

# LOCAL GOVERNANCE AND CLIMATE CHANGE

A Discussion Note : December 2010



# ABBREVIATIONS

<b>APRC</b>	Asia-Pacific Regional Centre	<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>CC</b>	Climate Change	<b>PDR</b>	People's Democratic Republic
<b>CDM</b>	Clean Development Mechanism	<b>PEM</b>	Public expenditure management
<b>CSO</b>	Civil Society Organisation	<b>PFM</b>	Public financial management
<b>DDC</b>	District Development Committee (Nepal)	<b>REDD</b>	Reduced Emissions from Deforestation and Forest Degradation
<b>DMP</b>	Disaster Management Plan	<b>ROAP</b>	Regional Centre for Asia and the Pacific
<b>GHG</b>	Greenhouse Gas	<b>UNCDF</b>	United Nations Capital Development Fund
<b>ICLEI</b>	International Council for Local Environmental Initiative	<b>UNDP</b>	United Nations Development Programme
<b>IGFT</b>	Inter-governmental financial transfer	<b>UNESCAP</b>	United Nations Economic and Social Commission for Asia and the Pacific
<b>ISD</b>	Infrastructure and service delivery	<b>UNEP</b>	United Nations Environment Programme
<b>LDC</b>	Least developed country	<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>LG</b>	Local government	<b>UP</b>	Union Parishad (Bangladesh)
<b>LLG</b>	Local level government (Papua New Guinea)	<b>VDC</b>	Village Development Committee (Nepal)
<b>MLD</b>	Ministry of Local Development (Nepal)		
<b>NAPA</b>	National Adaptation Programme of Action		

**Cover photo:** Tonle Sap Lake, Cambodia, February 2010. Courtesy of Nick Beresnev.

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# Purpose and background

This Discussion Note serves three purposes:

1. To provide national and local policy-makers, as well as development partners, with an introduction to ways in which local government systems and institutions can and do interface with climate change (CC) issues.
2. To outline ways forward that may improve the capacity and ability of local governments (LGs) to address CC and leverage their comparative advantage in doing so.
3. To suggest ways for specialist CC institutions and agencies to incorporate LG issues into their work and adjust their framework, strategy, and approach to strengthen CC work at the sub-national level. The Note focuses primarily on LGs in developing countries of the Asia-Pacific region.

The Note tries to identify and articulate in practical terms what has (or has not) been done by LGs in addressing CC, and what can be done to improve outcomes from this interface. The overall conclusion is that while there is much talk about the role of LGs in addressing CC, there is little hard evidence that CC figures prominently on the routine agenda of most LGs in the developing countries of the Asia-Pacific region. There are specific projects and programmes, funded by donors and governments, which try to address CC at the local level, and which sometimes (but not always) work through LGs. If it is assumed that LGs do indeed have a potentially important role to play in addressing CC, then a good deal more needs to be done to realise this potential. The Note tries to understand why LGs appear to be relatively inactive on CC, and provides some entry points and approaches that might contribute towards greater local government involvement.

There is a burgeoning literature on CC that examines its interface with local government and local governance<sup>1</sup>. Much of it focuses on local **assessments** of the outcomes and risks associated with CC, but pays little attention to what can or might be done by LGs to address such issues, including potential benefits. This Note tries to redress this imbalance by taking a closer look at the instruments available to LGs and how they can be used in dealing with CC<sup>2</sup>.

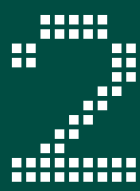
This Discussion Note is a joint product of the United Nations Development Programme Asia-Pacific Regional Centre (UNDP APRC), the United Nations Environment Programme Regional Office for Asia and the Pacific (UNEP ROAP), and the United Nations Capital Development Fund (UNCDF). We would like to thank colleagues in these organisations who helped conceive, draft and refine the Note. These include Nikolai (Nick) Beresnev, Seon-Mi Choi, Raji Dhital, David Jackson, Henrik Larsen, Angus Mackay, Sanath Ranawana and Paul Steele. Special thanks go to Mike

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1 See ICLEI (2009), ICLEI Oceania (2008), Institute of Development Studies (2008), OECD (2009), World Bank (2009).

2 Admittedly, there **are** a number of important initiatives that promote LG approaches and move beyond assessment. These include the World Bank's Climate Resilient Cities Initiative and UNDP/UNEP's Territorial Approach to Climate Change. More examples are provided in the Annex.

Winter (the core author of the Note). The final version of the Note benefited from substantive inputs to various drafts by a number of individuals, including Tashi Dorji (UNDP Bhutan) and Gopi Krishna Khanal (Ministry of Local Development, Nepal). We would like to thank Jesse Ribot (University of Illinois) and Neil Webster (UNDP Nepal) for their comprehensive peer review. David Galipeau, Sawitree Limvongsakul and Nicholas Rosellini of UNDP APRC Knowledge Resource Committee kindly provided additional comments and final endorsement. We would also like to acknowledge the administrative assistance of Kullawan Arphasrirat, Issarapan Chaiyato, Panida Charotok and Pattanoot Pongpanit of UNDP APRC.



# Defining climate change and local governance

This Note has been drawn up from both local governance and CC perspectives, and starts by defining a number of basic concepts.

## 2.1 Defining climate change

“Climate change” refers to alterations of the earth’s atmosphere leading to changes in the climate system, such as climate warming and more frequent and intense extreme weather events. There is now a consensus that CC is taking place, as is clear from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and a rise in global mean sea levels. It is also now generally accepted that human activities – in the form of emissions of increased quantities of greenhouse gases (GHGs) – have played and continue to play a significant role in CC.

The consequences of climate change are numerous – changes in precipitation (rainfall, snow, etc.), more frequent and severe flooding, rises in temperature and their effects, rising sea levels (and, as a consequence, salinisation), and more intense and prolonged droughts. These outcomes directly affect people (in particular, the poorest), making livelihoods and living conditions more vulnerable.

CC issues have traditionally been broken into two basic categories – those related to mitigation and those related to adaptation. Mitigation refers to efforts to reduce or stabilise GHG emissions; adaptation is about coping and dealing with the consequences of CC. However, there is increasing recognition that there is a continuum between these two areas of work, and that more integrated approaches are needed. The financing opportunities created by carbon markets, if instituted properly at national and sub-national levels, could reduce local vulnerabilities.

It is also important to understand that there is a great deal that is **not** known about CC and its (local) consequences – for example, how much sea levels will rise, how much rainfall patterns will be affected, and how such changes will affect livelihoods and the natural systems that sustain these livelihoods. Climate projections and scenarios are based on hypotheses (“emissions scenarios”), and are therefore uncertain. Therefore, addressing climate change requires an ability to take into account a range of possible futures.

In the water sector, for example, this could mean encouraging service providers to engage in portfolio planning – which would contain a number of parallel measures that can be ramped up or down according to future cost effectiveness. Such a portfolio might include a mix of building more storage, rainwater harvesting, desalination, use of recycled water, and more effectively matching water use to quality. Each of these approaches could also include measures to increase the efficiency of related energy use (ICLEI 2009a).



## 2.2 Defining “local governance” and “local governments”

“Local governance” refers to the ways in which local level decision-making is carried out. The normative term “good local governance” implies that decision-making in the arena of local public affairs is, to varying degrees, subject to the scrutiny and oversight of citizens, open and transparent, rule-bound, and participatory. Local governments, in that sense, are one dimension (albeit an important one) of local governance as a whole.

“Local governments” are formal institutions, mandated to deliver a variety of public goods<sup>3</sup> and services at the local level. They constitute, in a sense, the local state. As local level service delivery units, LGs are largely predicated on the principle of subsidiarity, which stipulates that government functions should be assigned to the lowest level of government that is capable of efficiently undertaking this function. In essence, if a small LG can efficiently provide pre-school services, then (according to the subsidiarity principle) it should be assigned that responsibility. This principle generally results in a situation where, as far as possible, the area where the benefits of a public good or service are felt coincides with the jurisdictional boundaries at each level of government. For instance, since national defence benefits people in the national territory of a country, this expenditure function should be a national affair funded by the central government. However, since the benefits from a local park are mostly felt by local residents, the responsibility for local parks should be placed with LGs. Making judgements about what LGs should do is largely linked to considerations about economies of scale and externalities.

LGs vary considerably across a range of dimensions, including:

- Population size;
- Number of tiers in the local government system;
- Urban vs. rural;
- Mandates and functions;
- Human and financial resources;
- Linkages with customary institutions;
- The degree to which they are downwardly accountable and representative; and
- Their financial arrangements.

When discussing the role of LGs, it is crucial to take into account the characteristics of the LG in question, as they largely determine the kinds of CC issues it faces and the ways that it does or can respond. Much of the existing documentation on local government and CC issues tends to be insensitive to these differences<sup>4</sup>.

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3 The rationale for public funding of such (theoretically) private goods as drinking water, education and curative health services is that, on one hand, they generate large positive socio-economic externalities to the community and the nation but, on the other hand, they are not adequately supplied to the poor – if supplied at all – by the market. Basic health, education, water, infrastructure and services are thus termed “merit goods” – they are private goods which society judges to be worthy of subsidising with public funds.

4 UNDP (2009), for example, does not systematically distinguish between tiers of the LG system. Much of the work on urban CC issues does not distinguish between large metropolitan cities, smaller towns and agglomerations.

In order to differentiate, this Note looks at three broad “types” of local government – rural, urban and “provincial” – in terms of their actual and potential interface with CC. These are clearly abstractions which necessarily simplify matters, but this classification brings into relief some key differences which have considerable implications for CC issues. The threefold classification is further broken down into sub-categories, based on the approximate population size of the type of local government in question. The following table provides a summary of the salient features of these LG types, along with some examples from the Asia-Pacific region.

**Table 1: Three “types” of local government<sup>5</sup>**

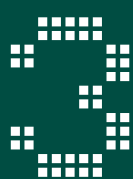
Type	Sub-category	Population size	Resources	Degree of political power	Examples
Rural	Small rural	< 50,000	Minimal, largely dependent on inter-governmental financial transfers (IGFTs)	Very limited	Nepal: VDCs Viet Nam: communes Bangladesh: UPs Bhutan: gewogs and dzongkhags Maldives: islands and some atolls <sup>6</sup> Papua New Guinea: local level governments (LLGs)
	Larger rural	> 50,000	Moderate, largely dependent on IGFTs	Limited	Nepal: some DDCs Bangladesh: upazilas Lao PDR: most districts Solomon Islands: provinces Timor-Leste: proposed municipalities Papua New Guinea: provinces
Urban	Small urban	< 50,000	Moderate, largely dependent on IGFTs	Limited	Nepal: most municipalities Fiji: cities
	Larger urban	> 50,000	Significant	Often considerable	Bangladesh: pourashavas and city corporations Nepal: sub-metropolitan and metropolitan municipalities
“Provincial”		> 1 million	Significant	Often considerable	Viet Nam: provinces

<sup>5</sup> It is recognised that this typology is very broad. It should be stressed that this Note is largely concerned with developing countries in the Asia-Pacific region.

<sup>6</sup> It should be noted that the LG system in the Maldives is currently undergoing major reforms.



There is a world of difference between small, rural LGs (such as Bhutan's Gewogs) and large metropolitan municipalities (such as Bangladesh's City Corporations), both in terms of CC issues they face and their ability to deal with them. "Provincial" governments are also particular: often the size of small countries, "provinces" may include populations of several millions and cover large geographical areas, and are often vested with significant policy making and regulatory powers.



# National contexts: some constraints

Before examining ways in which LGs might address CC, it is useful to look at national-level frameworks and institutional arrangements. As will be seen, these are often far from enabling when seen from the perspective of LGs.

## 3.1. National frameworks for climate change adaptation

In least developed countries (LDCs), National Adaptation Programmes of Action to Climate Change (NAPAs) provide a starting point for identifying national priorities for adaptation to CC. However, they rarely identify the need to work closely with local institutions in implementing priority actions on CC. In addition, all countries signatory to the United Nations Framework Convention on Climate Change (UNFCCC) produce periodic “National Communications” on CC which increasingly draw together both mitigation and adaptation issues, but again are not specific in terms of the role of local authorities.

More recently, some countries (particularly middle income countries) have moved towards the development of comprehensive national CC strategies with high levels of visibility and political engagement. Examples include Viet Nam’s National Target Programme on Climate Change, India’s National Action Plan on Climate Change and Indonesia’s “Yellow Book”. In all cases, the roll out of national initiatives is dependent on significant sub-national engagement and the development of equivalent strategies at province or district level. Much is planned but little has been done as yet, and donors are increasingly being asked to provide their guidance and support.

## 3.2. Institutional arrangements at the national level

In addition to national frameworks and plans, the central government’s arrangements for dealing with CC is another contextual constraint. In most countries in the Asia-Pacific, the institutions and coordinating structures responsible for CC are fledgling, although the landscape is evolving rapidly. A number of countries have established specialized committees on CC at Prime Ministerial or cabinet level. Others are experimenting with sectoral working groups in key areas such as agriculture, food security and water resources. Some have established multi-donor funding mechanisms.

In practical terms, because of the cross-cutting nature of CC, responsibilities for addressing it remain fragmented. A striking example of this is Cambodia, where agriculture and water resources management have been identified as key sectors for CC adaptation measures<sup>7</sup>. However, at least five ministries have responsibilities in

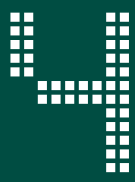
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<sup>7</sup> See UNDP (2009).

these sectors – the Ministry of Agriculture, Fisheries and Forestry; the Ministry of Water Resources and Meteorology; the Ministry of Environment (which was the principal “author” of Cambodia’s NAPA); the Ministry of Rural Development; and the Ministry of Industry, Mines and Energy. Coordination across these ministries at the national level is complex – and probably even more so at the sub-national level, where deconcentrated and decentralised units also operate.

The same is true of many other countries in the region (e.g. Nepal, Viet Nam and Bangladesh). For LGs that might be tempted to work on CC, these institutional arrangements create formidable transaction costs – especially when line ministries are weakly accountable to sub-national levels (if at all).

Moreover, central ministries responsible for LG often see themselves as “outliers” to debates on CC. In Nepal, for example, the Ministry of Local Development (MLD) does not appear to engage with other line ministries that would normally be expected to be involved in CC. Nor does MLD take a lead in encouraging local bodies to engage at the sub-national level, or in actively facilitating coordination between local bodies and local line departments.



# Local options and climate change

## 4.1. Why local government?

For many LG practitioners in the developing countries of the Asia-Pacific region, CC is a new and sometimes perplexing issue. The novelty and confusion are understandable, given that much of the popular and policy debate has been pitched at “global” levels, rather than in sub-national terms. This, however, is gradually changing as more is understood about what CC means at the local level and how LGs can respond to CC challenges<sup>8</sup>.

Furthermore, real-life examples of the interface between LGs and CC are not common. This is partly because CC (as an issue to be explicitly addressed) is new, but (as will become clear) also because much of the interface is actually a part and parcel of the existing portfolio of local government activities, and therefore often not seen through any specific CC prism.

It can not, however, be overlooked that CC is already a part of conservation and broader environmental management processes that LGs are involved with. LGs in the Asia-Pacific region are familiar with the concept of ecosystem services and their importance to livelihoods. It is important to recognize that by continuing to conserve and maintain forests, wetlands and other ecosystems, LGs are not only contributing to global carbon sinks, but also building resilience. These local level natural resource and environmental management issues are discussed in greater detail in a companion publication to this Guidance Note<sup>9</sup>.

Although there may be major national policy obstacles to LGs interfacing with CC, LGs are likely to have some comparative advantages (as well as disadvantages) in doing so.

On the “plus” side, it is clear that CC is often a highly localised affair. Areas of close geographical proximity may face very different adaptation challenges, and thus require very different approaches. The necessary responses, then, are often very time- and location-specific. Further, the problems associated with CC are different for women and men, rich and poor, old and young, and differ among the professions and livelihoods. These local variations make CC (in particular, adaptation), *a priori*, highly suitable to LG action since they require local knowledge to target adaptation or mitigation interventions. In dealing with severe climate-related events (such as floods), LGs may also be assumed to have some comparative advantages, largely based on their greater access to local knowledge and the ability to mobilize local people and resources. In addition, LGs (by

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8 One of the more readily available examples of this growing practical understanding in the Asia-Pacific region is a 2009 report *Climate Change Adaptation Actions for Local Government* (SMEC Australia 2009), published by the Department of Climate Change in Australia. This is a highly practical guidance note which looks at what LGs do as a matter of regular “business” and how these actions are adapted to CC.

9 See UNCDF, UNDP & UNEP (forthcoming).

virtue of their multi-sectoral and area-based mandates) also represent potentially useful institutions within which to “horizontally” align CC adaptation processes, as well as an opportunity to counter the frequently “vertical” alignment on CC issues at the national level (where such issues are often the mandate of a particular national ministry). Both the “plus” and “minus” sides will be addressed further below.

## 4.2. What aspects of climate change are local governments apt to interface with?

LGs can engage in both CC mitigation (prevention) and adaptation (vulnerability reduction and opportunity enhancement) actions:

- *Adaptation* involves helping their constituents to cope with and adjust to any changes in their climate regime or natural resource base. This might involve targeted poverty reduction, asset building, early warning planning and disaster response planning.
- *Mitigation* involves helping their constituents to reduce their GHG emissions. This might involve forest management or energy conservation interventions.

LGs have an aptitude for such interventions due to the specific local knowledge required and the needs for local cooperation in the design and implementation. Adaptation is likely to be their bigger concern, as it is directly related to ensuring the immediate wellbeing of their constituents. Without great ancillary benefits or outside funding, LGs are unlikely to invest in mitigation, since the returns accrue at too large and diffused a scale. Obviously, in situations where adaptation and mitigation are net-positive investments, LGs are much more likely to engage.

## 4.3. How can local governments interface with climate change?

Local governments (like central governments) interface with CC via three main instruments:

- *Local planning and regulation*, largely in the form of by-laws and land use (or strategic) planning and zoning. Regulation can be used to enable or constrain certain types of activity, with direct, indirect, deliberate or unintended impact on CC issues;
- *Delivering goods and services* that impact on adaptation to CC or the need to be climate resilient. This refers to the choice of investment, public expenditure management (PEM) and financing, and the process by which expenditures are made and tracked (planning, budgeting, design, implementation, monitoring and evaluation);
- *Local fiscal revenues*, raised in the form of taxes, fees and charges. LG revenues are clearly linked to local PEM (as one set of financial inputs) – but, more importantly, are also instruments which can provide incentives or disincentives for the ways in which CC issues are managed (or mismanaged);

These three instruments can have negative or positive consequences for CC adaptation. Actions can be adaptive or mal-adaptive (for example, when assets are spent to

cope with current stresses, leaving people and local governments with insufficient assets to adjust to future climate events). Reaching positive outcomes requires a strong understanding of how present investments shape future options, and an understanding of how and why LGs invest (or don't invest) in short- and long-term climate remediation. Further discussion of these three instruments is provided below.

## 4.4. Local planning and regulatory frameworks

CC can be addressed through local planning and regulatory frameworks. There are several ways in which LGs can use their planning and regulatory powers, *inter alia*:

- Land-use planning and zoning that avoids high-risk areas (such as low-lying, flood-prone, areas or steep slopes) in activities such as housing or service facilities;
- Strategic “scenario” planning that examines various hypotheses about CC consequences and then develops contingent, appropriate and variable responses; and
- Revising building and infrastructure standards to make them energy efficient and climate-proof<sup>10</sup>;

Whilst such regulatory options are appealing in conceptualising responses to CC, there are many challenges associated with them:

- Firstly, and a recurring theme, LGs can only plan for CC when they have a reasonably good idea of local risks and opportunities. Without this understanding, LGs are poorly placed to carry out, for example, any climate-sensitive land use zoning. Few LGs (particularly rural ones) have access to this kind of information.
- Secondly, regulatory controls over housing need to carefully balance risk management strategies against equity issues. In many South Asian cities, for example, the majority of the poor live on very climate-vulnerable plots of land. Any residential zoning would require that alternative housing sites could be found for the poor. Given the physically constrained nature of many urban environments, this would be far from simple.
- Thirdly, spatial and strategic planning for small LG jurisdictions (such as VDCs in Nepal or UPs in Bangladesh) fails to capture significant externalities. To make it more meaningful would require these LGs to combine their efforts, although this would increase transaction costs.
- Fourthly, regulatory powers required for land use planning and the like are often not vested in LGs, or are blurred with regulatory powers enjoyed by the centre. VDCs and DDCs in Nepal, for example, do not appear to have such powers, which are instead largely monopolised by central government agencies.
- Fifthly, even when LGs do enjoy such regulatory powers, land use plans, standards and guidelines and other such approaches require adequate enforcement to be effective. It is by no means clear that many LGs in the region have the ability to enforce such regulations<sup>11</sup>.

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<sup>10</sup> For example, Australia implements LG regulation of housing design, in order to make housing less exposed to the risk of increasingly frequent forest fires.

<sup>11</sup> In Nepal, for example, sub-metropolitan and metropolitan municipalities (such as Kathmandu) are unable to enforce national building standards aimed at reducing risks associated with earthquakes.



## 4.5. Local delivery of goods and services

There are a number of ways in which LG delivery of goods and services can address CC risks and opportunities. These depend on the breadth and scope of LG service delivery mandates, and LG's understanding of where these risks and opportunities lie.

### Environmental management

Most LGs have some responsibilities for natural resources, such as forest management and fisheries regulation. There are a number of ways in which natural resource management contributes to both CC mitigation and adaptation objectives. For example:

- Forest conservation can reduce carbon emissions;
- Healthy ecosystems can provide services for livelihoods and industries, helping households and businesses build assets that can buffer them against climate stressors (trends or shocks);
- Maintaining healthy forests, pastures and fisheries can provide fallback options during periods of drought or shortfalls in food production.

### Infrastructure and service delivery

Most LGs have certain infrastructure and service delivery (ISD) functions. These include construction of roads and bridges, and provision of water, sanitation, educational and health facilities and services. Adapting these functions to CC can involve a range of options, *inter alia*:

- Retrofitting existing infrastructure to better handle flooding, increased likelihood of subsidence, etc.;
- Replacing old (un-proofed) infrastructure if the cost of retrofitting is prohibitively high;
- Designing and constructing additional infrastructure and assets (such as roads) that are climate-proof and built with an eye to future adaptation (if needed)<sup>12</sup>; and
- Improving water and sanitation services in order to reduce water consumption, mitigate against the spread of vector-borne diseases, etc;

From information above, it can be seen that there is generally a high degree of convergence between CC adaptation and provision of basic municipal or LG services. Adaptation, in most LGs in most developing countries, effectively amounts to a nuanced and well-informed expansion of local infrastructure and service delivery, and improved operation and maintenance of existing infrastructure. One of the more grounded analyses of the interface between LGs and climate change adaptation puts it this way:

*"Perhaps the two key messages that will get the attention of [local] governments are:*

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<sup>12</sup> It should be remembered that a good deal is still not known about what CC will entail or the severity of its impacts.

1. *The very large overlap between most of the measures needed for **adaptation** and **local development** (especially improving and extending provision for piped water, good sanitation and drainage, solid waste collection, garbage disposal, prevention-focused health care and support for upgrading within informal settlements);*
2. *The very large overlaps between **climate-change adaptation** and **building resilience to extreme weather/disasters** (regardless of whether the extreme weather or other catalysts for disasters are related to climate change).*

*The **key to adaptation in most instances is competent, capable, accountable urban governments that understand how to incorporate adaptation measures into most aspects of their work and departments.***<sup>13</sup>

In a nutshell, If LGs are to adapt to CC and benefit from its opportunities, a good deal of the required actions will consist of doing what they are already mandated to do (but often do not), with perhaps greater urgency and with a little more forethought. In terms of local PEM, LG CC action is often about better addressing core expenditure areas and assignments – in other words, business-as-usual “++” – rather than some radically new way of conducting business. However, this should not detract from the need for LGs to factor CC issues into their planning and budgeting processes. The point is that CC is not a new **functional responsibility** or expenditure assignment for LGs (like primary health or rural roads), but a new **variable** that needs to be taken into account in local public expenditure management (albeit sometimes requiring significant increases in investment). In practice, this means that better performing LGs are already adapting to CC by simply providing effective basic services such as drainage, solid waste disposal, water and sanitation, undertaking land use planning, and factoring disaster risk management into their operations – all of which enhance CC resilience and contribute to local development.

Similarly, on the opportunities side, LGs which promote more efficient energy use can generate a wide range of benefits. This includes the development of a green business sector, reduction in pollution and the potential to attract carbon financing. For example, some smaller cities – such as Shimla, India – are aiming for zero emission and are planning to explore the Clean Development Mechanism (CDM) market.

## Disaster management

CC will result in more frequent extreme weather events (such floods), which entail significant human suffering. One of the key adaptive responsibilities for many LGs in developing countries is developing and implementing plans for disaster management<sup>14</sup>. This, however, is something that current LG PEM and public financial management (PFM) processes may not be very good at, for a variety of reasons:

- Planning and budgeting for the unpredictable is always challenging;
- Financial resources and cash flow are an inevitable constraint; and
- Reactive capacities are often very limited.

<sup>13</sup> Emphases added; see Satterthwaite, D. (2007).

<sup>14</sup> This also applies to some local governments in developed countries, as illustrated by the poor performance of the City of New Orleans in the aftermath of Hurricane Katrina.

However, as a direct consequence of CC, many LGs of the Asia-Pacific region will need to focus more and more on disaster risk management. In Bangladesh, perhaps more than in any other developing country in the region, the role of LGs in CC-related disaster management has been clearly recognised (see textbox below).

### **Disaster management in Bangladesh: the role of local government**

Bangladesh's draft *National Plan for Disaster Management 2008–2015* recognises that 'climate change adds a new dimension to community risk and vulnerability. Although the magnitude of these changes may appear to be small, they could substantially increase the frequency and intensity of existing climatic events (floods, droughts, cyclones etc). Current indications are that not only will floods and cyclones become more severe, they will also start to occur outside of their "established seasons". Events, such as drought, may not have previously occurred in some areas and may now be experienced' (Government of the People's Republic of Bangladesh 2008, p.12).

The Plan calls for the establishment of Disaster Management Committees at all sub-national levels (Districts, Upazilas, UPs, Pourashavas and City Corporations), charged with developing Disaster Management Plans (DMPs) for their respective jurisdictions. DMPs are expected to include provisions for: (i) reducing and mitigating disasters; (ii) disaster response; (iii) post-disaster recovery; and (iv) costings for each. The nested hierarchy of DMPs is intended to use local knowledge to build a bottom-up approach to disaster mitigation and response and to ensure higher levels of overall coordination at the local levels.

**Source:** Government of the People's Republic of Bangladesh (2008).

## **Facilitating livelihoods adaptation**

In addressing longer-term consequences of CC (lower rainfall, sea level rises, higher temperatures), LGs can facilitate livelihoods adaptation, especially in rural areas. A wide range of adaptive responses has been documented – water-harvesting, increased human mobility, crop diversification, seed selection for drought-resistant cereals, soil and water conservation, flood management structures, etc.

Many, if not most, of these adaptations have taken place spontaneously and at the household level. Provided below are three examples of how LGs can facilitate this process and spread the benefits more widely:

- **Brokering information flows on different household-level coping measures.** This enables households to exchange experience and learn about successful adaptation strategies and techniques. There is some anecdotal evidence that UPs in Bangladesh are already doing this by helping innovators "showcase" adaptations

and bringing them into contact with others<sup>15</sup>. To expand this role will require that LGs allocate more resources to “soft” investments (communications expenditure, financing peer learning and exchange events).

- **Implementing a planned adaptation response.** This is a more “proactive” approach, requiring a higher level of human and financial resources. It can include providing households with information on key risks and adaptation measures available, providing state grants, equipment and insurance services.
- **Conflict resolution.** Disagreements can emerge between different parties at the local level as they respond to CC. For example, there is evidence of conflicts in rice-producing areas of South Asia over the utilisation of water, as the amount and arrival time of the monsoon is affected by CC<sup>16</sup>. Here LGs can play a conflict resolution role.

## Constraints and challenges

In attempting to address CC issues through delivery of public goods and services, LGs in the region face a number of significant challenges:

- Firstly, it is not self-evident that LGs in the region are fully aware of what CC means for them, their residents and their jurisdictions. They therefore cannot be expected to deliver public goods and services that are adapted to CC.
- Secondly, climate proofing and adaptation often require additional financing. Many LGs in the region face highly constrained budgets, already stretched in trying to meet existing priorities. LGs should explore the possibility of attracting additional finances, for example through reduction of GHG emissions.
- Thirdly, LGs often do not have the political incentives to address CC issues through their PEM processes. In Bangladesh, for example, UPs (the councils for which are made up of ward-based representatives) have the political incentive to disaggregate their funding of investments to the lowest representation level (i.e. the ward) and thus “miss out” on bigger or more strategic items.
- Fourthly, effective LG response to weather-induced disasters requires a greater degree of financial certainty. Only the most fiscally affluent LGs are able to self-finance an adequate response to disasters (through contingency funds); the rest depend on national “hand-outs”. Such hand-outs are likely to be rare (for reasons of fiscal scarcity and concerns about fiduciary risk and transparency) and delayed<sup>17</sup>.
- Fifthly, few LGs have the appropriate mix of powers (including executive, legislative and judicial) and material resources (such as funds and equipment) needed to respond to local needs. Furthermore, they are rarely accountable to the local populations in a manner that would give them the incentives to respond even if they did have these powers and resources. Ironically, they often have powers without downward accountability or downward accountability without powers. Unless these are combined, LGs cannot be representative and are unlikely to be responsive to needs of their constituents.

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15 Personal communication, Mark Ellery and Santanu Lahiri, Water and Sanitation Programme (World Bank), Dhaka, November 2009.

16 Personal communication, Neil Webster, UNDP Nepal, October 2010.

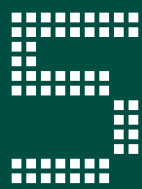
17 Indonesia, India, Philippines and Thailand, for example, have established systems for Disaster Risk Management at local level. However, many LGs may find that their most useful role is to act coordinate and facilitate (rather than directly implement) disaster management, as the latter role is sometimes constrained by their mandate and lack of resources to “bring to the table” and co-finance initiatives.

## 4.6. Local revenues and climate change

To encourage mitigation and adaptation, LGs can use their own-source revenues to provide incentives for “responsible” behaviour. They can also sanction behaviours that lead to excessive consumption or increased vulnerability to CC. Examples include tax breaks for climate-proof home improvements (e.g. more solid foundations to protect houses from flooding), and water charges calibrated to real consumption as a way of reducing consumption.

However, there is little direct evidence that LGs in the region are using revenues as instruments to promote emissions reductions or climate change adaptation. This is due to the following factors:

- LGs (especially rural ones) tend to have highly constrained sources of own-revenue, and their revenue assignments often do not include sources that can be directly used to promote CC adaptation.
- Many of revenue sources available to LGs are shared with central government, with the latter exercising rate-setting and collection. Such revenues therefore cannot easily be used by LGs as instruments for shaping behaviour on CC adaptation.
- LGs have not systematically pursued access to carbon markets as a source of revenue. Such efforts would need to be linked to the mitigation efforts illustrated above (for example, carbon market financing for green energy conversions).
- LGs tend to have relatively weak revenue administrations, especially in rural areas. This severely constrains any efforts to use taxes as fiscal instruments.
- It is far from obvious that LGs – when they are able to levy taxes and charges on the use of natural resources – see revenue instruments as ways of regulating access and use.
- The use of revenues is often constrained by equity considerations. For example, tax breaks for home improvements are likely to be skewed in favour of the non-poor, and higher water charges may be more costly for the poor than for the non-poor.



# ENTRY POINTS AND PERSPECTIVES

The final section of the Note looks at key entry points for enhancing the way in which LGs address CC, and how external support might be helpful. There is a need for specialist CC institutions, agencies and experts to integrate sub-national governments into their programmatic thinking and operations – and, inversely, for LG-focused institutions and agencies to take on board the challenges posed by climate change.

## 5.1. Key entry points

To date, there is little evidence that CC is explicitly on the LG agenda in the developing countries of the Asia-Pacific region. This is not surprising given that CC issues are relatively new, and that LGs often struggle to simply fulfil their existing mandates.

It is therefore important to identify key entry points for trying to strengthen LG engagement with CC-related risks and opportunities.

### National climate change and sub-national governance policies

A starting point is establishing clear links between national CC policies and decentralisation/sub-national governance policies. In Cambodia, for example, CC is now laid out as a cross-cutting issue in the new 10-year national programme on decentralization and deconcentration<sup>18</sup>. However, in most LDCs such linkages are weak at best. This change needs to work in both directions – on the one hand, NAPA-type processes must explicitly recognise the role of LGs in adaptation strategies and, on the other, decentralisation programmes must build in CC into the regular functions and financing of LGs.

Bridging these existing “policy divides” appears to be a sensible and practical way forward. This process can be facilitated through support from development agencies, who are often involved in both CC and decentralisation issues. As noted in the introduction, a number of developing countries in the region have already developed national CC strategies and are engaging in the roll out at sub-national level (frequently with donor support).

This two-way policy dialogue can also help address some of the challenges and constraints mentioned above (see sections 4.4, 4.5 and 4.6). This will provide LGs with an institutional framework that enables them to use their public expenditure, revenue and regulatory instruments more effectively. But dialogue alone is not sufficient. LGs need leverage in the national policy-making process, so that it is relevant to their needs, aspirations, and capabilities.

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<sup>18</sup> Government of Cambodia (2010).



## Improving local understanding of climate change issues

It is essential for LGs to know much more about **what CC means for them in concrete and tangible terms**. Particularly, they need to be provided with information on the nature of the risks they face. LGs in a number of countries in the Asia-Pacific region (Thailand, Philippines and India) have begun various forms of CC assessments and development of strategies; unfortunately, overall there are few examples of this taking place.

Information and data on CC needs to be presented in ways that make sense to local decision-makers and that spell out the need for certain types of action<sup>19</sup>. Such information also needs to be as site-specific as possible: CC and its consequences in the Middle Hills of Nepal require very different adaptive strategies to those required in coastal Bangladesh or Pacific island countries.

There is also a need for information on the most CC-vulnerable groups within the LG jurisdiction in question, and reasons for this. In most cases, it is likely to be the poor; however, there may be a need to disaggregate the poor into more clearly defined groups (e.g. natural resource dependent households, women, the elderly and children).

It is also important not to allow inaction to be incumbent on uncertainty in data. Local planners will always ask for detailed analysis of where the likely impacts of CC will manifest themselves over a 5–10 years timeframe. This would provide the basis for “what if” scenario planning. While this information may not be available, many things can be done in the meantime, including:

- “No regrets”-type activities linked to service delivery;
- Capacity development activities to build a cadre of professional with expertise in assessing climate risks; and
- Policy work to ensure that necessary flexibility to a range of “futures” is built into new policy making.

Where “what if” scenarios are available and plausible, it may be more appropriate for central level authorities to assume responsibility for providing them as inputs to the local decision-making process.

Beyond being better informed about CC, LGs need to be provided with support that enables them to conceptually and geographically map specific vulnerabilities and risks in their jurisdictions. Given that few (if any) LGs will ever be in a position to take on **all** climate change issues, part of this “mapping” process will entail providing them with methods for prioritising issues.

From mapping and prioritisation, LGs will need to work out actionable, affordable and equitable strategies based on the full range of options available to them (financing, planning, ISD, revenues, regulation). One of the most frequently cited cases of this kind of approach is the city of Durban in South Africa (see textbox below).

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<sup>19</sup> For example, data on likely rises in sea levels in Bangladesh would make more sense to LG officials if presented as maps depicting which areas in their jurisdictions will be flooded, rather than as more abstract quantifications.

### Durban's Climate Protection Plan process

Durban established an Environmental Management Department in 1994. The Department recognised that municipal officials were unlikely to incorporate CC into their plans if they had little idea of what CC meant for their city. To address this, the Department initiated the development of a Climate Protection Programme in 2004. The roll-out of this programme has occurred in three phases:

- Phase 1 consisted of developing an understanding of CC and its implications for Durban. Key risks identified were: increased temperatures, changes in rainfall distribution, decreased water availability, increased range of water- and vector-borne diseases, sea level rise, and the loss of biodiversity;
- Phase 2 consisted of developing a "Climate Change Adaptation Strategy", highlighting how various sectors within the municipality should respond to CC. Some responses amounted to extensions of ongoing initiatives, while others were new activities;
- Phase 3 consisted of incorporating climate change into long term city planning.

This case study illustrates the need for LG departments to understand what CC means for their work and future investments before any effective adaptation measures can take place.

**Source:** Institute of Development Studies (2008).

## Financing arrangements for climate change

For LGs to play an effective role in climate change, they will need *access to fiscal resources*, often in addition to those already available. One option is providing LGs with earmarked "climate change" funding windows, with which they can finance climate-proofing or emissions reductions. Expenditure menus for these kinds of grants will need to be carefully thought through and compliance closely monitored in order to avoid spending on non-CC items.

This funding can be provided "across the board" or on a more targeted or "asymmetric" basis, i.e. providing earmarked financing to LGs in areas that are especially vulnerable to CC. UPs in coastal Bangladesh are an example of this kind of approach.

Various fiscal incentives can be used to promote LG CC adaptation. These include top-up or block grants tied to demonstrated progress in adapting routine LG activities to CC challenges (for example, by assessing and mapping CC risks and opportunities, and implementing CC strategies). Such measures provide LGs with real incentives to apply CC knowledge and skills acquired through capacity building.<sup>20</sup> However, any such

<sup>20</sup> See Jackson and Wekwete (forthcoming) and Royal Government of Bhutan and UNCDF (2010) for an example of such a scheme. For an overview of performance-based grant systems for local governments, see Steffensen & Larsen (2005) and Steffensen, J. (2010).

incentive scheme would need to ensure that performance measures are not skewed in favour of fiscally affluent LGs.

One powerful argument for additional financing for LG CC adaptation is that it overcomes the institutional disincentives to adaptation work. At local level, PEM frameworks typically involve two types of resource allocation channels: development expenditure and recurrent expenditure. Details vary from case to case, but, broadly speaking, LGs tend to allocate development expenditure to new capital investments or projects. Recurrent expenditure, on the other hand, is used for staffing, operations, and maintenance of existing infrastructure and programmes.

As discussed above, CC adaption may require LGs to “climate proof” or even replace existing infrastructure. This will not yield new investments or services and therefore is unlikely to be favoured by the budget process for development expenditure allocation. On the other hand, the cost is likely to be too high for existing recurrent budgets, which in developing countries are often insufficient for the effective operation and maintenance of existing infrastructures, let alone climate proofing.

Whatever the specific financing options may be, climate resilient and low carbon development should become part and parcel of regular LG business. It is not, as mentioned earlier, a new functional responsibility *per se* or a new expenditure assignment. LGs are already mandated to provide public goods and services; more often than not, facing the challenges posed by climate change will amount to a re-orientation or re-prioritisation of routine local government functions (ISD, planning, regulation, revenue management). In this sense, there is no substitute for regular LG capacity development – institutional, financial and otherwise.

“Corruption proofing” CC initiatives at the local level is a matter of great concern. Possible solutions include information transparency and the ability of community stakeholders to provide oversight to the use of these resources (see further below).

Large-scale external funding for CC adaptation and mitigation measures in developing countries is becoming a reality, through bilateral projects and multilateral initiatives such as UN Reduced Emissions from Deforestation and Forest Degradation (UN REDD). However, LGs have been largely excluded from the process (and, consequently, the funding). NAPAs and related project proposals are drawn up by national governments –often through environment ministries – and rarely capture the ongoing, practical adaptation and mitigation activities LGs engage or can engage in. National governments generally retain project control, and implementation is done through local ministry offices, project implementation units, CSOs and private bodies, rather than LGs. In fact, rather than offering opportunity for increased funding, climate action funds pose a threat to LGs by encouraging recentralisation of risk management and environmental decision-making, whilst also possibly closing access to natural resources (such as forests) essential for local security.

## Making local democracy work for the most vulnerable

In any LG jurisdiction, it is important to ensure that the needs of the people most vulnerable to CC are properly taken into account. Representative local democracy

does not automatically translate into inclusion or responsiveness, and the vulnerable groups are often likely to have the least influence on LG decision-making.

Capacity building and provision of incentives for inclusion can help address this issue. However, when entrusting LGs with additional fiscal resources, measures to ensure accountability to the different groups impacted and transparency in decision-making are crucial. The experience from participatory planning processes suggests that these alone rarely translate into decision-making benefiting the most vulnerable. Local media and CSOs play an important role in ensuring that voices and interests of the most vulnerable are raised in CC decision-making processes that affect them. For these and other social accountability mechanisms to function properly, it is equally important that LGs pro-actively disclose and communicate their plans and budgets.

Indigenous peoples are among the most vulnerable to impacts of CC, including droughts, prolonged rain seasons, failed harvests, loss of resources and erosion of culture. Mitigation and adaptation policies implemented within indigenous peoples' territories should include their free prior and informed consent (e.g. REDD programmes targeting rainforest located within indigenous peoples' territories), and should acknowledge the role of traditional institutions of governance vis-à-vis formal LG bodies. More broadly, government should involve indigenous peoples in CC decision-making process; adaptation strategies should include the use of indigenous knowledge and innovations.

Opportunities for livelihoods diversification may prove to be one of the most effective strategies for building resilience to climate change among the most vulnerable, whether in urban or rural settings.

## The capacity question

A key issue for developing and implementing effective CC policies (both at the national and sub-national levels) is that of institutional, organisational and individual capacity, including the coordination capacity between different government levels. This calls for the setting up of appropriate institutional arrangements, which for the present are either nascent or non-existent in most LDCs.

Developing CC capacity of LGs requires a national-level response. One approach could be integrating CC into the curricula of the core local government training programmes and in the "tool box" of national agencies providing technical backstopping and monitoring performance of LGs. Efforts surrounding the NAPA process concentrate capacity on CC issues within a limited group of staff in national (and possibly provincial) institutions. Getting the right knowledge to each LG – both elected representatives and staff – will require full integration in national systems.

A capacity assessment exercise is a good starting for understanding how well national and sub-national governments are placed to address CC. It is a useful tool for understanding existing capacity and gaps. The exercise should cover the full range of institutions involved in addressing CC, and include assessing policy-setting capacity and delivery of specific services. Using the findings of the capacity assessment, LGs can develop capacity development strategies.

However, it is important to remember that capacity follows power. When LGs have the mandate and resources to make decisions on these matters, they are much more likely to invest in experiential capacities needed to design and implement effective CC policies.

## 5.2. Best bets, different local governments, and different options?

In this section, suggestions are made about what the “best bets” might be for central governments and development agencies in promoting LG engagement with CC.

### Quick wins?

While one needs to be careful in making a distinction between short-term and long-term needs, it is likely that LGs will prioritise more immediate issues (such as disaster management, climate proofing, etc.) over longer term concerns (such as the need for gradual and progressive shifts in livelihoods strategies). Immediate risks are those that citizens prioritise, and are also the risks that LGs are usually better suited to addressing. If this is the case, a sensible programmatic entry point would be to focus on immediate risks.

### Where to start?

While CC affects all geographic regions, it does so to varying degrees (both across countries and within them). Selecting a location is important given that much of what LGs need to do is not yet fully understood and that piloting is needed. Piloting works best where it is seen to respond to a real need; starting out in areas where CC risks are high and self-evident will resonate more with LGs than in places where risks are less obvious.

Where are CC issues most urgent? From a regional perspective, Bangladesh is one such country<sup>21</sup>, particularly its highly vulnerable lower-lying and coastal regions. Some of the small island nations (e.g. the Solomon Islands and the Maldives) are also high risk. There are also likely to be “risk” variations within countries, thus indicating the need for a geographically “asymmetric” approach to supporting LGs.

### Types of local government

What types of LGs are most likely or have most need to embrace CC in the ways that they “do business”? There are a number of perplexing answers to this question:

In terms of “responsiveness”, the more downwardly accountable LGs strive to deliver appropriate services to their constituents, and hence are more likely to factor CC into

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21 World Bank (2009a) considers Bangladesh to be one of the most climate-vulnerable countries in the world.

their actions. The extent to which LGs are accountable varies across countries and regions. For example, in Lao PDR downward accountability is very weak, in contrast to Cambodia and Bangladesh.

In terms of “need”, and perhaps paradoxically, urban LGs may face the most pressing challenges. Urban jurisdictions in the region include an ever-increasing proportion of the total population and rising numbers of the very poor<sup>22</sup>. Moreover, the urban poor are highly vulnerable to extreme events, because: (i) they are often heavily concentrated in risk-prone areas (like low-lying slums); (ii) they often depend on livelihoods that are not diversified; and (iii) they often lack the cohesiveness and resilience afforded by rural social capital. When disasters occur in urban areas, their consequences are often more acute than in rural areas – more poor people are affected, and more poor people face severe recovery problems. In short, the concentration of people in towns and cities that magnifies the consequences of climate change.<sup>23</sup>

In terms of their “ability” to deal with and factor in climate change, urban LGs are also the more likely candidates. Municipalities and cities usually have access to greater fiscal resources and more regulatory powers than do their rural counterparts. Arguably, urban LGs in the region have a greater body of knowledge and experience to draw on (from their counterparts in OECD countries).

At the same time, it could be argued that rural LGs face more intractable challenges – largely linked to their weak resource bases, and the logistical difficulties and costs of responding to the needs of low density populations – and that piloting climate change actions might therefore be more path-breaking and innovative in rural areas. To face those challenges, however, probably requires a multi-level and holistic approach – embracing all tiers of the local government system.

As with natural resource management and environmental issues, a potentially useful entry point (where this is an option) might be to start at the “provincial” level and then move downwards to smaller rural jurisdictions. Alternatively, efforts could be made to “agglomerate” small rural jurisdictions (to capture externalities) or try out innovative arrangements whereby small rural LGs identify and prioritise their problems and needs, but through which the financing and implementation of climate change actions are ensured by larger, better-resourced tiers in the intergovernmental system.

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22 World Bank (2009b) estimated that urban populations of East Asia & the Pacific and South Asia accounted for 44.1 percent and 29.5 percent of respective total populations in 2008.

23 ‘Urban centres contain a large proportion of the people most at risk from the effects of climate change. Many urban dwellers face life-threatening risks from the increased intensity of storms, flooding and landslides that climate change is bringing. These and other impacts will also bring the threat of damage to their livelihoods, property, environmental quality and future prosperity. Little attention has so far been paid to adaptation in urban areas. Although low- and middle-income nations are often perceived as predominantly rural, they now contain most of the world’s urban population and most of its largest cities’ (Institute of Development Studies 2008, p.1). ‘Cities concentrate people and production, and all the inputs and goods they use and the wastes they generate. By doing so, they are also concentrating a wide range of hazards. Moreover, urban centres in low- and middle-income nations concentrate a large proportion of the people most vulnerable to the effects of climate change. In contrast, rural livelihoods such as farming, forestry, livestock rearing and fishing, are natural resource-dependent and extensive. Climate change is expected to affect the productivity, distribution and overall functioning of the ecosystems upon which these livelihoods depend’ (OECD 2009, p.151).



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# ANNEX – Networks of sub-national authorities for Asia-Pacific

## **UNDP/UNEP Initiative-Territorial Approach to Climate Change**

Website under development

Further information at [uneptacc@unep.org](mailto:uneptacc@unep.org)

## **World Bank Climate Resilient Cities Initiative – East Asia and Pacific**

[www.worldbank.org/eap/climatecities](http://www.worldbank.org/eap/climatecities)

## **Citynet**

[www.citynet-ap.org](http://www.citynet-ap.org)

## **ICLEI – Local governments for sustainability**

[www.iclei.org](http://www.iclei.org)

## **United Cities and Local Governments – Asia Pacific Regional Section (UCLG-ASPAC)**

[www.uclg-aspac.org](http://www.uclg-aspac.org)

## **Asian Cities Climate Change Resilience Network (ACCCRN), Rockefeller Foundation**

[www.rockefellerfoundation.org/what-we-do/current-work/developing-climate-change-resilience/asian-cities-climate-change-resilience/](http://www.rockefellerfoundation.org/what-we-do/current-work/developing-climate-change-resilience/asian-cities-climate-change-resilience/)

## **Clinton Foundation**

[www.clintonfoundation.org](http://www.clintonfoundation.org)

## **Cities Development Initiative for Asia (CDIA)**

[www.cdia.asia](http://www.cdia.asia)

## **ASEAN Working Group on Environmentally Sustainable Cities (AWGESC)**

[www.aseansec.org/network\\_activities.htm](http://www.aseansec.org/network_activities.htm)

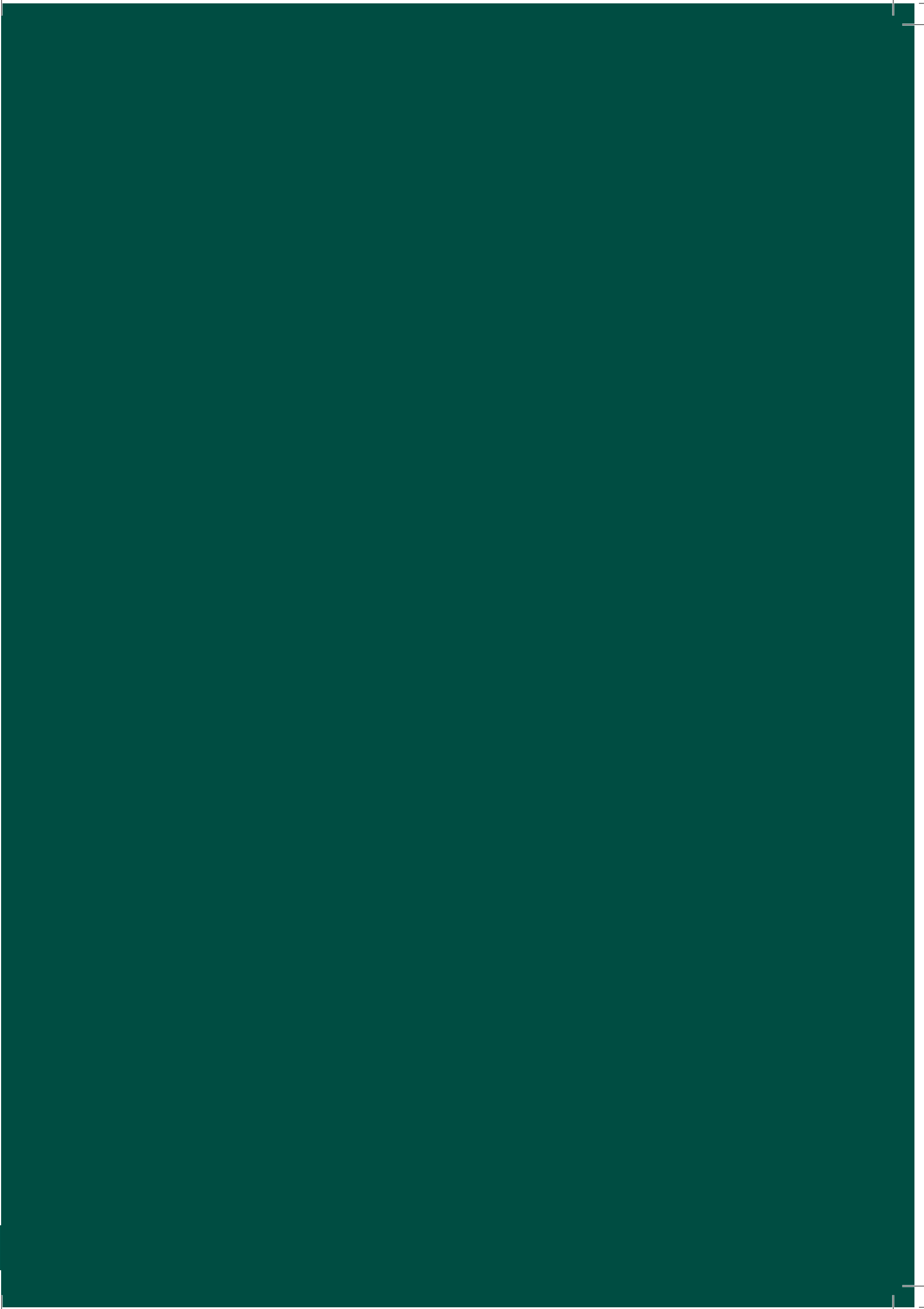
## **The Northern Forum**

[www.northernforum.org](http://www.northernforum.org)

## **Network of Regional Governments for Sustainable Development**

[www.nrg4sd.org](http://www.nrg4sd.org)







UNDP Asia-Pacific Regional Centre  
United Nations Service Building, 3rd Floor  
Rajdamnern Nok Ave  
Bangkok 10200 Thailand



United Nations Capital Development Fund, Asia & Pacific  
United Nations Service Building, 3rd Floor  
Rajdamnern Nok Ave  
Bangkok 10200 Thailand



United Nations Environment Programme (UNEP)  
Regional Office for Asia and the Pacific (ROAP)  
2nd Floor, United Nations Building  
Rajdamnern Nok Avenue  
Bangkok 10200, Thailand