



# **Guiding Principles for City Climate Action Planning**

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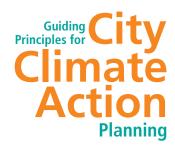
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Dr. Joan Clos

Under-Secretary-General of the United Nations Executive Director of UN-Habitat

Cities stand in the front lines of the global battle to curtail greenhouse gas emissions and build resilience to the impacts of climate change.

Planning provides a fundamental tool for local authorities to use when addressing such challenges. That is because comprehensive and coordinated action is essential for truly transformative action. To yield their greatest benefits, improvements in public transport, for example, must

be accompanied by land use regulations that promote compact and transit-oriented development. That is to say sectoral actions alone are not sufficient. Hence the need for integrated climate action planning at the city level.

The present "Guiding Principles for City Climate Action Planning" represent the result of a year-long process to distil lessons from a wide range of partners and stakeholders as to what provides for effective city-level climate action planning. Let me take this opportunity to thank partners for their many contributions. Along the way of developing these Guiding Principles, we hope that this process has yielded an important byproduct: a step in the maturation of a 'community of practice' in the area of city climate action planning.

Josu Clos



Park Won Soon

Mayor of Seoul and President of ICLEI

Local Governments for Sustainability

Climate change poses a serious threat to humanity and our environment. Considering that a significant majority of greenhouse gases released into our atmosphere come from cities, and that human settlements in all parts of the world are already impacted by this global challenge, this is where the problem and solution is at hand. Local governments have a key role to play here – by planning, guiding, and managing emissions reduction in their communities, but also by developing sustainable and innovative solutions that address adaptation and enhanced resilience to a changing climate. This role requires leadership, foresight and determination.

I am ICLEI President and at the same time Mayor of Seoul, Republic of Korea. Our nation has undergone rapid industrialization and urbanization over the past decades. Seoul, the capital of Korea has enjoyed the benefits of the development but at the same time,

we are facing challenges caused by climate change. However, we can transform Seoul into a global environmental city, just like the development that we have achieved in the past.

Seoul has moved proactively to reduce greenhouse gas emissions. As a result, we have seen a decline in greenhouse gas emissions since 2011. We will continue our diligent efforts by implementing Low Carbon Green Growth Plan and Action Plans for Promise of Seoul: Taking Actions Against Climate Change. In particular, we launched the One Less Nuclear Power Plant project in 2012 together with the citizens. Seoul, a megacity with more than 10 million people, has joined efforts with its citizens to develop new environmental policies to address energy crisis and tackle climate change. As a result, six months prior to our target date, we have successfully reduced 2 million tonnes of oil equivalent (TOE) of energy, which is equivalent to the amount of energy generated by 1 nuclear power plant. Now, Seoul is moving again to implement Phase 2 of the One Less Nuclear Power Plant project. We will continue our effort to make a sustainable Earth, and a sustainable city.

If we dream together, the dream becomes a reality. If we walk together, it becomes our path. The *Guiding Principles* for City Climate Action Planning will show us the directions that we need to take to protect our planet, Earth.

Wishing you a successful journey!



Naoko Ishii

CEO and Chairperson, the Global Environment Facility

By 2050 more than 2 billion additional people will be living in cities, an increase of over 50% compared to today. In a rapidly urbanizing world, how we design and build the cities of the future will be critical for global sustainable development. Compact, resilient, inclusive and resource-efficient cities can become drivers of sustainable development and economic growth, contributing to both local livability and global public goods.

City leaders are at the forefront of the global movement towards low-carbon development. As the CEO of the Global Environment Facility (GEF) I am extremely excited about being able to support

city-led initiatives to enhance the focus on sustainability in city planning, and to help build a platform for city leaders to share knowledge, experiences, and best practices among each other. The GEF's new \$1.5 billion flagship programme on sustainable cities aims to do exactly that, by focusing initially in 23 cities in 11 countries.

The *Guiding Principles* for City Climate Action Planning contained in this publication give guidance and impetus to city leaders and city planners to help achieve the global 2-degree target. The guidelines provides strategic insights and new ideas, and are backed by a community of practice to help cities address climate change while meeting their other long-term goals such as socio-economic development and environmental protection.

The development of the *Guiding Principles* was built on strong inter-agency collaboration and multi-stakeholder consultation, which will help to generate ownership of actions, encourage cross-sectoral partnership, and spark complementary action.

I join the drafting committee in their conviction that cities are the key to climate solution, and that the foundation for low-emission cities must be laid today.



Andrew Steer
President of World Resources Institute

Cities are a major cause of climate change and are the most threatened by it. Cities occupy just two percent of land but account for up to 70 percent of all energy-related carbon dioxide emissions. Many cities are also deeply vulnerable to the effects of climate change, with coastal flooding threatening the well-being of countless communities.

Action at the city level is therefore critical for strengthening resilience and tackling the challenge of climate change. With more than 60 percent of the land projected to become urban by 2030 yet to be developed, how we approach that development will have a significant impact on our cities in the future. By focusing on creating compact, connected, and coordinated cities now, we can mitigate global emissions, spur economic growth, and improve quality of life for millions of people worldwide.

A growing number of city leaders have been showing genuine leadership on climate change, taking action independently of

national governments to address the pressing needs of their citizens. To expand their capacity to take on the challenge of climate change, cities are joining forums that encourage collaboration between multiple levels of government, business, and civil society. Hundreds of cities worldwide have joined the Compact of Mayors, pledging their commitment to measure emissions, set stronger targets and take action. This past September, the UN General Assembly adopted the sustainable development goals (SDGs), which specifically included a call to make cities more "inclusive, safe, resilient and sustainable."

Many city leaders are learning that climate action produces a wide variety of benefits for people, from boosting the local economy to reducing air pollution. However, many cities are also encountering complex challenges, as they lack the knowledge of how to approach climate planning in a way that is integrated, systematic, and inclusive. Conventional urban planning practices are not up to the task. Some countries, subnational governments, and organizations have produced detailed guides to help cities plan, implement, and monitor climate actions. But cities are unique and have diverse needs. They often don't know how best to use the guides available to them. Most cities are learning by doing.

Guiding Principles for City Climate Action Planning fills that gap. Outlining international practices within a framework for decision making, the document will be a go-to place for cities to identify the steps they need to take and tap into shared knowledge. Through the leadership of UN-Habitat, Guiding Principles was developed by a range of organizations who partnered together to contribute their unique insights and expertise. Collaboration like this is essential to bringing cities together to create change on the ground.

Cities and urban leaders around the world should use these *Guiding Principles* as the basis for climate action planning. Local action is the key to global change.



# **EXECUTIVE SUMMARY**

The Guiding Principles for City Climate Action Planning reviews typical steps in the city-level climate action planning process in light of a proposed set of globally applicable principles. These principles, shown below, developed through a robust and open multi-stakeholder process, support local officials, planners and stakeholders in climate action planning<sup>1</sup>. Such plans aim to help cities to reduce greenhouse gas emissions and adopt low emission

development trajectories, as well as adapt to the impacts of climate change and build local climate resilience.

These *Guiding Principles* are intended to be applied flexibly, together with more detailed 'how to' manuals, to help cities more effectively play their role in reducing greenhouse gas emissions and building climate resilience.

# Guiding Principles for City Climate Action Planning

# City climate action planning should be:



**Ambitious** 

Setting goals and implementing actions that evolve iteratively towards an ambitious vision



Inclusive

Involving multiple city government departments, stakeholders and communities (with particular attention to marginalized groups), in all phases of planning and implementation



Fair

Seeking solutions that equitably address the risks of climate change and share the costs and benefits of action across the city



# Comprehensive and integrated

Coherently undertaking adaptation and mitigation actions across a range of sectors within the city, as well as supporting broader regional initiatives and the realization of priorities of higher levels of government when possible and appropriate



Relevant

Delivering local benefits and supporting local development priorities



Actionable

Proposing cost-effective actions that can realistically be implemented by the actors involved, given local mandates, finances, and capacities



### **Evidence-based**

Reflecting scientific knowledge and local understanding, and using assessments of vulnerability and emissions and other empirical inputs to inform decision-making



### Transparent and verifiable

Following an open decision-making process, and setting goals that can be measured, reported, independently verified, and evaluated

<sup>1</sup> The present document uses an inclusive definition of the 'city' that includes actors at the community, town, municipal, and metropolitan levels.

# **RÉSUMÉ**

Les Principes directeurs pour les plans d'action urbains sur le climat passent en revue les étapes typiques d'un plan d'action sur le climat destiné aux villes, à la lumière d'une série de principes qui seraient applicables à l'échelle mondiale<sup>2</sup>. Formulés au terme d'un processus ouvert et rigoureux ayant impliqué de nombreux intervenants, ces principes visent à soutenir les représentants, les planificateurs et les intervenants locaux dans la mise en œuvre de plans d'action en matière de climat. Ces plans visent la réduction des émissions de gaz à effet de serre et l'adoption de trajectoires de développement

à faibles émissions, ainsi que l'adaptation aux impacts des changements climatiques et la mise en place d'une résilience climatique à l'échelle locale.

Ces *Principes directeurs* sont conçus pour être appliqués avec souplesse, conjointement à l'emploi de guides pratiques plus détaillés, dans le but d'aider les villes à jouer leur rôle de manière plus efficace dans les efforts de réduction des émissions de gaz à effet de serre et la mise en place d'une résilience climatique.

# Principes directeurs pour les plans d'action urbains sur le climat

# Un plan d'action urbain sur le climat devrait être:



# **Ambitieux**

Établir des objectifs et mettre en œuvre des actions permettant d'évoluer par itération vers une vision ambitieuse.



### Inclusif

Impliquer les services du gouvernement municipal, les intervenants et les collectivités (avec une attention particulière aux groupes marginalisés) à toutes les étapes de la planification et de la mise en œuvre.



# Juste

Chercher des moyens de gérer les risques inhérents aux changements climatiques et partager les coûts et les bénéfices des actions de manière équitable à travers la ville.



# Complet et intégré

Lancer des mesures d'adaptation et d'atténuation de manière cohérente dans divers secteurs de la ville, tout en soutenant les initiatives plus ambitieuses à l'échelle régionale ainsi que la mise en œuvre des priorités des paliers supérieurs de gouvernement lorsque cela est possible et applicable.



# Pertinent

Apporter des bienfaits au niveau local et soutenir les priorités locales de développement.



# Réalisable

Proposer des actions rentables et réalistes qui doivent être réalisables par les intervenants impliqués en tenant compte des mandats, des finances et des capacités au niveau local.



### Basé sur des données

Refléter le savoir scientifique et la compréhension du milieu local, et baser la prise de décisions sur une évaluation de la vulnérabilité et des émissions, ainsi que sur d'autres données empiriques.



### Transparent et vérifiable

Adopter un processus décisionnel ouvert et fixer des objectifs pouvant être mesurés, vérifiés de façon indépendante et évalués.

<sup>&</sup>lt;sup>2</sup> Le présent document utilise une définition inclusive de la « ville » qui comprend les intervenants à l'échelle des collectivités, des villes, des munipalités et des zones métropolitaines.



# **PREFACE**

- It is now clear that cities are at the forefront of urgently needed global action on climate change. They are playing a critical role in global efforts to bring down greenhouse gas emissions, while also reducing the vulnerabilities of people and assets and adapting to the impacts of a changing climate. As local officials and stakeholders move forward with these efforts, these Guiding Principles for City Climate Action Planning provide an international benchmark for city-level climate action planning<sup>3</sup>. Based on international best practices, these Guiding Principles offer principles applied to the typical steps in this planning process. As such, the publication provides a framework that cities can use, together with more detailed 'how-to' manuals, in order to more effectively play their role in reducing greenhouse gas emissions and building climate resilience.
- 2. The *Guiding Principles* were developed through a robust, open, and transparent multi-stakeholder process. This included in-person meetings and workshops with stakeholders and experts, as well as a wider
- consultation with partners and a peer review process. This process has involved cities, city networks, national governments, development agencies, multilateral and bilateral financial institutions, non-governmental organizations, universities and research institutions, consultants, and United Nations agencies and bodies (please see Acknowledgements and Endorsements). The *Guiding Principles* are also grounded in the existing scientific consensus about climate change, as well as current research findings on what constitutes effective climate action planning at the city level. Links to core documents referred to during preparation of the present Guidelines, as well as more detailed manuals and other resource materials, are provided through a webpage introduced in Annex.
- 3. Finally the present document is designated as 'Version 1.0', as a sign that, as knowledge accumulates and a community of practice continues to mature, partners intend to update these *Guiding Principles for City Climate Action Planning* to reflect new findings.

<sup>3</sup> The present document uses an inclusive definition of the "city' that includes actors at the community, town, municipal, and metropolitan levels.

# 1 INTRODUCTION

# 1.1 Cities and climate action planning

- 4. Cities are playing a vital role in the global response to climate change by curbing their greenhouse gas emissions and adapting to the effects of a changing climate. Local governments are central to these efforts. They lead climate action by framing strategies and programmes, integrating such actions into ongoing urban development, and forging the partnerships necessary for effective climate responses.
- 5. Cities are making steps towards achieving their visions for socio-economic development while addressing the climate challenge. Yet achieving such outcomes can be demanding. Climate action planning provides city governments and their partners with strategic direction, new ideas, tools, and a community of practice to address climate change while meeting other long-term goals such as socio-economic development and environmental protection.
- 6. These *Guiding Principles for City Climate Action Planning* provide city governments and their partners with the fundamental principles and framework necessary to realize their potential and to contribute to this global effort. They support planning that aims to reduce greenhouse gas emissions and adopt low emission development trajectories (*mitigation*), as well as adapt to the impacts of climate change (*adaptation*) and build local climate resilience. They are based on an inclusive definition of the "city" that includes actors at the community, town, municipal, and metropolitan levels.

# 1.2 Guiding Principles

7. Many 'how to' guides exist for accompanying cities through specific individual stages of climate action planning. To complement those resources<sup>4</sup>, the present *Guiding Principles for City Climate Action Planning* propose a set of globally applicable principles that can serve as a common benchmark for cities as they undertake climate action planning (See p.4).

For such resources as well as other relevant research and materials, see Annex.



The Kuyasa Clean Development Mechanism Pilot Project, launched in 2008 and completed in 2010, retrofitted 2,309 low-cost homes with solar water heaters, insulated ceilings and energy efficient lighting in Khayelitsha Township, Cape Town. In addition to providing warmer homes and hot water, the project was designed to prevent the emission of about 6,580 tonnes of  $CO_2$  per year. Between 2009 and 2012 the project succeeded in reducing emissions by about 10,527 tonnes of  $CO_2$ .

The project is identified in 'Cape Town's Action Plan for Energy and Climate Change' (2011) as a mechanism for delivering energy efficient low income housing. More specifically, the project is helping the city to achieve Objective 7 of this Strategy – "improve the resilience of vulnerable communities". This emissions reduction project is seen as also helping to build community resilience by lowering families' monthly power bills, improving the living environment, and bettering indoor air quality, resulting in important health co-benefits.

8. First among these principles is a call for cities to be **ambitious** in their climate action planning. Climate action planning should reflect the urgency and scale of the climate challenge. To help avoid catastrophic levels of global warming, local mitigation targets should contribute to the global emission reduction target and corresponding national commitments. (Some cities aim to exceed their proportionate share.) Likewise when building

resilience local stakeholders and decision-makers should bear in mind that a changing climate will lead to changes in weather patterns, and can result in unprecedentedly extreme weather events and other impacts; they should research the impacts of such changes that are expected locally and plan accordingly. These *Guiding Principles* are designed to support city governments and their partners in undertaking this critically important work.

# Guiding Principles for City Climate Action Planning

# City climate action planning should be:



**Ambitious** 

Setting goals and implementing actions that evolve iteratively towards an ambitious vision



# Inclusive

Involving multiple city government departments, stakeholders and communities (with particular attention to marginalized groups), in all phases of planning and implementation



### Fair

Seeking solutions that equitably address the risks of climate change and share the costs and benefits of action across the city



### Comprehensive and integrated

Coherently undertaking adaptation and mitigation actions across a range of sectors within the city, as well as supporting broader regional initiatives and the realization of priorities of higher levels of government when possible and appropriate



### Relevant

Delivering local benefits and supporting local development priorities



# Actionable

Proposing cost-effective actions that can realistically be implemented by the actors involved, given local mandates, finances, and capacities



# **Evidence-based**

Reflecting scientific knowledge and local understanding, and using assessments of vulnerability and emissions and other empirical inputs to inform decision-making



### Transparent and verifiable

Following an open decision-making process, and setting goals that can be measured, reported, independently verified, and evaluated

- 9. The present document examines important components of city-level climate action planning in light of these principles. These *Guiding Principles* can be applied to *organization and participation* (Section 2), the overall *planning process* (Section 3) and *strategies and actions* (Section 4).
- 10. Taken as a whole, the present document offers a framework that includes planning, implementation, monitoring, reporting, evaluation, and improvement. City officials can apply these *Guiding Principles* together with more specific tools and guides (see Annex) as they devise coherent strategies tailored to local circum-
- stances. The *Guiding Principles* thus are intended to be applied flexibly on the basis of local context and judgment. Some cities are developing stand-alone, multi-sectoral plans focused specifically on climate change, while others are mainstreaming climate change into on-going public planning processes. The present *Guiding Principles* supports both approaches to city-level climate action planning.
- 11. This framework draws from the work of an emerging global community of practice, and synthesizes over two decades of accumulated expertise.

# 1.3 Who should use the Guiding Principles?

- 12. The *Guiding Principles* are aimed primarily at city-level actors. They provide a common reference point for **local officials** and **local planning practitioners**, as well as other **local stakeholders** in cities around the world.
- 13. **National and subnational (e.g., state, provincial) governments** that are developing or revising policy frameworks that govern climate change, urban develop-

ment, and local planning processes are encouraged to use the *Guiding Principles* in order to provide a consistent and effective approach. While respecting existing mandates and levels of autonomy, supportive forms of multilevel governance can empower local actors while providing for the coordination of action at all levels of government, as well as the integration and reporting of local results into regional and national-level reporting. **International initiatives and programmes** that support city climate action planning are urged to use and reference the *Guiding Principles* in their work.



Partners discussing city-level climate action planning at an Expert Group Meeting in Oslo, March 2015 © UN-Habitat

# ORGANIZATION AND PARTICIPATION

- 14. Climate change action planning is often, but not only, led by city governments. Effective climate action planning *inclusively* engages multiple agencies, economic actors and community stakeholders. Such processes encompass a broad array of perspectives and interests, both within the city government and the larger community. This helps to ensure that the plan is *relevant*, meeting a range of community goals with broadbased support for implementation. Inclusive stakeholder engagement can also generate ownership, encourage cross-sectoral collaboration, spark complementary action, increase awareness, and build capacity.
- 15. Climate action planning needs *vigorous leadership* to succeed. In some city governments a strong endorsement from the mayor is essential to catalysing action, while others benefit from active engagement from se-

nior management – in other words a "champion". Support from key private sector and non-governmental stakeholders can be vital. 'Bottom-up' leadership from proactive civil society groups can also galvanize city-scale climate action.

# 2.1 Building government capacity and support

16. Addressing climate change is a complex challenge that requires involvement from multiple city government departments or agencies. It also requires building political support for action. Neither adaptation nor mitigation fit neatly into the traditional silos that structure city governments. To be effective, climate change planning requires a *comprehensive and integrated* cross-sectoral approach, with actors working

across administrative boundaries. Within a city government, strong climate action plans tend to be developed by cross-departmental teams that are empowered to coordinate. Alternatively, more centralized teams can conduct consultations to ensure all key departments and agencies can provide input into the plan and experience a sense of ownership over the final product. This process can also encourage multiple agencies to integrate adaptation and mitigation objectives into their own plans, and help pave the way for innovative and constructive partnerships during implementation.

17. Climate change is a relatively new challenge for many cities, and thus is one that involves on-going learning. This requires sensitizing and building the capacity of city elected and appointed officials who are championing, preparing, implementing, and monitoring the plan. Engaging outside specialists to furnish specific inputs while building local capacity may be helpful. Participation in regional, national, and international networks of cities that promote climate action can facilitate learning, peer-to-peer sharing, and access to tools and resources. Network membership also offers solidarity, encourages more *ambitious* action, and confers recognition upon local achievements.

# 2.2 Involving the public

18. Public participation is a vital part of city climate action planning. It engages and empowers various constituencies including those that are most affected by climate change impacts, as well as those particularly well placed to contribute to climate actions. Meaningful participation is *inclusive* of broad community perspectives and interests, including accounting for difference in terms of gender, age and income, and including those populations who are frequently marginalized, in order to ensure *fair* decision-making.



"The public has got to, effectively, be the plan, because without them living the plan it won't go anywhere."

Sean O'Donoghue, Manager, Climate Protection Branch, Environmental Planning and Climate Protection Department, eThekwini Municipality, South Africa

- 19. Effective participation has different components. On the one hand it equips participants with the information and access to policy-makers needed to be involved in a meaningful way, with influence on decision-making and a role in implementation. At the same time participatory processes capture relevant local knowledge and ensure that it is reflected in decisions. Public participation is an on-going process: it starts with consultation at or near the beginning of the process, and continues through the various stages of implementation, monitoring, and evaluation (see Figure 1). Participation can take various forms, from formal consultations, outreach, and education programmes, to individual actions, to civil-society campaigns designed to achieve *ambitious* community goals.
- 20. The goals for public participation should be agreed upon at the start of the city climate action planning process. These goals and plans set out who should participate and how their participation will impact the process, e.g., by informing, consulting, involving, collaborating, or empowering. Goals and plans should be adapted as new stakeholders are identified that need to be involved and better means of engagement are identified. The process of participation should be monitored in a *transparent* way, with feedback given to participants throughout the process.



Over the past several years the Municipality of Quito has progressively refined its set of climate actions, with a focus on building climate resilience. The municipality's first concerted attempt at climate action planning came with its Climate Change Strategy, drafted in 2007 and 2008 and approved in October 2009. Then in 2010 Quito began developing its Climate Action Plan (2012-2016), which was approved in 2012.

Over time, the Municipality has established two institutional bodies to support effective decision-making on and cross-departmental implementation of climate action. Firstly, Quito's Inter-Institutional Climate Change Metropolitan Committee was created to help different departments interact with one another, and monitor and evaluate climate actions. The Committee, established in 2007 and composed of representatives of various municipal departments, was responsible for drafting Quito's Climate Change Strategy. Secondly, in 2010, the municipality created the Quito Panel on Climate

Change, with the aim of commissioning scientific studies by leading Ecuadorian experts and scientists to better understand the impacts of climate change in the city. The Panel was set up in acknowledgement of the importance of incorporating scientific expertise into decision making on climate action.

The Quito Climate Action Plan recognizes that some of the most vulnerable locations in the city of Quito are on the slopes surrounding the core urban area. Over time some of these slopes have become at greater risk of landslides (especially during heavy rains) due to loss of vegetation cover as a result of urbanization pressures. Among the various risks that the city seeks to address under the Plan's Strategic Area "Comprehensive management of climate risks", are those associated with poor families living in inadequate housing on those slopes. Corresponding actions include the development of an integrated risk management system, a district risk management plan, and a programme to relocate families living in situations of high risk where the risks cannot be reduced.

# 2.3 Engaging with key groups of stakeholders

21. Engaging stakeholders from the research domain, as well as from private sector, non-governmental and community organisations, is increasingly critical in the design and implementation of climate action planning. Those involved in the research domain can contribute valuable expertise to the planning process, and act as 'critical friends' during evaluation, helping to ensure that it is *transparent* and verifiable. Businesses and business associations can provide unique inputs into the design and implementation of policies and measures that are *relevant* for key sectors of the local economy. Non-governmental and community-based organizations can also have significant expertise to bring to bear in the development and implementation of climate change responses. Engaging with these stakeholders can enable the participation of groups traditionally excluded from the planning process, and also help ensure that the wider social and environmental benefits of addressing climate change are addressed in a *fair* way. All these actors are increasingly engaged in developing their own innovative climate responses, including by developing urban living laboratories, testing new forms of the green economy, innovating technically and economically, and promoting alternative forms of consumption. Such efforts can shape the vision and increase the *ambition* of city governments.

22. By providing co-ordination, training, tools, and other resources, city governments can help to stabilize and scale up such community-led initiatives. Similar forms of support can build capacity within local businesses (particularly in high emissions sectors such as industry, transportation, petrochemicals, energy, and construction) to improve energy efficiency and otherwise update their practices. City governments can also support market transformation and help open up new areas of economic activity. Approaches may include public-private provision of climate friendly infrastructure, and the development of broader green economic development strategies. By recognizing the achievements of leaders and innovators in the broader community, city governments can help publicize and mainstream the adaptation and mitigation measures that they have pioneered.



Expert Group Meeting on Guiding Principles for City Climate Action Planning, Bonn, June 2015 © UN-Habitat

# 3 PLANNING PROCESS

- Figure 1 shows a typical city-level climate action planning process. While such a diagram is useful, we must also acknowledge its limitations. Firstly, planning processes vary from city to city. Moreover, city climate action planning should be flexible, dynamic and iterative, involving a constant back-and-forth between activities depending on each city's circumstances. Finally, climate action planning is not an isolated process. Rather it is integrated with and directly linked to other socio-economic, spatial, disaster risk reduction, and environmental planning processes, at the city level as well as at other levels of government, both regionally and nationally. Integrating climate action planning particularly into long term urban planning processes increases the effectiveness of urban responses to the climate challenge. Achieving such integration involves sharing information and knowledge across different sectors and stakeholders, and promoting the inclusion of climate mitigation and adaptation goals, policies and initiatives into other relevant plans and policies.
- 24. Figure 1 reflects the importance of visioning, mustering political support, communicating, involving the public, and engaging stakeholders during the early stages of the planning process. After this basic platform for action is established, more focused mitigation and adaptation planning can commence. These processes can be intertwined, but are not identical. The Figure summarizes these processes, highlighting their common components and key differences, which are further discussed below.

# 3.1 Baseline inventories and assessments

25. Effective mitigation and adaptation planning should be *evidence-based*: grounded in a scientific understanding of climate change when possible (given the constraints faced by cities in obtaining relevant data), and informed by local knowledge. In terms of mitigation, there is now an agreement on the metric to be used to

# Figure 1: Typical climate action planning process

# Establish the overall vision for climate change mitigation and adaptation

Cities should consider the challenges faced and their capacity to address them. This will lay the foundation and determine the scope of climate action plans.

# Secure political commitments to achieve their vision

Climate action planning needs strong leadership to succeed. In many cities a strong endorsement from the mayor and senior leadership is essential to catalysing action.

# Develop a communications plan

Cities should have a coordinated strategy to engage with the target audience. A good communication plan includes outreach and participation processes during the planning stage, the release of the plan as well as the subsequent implementation of the plan.

# Secure multi-stakeholder, cross-sectoral support

Effective planning requires a comprehensive and integrated cross-sectoral approach with actors working across administrative boundaries. Some cities may find support from key private sector and non-governmental stakeholders can be vital.

# Mitigation

# Develop citywide greenhouse gas inventories

Greenhouse gas inventories determine baseline emissions, and identify key emission sources and reduction opportunities. While complying with local requirements, in order to ensure international compatibility cities are encouraged to use an international reporting methodology based on the Greenhouse Gas Protocol standards, e.g., the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories, particularly for cities that wish to comply with the Compact of Mayors.

### **Conduct scenario analysis**

Cities conduct scenario analysis to identify possible future emission trends based on di-fferent socio-economic growth and climate mitigation assumptions or scenarios. The analysis results serve the basis for target setting and identifying actions.

# Assess the local capacity to reduce emissions

Cities assess their capacity to take action and consider how to leverage other existing policies, plans, and actions such as those related to energy, environment, and urban management. This may include policies and programmes that are complimentary to mitigation efforts despite being focused on other issues.

# Set greenhouse gas emission reduction goals

Based on the scenario analysis and capacity assessment results, cities sets their short-, medium-, and long-term citywide emission reduction goals, and secure political commitment to the goals. Cities are encouraged to refer to the Greenhouse Gas Protocol Mitigation Goal Standard when designing their goals in order to ensure international compatibility.

# Adaptation

# Conduct a climate change vulnerability assessment

Cities conduct vulnerability assessments to identify current and future risks/impacts to people, community assets, and community functions. A comprehensive vulnerability assessments address physical, environmental, economic, social vulnerability, and focus on those most vulnerable to impacts.

# Conduct scenario analysis

Scenario analysis identifies risk levels based on different scenarios of climate impacts, which will inform options to adapt to the potential climate impacts.

# Assess the local capacity to address climate impacts

Cities assess their local capacity to adapt to the climate change impacts. The analysis begins with an inventory of existing community policies, programmes, assets, capacities, and wisdom. This may include policies and programmes that are complimentary to adaptation efforts despite being focused on other issues.

### Set adaptation goals

Based on the scenario analysis and capacity assessment results, cities set their short-, medium-, and long-term adaptation goals, and secure political commitment to them. The goals should comprehensively cover the physical, environmental, economic, and social impacts of climate change.

### Identify and prioritize actions

Effective plans identify comprehensive and integrated actions spanning multiple sectors of urban development and involve action at multiple different scales. Actions are prioritized based on a transparent multi-criteria assessment in coordination with other city planning efforts and institutionalized within all municipal processes and functions.

# **Develop a plan for implementation**

Action plans should include sufficient detail and clearly assign responsibilities so that they are actionable and can be implemented by the appropriate agencies and organizations to achieve the desired goals.

measure emissions (tonnes of carbon dioxide equivalent). While complying with local requirements, cities are encouraged to use an international reporting methodology based on the Greenhouse Gas Protocol standard, e.g., the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories, particularly for cities that wish to comply with the Compact of Mayors. Such protocols offer guidance on inventorying emissions both within city boundaries as well as outside the boundary as a result of city activities. These reporting protocols enable the climate benefits of different strategies to be compared in a *transparent* manner, in a way that permits the contribution of cities globally to be assessed, and paving the way for alignment with national level reporting.

- 26. In contrast, while efforts are under way for assessing baseline conditions regarding adaptation to climate change and climate resilience, at present metrics for such have yet to be widely accepted and agreed upon. Moreover, global projections of climate impacts still contain uncertainties and have yet to be universally downscaled to the city scale. Meanwhile localized risk analyses such as flood risk mapping are not always available, and may well fail to consider the projected future impacts of climate change even when they are at hand. For these reasons cities may bring local and traditional knowledge about existing hazards, vulnerabilities and sensitivities together with climate impact projections to provide a basis for adaptation planning which may form part of a broader multi-hazard risk analysis.
- 27. Both emissions inventories and vulnerability assessments may require significant amounts of local capacities and resources. City governments should make effective use of all existing data, tools and programmes readily at hand to support this work. When faced with limited resources, they should seek to balance the importance of accurate baselines with the need to reserve adequate resources to develop and implement adaptation and mitigation actions later in the process.
- 28. Another kind of assessment, focused on local capacity for action, can also provide critical input to climate action planning. This assessment involves identifying existing public policies, initiatives and actors involved

in addressing climate change. The objective is to assess current activities and their effectiveness, as well as to consider the requirements of city governments and their partners in relation to other levels of government. This exercise may identify initiatives that formally target climate change, but it may also turn up additional actions and policies that were not designed to respond to climate change but which nonetheless exert an impact on mitigation or adaptation. Understanding what works and where barriers have been encountered is critical in designing city climate action plans that are *comprehensive*, *relevant* and *actionable*.

# 3.2 Goals, synergies, and integration

29. City climate action planning involves setting *ambitious* goals for mitigation and adaptation (Figure 1), taking into account targets and commitments by regional, provincial and national governments. It also reflects broader goals for the future of the city. By developing synergies between various goals, planning for climate action can help achieve other *relevant* local objectives in areas such as health, safety, food security, housing, biodiversity, air quality, land use, access to basic urban services, poverty reduction, local economic development and job creation. In many cities promoting these co-benefits may be central to maintaining political support for climate action.

# 3.3 On-going planning and evaluation

- 30. Climate action planning is not a one-off exercise but an on-going process. Plans should contain a programme for monitoring, reporting, and evaluation that is *transparent and verifiable*. Effective monitoring includes the tracking of process (are agencies doing what they agreed to do?), as well as outcomes (are actions achieving desired climate targets and other community goals?).
- 31. For *transparent and verifiable* reporting, city governments should make information available to all concerned stakeholders and report to appropriate platforms. Such platforms include the carbon*n* Climate Registry (cCR) and CDP (both utilized by the Compact



In 2008, Oslo City Council approved a resolution to implement a Ten Point Plan for reducing greenhouse gas emissions. One of the items in this Plan, under the heading "Electric Vehicles", is a request for the City Government to reserve parking spaces for electric vehicles and to establish charging stations. Earlier, in a baseline study, Oslo had determined that the transportation sector was responsible for 60 per cent of the city's emissions; hence a focus on action in this area. In 2011, Oslo further developed its Ten Point Plan into an "Action Plan for Environment and Climate Change (2012-2016)". This new Plan included the action, "establish a minimum of 100 public charging stations for electric cars per year, and provide support to private operators".

That same year (2011), Oslo laid out a series of complementary actions to encourage residents to purchase and use electric vehicles; these appear

in the long-term "Urban Ecology Programme (2011-2026)". Actions that the City has begun to implement include providing electric vehicles with free parking, free access to toll roads, permission to use bus and taxi lanes, and free transport on ferries, as well as levying no taxes or fees on those low-emissions vehicles.

At present, Oslo reportedly has the world's highest proportion of electric vehicles per inhabitant. In September 2013, Oslo and its surrounding suburbs counted 7526 electric vehicles; that number roughly doubled in 2014. This rise in the use of electric vehicles coincides with a decline in the City's greenhouse gas emissions. Between 2009 and 2013 the city reduced its annual per capita emissions by nine per cent – from 655 kg CO<sub>2</sub> per capita in 2009, to 598 kg CO<sub>2</sub> in 2013.

of Mayors), observatories associated with the Covenant of Mayors (now becoming a global initiative), the UNFCCC-sponsored Non-State Actor Zone for Climate Action (NAZCA, for either direct or indirect reporting), and mechanisms for monitoring the Sendai Framework for Disaster Risk Reduction; they also include regional and national platforms, and city government open data portals.

32. An evaluation programme should assess successes and failures of implementation, and identify next

steps. It should include deadlines for updating the plan based on progress to date, changing circumstances and lessons learned, and the involvement of stakeholders. Monitoring and evaluation should lead to updated strategies and actions.

33. Capturing community feedback through public engagement in monitoring, reporting and evaluation will ensure that evolving local knowledge is effectively integrated into the planning process in a *fair* manner.

# 4 STRATEGIES AND ACTIONS

34. After setting goals, defining and prioritizing actions, and assembling them into a coherent plan with a strategic vision are critical steps in *actionable* and successful city climate action planning (Figure 1).

# 4.1 Defining actions

- 35. Actions' are the basic building block of climate action plans. To achieve *ambitious* goals, actions may well span multiple sectors of urban development, and involve action at different scales. Examples of such sectoral and cross-sectoral actions are shown in Figure 2.
- 36. Beyond addressing climate change, climate actions can be *relevant* for many other local development priorities. Involving key stakeholders early on in identifying synergies and co-benefits will help to design actions that maximize local benefits while reflecting the principle of fairness.

- 37. In climate plans, the descriptions of actions should include sufficient detail so that they are *actionable* and can be implemented by the appropriate agencies and organizations to achieve the desired goals. They should be developed according to the *Guiding Principles* of good climate action planning (See p.4), and should also reflect the following characteristics:
- **Specificity**: actions should be specific enough that they can be readily implemented and measured.
- Cost, benefits, and financing: to the degree possible, actions should contain estimates of net costs and benefits (both to the climate and otherwise), their distribution, and potential sources of financial support.
- Co-benefits, synergies and trade-offs: actions should consider potential co-benefits, synergies and trade-offs regarding local development priorities, and adaptation and mitigation objectives

- Timelines and prioritization: actions should be prioritized and contain clear timelines for implementation.
- Assignment of responsibilities: actions should be assigned to specific agencies, organizations, or stakeholders so that those entities can be held accountable for implementation.

Figure 2: Examples of climate actions for cities



# **SECTORAL**



Building:
Reduction of energy
and water
consumption in
new and existing
homes, businesses
and public
buildings;
incentives for green
building; resilience
to adverse weather
(such as heat and
flooding).



Energy:
Demand
management
(domestic and
business);
renewable energy
generation;
distributed energy
systems; resilience
of infrastructure;
emergency plans
for supply
disruption.



Transport:
Options for mass
transit; cleaner
fuels;
active/non-motorize
d transport
(walking and
bicycling); climate
proofing transit
infrastructure;
congestion pricing
and other forms of
demand
management for
private vehicles.



Waste: Reducing, reusing and recycling waste; waste to energy; resilience of landfills to natural disasters.



Water:
Demand
management
(domestic and
business); water
reuse and recycling;
resilience of
infrastructure;
energy efficient
water treatment;
emergency plans
for supply
disruption.



Health:
Air quality
improvement
measures, including
reductions of short
lived climate
pollutants; heat
wave (or cold snap)
health action plans;
prevention of
spread of diseases
affected by climate
change.

# CROSS SECTORAL



### **Land Use:**

Compact, transit-oriented, mixed-use development; regulations based on flood risk mapping that reflects both current risk plus the projected impacts of climate change.



# **Business and livelihoods:**

Incentives and training to encourage green economy industries; green procurement policies.



# **Energy efficiency:**

Applies to various sectors listed above, including buildings and basic urban services.



# Consumption:

Incentives for more sustainable packaging; addressing emissions linked to city supply chains including food, cement and construction materials; green procurement; addressing vulnerability of key supply chains.



# **Natural environment:**

Solutions that involve protecting, restoring and enhancing green and blue infrastructure; ecosystem based approaches to adaptation; managing the impact of climate change on native and invasive species.



### Natural hazards:

Disaster-resilient public and private investments in various sectors, and other priorities applicable at the city-level that are identified in the Sendai Framework for Disaster Risk Reduction (2015-2030).



In 2011, Xinyu City requested the support of the Cities Development Initiative for Asia (CDIA) to identify financing options for a project to connect nine natural lakes. Primarily officials originally conceived of this project as a landscaping initiative; however, during the prefeasibility phase it evolved into a climate change adaptation project. Under the modified design, the proposed flood management infrastructure serves multiple functions, including flood control through structural and non-structural measures, storm water quality management, and landscaping.

While flood prevention was an element of the City's 12th Five Year Plan (2011-2015), this project was not

included as such in that Plan. The new elements and innovative approaches that were developed under this project are expected to be included in the City's forthcoming 13th Five Year Plan (2016-2020).

In March 2015, the municipality signed a Memorandum of Understanding with the Asian Development Bank for an intended loan with private sector involvement for this innovative flood control and environmental improvement project. A financial institution such as the Asian Development Bank would be able to count at least a portion of this project (as redesigned) as an investment in climate change adaptation.

38. At the same time, planned actions should not be defined so rigidly as to cut short an exploration of various means to meet given objectives. Rather, planners should provide for a robust prefeasibility phase of project design which considers different options, including innovative practices. For example, decision-makers should not automatically embrace conventional engineering and design approaches. They should seek out and consider traditional as well as innovative design solutions, including ecosystem-based approaches, particularly those that have

worked in similar circumstances elsewhere and that may help cities achieve more **ambitious** outcomes. Indeed, cities may play an active role in the process of innovation: developing and deploying new, better, and more economically viable climate-friendly technology solutions.

39. Actions may focus upon a primary actor such as a city government, with specific responsibilities clearly attributed to different organizational units. But they will also include actions to be undertaken (either individually or through

partnerships) by others, including other public bodies (e.g., utilities or service providers, other local authorities) as well as actors from the private sector, the donor community, civil society, academia, and individual households.

- 40. Action at the city level may be supported by regional, provincial, and national governments, as well as by international organisations and city networks. Moreover, planners should consider actions that involve coordination between actors. Such options may include coordinated action between different city agencies and other urban and regional partners in areas such as integrating transportation and land-use planning, reducing the vulnerability of critical infrastructure, and adopting new practices such as the use of ecosystem services for flood management. Such coordination can help maximize the potential synergies that can result from climate action.
- 41. An effective plan will reflect the various modes of governing that cities and their partners can employ when taking climate action (see Figure 3). Depending on the mandates and level of autonomy of the cities involved, they will reflect various roles ranging from direct service providers, regulators, and purchasers of goods and services, to influencers of other actors, and providers of information to residents. There are also important roles for private and civil society actors in taking action at the community and city level to respond to climate change.

# 4.2 Selecting actions / Beginning to shape a Strategy

- 42. Many mitigation and adaptation options can help address climate change, but no action is sufficient by itself. City governments and their partners therefore must develop a strategic approach to selecting and prioritizing action over the short, medium and long term.
- 43. To rank and select priority actions, decision-makers may find it helpful to articulate a set of selection criteria that reflect both climate and other developmental concerns, and then consider how alternative actions may or may not meet those criteria. Economic efficiency, the cri-

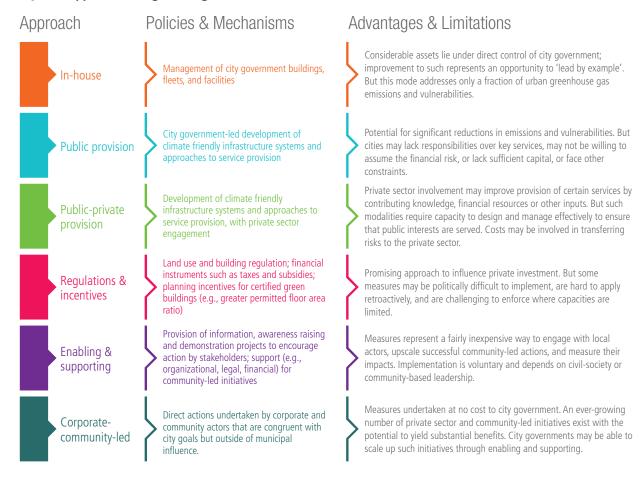
terion that underlies basic cost-benefit analysis, should generally be considered only alongside other goals and criteria when prioritizing actions – particularly in circumstances where the full value of the assets or even the lives of the most vulnerable may not be duly captured and accounted for in economic analyses. This can create decision-making that is *fair* and *evidence-based*.

- 44. A multi-criteria decision analysis can also show in a *transparent and verifiable* way that certain actions may contribute to the realization of more than one goal. For example, a number of actions may both reduce greenhouse gas emissions and improve local air quality. Conversely, such an exercise may also help decision-makers realize that certain actions involve trade-offs: while they may help a city advance towards one goal, they may slow or even thwart efforts to achieve another. Examples of such actions include adaptive measures such as air conditioning, whereby extensive implementation would result in high levels of greenhouse gas emissions. Careful analysis can also help planners reject actions that may lock the city in to unsustainable pathways.
- 45. In the end, however, the selection of priorities is not a purely technical exercise. To be *fair*, *comprehensive*, and *relevant* it should also reflect, to the extent possible, the advice and approval of informed stakeholders.

# 4.3 Programming climate actions over time

46. In the short term, decision-makers may wish to give extra weight to certain actions that will produce early benefits and/or return on investment and thus build momentum (quick wins). Prioritizing no regret or low regret actions can yield considerable long-term benefits at minimal costs if undertaken proactively. Ensuring that decisions that meet current priorities do not 'lock-in' future greenhouse gas emissions or forms of vulnerability should also be prioritized. It is also imperative that climate action planning is **fair** in terms of accounting for existing inequalities and vulnerabilities, as well as the ways in which it distributes the costs and benefits of action between different social groups and geographical areas.

Figure 3: Approaches to governing climate action in cities



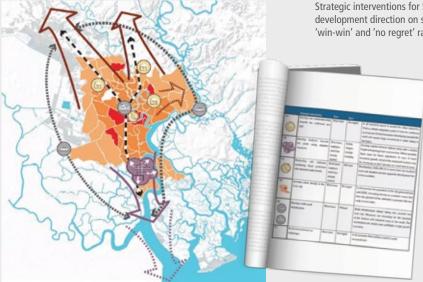
47. When programming actions in the short- but also the medium- and long-term, cities should take a *comprehensive and integrated* approach. To this end they should create flexible pathways to action. Cities may initially identify multiple options that could help them achieve their climate goals. The choice of options, and when and how to implement them, can then respond to new information and conditions, such as changing national energy policies and shifting technology costs. To prepare for multiple future scenarios, the approximate lead times and future decision points can be identified. Initial vulnerability assessments and greenhouse gas inventories will help identify these thresholds and trigger points for action. Combined with *transparent and verifiable* monitoring and review, such provisions ensure

that climate plans continually reflect the best choices for the city's needs.

- 48. Planners should also phase and sequence actions in a way that maximizes net benefits, as well as potential synergies between climate actions and other local development initiatives.
- 49. Prioritized actions should be grouped according to *strategic area*. These may correspond to sectors (see Figure 2), or particular geographical areas of urban development or regeneration. The identification of a handful of strategic pillars for action will facilitate effective management, as well as communication of climate action planning.

# Case Study 5:

# Adaptation planning in Ho Chi Minh City, Vietnam (Population: 7.98 million, 2014)



The Ho Chi Minh City Climate Adaptation Strategy calls for new residential development to be channelled away from the harbour, towards less vulnerable areas to the northwest and east.

Low-lying Ho Chi Minh City is flood-prone. This risk is expected to increase over the coming decades as the city grows, as sea levels rise, and as the alluvial soil upon which this deltaic city is constructed subsides. For such reasons the OECD ranked Ho Chi Minh City as one of the top 20 port cities "with high exposure and vulnerability to climate extremes" (OECD 2008).

Ho Chi Minh City reached out to another port city, Rotterdam, for expertise as it struggled to frame an effective adaptation strategy. Rotterdam and a Dutch consortium assisted through the "Connecting Delta Cities" initiative and the C40 network. Planners submitted their proposals to the People's Committee in April 2013, which approved the resulting Climate Adaptation Strategy the following month.

Based on a careful analysis of soil and water conditions, the HCMC Climate Adaptation Strategy calls for the City to fundamentally change its course: direct new urban development towards the northwest and east, increase densities in the inner city, avoid encroachment on waterways. To achieve its ends, the Strategy embraces a number of innovative or noteworthy features. For example, it categorizes

Strategic interventions for Strategic Direction 1, "Base development direction on soil and water conditions", with 'win-win' and 'no regret' ranking of prioritized actions.

- a number of planned actions as either 'noregret', 'win-win', or 'flexible', as follows:
- ✓ 'No regret' actions are "measures that would be justified under all plausible future scenarios", as well as "measures where costs are relatively low in comparison with the

possible benefits". An example is "Develop new residential areas towards the northwest and east" – areas deemed less vulnerable to the impacts of climate change.

- ✓ 'Win-win' actions are "measures that have desired results regarding climate adaptation, but also have benefits in other fields, e.g., economic benefits". A sample 'win-win' measure planned: "Redevelop old harbours, combining flood protection with attractive waterfronts".
- ✓ Actions that 'increase flexibility' are "measures that are reversible or can later be adjusted to keep the option open to adapt when necessary". To determine to what extent a given strategy is flexible, planners analysed its 'adaptation pathway'. As the Plan explains: "[A given] pathway describes consecutive measures, which can be implemented when a certain impact level is reached [i.e., a 'trigger point']. It shows the options that exist. For instance, putting sand bags in front of the house is effective until a certain flooding depth [is reached]. When the flooding depth becomes deeper due to sea level rise, other measures should be taken, e.g., the construction of a barrier to prevent flooding". Along those lines, the Strategy considers construction of a tidal barrier as only necessary "in case of extreme sea level rise".

# 4.4 The resulting climate action plan

50. City climate action planning can either yield standalone plans or else mainstream climate actions into on-going planning processes. A typical stand-alone plan includes many or all of the contents shown in Figure 4, elements of which can also be usefully incorporated into other plans and planning processes in order to properly integrate climate considerations.

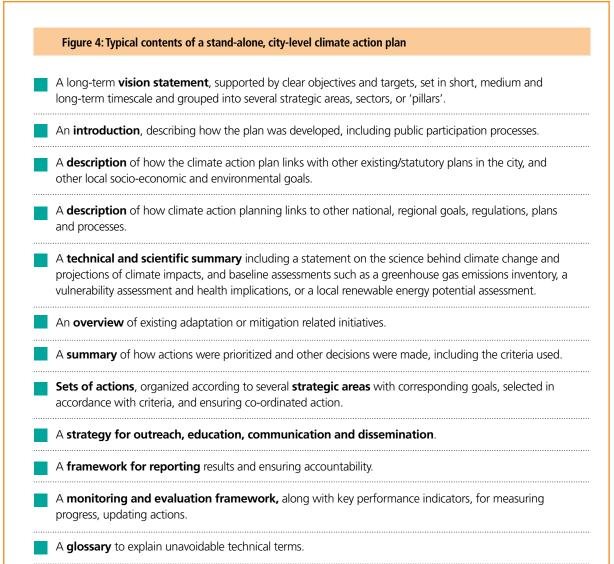
# 4.5 Implementing and financing city climate action plans

- 51. As with other steps of the process, implementing climate action plans will require the development of capacity amongst city governments and their partners, as well as the mobilization of additional financial resources.
- 52. Resourcing climate actions may require, in addition to conventional sources, climate-specific forms of finance. Including city priorities in national climate initiatives such as National Adaptation Plans (NAPs), Nation-

- ally Appropriate Mitigation Actions (NAMAs), and Low Emission Development Strategies (LEDS) may help to unlock climate financing available at the national, regional, or global level. International sources of climate finance for city climate action include international financial institutions, donor organisations, and philanthropic trusts. In addition, working in partnership with private sector actors may be another source of accessing resources to implement climate action plans. For plans to be *actionable*, city governments should consider the variety of forms of financing available as they prioritize and then begin to develop and implement their actions.
- 53. A plan is a living document. Regularly monitoring progress and periodically updating and improving plans helps cities to reflect the latest climate science, technological developments, financial situation and development capacities. It also enables the on-going engagement with stakeholders and communities, ensuring that climate action planning continues to meet the wider development goals of the city.



Expert Group Meeting on Guiding Principles for City Climate Action Planning, Oslo, March 2015 © UN-Habitat



Simple **graphics** used throughout to illuminate key findings, goals, and strategies.

# 5 CONCLUSION

54. Climate action planning is increasingly mandated for city governments and the communities and partners with which they work. International organisations as well as regional, provincial and national governments are increasingly recognizing the importance of city-level climate action planning for meeting this global challenge. At the same time, as cities have responded to this challenge they have begun to realize the additional benefits of taking climate change action. In addition to yielding climate benefits, mitigation and adaptation actions can enable cities to meet their development priorities,

address social challenges and local environmental concerns, and respond to other international agendas, such as those captured in the Sustainable Development Goals.

55. The *Guiding Principles* presented here offer guidance with which cities can develop plans, strategies and actions that meet their own needs and address their objectives for sustainable urban development. It is our hope that these *Guiding Principles* will help cities and their supporting partners in their efforts to tackle the climate challenge in a comprehensive way.

# **ANNEX: OTHER RESOURCES**

When undertaking city-level climate action planning, officials, planners and others may wish to use the present *Guiding Principles* document together with more detailed 'how to' manuals or other references. For a dedicated, searchable website that provides links to such materials, please go to:

www.unhabitat.org/cop21-guiding-principlesfor-city-climate-action-planning-annex/

These supplemental resources materials, available in several languages, are of the following general types:

- Decision support tools, sourcebooks, handbooks, and protocols on city-level climate change planning. These materials provide practical guidance and support to city-level officials, planners and stakeholders undertaking climate action planning.
- Enabling frameworks for subnational climate action / vertical integration. Cities and local authorities can work most effectively when national-level policy frameworks empower and enable local action. Such enabling frameworks are a key element in helping to bring to scale city-level climate action.

The materials provided here seek to help national policy-makers develop such frameworks, and empower climate action at the subnational level.

- Research. The present document is undergirded by comparative research on how cities and towns are responding to the challenge of climate change in the 21st century. The materials included here provide much of that underpinning.
- 4. Internet-based knowledge platforms. Several partners to the present initiative also maintain knowledge platforms with relevant resources. Brief descriptions and links are provided here.
- 5. Climate change strategies and plans in specific cities and subnational authorities, with related articles. Finally, during the process of developing the present document partners reviewed a number of existing city-level climate action plans to extract lessons and promising practices. This section provides a sampling of such climate action plans, along with several academic articles that delve into and help to illuminate specific plans.

For each item under those general categories, the webpage provides a brief description and a link to a partner's website where it can be downloaded.

# **Endorsing Partners**



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# Other resources:

www.unhabitat.org/cop21-guiding-principles-for-city-climate-action-planning-annex/

www.unhabitat.org/urban-initiatives/ initiatives-programmes/cities-and-climate-change-initiative/



www.unhabitat.org