



Guiding Principles for **City Climate Action Planning**



**ASSESSMENT REPORT Glasgow, Scotland**

22 August 2016

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## ACKNOWLEDGMENTS

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Guiding  
Principles for **City**  
**Climate**  
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Planning

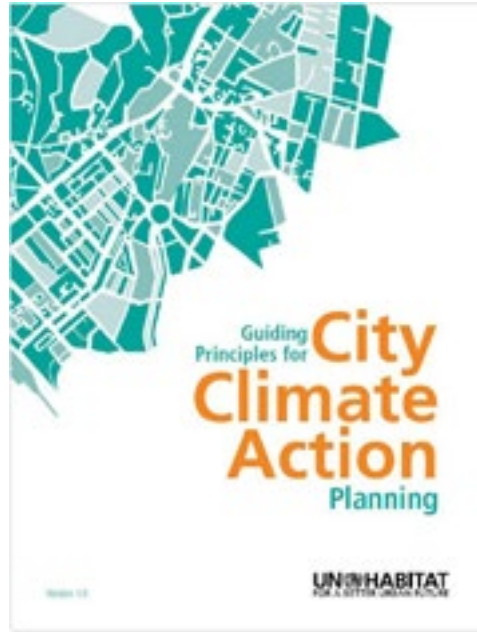
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## INTRODUCTION TO GUIDING PRINCIPLES FOR CITY CLIMATE ACTION PLANNING

In 2014, members of UN-Habitat's Climate Change Planning Unit met with partners at the World Urban Forum in Medellin and the Lima Climate Change Conference to discuss the state of climate change planning in cities across the globe. It was widely recognized that cities were still at the forefront of global efforts to reduce greenhouse gas emissions and adapt to changing climates. Yet, there was still a lack of city climate action plans and a need for more normative guidance in order to create a "community of practice." As a result, the *Guiding Principles for City Climate Action Planning* was developed over the course of a year (in 2015) as an international benchmark for city-level climate

action planning. The *Guiding Principles for City Climate Action Planning* is a document that reviews typical steps of a city climate action planning process in light of a proposed set of eight globally applicable principles. These principles state that climate action planning should be *ambitious, inclusive, fair, comprehensive and integrated, actionable, evidence-based, and transparent and verifiable*. Together, these eight principles are intended to be applied to important components of city climate action planning, from getting ready to make a plan (or plans), to making a plan (or plans), to ultimately taking action. Overall, the *Guiding Principles for City Climate Action Planning* 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.



Guiding Principles for City Climate Action Planning



Expert Group Meeting with Endorsing Partners © UN-Habitat

Since the launch of the *Guiding Principles for City Climate Action Planning* at the Paris Climate Change Conference in December 2015, UN-Habitat (along with endorsing partners) have developed a complementary set of indicators and a toolkit in order to “field test” the eight principles in cities across the globe. The goal of these field tests is to see how the principles can be applied to a broad spectrum of case study cities as a way to strengthen ongoing planning processes and also gain additional support for the initiative, capture feedback, and ultimately work towards a version 2.0 of the *Guiding Principles*.

With this goal in mind, the following report details the results of a recent field test conducted in Glasgow, United Kingdom (UK) in the summer of 2016. This report is comprised of the following sections:

- i. Background – background on Glasgow and its current climate action planning processes
- ii. Guiding Principles Indicator Summary – summary of the indicator-based assessment of Glasgow’s climate action planning and its alignment with the 8 principles
- iii. Application of Guiding Principles – narrative discussion of the indicator assessment
- iv. Recommendations – recommendations for future improvements to city climate action planning in accordance with the *Guiding Principles*



Panorama of Glasgow City Centre from The Lighthouse Building (© Tomek Augustyn/Wikimedia Commons/CC BY-SA 2.0)



# BACKGROUND

## 1.1. MISSION TIMELINE

On 13 June through 16 June 2016, Mr. J. Alexander Maxwell, a consultant to UN-Habitat's Climate Change Planning Unit, conducted a mission to the City of Glasgow, aided by Mr. William Lynn. The mission was comprised of several meetings with members of the Glasgow City Council (GCC) in coordination with the Sustainable Glasgow team.

## 1.2. SUMMARY OF KEY MEETINGS

**13 June 2016** – Meeting to discuss Climate Change Public Bodies' Duties Statutory Reporting and Climate Change Assessment Tool (C-CAT) Workshop.

The meeting and workshop were led by Sonia Milne (lead contact at the GCC). During the meeting and workshop, employees of the GCC evaluated the City Council's present performance in relation to the different areas of climate action and their statutory duties determined by the Climate Change (Scotland) Act 2009 (Scottish Government, 2009a). The group discussed and self-evaluated the Council's current climate action planning across five sectors, including governance, emissions, adaptation, behavior, and procurement. Near the conclusion of the workshop and meeting, an overview of the *Guiding Principles for City Climate Action Planning* was presented to the assembled members of the GCC. Those in attendance included the following:

- Milne, Sonia – Sustainable Glasgow Officer (and lead contact for the mission), [Sonia.Milne@glasgow.gov.uk](mailto:Sonia.Milne@glasgow.gov.uk)
- Miller, Pete – Land and Environment, [Pete.Miller@glasgow.gov.uk](mailto:Pete.Miller@glasgow.gov.uk)
- Downie, Christine – Environmental Health Officer, [Christine.Downie@glasgow.gov.uk](mailto:Christine.Downie@glasgow.gov.uk)
- Francis, Christine – Infrastructure Asset Manager, [Christine.Francis@glasgow.gov.uk](mailto:Christine.Francis@glasgow.gov.uk)

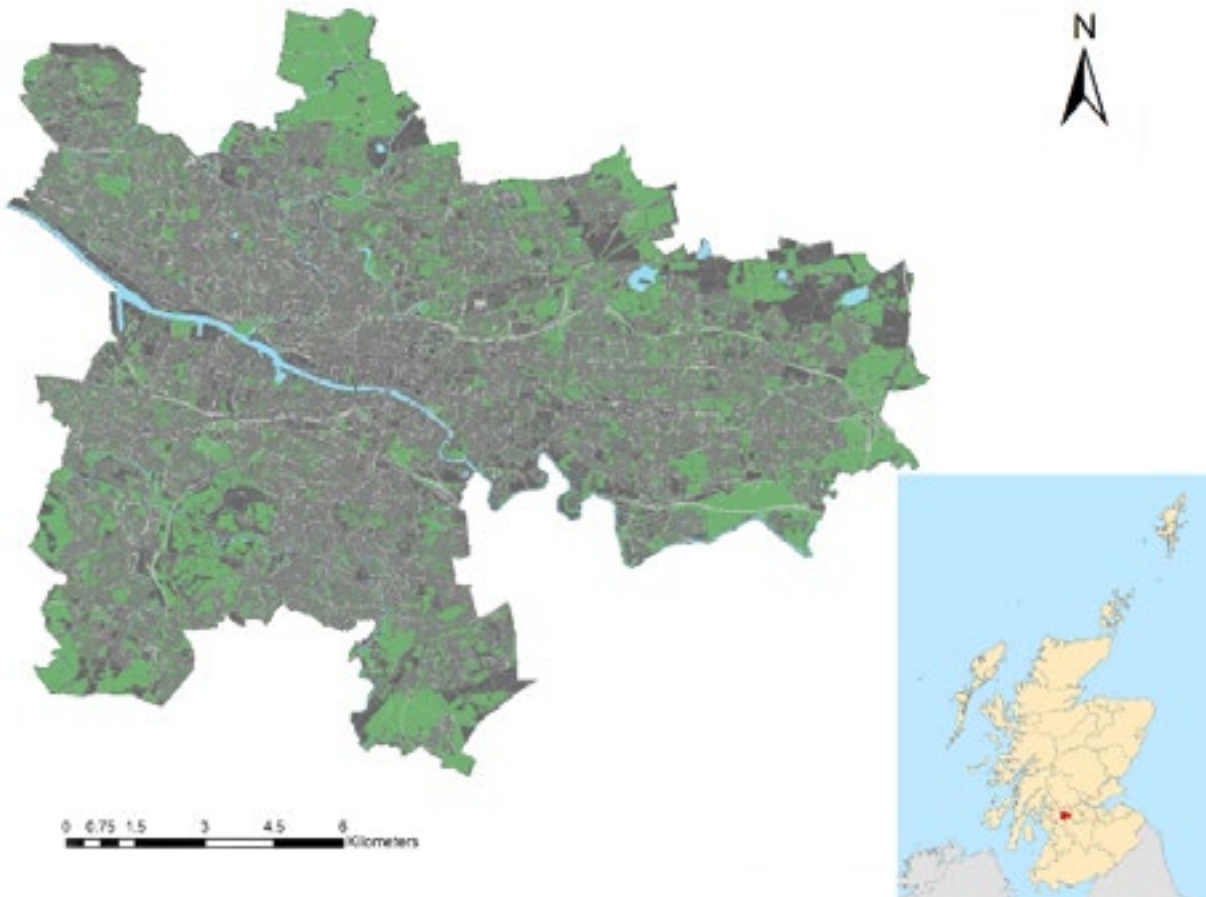
- Armstrong, Scott – Recycling Strategy Manager, [Scott.Armstrong@glasgow.gov.uk](mailto:Scott.Armstrong@glasgow.gov.uk)
- Mouat, Andrew – Principal Officer Carbon Management, [Andrew.Mouat@glasgow.gov.uk](mailto:Andrew.Mouat@glasgow.gov.uk)
- Harris, Kenneth – Sustainable Development Officer, [Kenneth.Harris@glasgow.gov.uk](mailto:Kenneth.Harris@glasgow.gov.uk)
- Robertson, Julie – Assistant Manager Sustainable Glasgow, [Julie.Robertson@glasgow.gov.uk](mailto:Julie.Robertson@glasgow.gov.uk)
- Fitzpatrick, Maureen – Procurement Development Manager, [Maureen.Fitzpatrick@glasgow.gov.uk](mailto:Maureen.Fitzpatrick@glasgow.gov.uk)
- Connor, Kerstin – Operational Procurement Manager, [Kerstin.Connor@glasgow.gov.uk](mailto:Kerstin.Connor@glasgow.gov.uk)
- Barrett, Frankie – Sustainable Glasgow Officer, [Frankie.Barrett@glasgow.gov.uk](mailto:Frankie.Barrett@glasgow.gov.uk)
- Ralph, Mic – Principle Development & Regeneration Services Transport Team, [Mic.Ralph@glasgow.gov.uk](mailto:Mic.Ralph@glasgow.gov.uk)

**15 June 2016** – Roundtable meeting

A roundtable meeting was conducted with Sonia Milne, Andrew Mouat, Frankie Barrett, and Gillian Dick to discuss the progress on the indicator assessment and obtain further documentation and contact information needed to complete the assessment.

**16 June 2016** – Roundtable meeting

A roundtable meeting was conducted with Christine Downie and Gavin Slater regarding indicators related to climate mitigation planning. The meeting included a discussion of further documentation needed and key contact information.



Map of the Local Authority of Glasgow and Its Location within Scotland (Contains Ordnance Survey data © Crown Copyright and Database Right, 2015)

### 1.3. BACKGROUND ON GLASGOW AND CLIMATE ACTION PLANNING AT THE CITY AND COUNTRY LEVELS

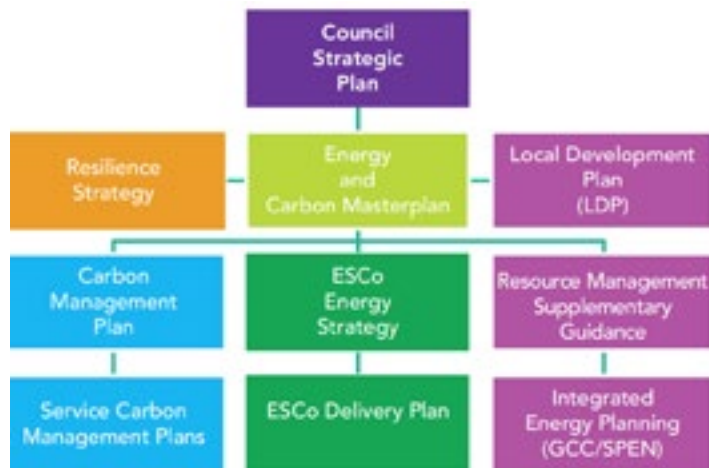
Glasgow is a city located in Scotland's West Central Lowlands, straddling the River Clyde to the north and south. The local authority has a population of approximately 600,000 people (National Records of Scotland, 2014) and is one of 32 local authorities in Scotland, also referred to as councils. Glasgow is part of a metropolitan area that also includes: East Kilbride, Greenock, Motherwell/Wishaw, Hamilton, Cumbernauld, Kilmarnock, Dumbarton, Kirkintilloch, Carluke, Helensburgh, Larkhall, Lanark, Kilbirnie, Strathaven, Beith, and Lesmahagow. The Lord Provost of Glasgow is the convener of the council and is appointed by the city councilors, who are elected every five years by registered voters of the council area.

The Scottish Government is the governing authority of the devolved Scottish Parliament, led by the first minister. The Scottish Government is responsible for all issues that are not explicitly reserved for the British Parliament in Westminster, including issues surrounding energy, heating, health, education, justice, policing, rural affairs, economic



Debating Chamber of the Scottish Parliament Building  
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Glasgow City Council Strategy Framework from the Energy and Carbon Masterplan (Sustainable Glasgow, 2015, p. 23, Figure 4)

development, and transport. The Scottish Government plays an active role in Glasgow City Council affairs by mandating reports from the Council, especially for climate change actions in accordance with the (Scottish) Climate Change Act 2009.

Climate action planning in Glasgow started with the development of the *Sustainable Energy Action Plan* (SEAP) (Sustainable Glasgow, 2010), which was approved by the Covenant of Mayors in November of 2010<sup>1</sup>. And now, climate action planning is mainstreamed throughout several city development plans and strategies.

<sup>1</sup> A Sustainable Energy Action Plan (SEAP) is the document in which the Covenant signatory (e.g., Glasgow) outline how they intend to reach their CO<sub>2</sub> reduction target by 2020. The SEAP defines activities and measures set up to achieve the CO<sub>2</sub> reduction target, along with timelines and assigned duties. The Energy and Carbon Masterplan (described below) is Glasgow's enhanced SEAP.

The overarching plan for the City is the Council Strategic Plan (Glasgow City Council, 2012), which provides the framework for other plans and strategies, including the Energy and Carbon Masterplan (ECM) (Sustainable Glasgow, 2015), which sits alongside the current Resilient Strategy, known as Our Resilient Glasgow (Glasgow City Council, 2016), which was developed by the city as part of a successful bid to the Rockefeller Foundation 100 Resilient Cities network in late 2013. The ECM also helps inform the 10-year Local Development Plan, which is currently being revised and will incorporate supplementary guidance on resource management and integrated energy planning. Importantly, these plans were developed alongside each other and thus share similar vision and objectives that can be implemented concurrently with the help of the Council and other key stakeholders.



**2**

## GUIDING PRINCIPLES INDICATOR SUMMARY

The following table summarizes the indicator-based assessment of Glasgow's current climate action planning processes.

**COLOR RATING KEY**

Preliminary evidence	Conclusive evidence	Preliminary evidence	Conclusive evidence	Preliminary evidence	Conclusive evidence	Not applicable / Not determined / Pending / Cannot determine <sup>2</sup>
<b>No or Weak compliance</b>		<b>Partial compliance</b>		<b>Full compliance</b>		

GUIDING PRINCIPLES <sup>3</sup>	INDICATOR <sup>4</sup>	ASSESSMENT	
PLAN	1A	<b>Mitigation.</b> For a given long-term target year (of 20 years or more), a city-level plan's long-term emission reduction targets meet or exceed those found in the Nationally Determined Contributions (NDCs) of the corresponding country AND/OR the city has set a 2050 target of 80% or greater reductions from base year (or equivalent).	
	1B	<b>Adaptation.</b> The plan not only seeks to make vulnerable populations, key systems and critical infrastructure more resilient to climate-related risks, but to do so in a way that is transformative <sup>5</sup> , e.g., increases security of tenure or otherwise addresses some of the root causes of poverty.	
	1C	<b>Mitigation and Adaptation.</b> The city plan sets a date to review, update and strengthen the targets and actions in the current plan.	
PROCESS	2A	Documented process of consulting with civil society during climate action planning shows specific efforts at outreach to or communications with ONE OR MORE OF THE FOLLOWING marginalized groups: (i.) Women's groups, (ii.) Neighborhoods where the average household income is below the median for the city or region, (iii.) Neighborhoods with a history of flooding or landslides, or that an assessment has shown are highly vulnerable to such climate-related hazards, AND/OR (iv.) Any other groups explicitly recognized and marginalized. Specify:	
	2B	Evidence of ongoing engagement with other (non-marginalized) stakeholders, e.g. economic actors that are potential implementation partners.	
PLAN	3A	<b>Mitigation.</b> Policy goals in the plan explicitly reflect ONE OF THE FOLLOWING: (i.) An aim not to unfairly or excessively burden the poor with the costs and any negative impacts associated with climate action (ii.) The principle of 'common but differentiated responsibility' AND/OR (iii.) The 'emitter (or polluter) pays' principle.	
	3B	<b>Adaptation.</b> At least some climate actions in the plan are clearly targeted at helping ONE OR MORE OF THE FOLLOWING marginalized groups: (i.) Women's groups, (ii.) Neighborhoods where the average household income is below the median for the city or region, (iii.) Neighborhoods with a history of flooding or landslides, or that an assessment has shown are highly vulnerable to such climate-related hazards, AND/OR (iv.) Any other groups explicitly recognized and marginalized. Specify:	

<sup>2</sup> Show assessment in grey if virtually no data are available as basis for assessment or city plan not applicable to this indicator.

<sup>3</sup> Column also shows whether the Principle primarily concerns: (i.) the climate action planning process, and/or (ii.) the plan itself – the main output of the planning process. Corresponding indicator(s) follow suit.

<sup>4</sup> Several indicators refer to a single 'plan', however in the case of mainstreaming this can refer to multiple plan documents.

<sup>5</sup> Transformative resilience is in reference Pelling, M. (2010). *Adaptation to climate change: from resilience to transformation*. Routledge.

<sup>6</sup> For indicator reflecting cross-departmental engagement within the city, see Indicator 4.1A.

GUIDING PRINCIPLES <sup>3</sup>	INDICATOR <sup>4</sup>	ASSESSMENT
<p><b>COMPREHENSIVE</b> – Coherently undertaking adaptation and mitigation actions across a range of sectors <b>within the city</b> ...</p> <p>PROCESS AND PLAN</p>	4.1A <b>Process.</b> Existence within the local government of a standing cross-departmental working group that has met at least once in the past year, whose terms of reference or written mandate includes promotion of coordinated climate action.	
	4.1B <b>Plan.</b> The climate action plan addresses BOTH adaptation AND mitigation, AND Adaptation actions address two or more sectors, AND Mitigation actions address two or more sectors	
<p><b>INTEGRATED [horizontally and vertically]</b> – ...as well as supporting broader regional initiatives and the realization of priorities of higher levels of government when possible and appropriate.</p> <p>PROCESS</p>	4.2A <b>Inter-municipal (includes other localities and metropolitan).</b> Existence of a plan or formal agreement between the local government and one or more other adjacent local governments AND/OR metropolitan level of government, that explicitly references coordination or collaboration in climate action or resilience planning.	
	4.2B <b>Intermediate level.</b> Existence of a plan or formal agreement between the local government and an intermediate level of government (e.g. province or state) that explicitly references coordination or collaboration in climate action or resilience planning.	
	4.2C National. EITHER Nationally Determined Contribution OR National Climate Action Plan in the corresponding country includes provisions for empowering or coordinating climate action by local governments, AND/OR A proposal developed by the national government and either (i) registered as a Nationally Appropriate Mitigation Action or (ii) submitted to a multilateral climate fund (GEF, AF, GCF) includes an explicit role for local governments (including the one in question) in implementing or executing the action.	
<p><b>RELEVANT</b> – Delivering local benefits and supporting local development priorities.</p> <p>PROCESS AND PLAN</p>	5A Plan includes a statement (or equivalent) that the criteria for decision-making included the delivery of climate benefits, as well as support to local development priorities AND Plan clearly identifies that both delivery climate benefits and support to local develop priorities informed planned actions.	
<p><b>ACTIONABLE</b> – Proposing cost-effective actions that can realistically be implemented by the actors involved, given local mandates, finances and capacities.</p> <p>PLAN</p>	6A THREE OR MORE of the following conditions are met: (i.) Responsibilities for implementing actions are assigned to specific entities/agents, (ii.) At least half of the actions presented in the plan include an estimate of implementation costs and financial returns (ideally presented as both net present value and internal rate of return), (iii.) At least twenty percent of the actions designate a planned funding source, (iv.) Some actions are shown as ‘quick wins’, (v.) Some pilot actions are included, (vi.) The plan includes actions to cut emissions from and/or improve resilience of the municipal estate and operations, (vii.) The plan sequences actions over time, (viii.) The plan includes a process for engaging suppliers and procuring key assets and facilities, (ix.) The plan includes a strategy for advocacy, communication, dissemination and/or implementation.	

GUIDING PRINCIPLES <sup>3</sup>	INDICATOR <sup>4</sup>	ASSESSMENT
<p><b>EVIDENCE-BASED</b> – Reflecting scientific knowledge and local understanding, and using assessments of vulnerability and emissions and other empirical inputs to inform decision-making.</p>	<p>7A <b>Mitigation.</b> Plan includes a summary of a baseline greenhouse gas emission inventory (and potentially an energy costs inventory), disaggregated by sector and produced according to international GHG accounting guidelines, AND A statement that this inventory was used to inform and support decision-making and to help prioritize mitigation actions.</p>	
	<p>7B <b>Adaptation.</b> Plan includes a summary of a vulnerability assessment, with a spatial dimension, that reflects local and scientific knowledge (ideally based upon credible data from climate projections, local infrastructure inventories, socioeconomic data and so on), AND A statement that this assessment was used to inform and support decision-making, and to help prioritize adaptation actions.</p>	
<p>PROCESS AND PLAN</p>		
<p><b>TRANSPARENT</b> – Following an open decision-making process and [providing for public reporting on progress towards achieving] goals...</p>	<p>8.1A ALL of the following conditions are met; The plan summarizes: (i.) Opportunities for engagement that civil society had during the planning process, (ii.) The criteria and process for prioritizing climate actions, AND (iii.) Commitments for reporting (including in public meetings) on progress towards implementing the plan, AND More detailed evidence to support this summary information or confirm implementation of these plans is available from the local government upon request, AND Plan is available online, in a language that is understood by the public as well as those with technical understanding.</p>	
<p>PROCESS</p>		
<p><b>VERIFIABLE</b> – ... setting goals that can be measured, reported, independently verified, and evaluated.</p>	<p>8.2A The plan features a monitoring and evaluation framework that BOTH: (i.) Includes indicators that correspond to key climate targets and/or actions, AND (ii.) Provides for the periodic measurement of progress towards meeting those targets or actions</p>	
<p>PLAN</p>		

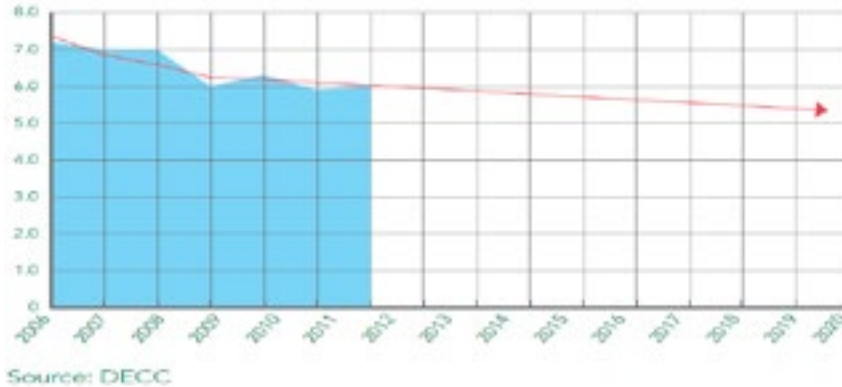


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## APPLICATION OF GUIDING PRINCIPLES

## PRINCIPLE 1 – AMBITIOUS

### INDICATOR 1A



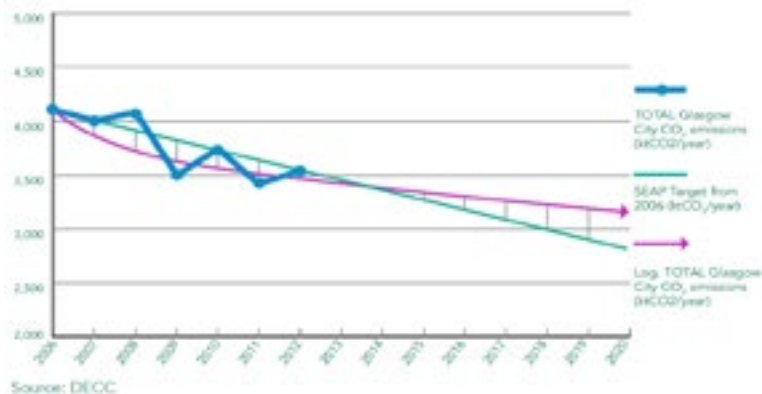
Carbon Dioxide emissions per Capita from 2006 and the Predicted Trends to 2020 from the Energy and Carbon Masterplan (Sustainable Glasgow, 2015, p. 36, Figure 12)

Glasgow’s emissions reduction target is a 30% reduction of carbon dioxide (CO<sub>2</sub>) emissions by 2020 from 2006 levels (estimated at 4,094,327 tonnes per year) (Sustainable Glasgow, 2015, p. 4). Glasgow’s target is seen as a contribution to meeting the European Union’s (EU’s) 2020 climate and energy targets set out in Europe 2020 – the EU’s 10-year growth and jobs strategy. The EU’s 2020 climate and energy targets are: (1) greenhouse gas emissions 20% (or even 30%, if the conditions are right) lower than 1990; (2) 20% of energy from renewables (quotas sharing this target between member states gave Britain the binding national target of 15%); and (3) 20% increase in energy efficiency (European Commission, 2015). The greenhouse gas emissions target is the driver for the Covenant of Mayors initiative and is the basis of Glasgow

City Council’s commitment to achieve a 30% reduction in CO<sub>2</sub> emissions by 2020<sup>7</sup>.

The Scottish Government has also set a long-term target to reduce net Scottish emissions for the year 2050 by at least 80% from the 1990 baseline (Scottish Government, 2009a, p. 1). The interim target is a reduction in net Scottish emissions for the year 2020 by at least 42% carbon emissions from a 1990 baseline year. This interim target equates to a 30% reduction from 2006 baseline and is in keeping with Glasgow’s current emissions reduction target (Sustainable Glasgow, 2010, p. 24).

<sup>7</sup> For more on the legislative context for emissions reduction see Section 1.3 of the ECM (Sustainable Glasgow, 2015, pp. 12-14).



Glasgow CO<sub>2</sub> Emissions and Targets from 2006 to 2020 from the Energy and Carbon Masterplan (Sustainable Glasgow, 2015, p. 37, Figure 13)

## European Union (EU), United Kingdom, and Glasgow Carbon and Greenhouse Gas (GHG) Targets from the Energy and Carbon Masterplan (Sustainable Glasgow, 2015, p. 13, Table 1)

Source	Baseline year	Target 2020	Target 2030	Target 2050
EU policy framework for climate and energy	1990	–	40%	–
EU Europe 2020 strategy, 2010	1990	20% CO <sub>2</sub>		
Climate Change Act (UK), 2008	1990	34% CO <sub>2</sub>		80% CO <sub>2</sub>
Climate Change (Scotland) Act <sup>1</sup> , June 2009	1990	42% GHG	50% GHG	80% GHG
Glasgow SEAP, 2010	2006	30% CO <sub>2</sub>	none	none

<sup>1</sup>The reduction targets include emissions from international aviation and shipping, six GHG (greenhouse gases), including CO<sub>2</sub>

### INDICATOR 1B

Glasgow's *Resilient Strategy* seeks not only to address climate-related risks in areas subject to increased flooding<sup>8</sup>, but also resilience in vulnerable communities through transformative actions targeted at addressing the root causes of poverty. For example, actions under Goal 3D from the *Resilient Strategy* include the following (Glasgow City Council, 2016, p. 43):

- Facilitating discussions with economic partners to ensure societal resilience is an explicit and intended outcome of new economic interventions,
- Exploring opportunities for changes to care models to mitigate impacts based on learning around poverty and access to employment, and
- Embedding objectives of socio-economic resilience throughout the forthcoming *Economic Strategy*

However, explicit safeguards to ensure that human rights are fully respected when considering the possible relocation of the most vulnerable populations are not included in the *Resilient Strategy*.

### INDICATOR 1C

Monitoring of the ECM is done on an annual basis, and a report is produced for internal and external use per the recommendation of the Covenant of Mayors (Sustainable Glasgow, 2015, p. 103). The report includes annual emissions inventories, comparisons with the baseline

emissions inventory, and progress statements in relation to the emissions reduction target of 30% by 2020. However, there is no specific timeline for an update of the *ECM*.

Likewise, the *Resilient Strategy* clearly states that an “annual resilient statement” will be produced through ongoing dialogue with core partners to communicate yearly performance towards goals and actions in the *Strategy*. Plans are in place for a refresh of the *Resilient Strategy* in 2018 (Glasgow City Council, 2016, p. 52).

## PRINCIPLE 2 – INCLUSIVE

### INDICATOR 2A

A new stakeholder engagement plan was developed through the *Strategies Towards Energy Performance and Urban Planning* (STEP UP) program to prioritize engagement with key stakeholders during the development of the enhanced SEAP, known as the ECM. Through this process, over 125 organization responded to a stakeholder survey and over 500 citizens responded to a citizens' survey.

During the development of the *Resilient Strategy*, Glasgow's strategic partner, Arup, also facilitated stakeholder engagement workshops in order to determine the city's resilience priorities and build ownership and commitment towards a strategy (Glasgow City Council, 2016, p. 21). During the process of consulting with civil society, the Resilience Glasgow team visited over 1,500 people throughout the city and held 12 targeted workshops with nine stakeholder groups, including the Glasgow

<sup>8</sup> See the Metropolitan Glasgow Strategic Drainage Partnership (<https://www.mgsdp.org>) for an example.



Disability Alliance, West of Scotland Racial Equality Council, Interfaith Glasgow, Glasgow Homelessness Network, and the City Mission. Additionally, more than 1,200 children and young people took part in an art competition designed to explore the qualities and attributes needed for a more resilient future.

#### INDICATOR 2B

The ECM mentions Sustainable Glasgow's engagement with over 125 stakeholders and city-wide partners, including those from higher education and other economic actors. These non-marginalized stakeholders include: Strathclyde Passenger Transport, Scottish Environment Protection Agency, Scottish Enterprise, Scottish Natural Heritage, Historic Scotland, Forestry Commission, Transport Scotland, Scottish Water, and NHS Greater Glasgow and Clyde. Additionally, the *Resilient Strategy* mentions several non-marginalized stakeholders, including: University of Strathclyde, Glasgow Centre for Population Health, and the Local Resilience Partnership.

### PRINCIPLE 3 – FAIR

#### INDICATOR 3A

Policy priorities in the ECM specifically mention aims to reduce fuel poverty. According to the Scottish Government, a household is in fuel poverty if in order to maintain a satisfactory heating regime, it would be required to spend more than 10% of its income on all household fuel use. Over 20% of homes in Glasgow were estimated to suffer from fuel poverty. Investment in improving housing stock has acted to moderate the impacts of higher energy costs to an extent, yet more radical interventions are needed. For example, the ECM specifically mentions “[t]argeting those homes that are in more deprived communities, heated using inefficient electrical resistance heating, or solid fuels, and which are therefore more likely to suffer from fuel

poverty” as a priority (Sustainable Glasgow, 2015, p. 17). The ECM presents proposals for more extensive district heating networks (likely including in the lower income areas), which is supported by the *Local Development Plan* (LDP) and the new city-wide *Energy Service Company* (ESCO) (Sustainable Glasgow, 2015, pp. 63-64).

#### INDICATOR 3B

The *Resilient Strategy* identifies two key actions under Goal 2B – *Tackle the local impacts of global climate change* (Glasgow City Council, 2016, pp. 35-38):

1. Learn from other cities in the 100 Resilient Cities global network about urban interventions to increase the amenity value of water management solutions, and
2. Prepare guidance on climate ready design and promote adoption by developers, planners and designers, particularly focusing on building retrofit to ensure long-term fitness for function.

The *Resilient Strategy* is people-focused and clearly identifies the need to address those in the community who are suffering from health inequalities, high rates of unemployment, and lack of access to opportunities. However, the specific climate actions highlighted in the *Strategy* do not clearly target marginalized groups over other groups in the community.

### PRINCIPLE 4.1 – COMPREHENSIVE

#### INDICATOR 4.1A

The two main departments that collaborate on climate action within GCC are the Land and Environmental Services and the Development and Regeneration Services. The departments meet regularly on a quarterly basis through the Senior Officers' Group on Sustainability and Environment. See below for the Climate Change Governance Structure.

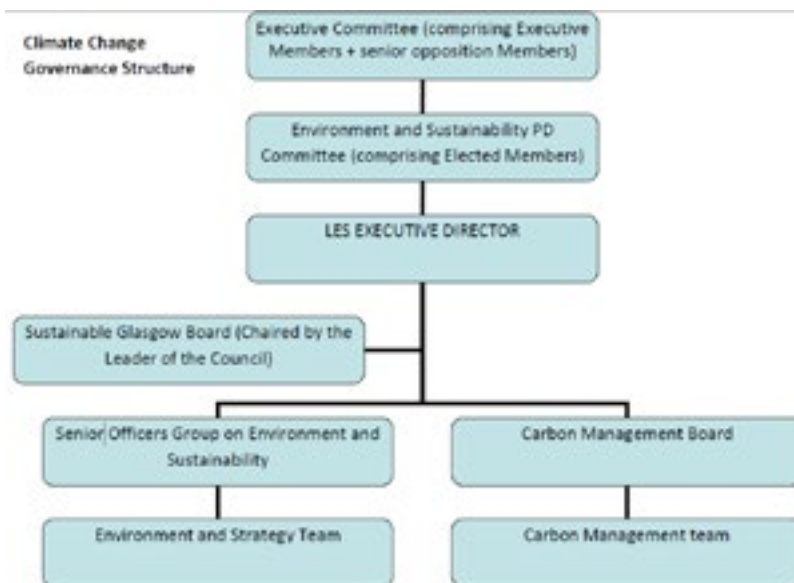


Diagram Outlining the Governance of Climate Change Mitigation and Adaption Initiatives from the Glasgow City Council's Sustainable Scotland Network 2013-14 Reporting Template (Sustainable Scotland Network, 2014, p. 2, Appendix 1)

#### INDICATOR 4.1B

Climate action planning in Glasgow addresses both adaptation and mitigation, through the *Resilient Strategy* and *Energy and Carbon Masterplan* respectively. There are five different sectors addressed in the *ECM*, including:

buildings (municipal, tertiary, residential, public lighting and industry), transport (municipal, private, public), local energy production, local heat/cold production, and others (forestry, land use, waste) (Sustainable Glasgow, 2015, pp. 61-62).

Sector	Total CO <sub>2</sub> Savings (2006-2020)	Current CO <sub>2</sub> Savings (2006-2012)		Required CO <sub>2</sub> Savings (2013-2020)	
	30% reduction from 2006 - 2020 (kt CO <sub>2</sub> )	Current CO <sub>2</sub> reduction 2006 - 2012 (kt CO <sub>2</sub> )	Current percentage achieved from 2006 - 2012 (%)	Target for 2013 - 2020 (kt CO <sub>2</sub> )	Percentage reduction required for 2013 - 2020 (%)
Buildings (municipal, tertiary, residential, public lighting and industry)	960.11	446.39	36.34	348.80	27.7
Transport (municipal, private, public)	262.18	78.36	6.38	69.76	8.9
Local Energy Production	n/a	n/a	n/a	104.64	n/a
Local Heat/Cold Production	n/a	n/a	n/a	104.64	n/a
Others (forestry, landuse, efw)	6.00	5.96	0.48	69.76	n/a
Subtotal CO <sub>2</sub> reduction			530.70		697.60
Target 30% CO <sub>2</sub> reduction from 2006 by 2020			1228.30		

Current and Expected CO<sub>2</sub> Saving to Meet 30% CO<sub>2</sub> Reduction Target by Sector (Sustainable Glasgow, 2015, p. 62)

Glasgow's *Resilient Strategy* explicitly references the need to be integrated as a way to "meet common goals through coordinated efforts across all sectors" (Glasgow City Council, 2016, p. 7). The *Strategy* specifically mentions working between the "third" (or voluntary/community/non-profit) sector, public sector, and academic sector, as well as the business sector as part of Action 1.A.5 of the *Strategy*.

## PRINCIPLE 4.2 – INTEGRATED [HORIZONTALLY AND VERTICALLY]

### INDICATOR 4.2A

Glasgow works with 6 other cities (Aberdeen, Dundee, Edinburgh, Inverness, Perth, and Stirling) across Scotland as part of the Scottish Cities Alliance. The current areas of focus identified in the Operational Plan for the Alliance include: investment promotion, infrastructure, smart cities, and low carbon (Scottish Cities Alliance, 2014). Activity on the Low Carbon agenda is reported in the Low Carbon Resilient Cities Report (Scottish Cities Alliance, 2015). Glasgow is also part of the STEP UP learning network in partnership with other European cities, including Ghent, Gothenburg, and Riga (<http://www.stepupsmartcities.eu/>). Glasgow also participates in the Climate Ready Clyde initiative, a regional adaptation program (Adaptation Scotland, 2015).

### INDICATOR 4.2B

The *Climate Change (Scotland) Act 2009* set an emissions reduction target of 80% by 2050 from the baseline year, 1990 (Scottish Government, 2009a, p. 1). It also committed Scotland to a 42% reduction in emissions by 2020 and annual reductions between 2010 and 2050. As of January 2011, public sector bodies in Scotland, including the Glasgow City Council, must comply with new guidelines set out by the Scottish Government (Sustainable Glasgow, 2015, p. 13). As mentioned above, it is also within the duties of Glasgow City Council to deliver an annual report to the Scottish Government according to the reporting requirements of the Climate Change Duties of Public Bodies Order 2015, a revision to the Climate Change (Scottish) Act – Part 4, to insure the Scottish emissions targets can be achieved.

### INDICATOR 4.2C

As described in Indicator 4.2B, Part 4 of the Climate Change (Scotland) Act 2009 requires public bodies within Scotland to contribute to achieving the emissions targets of 42%

reduction by 2020 and 80% reduction by 2050 from the 1990 baseline year. Additionally, the Scottish Government's Climate Change Delivery Plan references the importance of implementation of climate actions by local authorities with regards to heat demand and supply and land-use development plans (Scottish Government, 2009b)

## PRINCIPLE 5 – RELEVANT

### INDICATOR 5A

Associated Supplementary Planning Guidance in the Local Development Plan is under development to encourage sustainable development, renewable energy, district heating, and energy efficiency in new developments throughout the city (Sustainable Glasgow, 2015, pp. 23-24). As mentioned above, the overarching plan for the Glasgow City Council is the *Council Strategic Plan*. This provides the framework for the *Energy and Carbon Masterplan*, which helps inform the *Local Development Plan* (including Supplementary Guidance on Resource Management). The ECM also informs the emerging strategy being developed by the Council to guide the work on the new Energy Services Company (ESCo). These plans are being developed alongside each other, which is of benefit to the city, as the plans have a shared vision and shared objectives that can be implemented simultaneously with support from the council and other stakeholders.

## PRINCIPLE 6 – ACTIONABLE

### INDICATOR 6A

Between the climate actions outlined in the ECM and the *Resilient Strategy*, the GCC has assigned the responsibility for implementation to several specific agents. For example, the ECM identifies the GCC as the key implementer for Actions 1-10 related to reducing carbon emissions from municipal buildings<sup>9</sup> (Sustainable Glasgow, 2015, pp. 68-71). The ECM also recognizes the Glasgow Chamber of Commerce<sup>10</sup> as an important partner in developing initiatives with private companies to reduce energy usage in non-municipal buildings and industry (Actions 11-14) (Sustainable Glasgow, 2015,

<sup>9</sup> See also the GCC's Carbon Management Plan, which includes actions to cut emission from the municipal estate and operations (Glasgow City Council, 2013).

<sup>10</sup> Note, the GCC does not stand for the Glasgow Chamber of Commerce and is instead used throughout this report to designate the Glasgow City Council.

pp. 72-73). See *Section 4.6 Key Action by Sector* of the EGM for additional details on several additional actions and implementation partners ranging from Scottish Federation of Housing Associations to Scottish and Southern Energy and the Strathclyde Partnership for Transport (Sustainable Glasgow, 2015, pp. 68-88). The *Resilient Strategy* also summarizes all key resilience goals and actions along with “action owners” and a timeline for completion in Appendix 1 (Glasgow City Council, 2016, pp. 54-60). In addition to identifying key implementation partners, each of the climate action plans identifies pilot actions and “quick wins,” including demand side management (DSM) demonstrator project and the implementation of PC shutdowns and boiler replacement and optimization (Sustainable Glasgow, 2015, pp. 69-70).

## PRINCIPLE 7 – EVIDENCE-BASED

### INDICATOR 7A

A summary baseline greenhouse gas emissions inventory (by sector) is provided on Sections 2.1 and 2.2 of the ECM, along with references to the use of the GHG inventory to support decision making and prioritize mitigation actions (Sustainable Glasgow, 2015, pp. 36-37). CO<sub>2</sub>-equivalents used in the inventory are based on those provided in the UK’s Department of Energy and Climate Change (DECC) database. In keeping with the Covenant of Mayors, Glasgow uses an end-user methodology to report Scope 1 and 2 emissions.

### INDICATOR 7B

While the *Resilient Strategy* recognizes that the GCC is “acutely aware of Glasgow’s exposure to future climate change, particularly the impacts of increased rainfall and flooding” (Glasgow City Council, 2016, p. 35), climate actions in the *Strategy* under Goal 2.B do not draw a clear link with a vulnerability assessment based on local and scientific knowledge. However, in the draft of *Our Resilient Glasgow: A City Conversation*, it was recognized that Glasgow needs to “develop an integrated approach to planning and land use that ensures Glasgow is resilient in the face of shifting threats. [Glasgow] will consider the vulnerabilities of physical assets and infrastructure in the face of chronic stresses and acute shocks, such as climate change” (Glasgow City Council, 2015, p. 18)

## PRINCIPLE 8.1 – TRANSPARENT

### INDICATOR 8.1A

Glasgow’s ECM is available online (<https://www.glasgow.gov.uk/CHttpHandler.ashx?id=32441&p=0>) and is available in English, the primary language spoken throughout the whole of Scotland and the UK. Additionally, the ECM summarizes opportunities for engagement that civil society had during the planning process (Sustainable Glasgow, 2015, p. 20) and the Council’s commitments for reporting on progress towards implementing the plan (Sustainable Glasgow, 2015, p. 103). More detailed evidence to support this summary information or confirm implementation of the ECM is available from the GCC Sustainable Glasgow Team upon request. However, information on the criteria and process for prioritizing climate actions and commitments for reporting progress to the public via public meetings is lacking from the ECM.

Similarly, Glasgow’s *Resilient Strategy* is available online (<http://www.glasgow.gov.uk/CouncillorsandCommittees/viewSelectedDocument.asp?c=P62AFQDNT1Z3UTT1DX>) and is also available in English. The *Strategy* clearly summarizes opportunities for engagement that civil society had during the development of the strategy (Glasgow City Council, 2016, pp. 21-22) and the Council’s commitments for reporting on progress towards implementing the *Strategy* (Glasgow City Council, 2016, pp. 52-53). More detailed evidence to support this summary information or confirm implementation of the *Strategy* is available from the GCC Sustainable Glasgow Team upon request. However, information on the criteria and process for prioritizing climate actions and commitments for reporting progress to the public via public meetings is lacking from the *Strategy*.

## PRINCIPLE 8.2 – VERIFIABLE

### INDICATOR 8.2A

Glasgow’s ECM features a monitoring and evaluation framework that details on the periodic measurement of progress towards emissions and energy targets. However, in the case of the *Resilience Strategy*, the GCC is still in the process of developing a “Monitoring and Evaluation Framework” that will take into account indicators that correspond to key climate actions and goals that will be shared via the Understanding Glasgow website ([www.understandingglasgow.com](http://www.understandingglasgow.com)) (Glasgow City Council, 2016, pp. 52-53).





# RECOMMENDATIONS

#### FOR CITY-LEVEL CLIMATE ACTION PLANNING PROCESS

Glasgow's current climate action planning is largely in compliance with the *Guiding Principles*. However, based on the indicator-based assessment, the following recommendations would Glasgow come in full compliance with the *Guiding Principles*:

1. Clearly identify a timeline for an update to the Energy and Carbon Masterplan.
2. Make explicit reference to safeguards in future iterations of the *Resilient Strategy* that ensure human rights are fully respected when considering the possible relocation of the most vulnerable populations.
3. Show how climate actions (in particular) are clearly targeting marginalized groups in future iterations of the *Resilient Strategy*, and draw a clear links with a vulnerability assessment based on local and scientific knowledge.
4. Provide information on the criteria and process for prioritizing climate actions and commitments for reporting progress to the public via public meetings in future iterations of the *Energy and Carbon Masterplan* and the *Resilient Strategy*.

#### FOR GUIDING PRINCIPLES

Offer any recommendations aimed at improving the Guiding Principles and its publication that could be considered for a possible future Version 2.0 of the Principles, e.g., an expanded or clarified discussion of certain Principles, Principles that do not seem to be relevant, possible new Principles and so on.

#### FOR GP INDICATORS & WORKSHEET

Offer any suggestions for improving (e.g., tightening up, reformulating, eliminating, replacing) the Indicators that correspond to the Guiding Principles. This could be done in the form of stand-alone comments, and/or track changes made to the present Worksheet.

Incorporate language that makes the worksheet more usable to cities that have climate actions spread across multiple plans. For example, where appropriate, replace the word "plan" with "plan(s)."

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**Other resources:**

[www.unhabitat.org/cop21-guiding-principles-for-city-climate-action-planning-annex/](http://www.unhabitat.org/cop21-guiding-principles-for-city-climate-action-planning-annex/)

[www.unhabitat.org/urban-initiatives/initiatives-programmes/cities-and-climate-change-initiative/](http://www.unhabitat.org/urban-initiatives/initiatives-programmes/cities-and-climate-change-initiative/)

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