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Local Governments and Climate Change

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Local governments are in a unique position to tackle the cause and effects of climate change. Being closest to the action local governments can provide effective leadership for their citizens because they have the opportunity to catalyse and sustain the behavioural change at individual and community levels necessary for building a more resilient community.

Climate change refers to changes in average climatic conditions. It is caused by natural processes — including solar activity, volcanic eruptions, and cyclic changes of the Earth's orbit — and human activities, most notably those that release greenhouse gases (e.g. burning fossil fuel) and those that change the land cover (e.g. destroying ecosystems like forests and wetlands that have the capacity to remove greenhouse gases from the atmosphere).

According to the Intergovernmental Panel on Climate Change (IPCC) in its Fourth Assessment Report 2007, the anthropogenic greenhouse gas emission has grown significantly since pre-industrial times, with an increase of 70 per cent between 1970 and 2004. This is very likely the cause of most of the global warming since the mid-twentieth century.

If there is no change in current development and climate change mitigation

policies, global greenhouse gas emissions will continue to radically change the climate thus seriously compromising and threatening human development. According to the Stern Review the cost of inaction can mount up to between 5 and 20 per cent of the global annual GDP while only 1 per cent of the global annual GDP would be necessary to effectively stabilise and tackle climate change at a global level. 'No action' is no longer an option.

Over the last 30 years there has been a five-fold increase in the number of climate related natural disasters worldwide. The poor suffer most from the extreme weather conditions caused by climate change — whether floods, storms or droughts — but even the privileged cannot escape the consequences when buildings, roads and bridges collapse unexpectedly or the health-care system is unprepared for the new challenges.

Some argue that given its scope and speed, climate change can now only be addressed effectively at high level, through national or international policy-making and large-scale financial investments in implementation and enforcement. While global commitment and co-operation are paramount, sustained local actions initiated and co-ordinated by local governments are necessary for successfully addressing climate issues.

Commonwealth States and Climate Change

Climate change poses an immediate threat to the security, well-being and economic activities of all Commonwealth countries. Hundreds of millions of people live in coastal areas that are threatened by rising sea levels. Many of the fastest growing and increasingly vulnerable cities are built on coasts: Mumbai, Dar es Salaam, Singapore, Port of Spain, Nassau, Honiara, Wellington and London. The 32 small states and 25 small island developing states of the Commonwealth are particularly vulnerable to climate change. This is especially so for low-lying atoll nations where populations may face serious flooding and the complex and sensitive issue of relocation — with the subsequent loss of homeland, culture and national identity.

Climate change impacts may also create chronic impediments to development as they can undermine continuing efforts to achieve the Millennium Development Goals. The Commonwealth Heads of Government were quick to recognise the significance of climate change and to provide leadership. They first discussed climate change in Malaysia in 1989, years before the establishment of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992, and the Kyoto Protocol in 1997. Since then they have agreed the Lake Victoria Commonwealth Climate Change Action Plan 2007, which provides a framework for prioritised actions including many that are relevant at the local level of governance.

‘In keeping with the high level political commitment of Commonwealth Heads of Government to tackle climate change, the Governance and Institutional Development Division will play an important role in raising the awareness of communities, facilitating access and sharing good practices through our local government programme.’

Jacqueline Wilson, Director

Governance and Institutional Development
Division, Commonwealth Secretariat

The Role of Local Governments in Climate Change

Local governments are the most accessible governing authority when disaster strikes. Given their proximity to the community, local governments have the advantage of responding faster and more effectively to local climate events than institutions and organisations at higher levels of the governance structure. In their efforts to provide continuous and high level preparedness for and management of natural disasters, local governments play a critical role in monitoring the impact of climate change and are essential to managing climate risks and vulnerabilities.

Local governments have up-to-date knowledge of the local environment, natural and man made, and the changing needs and capacities of the local community. In this context, they are a vital and influential source of information to the central government on large-scale climate change interventions.

Trinidad and Tobago: The Power of Education – Leadership Development for the Future

Local communities in Trinidad and Tobago (pop. 1.3 million), supported by the Red Cross and Red Crescent, started their climate preparedness programme by assessing climate threats and setting priorities with the Ministry of Education. They developed a wide range of information materials to reach all ages, including booklets, posters and websites, and introduced special school projects for children. Targeting young citizens increases the preparedness of the next generation and boosts the commitment of adult decision-makers to act now.

Actions for Local Governments

The first step local governments must take to address climate change is to make it an urgent issue for their

staff and communities. Following are the actions that can help them get to grips with climate change and prepare for various climate scenarios and the inevitable impacts.

‘The cost of inaction on mitigation and adaptation is far greater than the cost of early action.’

Lake Victoria Commonwealth Climate Change Action Plan 2007

Spontaneous and planned adaptation

‘Spontaneous’ adaptation is an unplanned response to climate impacts triggered by changes in the natural systems. ‘Planned’ adaptation is a set of conscious policy and financial decisions made before signs of climate impacts become apparent or just after the first changes take place.

Spontaneous adaptation is an important ‘learning-by-doing’ mechanism, which contributes to and makes use of indigenous knowledge systems that store the wealth of experience of previous generations. Planned adaptation requires a high level of awareness and appropriate financial resources to achieve and sustain the desired levels of social change, biodiversity, infrastructure and so on.

Local governments may choose to integrate the two approaches in their climate change strategy to maximise their adaptive capacity. Using both indigenous and scientific knowledge generates community-wide ownership and commitment to the adaptation process, thus ensuring more robust climate responses.

Addressing the complexity of climate change at local government level requires an integrated, systematic approach that considers local risks, vulnerabilities and priorities and secures maximum benefits for the local community. Open discussion on all possible climate scenarios can significantly boost preparedness, and getting prepared for the unimaginable may reveal mechanisms to increase local resilience.

Namibia:

Stakeholder Engagement for Climate Scenarios

Climate change is a major concern in Namibia. Although Namibia’s greenhouse gas emission is negligible, the impact of climate change is far-reaching, especially through increasing water shortages, desertification, and sea level rise. Local governments engage the public and the business sector in planning for different climate scenarios. This makes climate change adaptation a salient issue, ensures the integration of various knowledge and skills, strengthens ownership and eventually results in a realistic and comprehensive local adaptation plan.

Local governments also play a key role in raising awareness of adaptation to climate change, and ensuring safe and adequate drinking water supplies. The availability of adequate water touches all aspects of life: water is critical not only for drinking and cooking but also for better hygiene and improved sanitation. The depletion of aquifers compromises food production, health and quality of life and aggravates poverty. People in Namibia cultivate colourful gardens. When these gardens wither the beauty and the resilience of communities are also diminished.

**Erastus I Negonga, Permanent Secretary
Ministry of Regional and Local Government,
Housing and Rural Development**

Investing in social capital

The importance of addressing and planning for climate change, as an ongoing process, is often underestimated. Given the likelihood of scarce resources, including time, local governments often focus on what needs to be done at any given time.

However, appropriate attention and resources dedicated to preparedness generate high returns in both the short and long terms.

Investing in social capital — human resources, skills, knowledge and planning and negotiation capabilities of individuals and communities — is the most effective way of leveraging the scarce resources of local governments. Capacity-building and planning for climate change are the two priority mechanisms to both mitigate and adapt to climate change.

Building capacities

Capacity-building strengthens the resilience of local governments to cope with climate change. Local council decision-makers and staff as well as citizens must have a basic understanding of climate change and its local impacts to be able to participate effectively in developing and implementing a local adaptation plan. People have the right to know what science knows and about any uncertainties in their future.

Local governments should not go it alone in providing awareness-raising programmes: partnerships with the scientific community, universities and research institutions ensure credibility and up-to-date information on the latest scientific and technological discoveries. The Commonwealth provides opportunities for exchanging experiences and good practices among local governments, and for establishing relationships between countries, local governments and regions on issues of mutual concern.

Developing local adaptation plans

A local adaptation plan is the basis of effective and cost-efficient implementation of social, environmental and economic priority actions. The plan should ideally cover all services offered by the local government. Climate change preparedness is only effective if it is integrated into existing local development plans.

UK:

Local Authorities, Backed by Partners, Tackle Climate Change

More than 300 UK local authorities have signed the [Nottingham Declaration on Climate Change](#) and committed to systematically 'tackle the causes and effects of a changing climate' in their councils. The Declaration, which was launched in October 2000 in Nottingham, recognises the central role of local authorities in leading society's response to the challenges of climate change.

Within its framework local authorities pledge to prepare an action plan covering both mitigation and adaptation to climate change according to local priorities and securing maximum benefit for the local community. Local authorities are supported by the [Nottingham Declaration Partnership](#), a multi-scale and multi-level alliance of eight organisations — Carbon Trust, Energy Saving Trust, Environment Agency, International Council for Local Environmental Initiatives, Improvement and Development Agency, Local Government Association, Nottingham City Council and [UK Climate Impacts Programme \(UKCIP\)](#). This alliance developed the Nottingham Declaration Action Pack, a guide for producing local climate change action plans.

The UKCIP, which seeks to bring together the scientific community with the society to better adapt to climate change, has developed a [set of tools](#) for advancing preparedness. The [Adaptation Wizard](#) is a practical and flexible entry to the tool set. While most tools are useful for local authorities, some of them are designed to serve their unique context.

A five-step approach is recommended to design a climate adaptation plan:

- Set goals and objectives
- Identify current and future risks and vulnerabilities
- Identify and prioritise options
- Implement selected responses
- Review the adaptation process and keep it relevant.

Tuvalu:

Waves of Change – An Adaptation Plan for All Seasons

Tuvalu (pop. 10,000), a small island nation of nine low-lying atolls in the Pacific Ocean close to Fiji Islands, is threatened by rising sea levels. So-called ‘king tides’ flood entire villages and force people to prepare for challenging climate scenarios including relocation. As part of its response the government organised awareness-raising and capacity development workshops and developed a national adaptation programme of action (NAPA).

This plan includes upgraded sea walls, a freshwater collecting and storage system, and a solid waste and waste-water management system. It also introduces solar energy to supplement expensive and polluting diesel generated electricity and reviews the efficiency of several government-owned corporations. Although the process resulted in a national plan, given the population size Tuvalu’s comprehensive and participatory approach could also inspire local adaptation plans.

capable of mobilising fast, targeted aid distribution, which is a low-cost but high-return way of strengthening local disaster management and preparedness.

- Disaster preparedness contributes to adaptive capacity. Investing in public infrastructure (roads, bridges) and housing helps communities become robust enough to withstand the worst climate scenarios and protects valuable assets.
- Identifying and investing in technologies that support climate change mitigation and adaptation priorities — renewable energy, energy efficiency, energy saving — provides double dividends. The importance of removing economic and policy barriers from mainstreaming climate-friendly technologies is often underestimated.
- Investing in people’s knowledge and skills to develop their adaptive capacities should be an ongoing process, which can be implemented through partnerships with local, national and international organisations. For instance, working closely with the local civil society on tapping into and integrating indigenous knowledge with scientific knowledge to strengthen the adaptation process; public/private partnerships can provide affordable implementation through market-based mechanisms (e.g. mainstreaming renewable energy, improving energy efficiency, preventing deforestation, promoting eco-tourism, etc); and scientific institutions are indispensable partners in setting up monitoring and early warning systems, and adopting evidence-based adaptive management practices.

The following approaches may be considered in identifying and prioritising options:

- Disaster preparedness is a significant driver for planned adaptation. Local authorities play an important role as they have the best understanding of local risks and vulnerabilities; and they are

Mitigation and adaptation

In tackling climate change it is necessary to take an integrated twin-track approach — mitigation of the causes that drive climate change and adaptation to the effects of climate change. Mitigation includes reducing the use of fossil fuel and fossil energy;

adaptation requires increasing investment into local infrastructure and local people in order to cope with and take opportunities of local changes.

‘Local governments ought to invest in education, health and appropriate low-carbon technologies to mitigate and adapt to climate change. Healthy and educated people have better adaptive capacities.’

**Dr Indrajit Coomaraswamy, Director
Economic Affairs Division
Commonwealth Secretariat**

Although adaptation means short-term survival for millions of people, the main focus so far has been on mitigation. As mitigation can be investment-intensive (e.g. clean development mechanism, carbon capture and storage), the principle of common but differentiated responsibilities applies since both developed and developing countries make efforts according to their means. There are, however, less expensive mitigation mechanisms such as protection of biodiversity and other ecosystem goods and services, land-use planning, carbon pricing and carbon budgeting. These policy and market instruments bring high returns on investment, including climate stabilisation.

While the twin-track approach is ideal, adaptation is often given priority to protect people’s lives and infrastructure from extreme climate impacts. Given their scarce resources local governments often have no choice but to focus all their efforts on adaptation. But many interventions have both adaptation and mitigation effects. For example, awareness-raising and application of adaptive environmental management systems increase local capacities to address both the causes and the effects of climate change; promoting energy saving mitigates the causes and saves financial resources to enable better adaptation to the inevitable impacts of climate change.

Funding sources

In order to enable local governments to have the necessary financial resources to address climate change the national climate change action plan should allocate an appropriate budget to them. Local resources can be leveraged through a wide range of financial products. The most vulnerable local governments, however, need to access international funds to cover their adaptation costs through global or multilateral mechanisms and bilateral development assistance. In this regard, central government has both regulatory and facilitation roles.

Maldives:

International Co-operation is Paramount

Malé (pop. 87,000) is the capital of the Republic of Maldives (pop. 306,000), one of the world’s lowest lying countries. The local authority in Malé built a £32 million concrete sea wall around the city. The sea wall provides significant protection against high waves for the time being, but it is not a solution local governments could finance on their own. International aid is necessary to support the adaptation needs of the most vulnerable communities.

Multilateral funds

While there is an increasing number of multilateral financial mechanisms to finance climate adaptation — for instance the World Bank Climate Investment Funds’ Clean Technology Fund, Strategic Climate Fund, Asian Development Bank’s Climate Change Fund — the Global Environment Facility (GEF) is of unique importance. GEF is guided by the Conference of Parties to the UNFCCC and supports projects that reduce the vulnerability of countries and helps build adaptive capacity through four funding mechanisms:

- The Strategic Priority on Adaptation (SPA) was established to increase the resilience and adaptive

capacity of those ecosystems and communities vulnerable to the adverse effects of climate change. SPA projects prioritise capacity-building for managing and ensuring the sustainable use of natural resources under climate change. It constitutes pilot and demonstration projects that support local adaptation needs and generate global environmental benefits in all GEF focal areas.

- The Least Developed Countries (LDCs) Fund initially supported the development of national adaptation programmes of action (NAPAs) of LDCs, and now funds the implementation of projects identified in the NAPAs. Most of the Least Developed Countries have received funding from this fund and are close to the completion of their NAPAs.
- The Special Climate Change Fund (SCCF) supports projects that address the adverse impacts of climate change, especially in technology transfer, capacity development, energy, transport, industry, agriculture, forestry, waste management and economic diversification.
- The Adaptation Fund was established to finance concrete adaptation projects and programmes in developing countries that are Parties to the Kyoto Protocol. The Fund is to be financed with a 2 per cent levy on Clean Development Mechanism projects. The Adaptation Fund is not yet active but is expected to generate significant resources. It will support activities similar to those of SCCF.

Bilateral development assistance

Several developed countries support climate change projects and offer training and other capacity development activities through their international development assistance funds (about 0.7 per cent of GDP). IDA funding agencies with a focus on climate change include DFID (UK Department for International Development), CIDA (Canadian International Development Agency) and JICA (Japan International Cooperation Agency) among others.

Conclusion

Local governments — closest to people, closest to action — are increasingly acknowledged as central to climate change adaptation and building resilience to unpredicted climate scenarios. However, financial and other capacity development mechanisms that support local governments need to be diversified and to match their roles and responsibilities in tackling climate change. With decentralisation taking place all over the world, including the Commonwealth, central governments have an important role in providing a favourable environment for local governments and in building their capacity, including adequate finances. Effective mitigation of the causes of climate change and adaptation to the predicted challenges enhance progress towards the attainment of the Millennium Development Goals.

Further Reading

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Key Terms

Adaptation: Adjustments in natural and human systems in response to actual or expected climate effects, which moderate harm or exploit opportunities.

Adaptive capacity: The ability of a system — people and their environment — to adjust to climate change and cope with the consequences.

Mitigation: Reduction of human activities that force climate change (e.g. reducing greenhouse gas emissions and improving systems that capture greenhouse gases, like forests and coral reefs).

Resilience: The ability of a social or ecological system to adapt to stress and change while retaining its basic structure and functioning; a capacity of self-organisation.

Vulnerability: The ability of a social or ecological system to cope with climate change. It depends on the system's characteristics, including adaptive capacity and the magnitude of change.

Acronyms

CIDA	Canadian International Development Agency
DFID	UK Department for International Development
GEF	Global Environment Facility
IDA	International development assistance
IPCC	Intergovernmental Panel on Climate Change
JICA	Japan International Cooperation Agency
LDCs	Least Developed Countries
NAPAs	National adaptation programmes of action
SCCF	Special Climate Change Fund
SPA	Strategic Priority on Adaptation
UKCIP	UK Climate Impacts Programme
UNFCCC	United Nations Framework Convention on Climate Change