



Covenant of Mayors
in Sub-Saharan Africa

CoM SSA SEACAP Toolbox

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Publication date: November 2020

Author: ICLEI Africa

The full SEACAP Toolbox is found here: <https://comssa.org/>



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CoM SSA SEACAP Toolbox

2.7: Setting Mitigation Targets

This chapter is one component of the SEACAP Toolbox for the full Toolbox, please visit: <https://comssa.org/>

What you will learn in this chapter:

- What are mitigation targets?
- What purpose do they serve?
- Explaining the different types of targets
- Things to keep in mind while setting targets

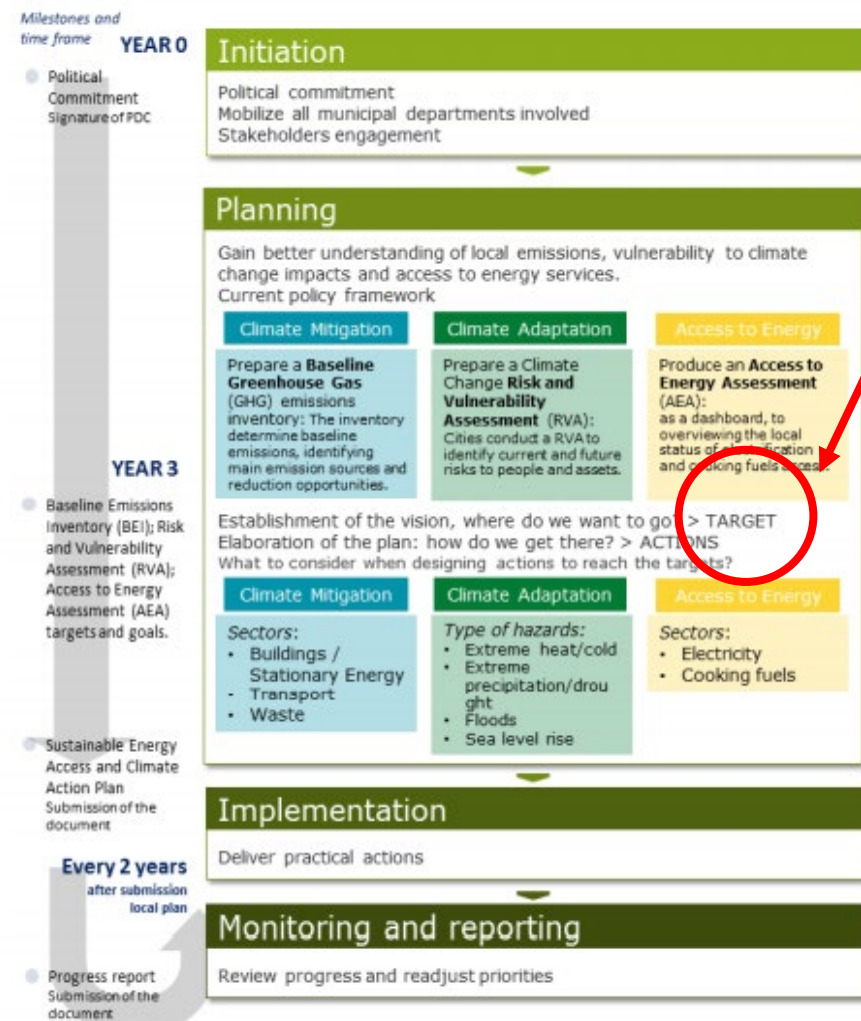
This chapter has been designed for Local Government Officials and partners completing a SEACAP



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What emissions targets are (and where they fit in)

Figure 4. The SEACAP process: main phases, milestones and timeframe.



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“Targets” and “Goals” are often used interchangeably

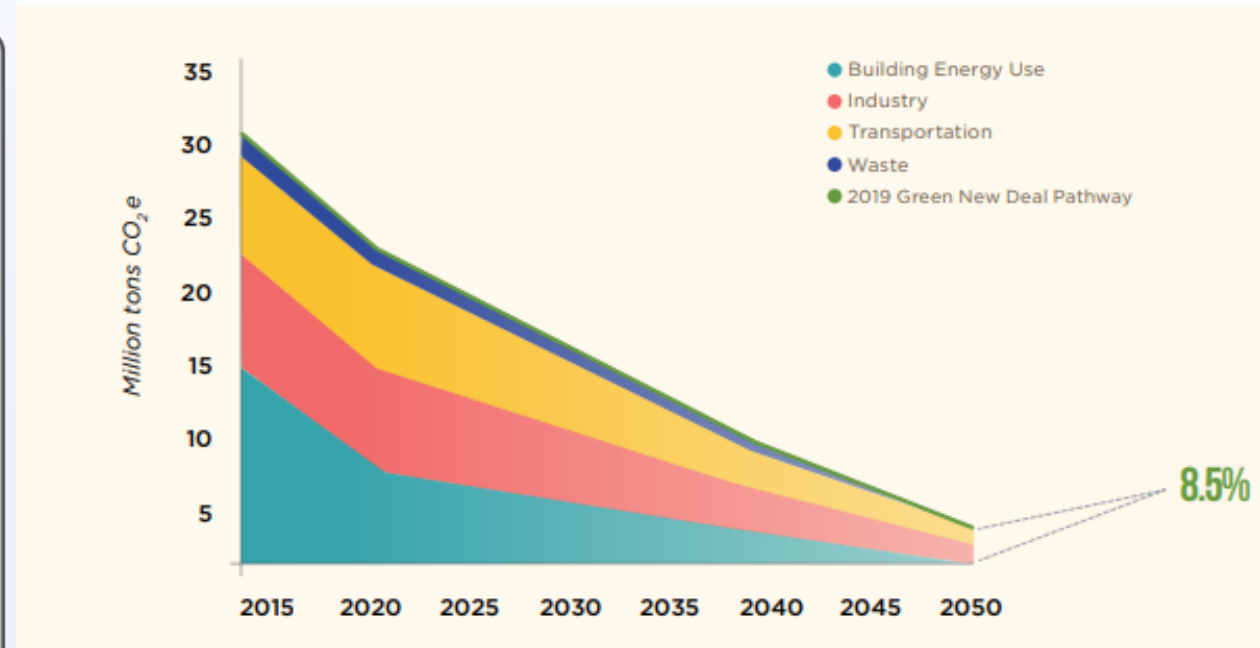
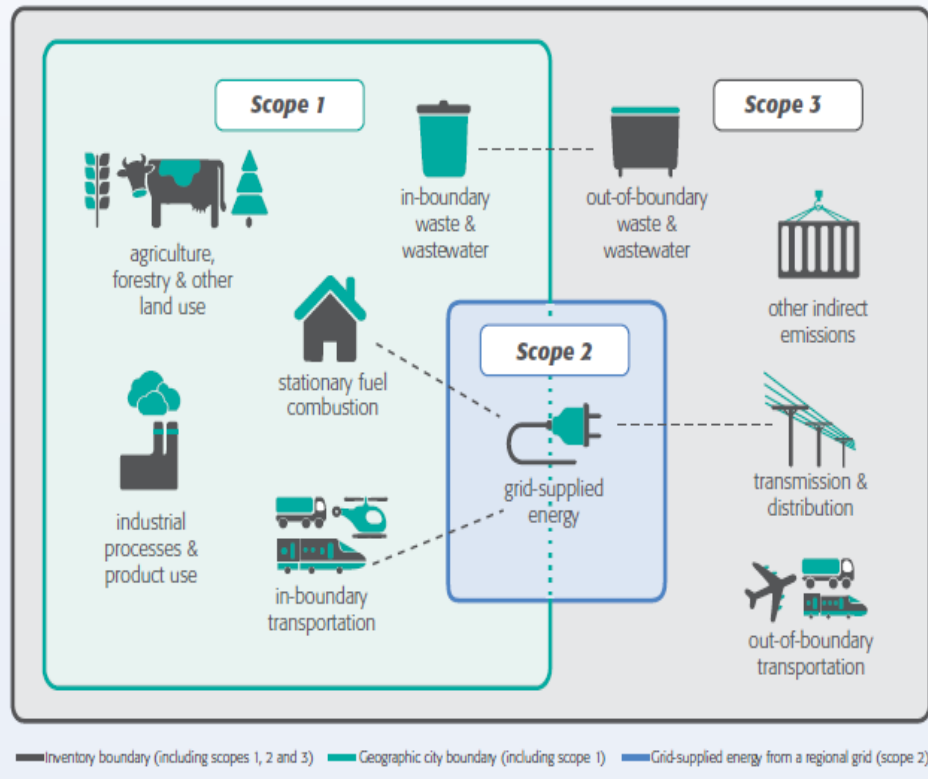


Source: WRI, C40, ICLEI. Global Protocol for Community-Scale Greenhouse Gas Inventories.

What makes a target

- Requires a base year and target year GHG inventory
- Can apply to overall emissions profile or subset, disaggregated by gas/scope/sector

Figure 1 Sources and boundaries of city GHG emissions

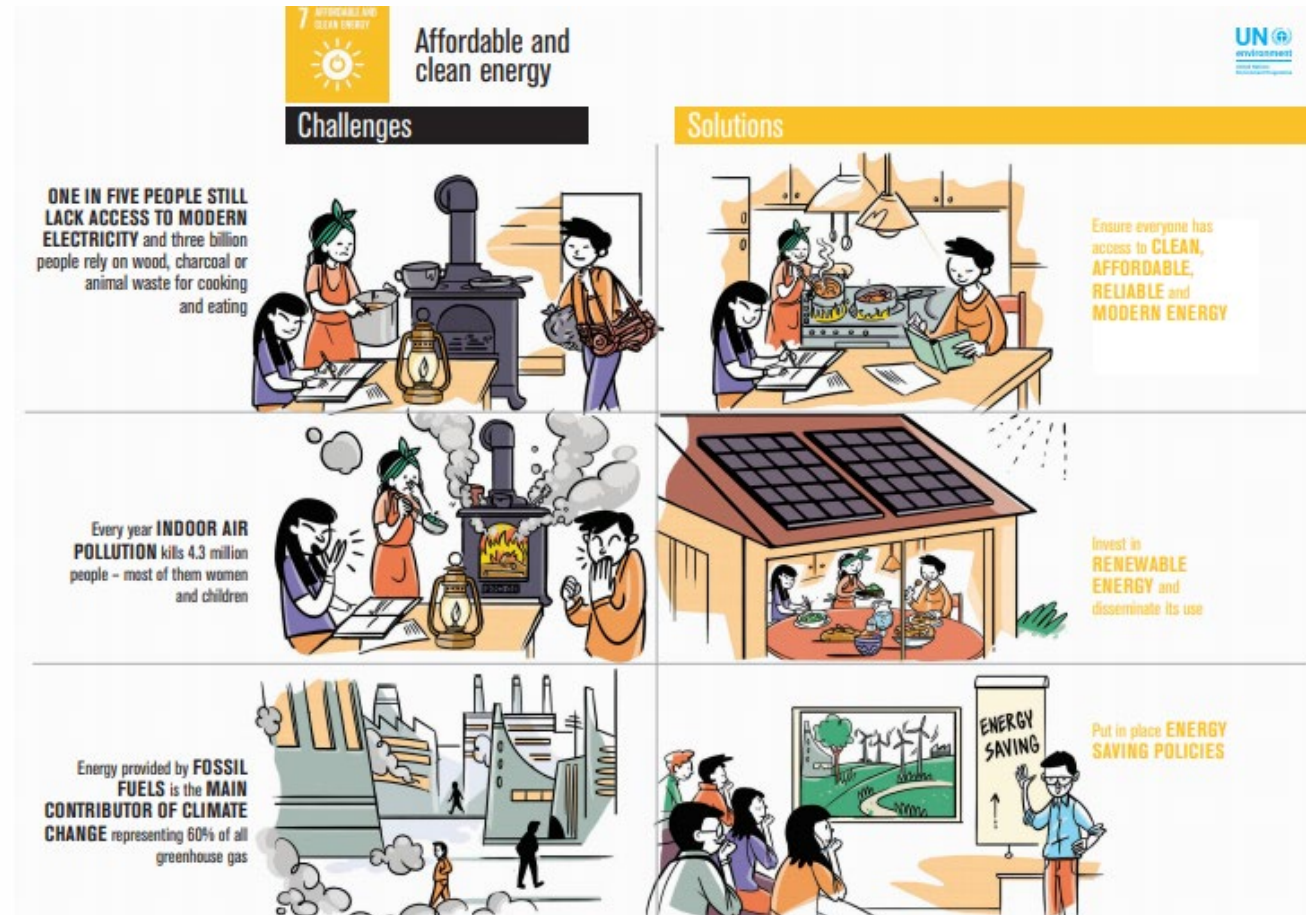
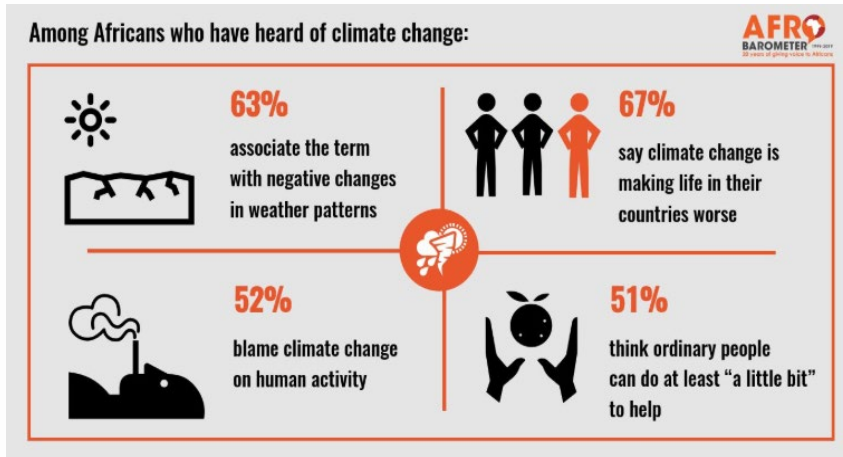


Not just about emissions

Other metrics assessing co-benefits:

access to sustainable energy, employment creation, air quality, savings, etc.

Public perception



Why are the targets useful?

- Local contribution to global mitigation and national targets
- Leadership, political pragmatism, technical functions of sector-specific role in broader targets
- Identify specific sources and incentivise solutions



Source: C40 Cities. Twitter feed.



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Different types of targets

- Base-year emissions
- Base-year intensity
- Fixed level
- Baseline scenario

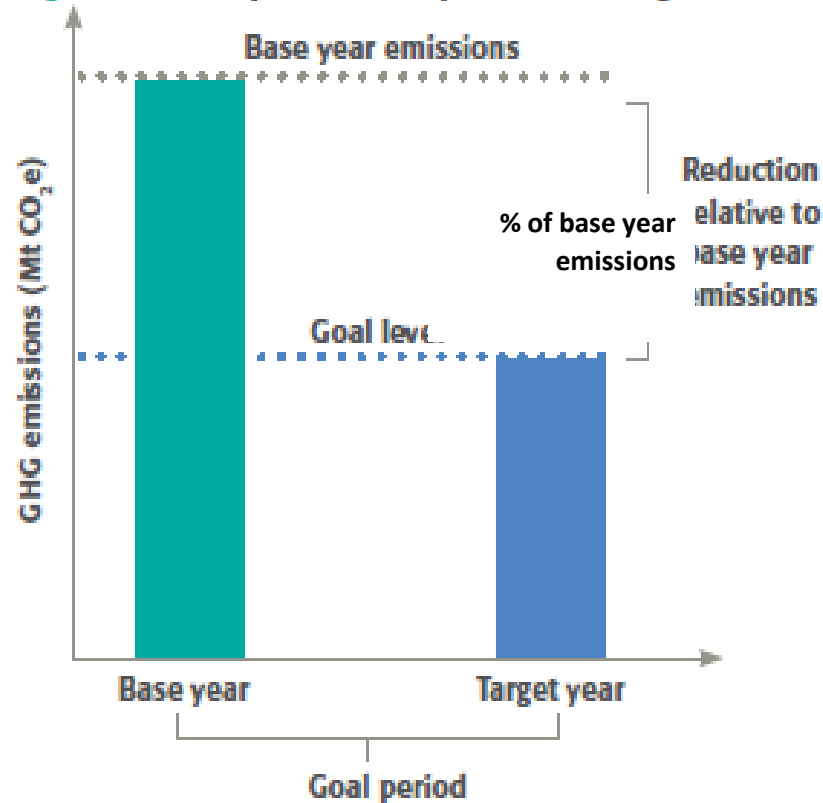


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Emissions target types: Base year emissions

Absolute reduction relative to base year

Figure 11.1 Example of a base year emissions goal



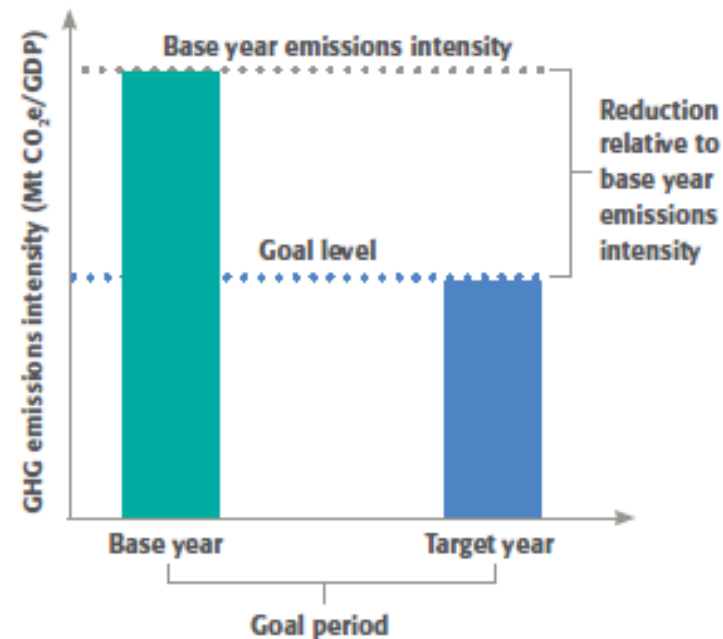
E.g. 30% reduction of emissions relative to the base year.

Emissions target types: Base year intensity

Emissions intensity is the average emissions per unit of another indicator, e.g. emissions/person, emissions/dollar spent in the year, emissions/kWh consumed. It tries to explain what the carbon footprint is for each resident in the city or for the occurrence of a particular activity in a given year.

Reduction in emissions intensity (emissions per capita/unit GDP/energy consumption)

Figure 11.3 Example of a base year intensity goal

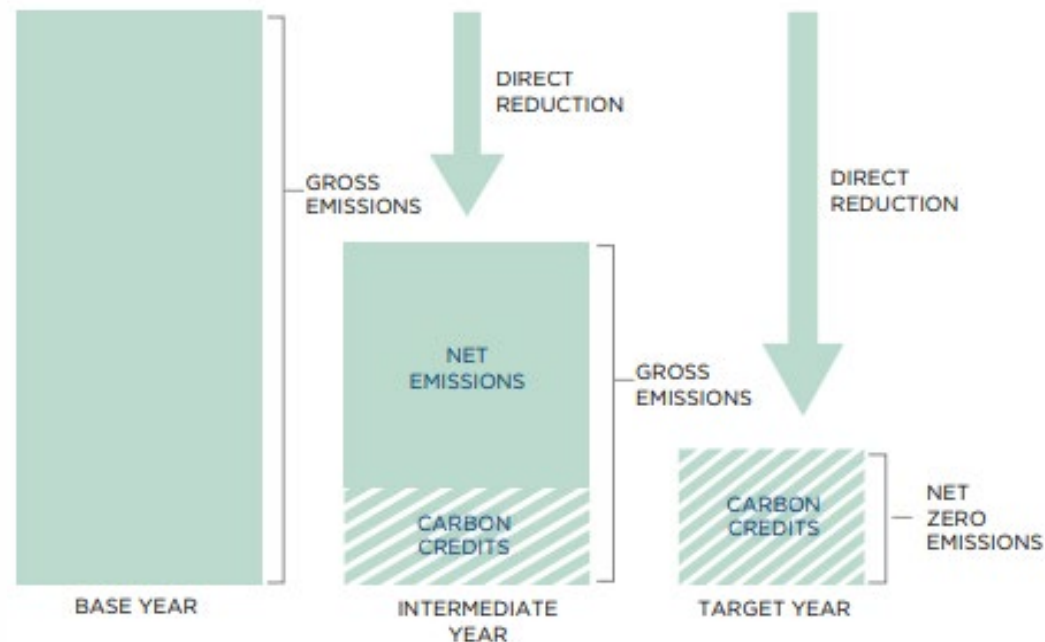


Emissions target types: fixed-level

Reduction to an absolute level

E.g. carbon neutrality: net zero carbon dioxide emissions. This is where emissions are reduced to a level where it no longer adds to the stock in the atmosphere.

ACHIEVING CITYWIDE CARBON NEUTRALITY



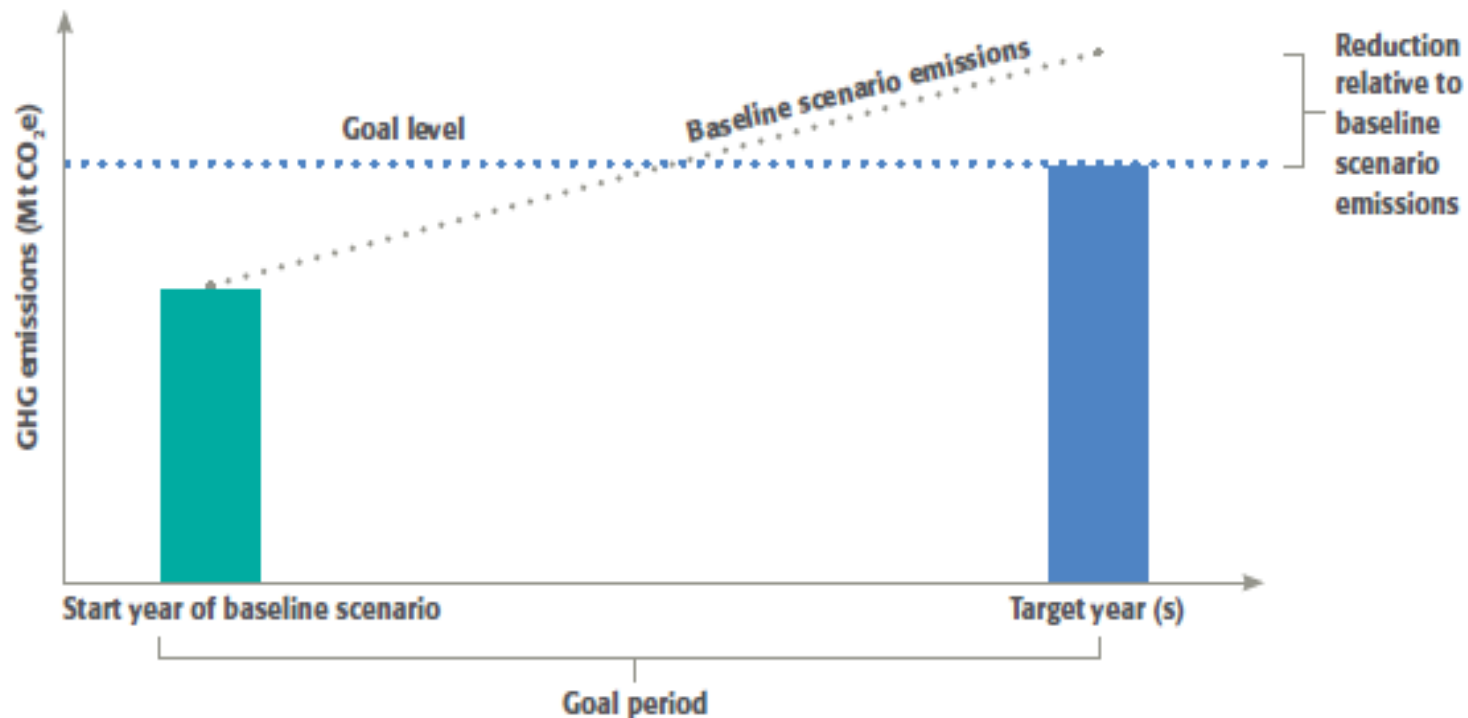
Emissions target types: baseline scenario

Percentage reduction from business-as-usual

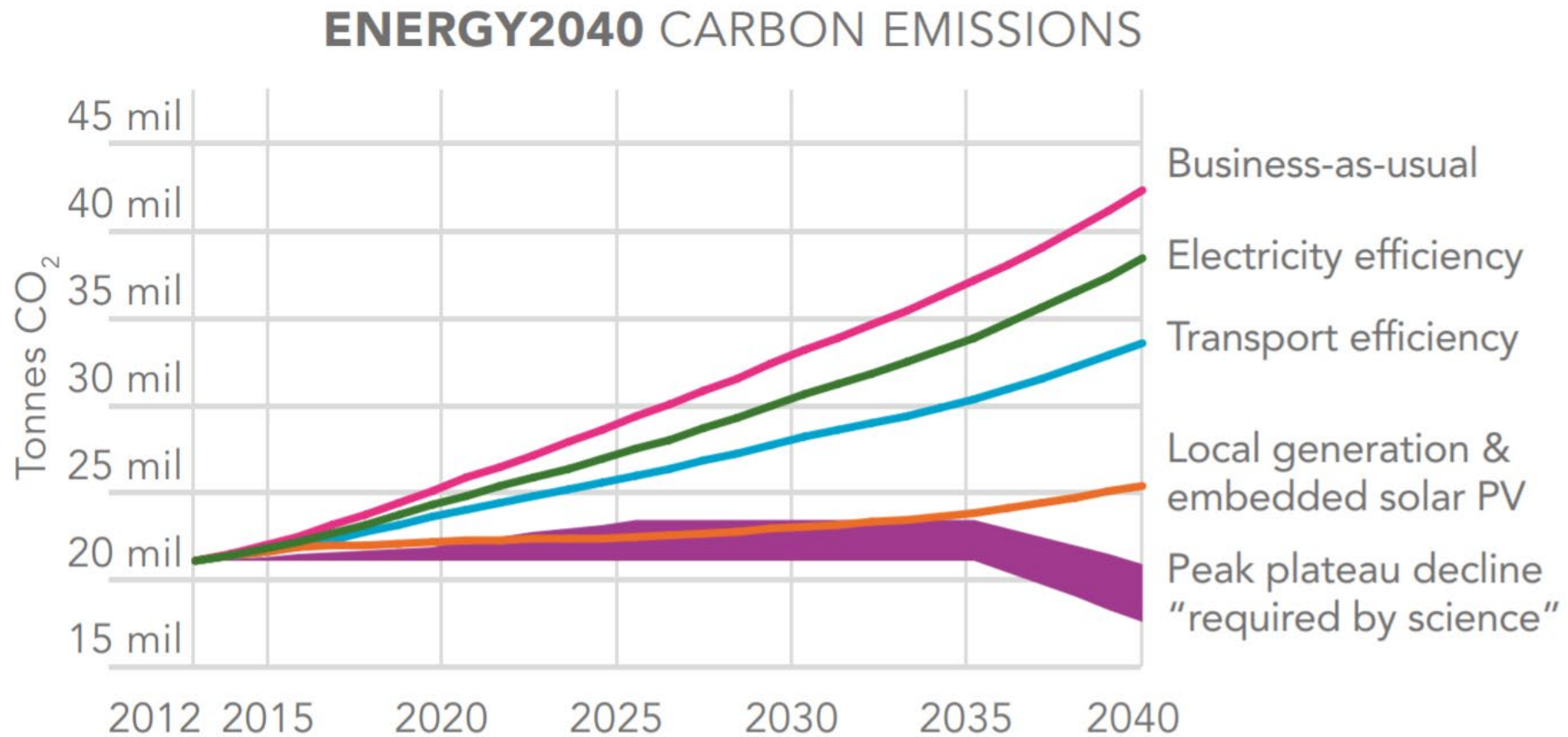
Technically complex

Drivers of emissions: economic / population growth

Figure 11.4 Example of a baseline scenario goal



Emissions target types: baseline scenario



Emissions target types: summary

Goal type		Example	Minimum inventory need
Base year emissions goals	Single-year goal	London (UK): By 2025 60% GHG emissions reduction on 1990 levels	Inventory for 1990 and 2025
	Multi-year goal	Wellington (New Zealand): Stabilize from 2000 by 2010, 34% GHG emissions reduction by 2012, 30% by 2020, 80% by 2050	Inventory for 2000, 2010, 2012, 2020 and 2050
Fixed level goals		Carbon-neutral is another type of fixed level goal type. Melbourne (Australia) set a target to achieve zero net carbon emissions by 2020, and plans to achieve the goal through internal reductions and purchasing offsets.	Inventory for 2020. In the case of Melbourne, current inventory required to determine quantity of offsets necessary to cover remainder of emissions, as well as GHG inventory in 2020.
Base year intensity goals	Per capita goal	Belo Horizonte (Brazil): 20% GHG emissions reduction per capita until 2030 from 2007 levels	Inventory for 2007 and 2030
	Per GDP goal	China is the major country adopting GHG emissions reduction per unit of GDP goal for cities. For example, Beijing: 17% reduction per unit of GDP in 2015 from 2010 levels.	Inventory for 2010 and 2015
Baseline scenario goals		Singapore pledged to reduce GHG emissions to 16% below business-as-usual (BAU) levels by 2020 if a legally binding global agreement on GHG reductions is made. In the meantime, Singapore started implementing measures to reduce emissions by 7% to 11% of 2020 BAU levels.	Inventory for 2020 and a projected BAU inventory for 2020

Source: WRI, C40, ICLEI. Global Protocol for Community-Scale Greenhouse Gas Emission Inventories

Important aspects of targets when deciding which type of targets to use

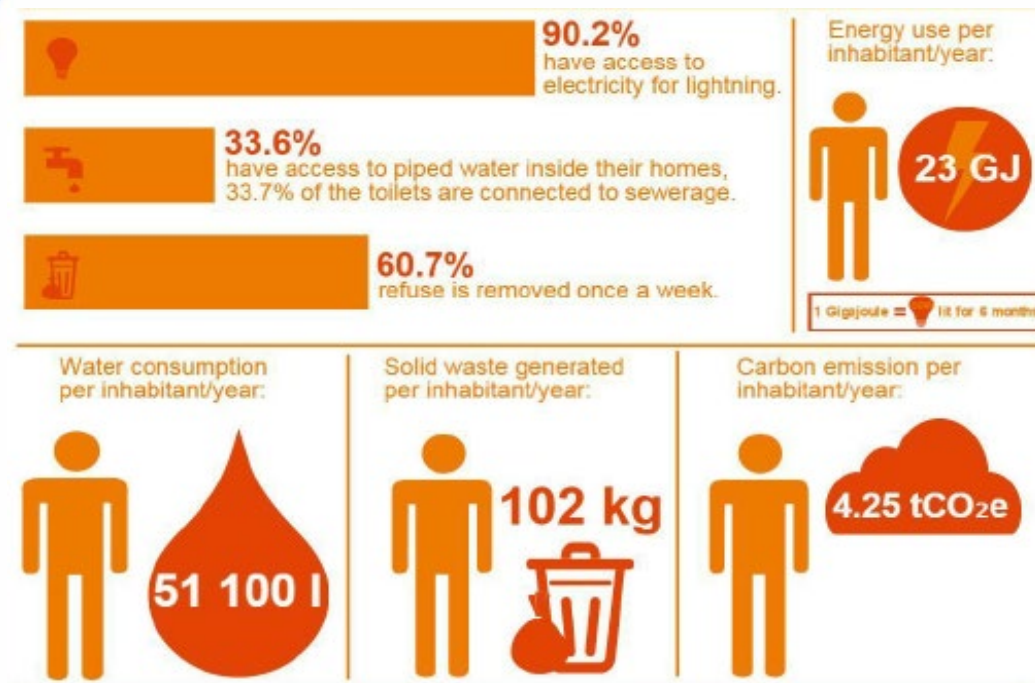
- KPI's
- Principles
- Scope
- Tools
- Participation



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Important aspects of targets

KPI's



Tier 2: Outcome indicators related to emissions drivers			
Economic	Carbon emissions (tCO ₂ -eq) per unit of Economic GVA (Gross Value Added)	None set	130.1 tCO ₂ -eq/ per unit of GVA (2012)
Energy	Households using electricity for lighting (% of total)	Target: 100% (2025)	Baseline: 90.2% (2011)
	Municipal energy consumption (GJ)	8 % reduction (48 173 by 2018).	51 645 Giga Joules (GJ) (2012)
	LED streetlights (% of total)	None set	No data yet available*
	Proportion of renewables to total primary electricity supply (%)	None set	No data yet available*
	Community electricity consumption (GJ) (excluding municipal operations)	None set	2 247 378
Spatial	Change in modal split between private & public transport use	None set	No data yet available*
	Change in average residential density per square kilometre, within & without the urban edge (Dwelling units per hectare)	None set	No data yet available*
Ecological	Change in hectares of ecological infrastructure under	None set	No data yet available*

Important aspects of targets

KPI's

Table 20. Access to Energy indicators - Electricity

Attribute	Related Indicator
Overall	Percentage of population or households in having access to electricity (grid/off-grid) [%]
SC2	Number of hours per day of available electricity [h/day]
SC3	Average number of electricity interruptions per day [n°/day]
SC4	Number of days without electricity per year [n°/year]
SU5	Percentage of electricity from RES [%]
SU6	Number of minigrids and stand-alone systems [n°]
SU7	Laws and regulations in place for mini-grids/stands-alone systems [+/-]
AF8	Percentage of population able to pay for electricity [%] or willingness to pay
AF9	Percentage of expenditure of Public Buildings for electricity [%]
AF10	Financial and regulatory incentives for renewable energy in place [+/-]

Table 21. Access to Energy indicators – Clean cooking

Attribute	Related Indicator
Overall	Percentage of population/households with clean cooking access [%]
SC2	Percentage of population/households relying on the traditional use of biomass for cooking [%]
SC3	Percentage of population/households relying on LPG or other sources [%]
SC4	Availability of resources: time and distance to gather fuelwood [h and km]
SU5	Number of improved cook stoves used [n°]
SU6	Sustainable charcoal production [Y/N]
SU7	Awareness and/or Education programmes in place [Y/N]
AF8	Financial and regulatory incentives or subsidy mechanisms in place [Y/N]
AF9	Percentage of population able to pay (or willingness to pay) for the transition to clean cooking [%].

Important aspects of targets

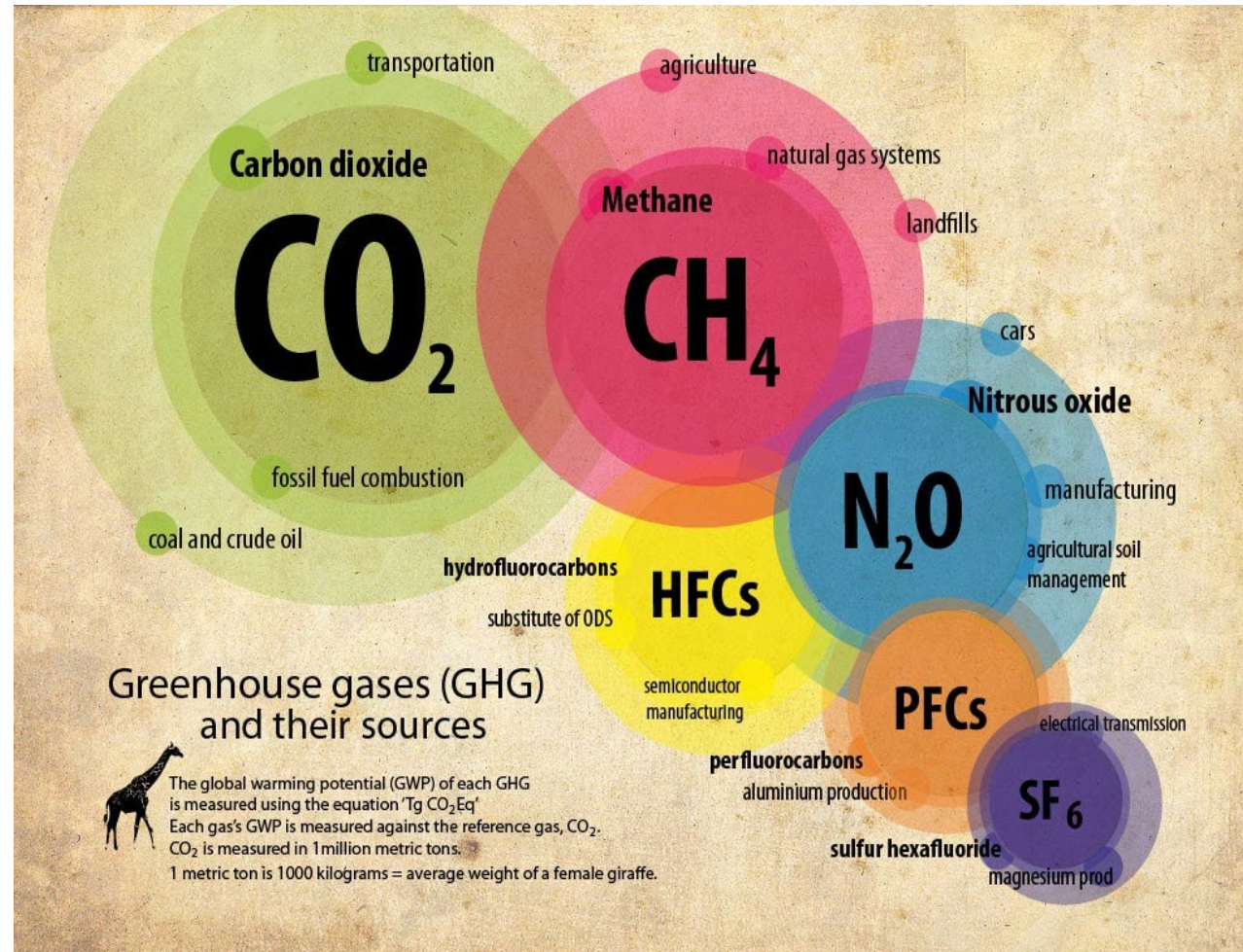
Mitigation goal standard:

Relevance
Completeness
Consistency
Transparency
Accuracy



Important aspects of targets

GHG's



Important aspects of targets

Tools





Important aspects of targets

Changing baseline inventory

Data collection systems

Conditionalities

Base year targets work better for under-capacitated cities

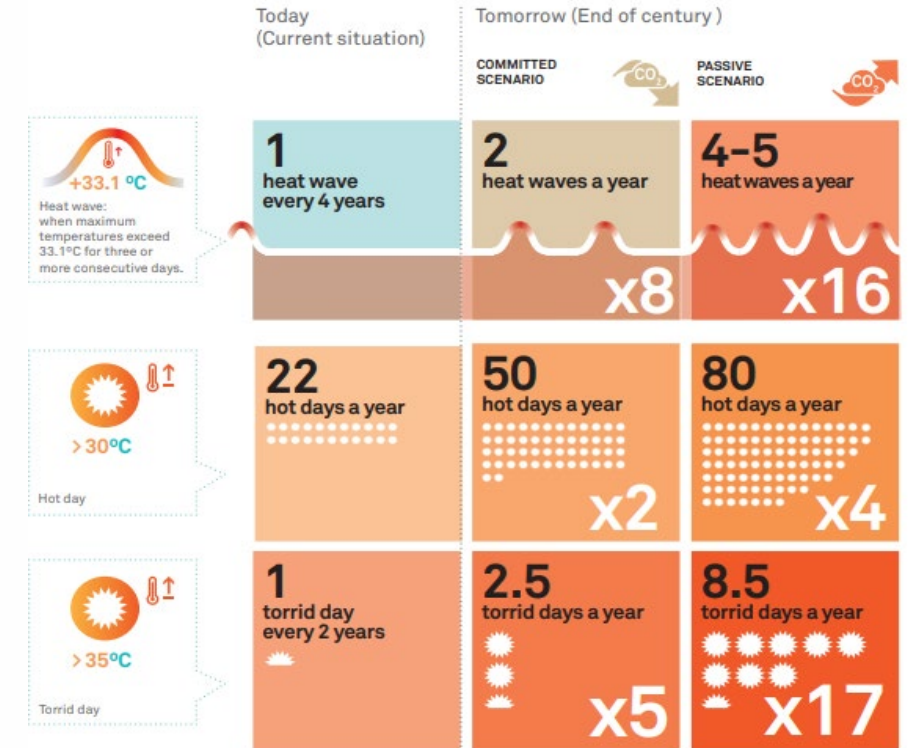
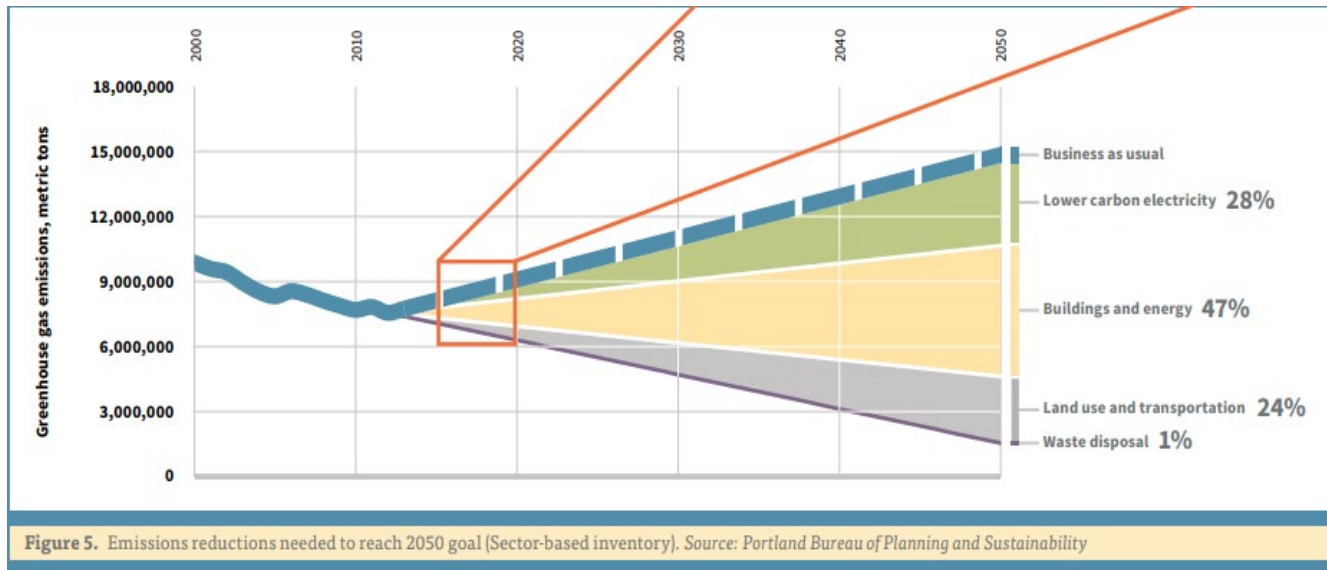
Assess the institutional, human and technical capacity available

Participatory processes

Projections

Forums, surveys

Data accuracy and accountability



Source: Portland Bureau of Planning and Sustainability. Climate Action Plan 2015.

Source: C40 Knowledge Hub. Barcelona's Climate Action Plan 2018-2030.

How to set targets

Targets must be set based on the local context and availability of data.

Given the requirements for the above target types and their suitability for different baselines, cities will be able to determine which one is most useful, and realistic.

However, the target (in terms of proportional contribution to the national-scale) **MUST** be at least as ambitious as the Nationally Determined Contribution. The extent to which emissions are either reduced or limited needs to exceed that of the national emissions targets on a proportional basis.

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The next chapter is JRC Reporting Template: Mitigation Actions



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Publication date: November 2020

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CoM SSA programme is jointly implemented by:



CoM SSA programme is co-funded by:



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Thank you



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