia-Pacific Regional Centre  
Climate Change and Pro-Poor Urban Governance Capacity Development Workshop:  
Promoting Sustainable Human Development in Cities of Asia-Pacific**

29th October 2012  
Bangkok, Thailand

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
Q1: This learning event is relevant to my work	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	10 <i>53</i>	9 <i>47</i>
Q2: This learning event was a good opportunity to share experiences	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	9 <i>47</i>	10 <i>53</i>
Q3: I have an increased confidence in considering the poverty and governance linkages/applying the human development approach to my work	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	13 <i>68</i>	6 <i>32</i>
Q4: Overall, I am satisfied with this learning event	0 <i>0</i>	0 <i>0</i>	2 <i>11</i>	14 <i>74</i>	3 <i>16</i>
Q5: The speakers were able to clearly explain the subjects to me	0 <i>0</i>	0 <i>0</i>	2 <i>11</i>	15 <i>79</i>	2 <i>11</i>
Q6: The format for the event was stimulating	0 <i>0</i>	0 <i>0</i>	1 <i>5</i>	13 <i>68</i>	5 <i>26</i>
Q7: The pace of the breakout groups were appropriate to my learning	0 <i>0</i>	0 <i>0</i>	1 <i>5</i>	16 <i>84</i>	2 <i>11</i>

Of 19 participants, 74 per cent were satisfied with the learning event and more than half, 53 per cent, felt that the learning event was relevant to their work and a very good opportunity to share their experiences.

The majority of the participants, 84 per cent, indicated that the pace of the breakout groups was appropriate to their learning, the speakers were able to clearly explain the subject (79 per cent) and the format of the event was stimulating (68 per cent).

Post-event, 68 per cent of the participants felt more confident in considering poverty and governance linkages/applying the human development approach to their work.

(Q8) Participants were asked to list two/three insights or knowledge they gained from the workshop and plan to apply to their work. Of 17 respondents, most mentioned that they gained knowledge on the importance of national policies, social programmes,

public-private sector involvement and stakeholder participation in addressing climate change issues. In relation to this, pro-poor urban planning would also need to be strategized and integrated in the policies and programme formulation. Best practices and lessons learned from other countries were also noted as an insight and knowledge gained from the workshop.

(Q9) Participants were asked to provide two recommendations on how the event could be improved. Of 17 respondents, the majority of the participants mentioned that the learning event should be longer—one day for the presentations and another for the workshop. In addition, participants would like more interaction with other participants in order to share information and experience from other countries.

(Q10) Of 15 respondents, participants would like to receive further training mainly on how to link the city strategic plan and local community plan to government policies, and how to mainstream the issue of climate change into the planning process. Further, participants would like to share experiences and learn from countries that have more active responses to climate change. Other issues include coastal development, improving slum areas, and reducing poverty.

(Q11) Participants were asked which sessions they found most useful to their work. Of 14 respondents: session 2—Setting the Scene - Climate Change, Human Development and Governance in Asia-Pacific Cities was indicated as being the most useful. Session 4 - Experience Sharing from Asia-Pacific Cities and session 5 – Small Group Breakout Session were second most useful.

(Q12) Participants were asked which two issues relating to pro-poor urban governance and climate change they felt were not sufficiently addressed. Among 13 respondents, issues of pro-poor policies and urban planning were the top two issues that they would like to see addressed more in depth in the future. Other issues included reducing vulnerability, mapping of the poor in urban areas, and raising awareness and capacity development.