

**C4O**  
CITIES

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# **Climate Action Planning Framework**



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## 00

## Context

In 2016, nations ratified the Paris Agreement, which commits signatories to holding the increase in the global average temperature to well below 2 degrees Celsius above pre-industrial levels,<sup>1</sup> and to pursue efforts to limit the temperature rise to 1.5 degrees Celsius. Through the Paris Agreement, signatories also commit to strengthening the ability of countries to deal with the impacts of climate change through adaptation and increased resilience. Delivering on the Paris Agreement presents a unique opportunity to create a more inclusive urban society, with new protections, empowerment and involvement of the groups that have been historically marginalised by the fossil fuel economy.

Deadline 2020, published by C40 and Arup that same year, shows that the world is rapidly approaching the limit of permissible carbon emissions (known as the 'global carbon budget'<sup>2</sup>) that will keep the world within the 1.5 degrees Celsius limit. Seventy per cent of C40 cities are already experiencing the effects of climate change, and impacts such as droughts, floods, storms, food insecurity, climate migrants and the spread of infectious diseases are projected to increase in frequency and severity over the years.<sup>3</sup> It is time for climate action planning to shift to new levels of ambition, driving rapid and systemic change on the ground.

C40 cities urgently need to position themselves on an emissions reduction (or peaking) trajectory that will achieve an emissions neutral (or 'net

zero emissions') target in all cities by 2050. Cities taking transformational action – to ensure that whole systems are decarbonised and resilient to climate change – between now and 2020 will make or break this goal.<sup>4</sup> Climate action plans need to prioritise the acceleration of evidence-based transformational actions to achieve emissions neutral and climate resilient cities.

With urgent action needed, the C40 Steering Committee<sup>5</sup> voted to revise its participation standards for member cities. By the end of 2020, each C40 city should have in place a climate action plan that aligns with the objective of the Paris Agreement to limit global warming to 1.5 degrees Celsius. Only through ambitious and pragmatic planning today will cities move rapidly towards the 2050 outcomes.

C40 is therefore rolling out an extensive programme of support to help cities align their climate action plans with objectives of the Paris Agreement. Our support will comprise a Climate Action Planning Framework (CAP Framework) and technical assistance programme, including a range of resources, guidance, tools and peer-to-peer knowledge sharing to support cities in implementing the Paris Agreement and delivering the benefits of climate action to communities.

For further information on the CAP Framework please contact your Regional Head of Climate Action Planning or Julia Lipton, Programme Manager, Climate Action Plans ([jlipton@c40.org](mailto:jlipton@c40.org)).

1. Throughout this document, 'pre-industrial temperature levels' are taken as at 1870, in line with the Intergovernmental Panel on Climate Change (IPCC).

2. The carbon budget is the cumulative greenhouse gas (GHG) emissions that correspond to limiting warming to below 1.5 degrees Celsius. Further information is available at: [www.c40.org/other/deadline\\_2020](http://www.c40.org/other/deadline_2020)

3. Climate Action in Megacities 3.0. See <http://cam3.c40.org/#/main/home>

4. Transformational actions' relate to decarbonising the electricity grid, optimising energy use in buildings, enabling next-generation mobility, improving waste management. See *Focused Acceleration: A strategic approach to climate action in cities to 2030*: [www.c40.org/researches/mckinsey-center-for-business-and-environment](http://www.c40.org/researches/mckinsey-center-for-business-and-environment)

5. C40 Steering Committee. See [www.c40.org/steering\\_committees](http://www.c40.org/steering_committees)

## 01

# Climate action planning aligned with the Paris Agreement

**A climate action plan is a strategic document (or series of plans and documents) that demonstrates how a city will deliver on its commitment to address climate change. In the context of the Paris Agreement, C40 defines a climate action plan as outlined below.**

## A climate action plan will:



1 ♦ Develop a pathway to deliver an emissions neutral city by 2050 at the latest, and set an ambitious<sup>6</sup> interim target and/or carbon budget;



2 ♦ Demonstrate how the city will adapt and improve its resilience to the climate hazards that may impact the city now and in future climate change scenarios;



3 ♦ Outline the social, environmental and economic benefits expected from implementing the plan, and improve the equitable distribution of these benefits to the city's population;



4 ♦ Detail the city's governance, powers<sup>7</sup> and the partners who need to be engaged in order to accelerate the delivery of the city's mitigation targets and resilience goals.

## The city will do this by:

- ♦ Considering adaptation & mitigation in an integrated way, identifying interdependencies to maximise efficiencies and minimise investment risk;
- ♦ Setting an evidence-based, inclusive<sup>8</sup> and deliverable plan for achieving transformational mitigation and adaptation, centred on an understanding of the city's powers and wider context;
- ♦ Establishing a transparent process to monitor delivery, communicate progress and update climate action planning in line with governance and reporting systems.

Although there is no specified format for the plan, each of the above components must be included in a city's climate action planning documentation. The plan may comprise a single, all-encompassing document or a series of complementary plans and documents; it may

include existing plans as well as new ones; it may be entirely public-facing, or only partially. While each city is likely to take a different approach, ambition, acceleration and delivery will form core components of the climate action planning process.

6. 'Ambitious' is defined as resulting in a steep/steady decline or early/late peak depending on a city's GHG per capita and gross domestic product (GDP) per capita.

7. 'Powers' means the degree of control or influence that mayors (or other elected city leaders) exert over assets (e.g. buses, cycle lanes) and functions (e.g. economic development, land-use planning) across all city sectors.

8. An 'inclusive' plan ensures that diverse stakeholders are involved in the planning process, that policy design and delivery is fair and accessible, and that the benefits of action are distributed equitably.

## 02

## Key components of climate action planning



### 1. Develop a pathway to accelerate the delivery of an emissions neutral city by 2050, with an ambitious interim target

To be consistent with the objectives of the Paris Agreement, cities need to reach emissions neutrality by 2050 at the latest, assuming a trajectory consistent with a carbon budget based on the contraction and convergence<sup>9</sup> approach. The carbon target/budget should be based on the city's emissions inventory and modelling, outlining an accelerated reduction (decline or peaking) to total emissions neutrality through to 2050.<sup>10</sup> An 'emissions neutral' city means:

- ◆ Net zero GHG emissions from fuel use in buildings, transport and industry (scope 1);
- ◆ Net zero GHG emissions from use of grid-supplied energy (scope 2);
- ◆ Net zero GHG emissions from the treatment of waste generated within the city boundary (scopes 1 and 3);
- ◆ Whenever possible, minimised GHG emissions related to emissions occurring outside the city boundary as a result of goods and services consumed by city residents, businesses and government (scope 3)

In order to meet the huge challenge of achieving emissions neutrality in all of these sectors, the plan should set out a methodology for prioritising and accelerating actions that will deliver transformational action. Engaging other stakeholders (government, business and civil society) in the development of transformational action plans is important to ensure fairness and accessibility in the design and delivery of urban climate policies, programmes and services. This will also ensure that the wider benefits of climate action are distributed as equitably as possible. Transformational action needs to be prioritised for immediate implementation on approval of the plan.

An emissions neutral city will need to measure any residual emissions<sup>11</sup> to 2050. The quantity of residual emissions is likely to reduce over time, as the city transforms and as new technologies become available. C40 is supporting New York City in establishing a carbon neutrality protocol for cities in partnership with other C40 members, to inform best practice methods for measuring, tracking and reducing residual emissions.

9. The contraction and convergence approach developed by the Global Commons Institute assumes that, by a certain date, a city's per capita emissions will converge to be equal to emissions per capita for the rest of the world. It is important that each city achieves net zero emissions by 2050 following the trajectory presented for its city typology in *Deadline 2020* (figure 8 and table 1, p. 30).

10. The emissions inventory should quantify the emissions (by source) that are significant in the city. In most cities, this will include, at a minimum, stationary energy, transport and waste. In some cities, agriculture, forestry and other land use (AFOLU), or industrial process and product use (IPPU) may be significant too.

11. 'Residual emissions' are the emissions remaining after all technically and economically feasible opportunities to reduce emissions in all covered scopes and sectors have been implemented.



12. 'RCP 4.5' is one of four representative concentration pathways (RCPs) to 2100, as defined by the IPCC (Fifth Assessment Report, 2014). See [www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5\\_SYR\\_FINAL\\_SPM.pdf](http://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf)

13. Sustainable Development Goals. See: <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

14. Urban Climate Action Impacts Framework. See [https://c40-production-images.s3.amazonaws.com/other\\_uploads/images/1605\\_C40\\_UCAIF\\_report\\_V3.original.pdf?1518203136](https://c40-production-images.s3.amazonaws.com/other_uploads/images/1605_C40_UCAIF_report_V3.original.pdf?1518203136)

15. 'Institutions' includes departments and agencies.



## 2. Demonstrate how the city will adapt and improve its resilience to the climate hazards that may impact the city now and in future climate change scenarios

The plan will set out the city's actions to prepare for, adapt and respond to, the climate hazards which affect the city today and the hazards that are expected to become more frequent or severe based on scientific projections of future climate change scenarios. Risk scenarios should be based on standard local methodologies where available, or on an intermediate emissions scenario (RCP 4.5).<sup>12</sup> Actions will be based on a comprehensive climate risk assessment of the changing frequency, severity and scale of impact of all relevant city climate hazards.



## 3. Outline the social, environmental and economic benefits expected from implementing the plan, and improve the equitable distribution of these benefits to the city's population

The plan will articulate (quantitatively or qualitatively) the benefits of climate action relevant to the city such as reducing poverty and improving access to energy, health, air quality, job opportunities, cost savings, and economic competitiveness. The Sustainable Development Goals provide useful indicators for cities in this respect.<sup>13</sup> C40's Urban Climate Action Impacts Framework has developed benefits categories to support this process.<sup>14</sup> The plan should demonstrate that the proposed suite of actions will lead to more accessible and equitable distribution of social, environmental and economic benefits to communities working and living in cities.



## 4. Outline the city's governance and powers, and the partners who need to be engaged in order to accelerate the delivery of the city's mitigation targets and resilience goals

Successful delivery of any city plan depends on the context and the prevailing governance structures within and outside the city, and therefore relies on the powers held by the mayor (or other elected city leader) and local government institutions<sup>15</sup>. To align with the Paris Agreement, the plan will consider relevant commitments at the national or sub-national (region, state, county, provincial) levels, and commitments led by non-governmental bodies and business. In prioritising the mitigation and adaptation opportunities with the greatest potential, the plan will identify where collaboration and advocacy will be needed in order to accelerate the delivery of transformational actions.



**The city will do this by:****◆ Considering adaptation and mitigation in an integrated way, identifying interdependencies to maximise efficiencies and minimise investment risk**

Climate change mitigation and adaptation have traditionally been approached as two distinct agendas by governments, businesses and civil society. As the world transitions towards the ambitious objectives of the Paris Agreement, city resources and budgets need to be used strategically to achieve both agendas together, thereby maximising efficiencies and minimising investment risk. The plan will identify synergies between mitigation and adaptation interventions so that interactions between actions can be actively leveraged.

**◆ Setting an evidence-based, inclusive and deliverable plan for achieving mitigation and adaptation, centred on an understanding of the city's powers and wider context**

Actions should be developed with reference to the evidence base, including an emissions inventory, scenario modelling and the climate risk assessment. Actions should be prioritised based on the greatest impact, inclusive benefits and on their ability to fulfil city objectives. To be deliverable, actions should be developed with the participation of the community and prospective partners, and they should provide short-term detail and long-term direction as to how they will be delivered. The plan should show that the phasing of mitigation actions will lead to the verifiable cuts in emissions that are required to meet stated milestones on the way to emissions neutrality, and that adaptation actions will be sufficient to reduce local climate risk and increase the city's resilience over time. Cities should determine the funding and human resources needed for implementing mitigation and adaptation actions.



♦ **Establishing a transparent process to evaluate delivery, communicate progress and update climate action planning in line with governance and reporting systems**

Long-term commitment to the plan will be demonstrated through a transparent process of monitoring, progress reporting and assessment of impacts. Revisions to the plan should take place in line with existing governance and reporting systems, and should be informed by the evaluation of impacts to ensure that the city is moving towards both the interim and 2050 targets. Reporting to a common global platform will help cities to communicate their contribution to achieving the Paris Agreement.

The effectiveness and reach of the plan will be boosted by a comprehensive communications, outreach and advocacy programme that targets stakeholders within and outside the city government via different media to ensure that there is widespread understanding, participation and support. Plans that follow the climate action planning principles set out in this document will provide communities and businesses with confidence in the transformational change envisioned, the benefits that will ensue and their role in delivering immediate action.



## 03

## The C40 Climate Action Planning Framework

The CAP Framework sets out the essential components of a climate action plan to deliver low-carbon resilient development consistent with the objectives of the Paris Agreement. The CAP Framework was developed in collaboration with the cities that participated in C40's Climate Action Planning Pilot Programme. The iterative and collaborative development process ran throughout 2017-18 at the same time as the cities in the pilot programme were updating their climate action plans. The CAP Framework has since been peer reviewed by key external organisations dedicated to climate change, adaptation and achieving the objectives of the Paris Agreement.

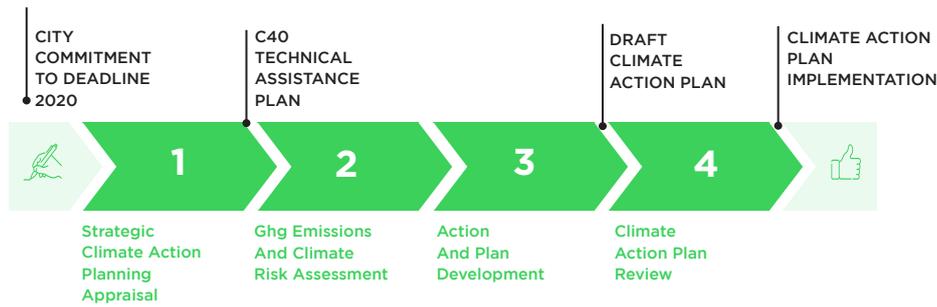
The CAP Framework outlines the components of a plan in greater detail and according to three pillars:

**Pillar 1:** Commitment and collaboration focuses on the governance and coordination of the plan (including its relationships with national policy and city powers) and the need for community and business engagement, and communications, throughout the plan's development and implementation.

**Pillar 2:** Challenges and opportunities considers the evidence base and existing city conditions, including: baseline emissions, 2050 emissions trajectory, climate risk and socioeconomic priorities.

**Pillar 3:** Acceleration and implementation defines the transformational action and implementation plan, including the development and prioritisation of actions and the processes of monitoring, evaluation, reporting and revision.



**C40 Climate Action Planning Programme process**

There are two key points in time when the CAP Framework can be used by city staff, with support from C40, or by a third-party reviewer:

- ♦ Early in the planning process, as part of a strategic appraisal, to identify gaps in the existing evidence base, engage internal stakeholders and provide focused recommendations for the city to develop or revise its existing plan in line with the objectives of the Paris Agreement.
- ♦ Later in the process, as part of a draft plan review, to check that the final plan satisfies all essential elements of the CAP Framework. Similar to the strategic appraisal, this process involves a review of the plan, evidence and documentation, highlighting immediate gaps to inform the completion of the plan.

The CAP Framework is designed to be flexible, recognising the diversity of cities and their individual contexts. Each pillar highlights essential elements of the plan, allowing cities to easily identify the components that should be included so that the plan aligns with the Paris Agreement. Go further elements are provided as guidance on how to strengthen the plan in current or future iterations.

Cities lead and innovate, which means that climate action planning will also evolve, and the CAP Framework will be updated over time. This means that some of the current Go further/best practice elements may become Essential, with new examples being provided to illustrate leading practices.

## Framework criteria

**Essential:** items that are deemed crucial for a plan because they will accelerate transformational action to achieve the Paris Agreement.

**Go further:** items that are highly recommended for inclusion in a plan; some C40 cities are already leading on these best practices.



## 04

## Pillar 1: Commitment and collaboration

**Commitment and collaboration focuses on the governance and coordination of the plan (including its relationships with national policy and city powers) and the need for community and business engagement, and communications, throughout the plan's development and implementation.**



### 1.1 Vision, commitment and engagement

It is essential to achieve long-term commitment to the objectives of the Paris Agreement from across government, business and civil society in order to gain widespread support for climate actions in the short and long term and to successfully deliver transformational change. Transformational actions reshape whole systems so that they are decarbonised and resilient to climate change. Actions that deliver or enable such transformation need to be prioritised in the plan.

#### 1.1.1 Long-term vision and political commitment

The city's vision should outline the main features and benefits of becoming an emissions neutral and climate resilient city by 2050, and should include a commitment to take transformational action in key sectors (e.g. energy, buildings, transport and waste). The commitment should specifically endorse the Paris Agreement and should aim to deliver:

1. An emissions neutral city by 2050 at the latest, and set an ambitious interim target;
2. Adaptation to improve the city's resilience to climate hazards that may impact the city both now and in future climate change scenarios;

3. Wider social, environmental and economic benefits, and an improvement in the accessibility of these benefits to the city's population;

4. City governance and partnerships to accelerate the delivery of the city's mitigation targets and resilience goals.

#### Essential

A written (where possible, signed) commitment from the mayor or city leader, to begin implementing transformational action to deliver an emissions neutral and climate resilient city by 2050, consistent with the objectives of the Paris Agreement.

#### Go further

A signed legislative commitment with cross-political and/or multi-sector support for delivering the plan and the objectives of the Paris Agreement.

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ♦ A commitment letter from the mayor or city leader included in the plan;
- ♦ A statement from departmental leads;
- ♦ Signed legislation;
- ♦ Commitments published in other documents outside of the plan, clearly referencing the plan and the signatory.

### 1.1.2 Targeted engagement and consultation with stakeholders

Stakeholder engagement and consultation are essential for: securing widespread support and buy-in for the plan; ensuring the inclusivity of the plan development process; gathering the most appropriate and comprehensive data and information to develop actions; and establishing partnerships that will be necessary for delivery.

#### Essential

A plan that is informed by consultation with key government, business and civil society stakeholders (including the communities which are directly impacted by climate change).

#### Go further

Commitments from other government, business and civil society stakeholders that they will actively collaborate in delivering the plan.

#### *What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ♦ *A public consultation document issued for comments;*
- ♦ *A stakeholder engagement plan (either internal or public) prepared specifically for the climate action planning process, detailing the stakeholders, their roles in the plan and the engagement activities undertaken;*
- ♦ *Reports of community or stakeholder engagement (e.g. town hall meetings, focus groups, surveys), including government, business and civil society stakeholders. This could include stakeholder engagement at neighbourhood level, such as a survey demonstrating that a wide range of groups (on the basis of gender, age, ethnicity, income) are informed and aware of the development of the plan;*
- ♦ *A tracker or log, documenting stakeholder feedback received and how it has been addressed in the plan;*
- ♦ *A 'pledge' from business and/or civil society to support the city's climate change goals;*
- ♦ *Letters of support from government, business or civil society partners.*





## 1.2 Coordination with related initiatives and institutions

Successful delivery of the plan depends on making good strategic use of the prevailing governance structures within and outside the city, and therefore relies on the powers<sup>16</sup> held by the mayor (or other elected city leader) and local government institutions<sup>17</sup>. Coordination with other plans, initiatives and institutions will help to identify complementary efforts and foster collaboration, building governance structures and a stronger business case for prioritising transformational action and accelerating the greatest mitigation and adaptation opportunities.

### 1.2.1 Evaluation of related city legislation and plans

The plan should strengthen current governance. It should also build on the existing effective laws, regulations, policies or plans that will influence, or may be influenced by, the plan. Local government institutions with a direct or supporting role should be engaged and supportive of the city's climate targets and goals. Opportunities for organisational integration should be maximised to ensure efficient and effective delivery.

#### Essential

A review of the opportunities for integration with existing laws, regulations, policies, plans, and of the local government institutions that are key for accelerating delivery and are engaged in the development of the plan.

#### Go further

Updates to existing city laws, regulations, policies and plans in order to integrate and accelerate the delivery of climate action.

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ♦ *A review of city laws, regulations, policies, plans and local government institutions relevant to climate change (e.g. similar to a policy review used for social, environmental, economic, health or equity impact or strategic assessments or appraisals);*
- ♦ *Other plans that have been integrated or aligned with the plan (e.g. social, economic, transport, buildings, energy plans or strategies);*
- ♦ *Written confirmation from local government institutions that city laws, regulations, policies or plans will be updated to reflect the goals of the plan.*

### 1.2.2 Identification of related national and regional commitments

The plan should build on the relevant existing commitments (e.g. nationally determined contributions or NDCs), laws, regulations, policies or plans of other tiers of government (state, county, provincial) as well as those of non-governmental bodies, and ensure that other relevant institutions are engaged in the development of the plan.

<sup>16</sup>. See footnote 7

<sup>17</sup>. See footnote 15

### Essential

Identification of relevant commitments (governmental and non-governmental) and acknowledgement of where targets and actions are shared with or owned by other tiers of government or stakeholders.

### Go further

Collaboration with relevant authorities to update, reform or introduce the national or sub-national commitments, laws, regulations, policies or plans needed to accelerate transformational climate action. City advocacy for updates to national or sub-national laws, regulations, policies or plans, where they might pose a challenge to the plan's delivery.

### *What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ♦ *Documentation of national and sub-national laws, regulations, policies, plans and institutions relevant to climate change. This could be similar to a policy review used for social, environmental, economic, health or equity impact or strategic assessments or appraisals;*
- ♦ *Commitments to or letters already submitted to other tiers of government that advocate for amendments to existing relevant legislation, policies and plans in line with the objectives of the Paris Agreement;*
- ♦ *Commitments to or evidence of meetings held to discuss collaboration to deliver climate actions.*





## 1.3 Targets and goals for mitigation and adaptation

The overarching goal of the plan is emissions neutrality (or net zero emissions) by 2050 and climate resilience in the short, medium and long term. The plan should establish an ambitious interim emissions target, and adaptation goals and milestones, against which progress can be measured. The plan should also emphasise overarching ambitions: improving inclusivity; improving benefits distribution; and delivering a fair climate action plan.

### 1.3.1 Emissions neutrality target and interim target

Targets or a carbon budget<sup>18</sup> must be based on the city's emissions inventory and modelling, and must outline an accelerated reduction (declining or peaking) in total emissions through to 2050 in relation to the administrative boundary of the city.

Each C40 city should make a 'fair share' contribution to achieving the objectives of the Paris Agreement. As such, city carbon targets/budgets should be aligned with the global carbon budget based on the contraction and convergence methodology that has the potential to limit global temperature rise to 1.5 degrees Celsius.<sup>19</sup>

<sup>18</sup> The carbon budget approach involves setting an amount of permissible emissions over a period of time to keep within the 1.5 degrees Celsius temperature threshold. The budget and actions are distributed across cycles (e.g. 3-year or 5-year cycles), sectors, and institutions, and updated on a regular basis, in line with monitoring and evaluation.

<sup>19</sup> Deadline 2020. See: [http://www.c40.org/other/deadline\\_2020](http://www.c40.org/other/deadline_2020)

Where possible, cities should use 2030 for their interim target as well as for the sectoral targets that add up to the city-wide emissions neutrality target.

### Essential

Targets or a carbon budget and milestones present an accelerated and realistic picture of declining (or peaking) city-wide emissions through to emissions neutrality by 2050 and ambitious (2030) interim target. Average emissions across C40 cities should reach 2.9 tonnes of carbon dioxide equivalent (2.9 t CO<sub>2</sub> eq) per capita by 2030, in line with Deadline 2020 research on the global carbon budget.

### Go further

Carbon budgets and milestones are identified for specific major climate actions, sectors or city projects and programmes.

#### *What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ♦ *Published targets or carbon budget and milestones are stated within the plan, and are cited for regular (e.g. 10 year) intervals;*
- ♦ *The targets or the carbon budget are derived from a robust emissions inventory and modelling.*

### 1.3.2 Goals and milestones for climate resilience and adaptation

Goals and milestones should be based on the city's climate change scenarios and its hazard or risk assessments, outlining the adaptation requirements for specific time periods through to 2050. Goals may be stated in relation to the city as a whole, for specific sectors, communities or actions, ensuring transparency with regards to the city's anticipated progress.

#### Essential

The goals and milestones present a realistic picture of projected climate change scenarios and adaptation requirements for the short term (within 4-5 years from the plan's formal approval), medium term (e.g. 2030) and long term (2050).

#### Go further

Short-, medium- and long-term goals and milestones are broken down by risk and/or hazard and are presented by sectors and by major climate actions or city projects/programmes.

#### *What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ◆ *Published goals and milestones stated for the short, medium and long term;*
- ◆ *Evidence that the goals are derived from a robust climate change risk assessment.*

### 1.3.3 Wider and more inclusive benefits

Goals and objectives should be developed for wider social, environmental and economic benefits associated with climate action (e.g. health, air quality, employment, equity). These goals and objectives will help to embed climate action as an integrated agenda within city priorities, leveraging resources from across local government institutions to deliver actions with shared benefits. An inclusive approach to delivering benefits across the city population should be demonstrated.

#### Essential

The plan states a clear ambition for inclusive climate action, identifying the wider benefits to be gained through the delivery of the plan and referencing how benefits impact other city priorities.

#### Go further

Goals and objectives are identified for specific benefits at the city, sector, community and/or action level.

#### *What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ◆ *A plan section, or documentation, identifying specific benefits/ goals for inclusivity/equity/ sustainable communities;*
- ◆ *Benefits are highlighted at the sector/ community level, either within the plan or as an accompanying socioeconomic or environmental impact study (or similar);*
- ◆ *Ambitions are derived from the robust measurement of benefits and from projections based on reasonable assumptions.*



## 1.4 Human and financial resource

It is essential to ensure that there are sufficient human and financial resources within government and from partners to deliver the plan. To kick-start action, city government resources should be allocated through the budget cycle for at least the first year of the plan, coupled with a commitment to secure resources for subsequent years. Resources may be secured through internal budgets or from other actors such as partner organisations (e.g. utilities, transport operators), investors, grant-making bodies or financing mechanisms.

### Essential

The costs and human resources that are needed to deliver the plan have been determined. Resources and budget have been allocated for at least the first year of plan implementation.

### Go further

There is a plan or commitment to secure skills and capacity, through recruitment and/or training

and finance (e.g. using city budgets, funding from other actors and/or financing mechanisms).

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ◆ *The city government budget statement for year one of the plan (internal or public);*
- ◆ *A summary of the city's budget planning cycle aligned with detailed programming of year one climate actions (e.g. as part of internal project management documentation);*
- ◆ *Departmental business plans showing the allocations of human and capital resources;*
- ◆ *Written confirmation from departmental leads and/or senior finance officers that budgets and human resource planning accounts for the delivery of the plan;*
- ◆ *Scoping, feasibility or review documents identifying wider sources of funding;*
- ◆ *Letters stating details of the human or financial support from partner organisations;*





## 1.5 Communications, outreach and advocacy

The effectiveness and reach of the published plan will be boosted by a comprehensive communications, outreach and advocacy programme. These efforts should target internal and external stakeholders (e.g. institutions, other tiers of government, business, civil society) to ensure that there is widespread understanding, participation and support. Outreach and advocacy may be instrumental in achieving greater impact than is within the city's direct control.

### Essential

Communication occurs during the plan's development, launch and implementation. Communications are targeted to diverse stakeholder groups and supported by engagement, capacity-building and behaviour-change programmes to enable key stakeholders to play their part in delivering the plan.

### Go further

Targeted communications are delivered to the community and vulnerable groups. International forums are used to communicate the city's plan, promoting an exemplary approach with cities and other actors. Partners and stakeholders contribute to the communications, education and cultural effort. There is a translation of the plan or an executive summary into commonly spoken languages.

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ◆ *Communications and/or media plans aligned with stakeholder engagement activities, covering the full process of action planning, publication and implementation;*
- ◆ *Scheduled meetings with stakeholder groups or a schedule of communications to be published through media channels;*
- ◆ *Evidence of planned or completed outreach events (e.g. programmes with schools, businesses, communities);*
- ◆ *Examples of marketing/communications materials (e.g. flyers, websites, social media content);*
- ◆ *A list of events within and outside the city where officers have communicated/will communicate the plan;*
- ◆ *Education and capacity-building materials prepared for specific audiences;*
- ◆ *Communications materials translated into different languages for international audiences;*
- ◆ *Community-based organisations, businesses and schools participate in delivering the communications plan.*

## 05

## Pillar 2: Challenges and Opportunities

**Challenges and opportunities considers the evidence base and existing city conditions, including: baseline emissions, 2050 emissions trajectory, climate risk and socioeconomic priorities.**



### 2.1 City context

An evidence-based plan should be tailored to the social, environmental and economic contexts of the city. The baseline should provide an overview of current challenges and opportunities, and enable ongoing monitoring, reporting and review.

#### 2.1.1 Current climate and environmental quality

An evidence-based plan should be tailored to the social, environmental and economic contexts of the city. The baseline should provide an overview of current challenges and opportunities, and enable ongoing monitoring, reporting and review.

The plan should include environmental indicators that provide the context for climate action. Cities may choose to include wider indicators of environmental quality and resource management, according to local priorities.

#### Essential

There is a description of the current administrative and physical geography as relevant to climate change (e.g. coastal, inland, fluvial, topography, elevation).

#### Go further

Information is provided on the city's environmental quality (e.g. water quality, air quality, biodiversity and green areas) and/

or resource management (e.g. solid waste volume and management, food sources and consumption).

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ♦ *Published environmental indicators, climate context included or referenced in the plan; monitoring databases referenced in the plan;*
- ♦ *Third-party research (e.g. academic or research institution) about the city's environment and climate, used as evidence for (and referenced in) the plan;*
- ♦ *Environmental assessment and climate reports produced by a city government/department/agency or a consultant; as an appendix (or separate reports) used as evidence for (and referenced in) the plan.*

#### 2.1.2 Socioeconomic context and key future trends

The plan should provide an overview of the city's contextual data, trends and/or other information that is relevant to climate action. Social and economic indicators should be informed by the city's priorities.

### Essential

Contextual data and trends (where available), including indicators or information on social and economic priorities for the city (e.g. demographics, education, employment status, equity).

### Go further

The plan provides greater analytical detail about trends including:

- ♦ Population demographics (e.g. travel patterns, age profiles, immigration, skills in relation to climate action);
- ♦ Sustainable city (e.g. waste management systems, quality/age of critical assets such as buildings and infrastructure);
- ♦ Economic growth (e.g. housing affordability, energy demand/access/poverty, employment rates);
- ♦ Future trends (e.g. emerging innovations/disruptors enabling transformational action).

The plan also provides data or information in relation to the Sustainable Development Goals, and maps interdependencies between indicators.

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ♦ *Published social and economic evidence included or referenced in the plan;*
- ♦ *City socioeconomic or demographic databases used as evidence for (and referenced in) the plan (including census or other survey data);*
- ♦ *Third-party research (e.g. academic or*

*research institution) about the city's social and economic context used as evidence for (and referenced in) the plan;*

- ♦ *A socioeconomic assessment report or reports, produced by a city government/department/agency or a consultant;*
- ♦ *Assessments of critical assets or functions (e.g. water supply and distribution) in relation to future climate projections, undertaken by a skilled professional.*



## 2.2 City management and powers

The capacity for the city government to deliver action depends on the structure and powers held by local government institutions to control or influence assets (e.g. bus, cycle lane) and functions (e.g. waste management, land-use planning).

### 2.2.1 The city's administrative structure and scope of the plan

To help identify opportunities for accelerating efficient and effective delivery, the plan should map the governance and administrative (e.g. civil service/city agencies) structures of the city and the roles and operational responsibilities relevant to climate action.

### Essential

The plan describes the city's governance and administrative structure and the scope of the plan (e.g. the inclusion of non-governmental bodies).

### Go further

There is a detailed mapping of decision-making and operational roles and responsibilities across local government institutions and their relevance to delivering the plan.

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ♦ *An organigram or document of the local government institutions, highlighting roles and responsibilities related to climate action;*
- ♦ *A diagram showing connections between local government institutions and other tiers of government, highlighting roles and responsibilities related to the plan;*
- ♦ *A stakeholder map showing other organisations within the city that have a role in delivering the plan, and the relationship between them and the lead local government institutions.*

### 2.2.2 The city's powers and capacity

Powers may be defined in terms of: the city's direct ownership or operation of assets and functions; the ability to set or enforce laws, regulations, policy; the ability to control budgets for particular assets and functions; or the ability to set a vision for future planning of assets and functions. Cities may choose to frame powers in different ways. Clear statements of the city's powers in each action area will inform decisions on whether the city has the capacity to take action itself or needs to engage stakeholders with responsibilities for other city assets and functions.

#### Essential

There is an assessment of the powers held by city government over relevant sectors, assets, and functions or actions, noting where additional collaboration is needed to accelerate the delivery of transformational actions over the short term.

#### Go further

There is an assessment of which other stakeholders have powers over sectors, assets, and functions or actions where city government power is weaker.

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ♦ *Internal evaluations of the city's power to act (unilaterally or multilaterally) across sectors, assets; and functions; or actions;*
- ♦ *A completed C40 Strategic CAP Appraisal;*
- ♦ *A gap analysis and identification of key stakeholders who hold power in areas where the city government itself does not;*
- ♦ *Detailed sector-, asset-, function-, or action-based assessment of powers.*





## 2.3 Greenhouse gas emissions inventory

A recent GHG emissions baseline inventory is key for prioritising action, setting goals and targets, and measuring progress. The emissions inventory should quantify emissions sources that are significant in the city.

### Essential

The sector-level inventory includes details of, or references to, the methodology used, and covers the following emissions sources: scope 1 emissions from fuel use in buildings, transport and industry; scope 2 emissions from use of grid-supplied energy; and scope 1 and 3 emissions from waste generated within the city's boundary. The inventory covers a full year of data and was compiled no more than 4 years prior to publication of the plan. The inventory also includes emissions from the 'industrial processes and product use' (IPPU) sector and the 'agriculture, forestry and other land use' (AFOLU) sector where the city's economy contains strong contributions from the industrial and agricultural sectors.

### Go further

The inventory is available for multiple years, including an assessment of consumption-based emissions. There is a commitment to tracking consumption-based emissions.

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ◆ *A completed inventory and methodology document, including a description of data sources, prepared by the city government or appointed partner (e.g. in the form of a spreadsheet/database or report);*
- ◆ *A separate supply chain/scope 3 emissions assessment for the city;*
- ◆ *A consumption-based emissions inventory for the city.*





## 2.4 Greenhouse gas emissions trajectories

The plan should be supported by information on the likely change in the city's GHG emissions if no further climate action is taken (i.e. the business-as-usual (BAU) scenario given anticipated population, economic and sectoral energy intensity changes) as well as the emissions trajectory or carbon budget to achieve the targets stated under Pillar 1.

### 2.4.1 Business-as-usual emissions trajectory

A BAU emissions trajectory is important to help frame actions and support target setting. The city's chosen methodology for calculating emissions under the BAU scenario should be clearly described.

#### Essential

The BAU emissions trajectory is presented in the plan, which takes into account the projected population and economic changes for the city and provides a scenario to 2050. The methodology is documented, with transparency on the inputs and assumptions used.

#### Go further

The BAU emissions trajectory incorporates sector-specific trends and considerations appropriate to the local context, including anticipated sectoral energy intensity changes. The trajectory is provided in 10-yearly (or higher frequency) breakdowns. Multiple BAU scenarios are described, based on various plausible future factors.

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ♦ *A BAU trajectory and methodology described in the plan;*
- ♦ *A separate, clearly documented BAU trajectory methodology document, covering assumptions, input data sources and other key considerations;*
- ♦ *Calculation sheets or models showing the BAU calculation methodology and the associated evidence base.*

### 2.4.2 2050 emissions trajectory or carbon budget

The plan should include an evidence-based emissions trajectory or carbon budget that is in line with the 2050 emissions neutrality target and interim target(s) (see Pillar 1.3 – Emissions neutrality target and interim target), and actions identified (see Pillar 3.1 – Mitigation and adaptation actions). The emissions trajectory should incorporate estimated impacts of existing and planned policies, and should acknowledge the limits to the city's ability to reduce emissions within its boundary by including, for example, reductions that will be achieved through actions undertaken by other actors (e.g. national government policy).

#### Essential

The emissions trajectory or carbon budget to 2050 (or earlier) is aligned with the city's emissions neutrality target, interim target(s), and actions. Residual emissions (see Pillar 3.3 –

Residual emissions) are identified in the emissions trajectory (i.e. once city actions are maximised and actions undertaken by other actors are included).

#### Go further

The carbon budget specifies actions in a detailed emissions trajectory (based on a contraction and convergence methodology). Actions are allocated to individual institutions, who are responsible for implementing actions and meeting key performance indicators. The budget and actions are distributed across 3-year or 5-year cycles and there are regular reviews and annual public reporting. The expected aggregate impact of specific major climate actions is projected against milestones through to 2050.

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ◆ *An evidence-based emissions trajectory reaching the stated targets by 2050 or earlier, provided in the plan;*
- ◆ *Documentation of the modelling methodology used to develop the emissions trajectory(s);*
- ◆ *Details of the emissions models or model outputs used to develop the emissions trajectory;*
- ◆ *Documentation of the rationale and calculations for any adopted carbon budgets (e.g. based on emissions trajectories, or other carbon budgeting methodologies).*



## 2.5. Climate risk assessment

A climate risk assessment seeks to understand the likelihood of future climate hazards and the potential impacts of these hazards on cities and their inhabitants. The assessment is an essential tool for informing the prioritisation of actions and investment into climate adaptation and resilience.

### 2.5.1 Climate hazard assessment

Climate hazards are short-, medium- or long-term climate events that have the potential to cause damage or harm to humans and natural systems. These include meteorological, climatological, hydrological, geophysical or biological events. Variability in hazard exposure across the city should be acknowledged. The hazard assessment should identify the probability, intensity and timescale of the key hazards in a city, taking into account the city's historic trends and current situation, as well as future scenarios based on available scientific evidence through to 2050, and beyond 2050 where possible.

#### Essential

There is an assessment of the changing frequency, severity and scale of all significant climate hazards through to 2050. Hazard scenarios are based on standard local methodologies where available, or are based on a medium-emissions scenario (e.g. representative concentration pathways peaking at 4.5 by 2100 ).<sup>20</sup>

#### Go further

There is an assessment of how specific hazards may influence other hazards (interdependencies). The assessment of projected hazards goes beyond 2050 to inform long-range planning.

<sup>20</sup> See footnote 12.

<sup>21</sup> CRAFT. See: <https://www.globalcovenantofmayors.org/wp-content/uploads/2016/01/CRAFT-2-page-brochure.pdf>

Updates to the hazard assessment are scheduled in order to take account of emerging scientific evidence.

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ♦ *A completed climate hazard assessment which considers all of the city's climate hazards using a robust and transparent methodology, such as C40's Climate Risk & Adaptation Framework & Taxonomy (CRAFT) or other similar toolkits;<sup>21</sup>*
- ♦ *Specific assessments of the individual relevant hazards (e.g. city-wide flood risk assessments, heat risk assessments);*
- ♦ *A dataset from climate risk assessments required by the national government or other tiers of government, or undertaken at the national level and down-scaled to the city context;*

♦ *Integrated climate risk assessment documentation that covers hazard assessment, undertaken by local government institutions or third-party institutions (e.g. academic or research institution; non-governmental bodies), and validated by the city government.*

## 2.5.2 Impact assessment

Impact assessments look at the potential impacts of extreme events on relevant systems and sectors (e.g. urban planning, food, information and communications technology, transport, energy, water, waste). The plan should consider the vulnerability and capacity of systems to adapt in the face of hazards, as well as the potential impact (e.g. number of people affected, cost of damage, days of service lost). Hazards experienced today and projections through to at least 2050 should be included.



### Essential

There is a qualitative assessment of the impact to city systems, sectors and vulnerable communities based on the climate hazard assessment. The impact of hazards on city inhabitants and vital infrastructure (e.g. utilities, hospitals) is considered based on their vulnerability and adaptive capacity.

### Go further

There is an assessment of interdependencies between major sectors or all sectors, considering direct and indirect impacts from one system/business/community to another and the potential for cascading damage or failures. Impacts are quantified (e.g. number of people affected, days of service lost) and the value of city systems at risk are assessed and set out (value-at-risk assessment).

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ◆ *Impact assessment focused on the consequences of named climate hazards on specific systems, businesses, sectors or communities (e.g. undertaken in the context of system maintenance or asset management routines, business continuity planning or community development planning);*
- ◆ *Integrated climate risk assessment documentation that includes an impact assessment undertaken by local government institutions or third-party institutions (e.g. academic or research institution; non-governmental bodies) and validated by the city government;*
- ◆ *A value-at-risk assessment.*



## 06

## Pillar 3: Acceleration and Implementation

**Acceleration and implementation defines the transformational action and implementation plan, including the development and prioritisation of actions and the processes of monitoring, evaluation, reporting and revision.**



### 3.1 Mitigation and adaptation actions

The plan should prioritise mitigation and adaptation actions based on the evidence. To maximise efficiencies and minimise risk, climate change mitigation and adaptation should be considered in an integrated way. Transformational actions should be prioritised for immediate implementation upon approval of the plan.

#### 3.1.1 Evidence-based mitigation and adaptation actions

Actions should be clearly linked to a robust evidence base (see Pillar 2). Mitigation actions should be focused on the sectors that have been identified as having high emissions and strong reduction potential both in the short term and through to 2050. C40 cities are recommended to use Focused Acceleration,<sup>22</sup> which sets out a delivery roadmap that prioritises 12 opportunities across 4 action areas (electricity, energy efficiency in buildings, waste and mobility) with the greatest potential in most global cities to reduce emissions and put cities on a 1.5 degrees Celsius pathway through to 2030.

Adaptation actions should be focused on reducing risk and building resilience in the systems and communities that are most vulnerable to climate hazards between now and

2050. Actions should be informed by the city's powers and by barriers to implementation (see Pillar 2.2 - City management and powers).

The full list of actions should identify synergies between mitigation and adaptation interventions so that interactions between actions can be leveraged. The list should aim to ensure the fair and equitable distribution of social, environmental and economic benefits to communities (see Pillar 3.4 - Inclusive climate action).

#### Essential

The list of mitigation and adaptation actions is informed by the evidence base. It focuses on the highest emissions sectors and climate risks, and the actions that deliver the greatest emissions and risk reduction potential. The list is also informed by an evaluation of impacts from existing actions, where feasible. Mitigation and adaptation actions are considered in an integrated way, maximising efficiencies and minimising investment risk.

#### Go further

There is a detailed summary of actions across sectors that identifies synergies between mitigation and adaptation to actively leverage interdependencies. The summary includes major actions implemented/planned by the city government and other tiers of government, quantified in terms of their contribution to the city's mitigation targets or climate adaptation goals.

<sup>22</sup> *Focused Acceleration: A strategic approach to climate action in cities to 2030.* See: [www.c40.org/researches/mckinsey-center-for-business-and-environment](http://www.c40.org/researches/mckinsey-center-for-business-and-environment)

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ◆ *The plan includes actions covering the relevant sectors and specifying the emissions and risk reduction potentials;*
- ◆ *A spreadsheet detailing the phased delivery of actions and the emissions and risk reduction potentials.*

### 3.1.2 Actions costed for implementation

Costs should be assigned to short-term actions, at a minimum (and to the extent possible to medium- and long-term actions) to assist with implementation planning and budgeting.

#### Essential

Costs (operational and capital expenditure) are attributed to mitigation and adaptation actions and assigned in line with the phased delivery of actions.

#### Go further

There is a detailed summary of financial resources that are allocated to mitigation and adaptation actions, with detailed estimates of costs, sources of funding, and/or cost benefit analysis of implementation.

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- *A written schedule with actions phased for delivery, near-term actions costed and finance for longer-term actions identified;*
- *A budget plan covering the first city budget cycle, clearly outlining the costs of climate mitigation and adaptation actions;*
- *A spreadsheet highlighting the whole lifecycle costs attributed to actions in the plan.*



### 3.1.3 Transparent methodology for prioritisation of actions

Cities should set out a methodology for prioritising actions which will ensure that the highest-impact mitigation and adaptation actions are delivered first. Wider benefits can be used as part of the prioritisation process; accessibility of actions including physical access, economic access (affordability) and information access (e.g. language, communication) should be improved. The plan should explain the process used to prioritise actions, including how the process is informed by the city's context, evidence base and powers. The plan should identify which actions are conditional on the support of, or funding by, other actors.

#### Essential

Actions are prioritised based on their impact on reducing GHG emissions, or their ability to reduce risk. Prioritisation is linked to the emissions and risk scenarios presented under Pillar 2. The prioritisation methodology is documented.

#### Go further

The wider impacts or benefits relevant to the city (e.g. health, air quality, employment, equity) are considered when prioritising actions. Stakeholders from beyond city government (e.g. business and civil society) are engaged in the prioritisation process.

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ♦ *A transparent methodology which sets out the criteria on which mitigation and*

*adaptation actions have been prioritised;*

- ♦ *An explanation of how actions that are included in the plan were prioritised and the criteria used;*
- ♦ *Notes or minutes from meetings in which prioritisation exercises were undertaken, including a summary of the method used.*

### 3.1.4 Action ownership and powers

Using the city's powers baseline (as described under Pillar 2.2 – City management and powers), the plan should set out the actions which the city has the power to implement directly and the actions where different powers must be used to effect change (e.g. by setting legislation, controlling budgets, offering incentives and advocacy). The roles of other actors should be defined, and actions should have a named organisation as action lead.

#### Essential

Each action has, at a minimum, a lead institution. The means of implementation (conditional or unconditional of the support of, or funding by other actors) are identified in the plan. Where other actors have been identified as lead organisations, the role of the city in tracking progress, as well as partnership or collaboration arrangements, should be described.

#### Go further

Partner organisations are engaged and committed to contributing to the delivery of actions.

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- *Evidence that the powers mapping activities have been used to identify action owners and delivery partners for the plan;*
- *Documentation that the powers mapping exercises incorporates other government, business and civil society stakeholders, identifying the key partners required to implement action on the ground;*
- *Letters/emails to/from partner organisations inviting or agreeing to collaborate on delivering specific climate actions.*

### Go further

Action delivery timelines are broken down into phases (e.g. planning, design, construction) with milestones on the way to the end date.

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- *An overall Gantt or other project planning chart, outlining the delivery timescales for the suite of actions in the plan;*
- *A mapping of action timelines and impact against the 2050 emissions trajectory and climate hazard projections.*

### 3.1.5 Delivery timescales

To provide a means of monitoring the plan and staying on track with the 2050 targets, each action should have a time frame for implementation, taking into account the time necessary for: project scoping; planning and approvals; funding cycles; design, construction/delivery; and commissioning.

#### Essential

Action delivery timescales (start and end) are linked to the 2050 emissions trajectory and climate risk profile, demonstrating how actions will contribute to meeting stated goals.

<sup>23</sup>. See footnote 11.

<sup>24</sup>. 'Offsets' represent a mechanism for cancelling out residual emissions by developing, funding, or financing projects that avoid or sequester GHG emissions outside the city boundary.





## 3.2 Overcoming challenges

The potential challenges and risks involved in delivering actions should be identified early in the process. These might relate to: the changing political or regulatory landscapes; internal city operations and capacity; access to finance and engagement with stakeholders; and emerging technologies, innovations and disruptors. The plan should be informed by a risk mapping and management process which assesses potential delivery issues and puts in place solutions to overcome them.

### Essential

Challenges to the implementation of actions are assessed through a risk assessment, and addressed through risk management and monitoring measures.

### Go further

The impacts of the implementation of actions are assessed using 'systems thinking' (e.g. linkages between actions on energy and buildings and unintended consequences). There is a process set out for managing negative direct and indirect effects (e.g. risk monitoring and management, through a register, committee or task force).

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ◆ *A risk assessment report supporting the plan;*
- ◆ *Evidence that a risk register is maintained, outlining potential challenges which may arise through the course of delivering the actions;*

- ◆ *A risk map and/or map of potential unintended consequences;*
- ◆ *A risk monitoring and management procedure.*



## 3.3 Residual emissions

The plan should maximise efforts to deliver action within the city. However, a city may, after all actions have been deployed, still have residual emissions<sup>23</sup>. The quantity of residual emissions expected following emissions reduction actions through to 2050 should be calculated and monitored.

### Essential

Once all action is exhausted, the quantity of residual emissions is estimated through to 2050 and identified in the 2050 trajectory. There is a written commitment to update emissions trajectories and to maintain an up-to-date estimate of residual emissions.

### Go further

There is a strategy that commits the city to monitoring residual emissions, the sources of these emissions and the policies, technologies and/or mechanisms to reduce the residual amount. Offsets<sup>24</sup> are pursued only where necessary and according to environmental integrity and transparency principles. Where possible, offsets are used only to reduce scope 3 and/or consumption-based emissions (e.g. transboundary aviation). Where cities choose to offset, there is a strategy for managing offsets (e.g. identifying accredited offsetting measures).

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ◆ *Residual emissions identified in the city's 2050 emissions trajectory;*
- ◆ *A written commitment to monitor the anticipated residual emissions and to update the plan.*



### 3.4 Inclusive climate action

Climate actions are primarily designed to reduce GHG emissions and climate risks, but they often bring other benefits to the city (e.g. health, air quality, employment, equity). Climate actions should be designed in an inclusive way, and the overall plan should aim to achieve the fair and equitable distribution of benefits. Inclusivity in climate action planning is where efforts are made to ensure:

- ◆ A wide range of communities and stakeholders are engaged (inclusivity of the process);
- ◆ There is fairness and accessibility in design and delivery (inclusivity of the policy);
- ◆ The wider benefits of action are distributed as equitably as possible (inclusivity of the impact).

#### 3.4.1 Identification of the wider benefits

The potential social, environmental and economic benefits of actions should be identified in line with local priorities. These benefits should be communicated to demonstrate the overall value of climate mitigation and adaptation, helping to articulate the business and social case for action and the tangible benefits for communities.

#### Essential

Wider social, environmental and economic benefits of climate actions are identified in the plan and aligned with local priorities.



### Go further

Relevant social, environmental and economic benefits of climate actions are quantified in the plan wherever possible and are used to prioritise actions and to articulate the business and social case for delivery.

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ◆ *Working papers showing how the benefits have been mapped to actions, or notes from workshops in which this process was undertaken;*
- ◆ *Method papers and/or calculation spreadsheets showing how benefits have been measured for specific climate actions, using robust and transparent methodologies.*

### 3.4.2 Fair and equitable distribution of benefits

The plan should aim for fair and equitable distribution of benefits across the suite of mitigation and adaptation actions. Particular attention should be given to vulnerable groups, and existing inequalities in the city, based on the socioeconomic context (see Pillar 2.1 – City context). An assessment of the collective benefits of the plan should show that equitable distribution of and access to benefits will be targeted.

### Essential

There is an explanation of how inclusivity has been taken into account across the suite of actions and how specific vulnerabilities or inequalities in the city are addressed within the plan.

### Go further

There is a social and/or economic impact assessment of the plan (or an equivalent process). Vulnerable groups are actively engaged in the development of the plan to ensure that impacts are well understood and addressed. Actions are prioritised based, in part, on their ability to improve accessibility and distribution of benefits.

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ◆ *An impact assessment (or similar) report specific to the plan;*
- ◆ *An assessment to determine the socioeconomic implications of the suite of climate actions in relation to specific challenges within the city;*
- ◆ *Specific actions of the plan target vulnerable groups to reduce inequality and maximise benefits;*
- ◆ *Informal settlements or groups are recognised and included in the planning efforts.*



## 3.5 Monitoring, evaluation, reporting and revision

Long-term commitment to delivering the plan should be demonstrated through a process of setting key performance indicators, ongoing monitoring, impact evaluation and progress reporting. This will provide stakeholders with transparency about the process, inspiring trust in the city government and its commitment to becoming an emissions neutral and climate resilient city by 2050. The plan should set out a method for monitoring, evaluation, reporting and revision.

### 3.5.1 Monitoring implementation

Monitoring against set milestones and key performance indicators will help to highlight any challenges that may have direct and indirect impacts on the delivery of related actions. This will enable the city to address challenges (e.g. seek additional resources) and to update the delivery timeline.

#### Essential

There is a process for monitoring and reporting progress on implementation with set key performance indicators. This includes regular monitoring, and yearly reporting (at a minimum), in line with existing governance and reporting systems. C40 cities should report against the 1.5 degrees Celsius Pathway Indicators.<sup>25</sup> Progress is reported to the mayor's office and publicly (except with regard to confidential data), as well as to a global platform to communicate the city's contribution to the Paris Agreement.

#### Go further

There is a public data and reporting platform led by the city. Local government and external institutions update the information about actions on an ongoing basis and include metrics to track progress against the key performance indicators.

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- *Key performance indicators, metrics and milestones/targets are established for each action;*
- *Evidence of meetings on monitoring and action implementation and/or communications with the mayor's office;*
- *A data and reporting platform led by the city (in development or operational).*



### 3.5.2 Evaluation of impact

The impact of actions should be measured in terms of the reduction in emissions, the reduction in climate risk and the inclusive delivery of wider social, environmental and economic benefits. The plan will set out a process by which impact will be evaluated. This information will inform regular revisions of the plan.

#### Essential

There is a process for evaluating impact (emissions reduction, risk reduction and wider inclusive benefits). There is regular evaluation, at pre-defined times and in line with emissions inventory reporting updates, or as new information on climate risks becomes available.

#### Go further

A commitment to evaluate the impact of major actions on a regular basis is included in the plan. The emissions inventory is updated annually, and risk reduction impacts are recalculated on a 2-5 yearly basis. Information is updated on a public city specific reporting platform, with estimates of emissions reductions, risk reductions and associated inclusive benefits.

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ◆ *References to procedures for evaluating the impact of mitigation or adaptation actions and/or city plans and strategies;*
- ◆ *Evidence of review meetings in which impact has been discussed;*
- ◆ *Evidence of annual emissions reductions or 2-5 yearly risk reduction evaluation projects*

*previously undertaken;*

- ◆ *A data and reporting platform led by the city (in development or operational).*

### 3.5.3 Review and revision of the plan

Monitoring and evaluation should feed into the continuous review and revision of the plan, ensuring a reflective and iterative planning process that keeps the city on track to meet its targets. A timeline for review and revision should be clearly set out in the plan.

#### Essential

There is a commitment to publishing updates, supplements or addenda on a 5-yearly basis, and/or at the start of each new mayoral term (particularly where a change of administration has occurred), informed by evidence from monitoring and evaluation.

#### Go further

There is a commitment to a 3-yearly process of review and revision, informed by evidence from monitoring and evaluation of major transformational actions.

*What information may be used to check alignment with the CAP Framework?*

*The following list is not exhaustive; examples are provided for guidance only:*

- ◆ *Dates for plan review and revision;*
- ◆ *Evidence of previous iterations of the plan at defined intervals.*

The C40 Cities Climate Leadership Group connects more than 90 of the world's greatest cities, representing over 650 million people and one quarter of the global economy.

Created and led by cities, C40 is focused on tackling climate change and driving urban action that reduces greenhouse gas emissions and climate risks, while increasing the health, wellbeing and economic opportunities of urban citizens.

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