

Module 2: Supporting Climate Neutrality at the Local Level through VLRs

Enhanced VLR Guidance Portal
for Supporting Green, Sustainable and Resilient
Recovery & Transitions at the Local Level



UNITED NATIONS
DEPARTMENT OF ECONOMIC
AND SOCIAL AFFAIRS



UN-HABITAT



UNITED NATIONS
ECONOMIC COMMISSION
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UCLG

United Cities
and Local Governments

Who is this guide for?

- Officials of **local governments & organizations** who are in the process of preparing a Voluntary Local Review (or considering it)
- **UN or other experts** who are assisting local governments & organizations in the preparation of a VLR



What will and won't you find in this module?

- You will learn **how to enhance VLRs to support climate neutrality in cities**, informed by existing guidance from across the UN system
- This is **not a detailed guide on how to prepare a VLR**



Implementing partners and authors

The implementing partners and authors of the Guidance Portal for Enhanced VLRs are:

- the United Nations Department for Economic and Social Affairs ([UNDESA](#)),
- in cooperation with the United Nations Human Settlements Programme ([UN-Habitat](#)),
- the United Nations Economic Commission for Europe ([UN-ECE](#)), and
- the World Organization of United Cities and Local Governments ([UCLG](#)).

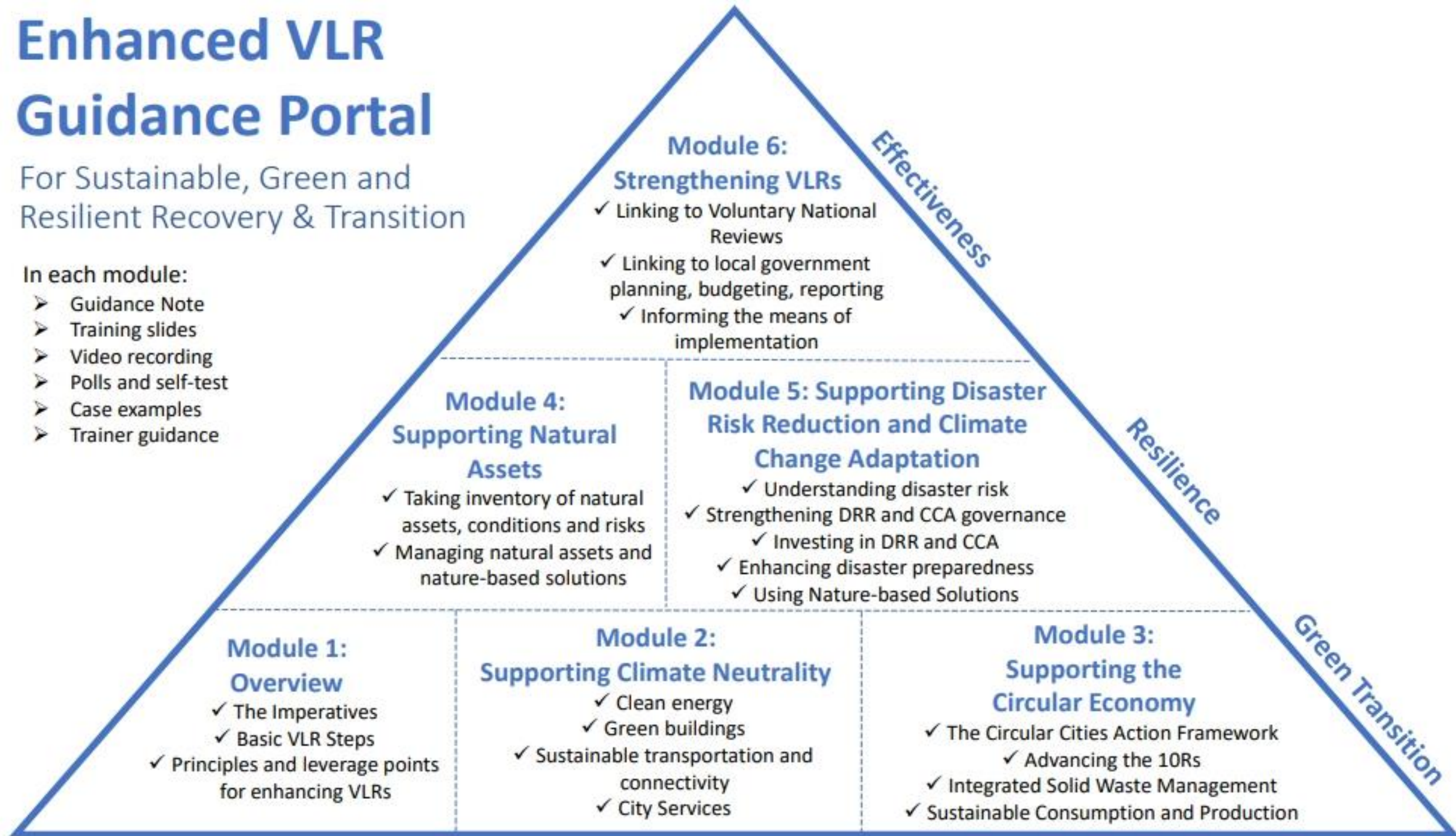


Enhanced VLR Guidance Portal

For Sustainable, Green and
Resilient Recovery & Transition

In each module:

- Guidance Note
- Training slides
- Video recording
- Polls and self-test
- Case examples
- Trainer guidance



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Module 2: Supporting Climate Neutrality

- ✓ Clean energy
- ✓ Green buildings
- ✓ Sustainable transportation
and connectivity
- ✓ City Services

What is climate neutrality and why is it important?

- Climate neutrality is a term used to describe **no net GHG emissions** by a community, organization, or country.
- Current actions to reduce GHG emissions are **falling short of delivering carbon neutrality** and limiting global warming to under 2 degrees Celsius.
- We are reminded that “actions must start now to **maximize the use of all low- and zero carbon technologies** to achieve carbon neutrality by 2050.

Actions fall short on carbon neutrality

Carbon dioxide and methane emissions in the UNECE region [MtCO₂eq]

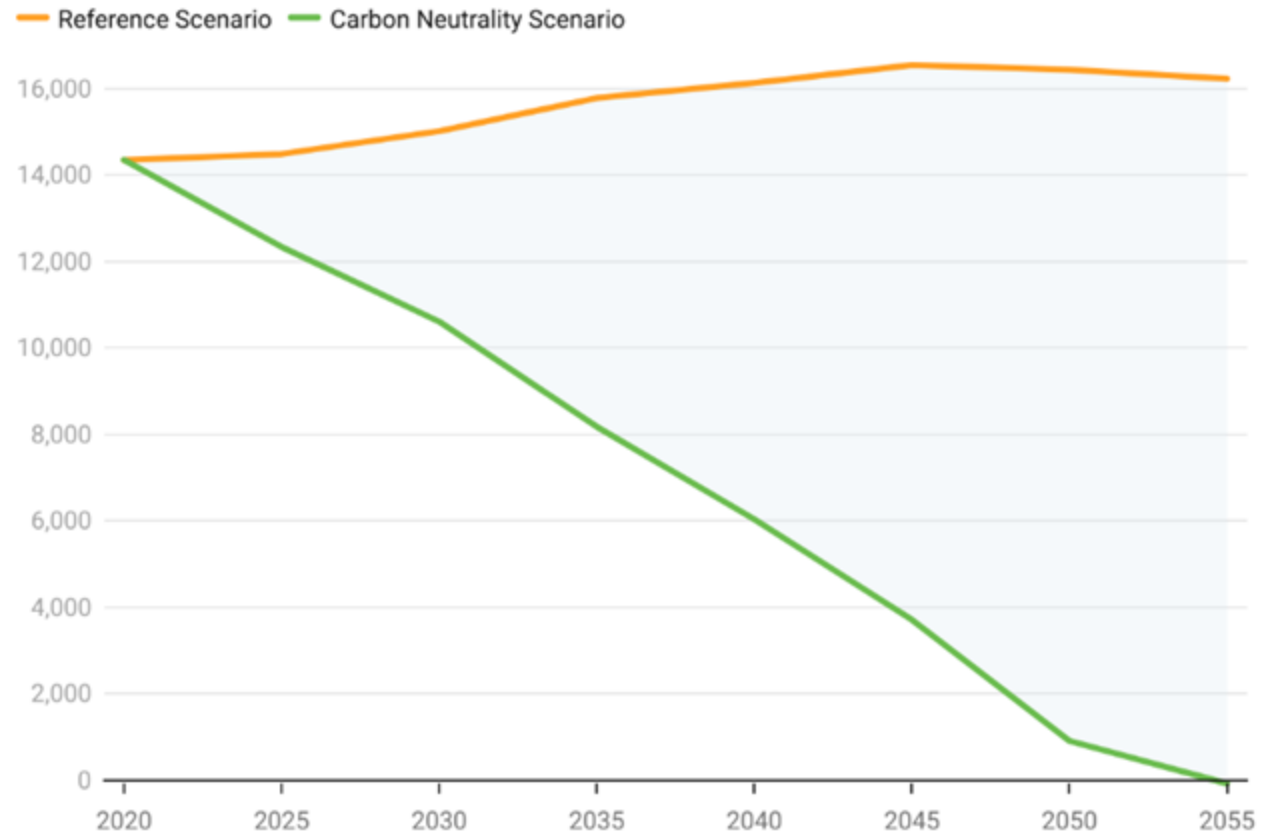
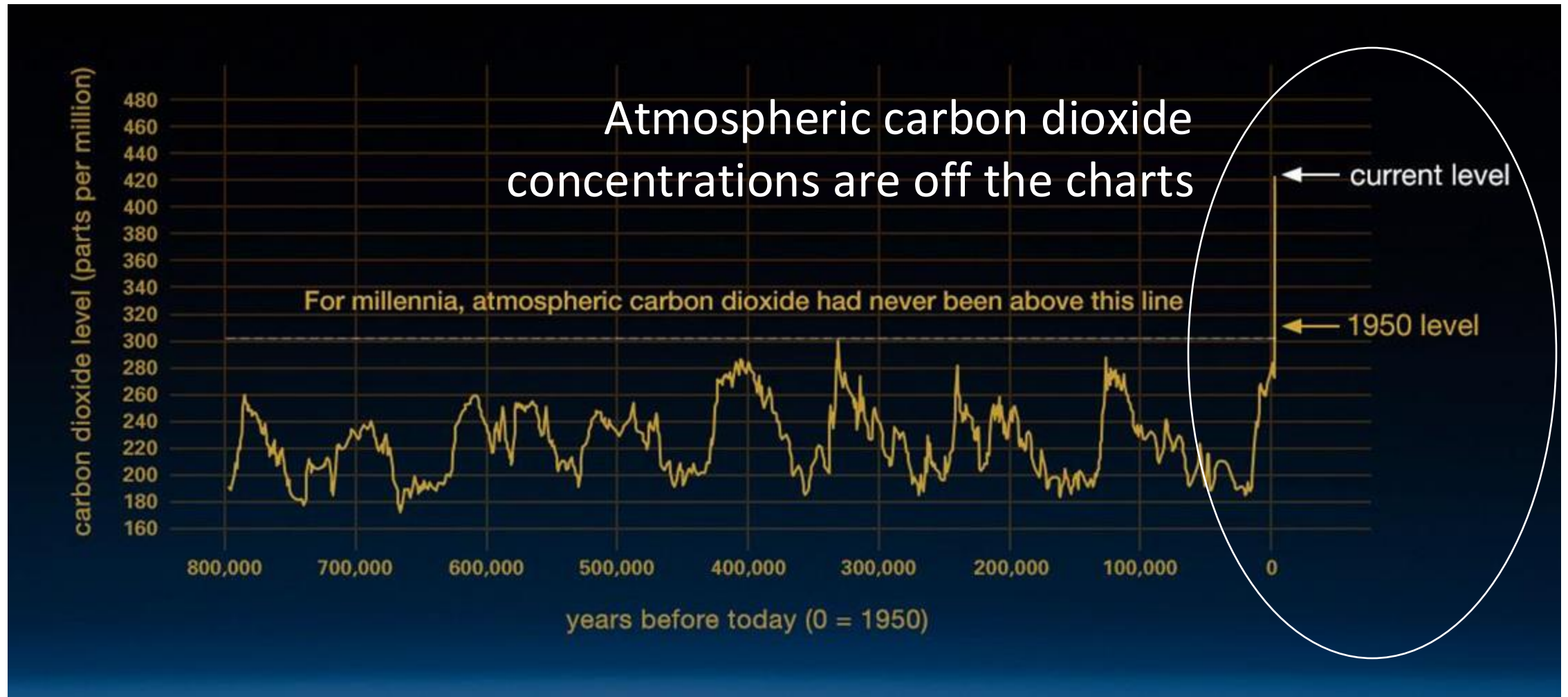


Chart: United Nations • Created with Datawrapper

Why the urgency?



How can local governments help achieve climate neutrality?

GHG Reductions



Energy



Buildings



Transport



Services

Measure → Reduce → Offset → Report

Urban Low Emission Development Strategies

How can local governments and organizations support climate neutrality through VLRs?

I. Planning & Policy

- A. Identify and communicate local success stories in achieving local climate neutrality
- B. Assess and identify missed local leverage points for achieving climate neutrality
- C. Make coherent policy recommendations for local governments to implement leverage points for achieving climate neutrality

II. Budgeting & Finance

- A. Assess public budget expenditures allocated to achieving climate neutrality and report key gaps
- B. Make coherent recommendations for addressing expenditure gaps, including all potential financing sources and instruments
- C. Identify and communicate local success stories in climate finance

III. Reporting & Assessment

- A. Provide data and stories relevant to key performance indicators (KPIs) reported by local government, including by asset managers
- B. Identify KPI gaps and make recommendations for additional indicators for local government to use

The key first step is understanding local leverage points for achieving climate neutrality

GHG Reductions



Energy



Buildings



Transport



Services

Measure → *Reduce* → *Offset* → *Report*

Promoting Clean Energy

GHG Reductions



Energy



Buildings



Transport



Services

Measure → Reduce → Offset → Report

Rationale

- Energy is key to achieving climate neutrality, according to the United Nations Issue-based Coalition (IBC) on Environment and Climate Change for Europe and Central Asia (IBC, 2022).
- The IBC's conclusion is evidence-based:
 - global greenhouse gas emissions account for 50 billion tons CO₂ equivalent,
 - of which, over 70% of global GHG emissions comes from activities related to the energy sector ([Climate Watch, 2021](#)).
- Sources of GHG emissions from the energy sector include electricity and heat production, transport, heating of buildings and energy use in industries, as well as fugitive emissions in the form of methane (IBC, 2019).



Local Leverage Points for Clean Energy

While centralized electricity supply often falls outside the purview of local governments, there are four key strategies that cities can implement to help achieve climate neutrality through clean energy provision:



1. Local renewable energy generation
2. District heating and cooling
3. Combined heat and power
4. Integrated community energy systems

Sources:

http://greenspace-alliance.ca/wp-content/uploads/2012/05/CarbonNeutralReport_May52010_FINAL-red.pdf

https://urban-leds.org/wp-content/uploads/2019/resources/guidance_and_tools/ICLEI_Solutions-Gateway-Sourcebook.pdf

Local renewable energy generation

- “Utilizing renewable energy in cities is a key strategy for reaching climate neutrality”, including centralized, utility-scale local renewable energy generation and decentralized electricity generation by privately-owned buildings ([EC, 2010](#)).
- Renewable energy options include”
 - solar power from photovoltaics,
 - solar thermal to convert sunlight directly into heat,
 - wind power,
 - mini-hydroelectric power, and
 - biomass heating.



District Heating and Cooling

- DHC consists of a network of pipes that supply heating and cooling from one or more sources directly to a group of connected buildings ([TaRC, 2010](#)).
- This is one of the most efficient and least cost strategies to reduce GHG emissions locally, and typically requires mixed-use zoning and integrated planning by local governments to ensure reliability and affordability ([ICLEI and UN-Habitat, 2016](#)).
- Among the DHC technology options are district heating boilers, district chillers, large-scale solar thermal, geothermal energy, thermal energy storage, waste heat, large-scale heat pumps, and waste-to-energy ([EC, 2010](#)).



Combined Heat and Power

- CHP systems simultaneously produce power and recover heat and deliver it in the form of steam or hot water for spatial heating and cooling systems (via chillers), water heating, and process heating and cooling applications.
- CHP systems are often delivered through district heating and cooling ([TaRC, 2010](#)).



Integrated Community Energy Systems

- A community can provide a sufficient economy of scale for infrastructure investment to support integrated resource recovery” ([TaRC, 2010](#)).
- This can be achieved by integrating the energy strategies above together with land use and transportation planning, management of solid and liquid waste, and potable water system in order to recover value from waste resource streams and provide a new net revenue source for the community.



Relevant Indicators

SDGs

- **Target 7.1:** By 2030, ensure universal **access to affordable, reliable and modern energy services**.
 - Indicator 7.1.1: Proportion of population with primary **reliance on clean fuels and technology**
- **Target 7.2:** By 2030, increase substantially the **share of renewable energy** in the global energy mix
 - Indicator 7.2.1: Renewable energy share in the total final energy consumption
- **Target 7.3:** By 2030, double the global rate of improvement in **energy efficiency**
 - Energy intensity measured in terms of primary energy and GDP
- **Target 11.6:** By 2030 Reduce the adverse per capita environmental impact of cities, including by paying special attention to **air quality**, and municipal and other waste management
 - Indicator 11.6.2: Annual mean levels of fine particulate matter in cities

Global Urban Monitoring Framework

- **Greenhouse gas emissions**
- **Renewable energy share**
- **Budget on climate change mitigation and adaptation**

Smart Sustainable Cities

- **Electricity consumption**
- **Renewable energy consumption**
- **GHG emissions**
- **Access to electricity**
- **Electricity system outage frequency and time**

Sources:

<https://sdgs.un.org/goals>

<https://unhabitat.org/the-global-urban-monitoring-framework>

https://unece.org/DAM/hlm/documents/2020/ECE_HBP_2020_5-E.pdf

Case Example

City of Jyväskylä, Finland

Over 80 cities in the country participate in a network called “Towards Carbon-Neutral Cities” with a commitment to reduce GHG emissions by 80% by 2030 (from 2007 levels).

Jyväskylä, a city with a population of approximately 140,000 citizens, has set the following targets and strategies to achieve their goal



Targets

- Carbon neutrality (80% GHG emission reduction from 2012) by 2030
- Carbon-neutral electricity and heat production by 2030
- The share of renewable energy sources has increased to at least 80% in local energy production in 2030
- Energy consumption has decreased by 10% from the 2012 level in 2030
- Fossil-free and carbon-neutral energy production by 2050
- Fossil-free and carbon-neutral transport by 2050

Strategies

- Improved energy efficiency of buildings and public lighting
- Increased use of renewable energy sources
- Increase walking, cycling and use of public transport through densification, improvement of walking and cycling routes, incentives and campaigns to promote behavioral change
- Promote adoption of clean transport through improved biogas refueling and electric vehicle charging infrastructure, advice and public procurement criteria
- Increase use of renewable energy sources in local energy production;
- Increase use of solar energy in residential buildings; promote district cooling and waste heat recovery

Promoting Green Buildings

GHG Reductions



Energy



Buildings



Transport



Services

Measure → Reduce → Offset → Report

Rationale

- The World Green Building Council states that buildings are responsible for 39% of global energy related carbon emissions,
- with 28% owing to energy needed to heat, cool and power buildings and 11% the results of materials and construction of buildings ([WGBC, 2019](#)).
- In cities like Sao Paulo in Brazil, water heating alone accounts for 40% of the city's electricity consumption ([ICLEI and UN-Habitat, 2016](#)).
- And similarly, in cities like Dubai, cooling represents 70% of electricity consumption, against the backdrop of growing demand for air conditioning in developing countries at 7% per year ([ICLEI and UN-Habitat, 2016](#)).
- This evidence suggests that reducing GHG emissions from the construction and operation of buildings is an important part of a community's efforts toward becoming climate neutral.



Local Leverage Points for Green Buildings

There exist multiple leverage points for local governments to reduce GHG emissions from buildings:



1. Increased energy efficiency and reduced demand
2. Taking advantage of solar energy
3. District heating and cooling
4. Using ground source heat pumps
5. Using natural refrigerants
6. Using City Services

Sources:

http://greenspace-alliance.ca/wp-content/uploads/2012/05/CarbonNeutralReport_May52010_FINAL-red.pdf

https://urban-leds.org/wp-content/uploads/2019/resources/guidance_and_tools/ICLEI_Solutions-Gateway-Sourcebook.pdf

Increasing energy efficiency and reducing demand

- The European Commission suggests that reaching net-zero emissions in the buildings sector in cities will require a combination of:
 - deep renovations of the existing stock of buildings;
 - construction of high energy performing and net-zero energy buildings;
 - eliminating point of use fossil fuels heating and cooling; and
 - supplying buildings with zero-carbon sources electricity and district heating and cooling ([EC, 2010](#)).



https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficient-buildings/nearly-zero-energy-buildings_en

Taking advantage of solar energy

- There are several means by which buildings can take advantage of solar energy, including ([TaRC, 2010](#)):
 - augmenting electricity supply using photovoltaic systems,
 - utilizing solar water and air heating systems, and
 - passive solar design approaches take advantage of local climactic conditions and reduce a building's overall energy consumption
 - building components to maximize natural ventilation,
 - day lighting,
 - heating and cooling



Using ground source heat pumps (GSHP)

- GSHPs use natural temperature differentials between the ground and ambient building condition to deliver low carbon heat and cooling during winter and summer months.
- Such systems can result in reductions in energy consumption by between 30-70% and 20-50% for heating and cooling, respectively ([TaRC, 2010](#)).



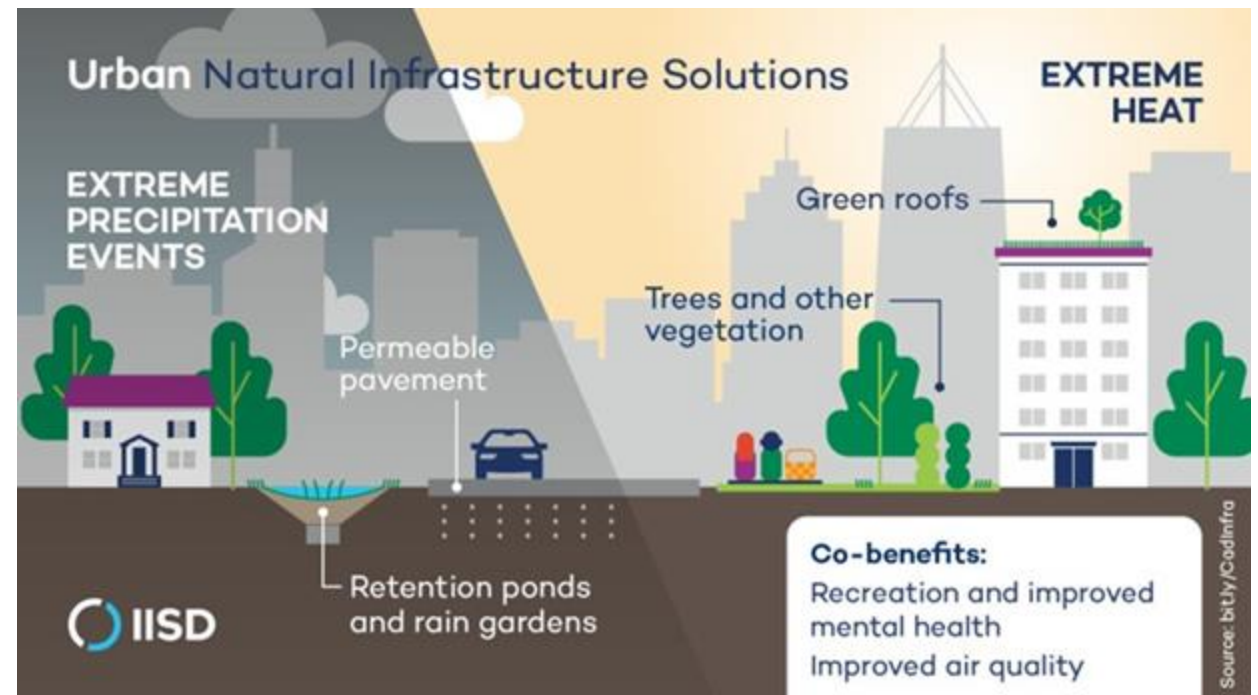
Using natural refrigerants

- Air conditioners and refrigerators already consume 20% of electricity globally
- Replacing traditional refrigerants containing ozone depleting HCFCs and HFCs with high global warming potentials with natural refrigerants such as carbon dioxide, ammonia and propane, can reduce overall GHG emissions and help achieve climate neutrality ([ICLEI and UN-Habitat, 2016](#)).



Using City Services

- City Service solutions, sometimes referred to as green or natural infrastructure, are increasingly understood as a cost-effective and efficient means of greening buildings.
- Such solutions include forests and trees, and green roofs and walls to provide shade and reduce stormwater runoff, as well as rainwater harvesting systems for non-potable water supplies, to name a few.



Relevant Indicators

Smart Sustainable Cities

- **Smart electricity meters**
- **Electricity supply monitoring**
- **Integrated building management systems in public buildings**
- **GHG emissions**
- **Residential thermal energy consumption**
- **o Public building energy consumption**
- **o Public building sustainability**



Sources:

https://unece.org/DAM/hlm/documents/2020/ECE_HBP_2020_5-E.pdf

Case Example

Community-level Solar Water Heating in Betim, Brazil

The city of Betim in Brazil installed over 1300 solar water heaters in low-income housing units during the period 2004 to 2007.

A survey conducted years later determined that for an average family of 3 to 4 members, electricity consumption was reduced by up to 20% and home electricity bills dropped by up to 57% owing to reduced consumption and qualifying tax exemptions for energy efficiency.



<https://www.cnet.com/home/energy-and-utilities/solar-water-heaters-everything-you-need-to-know/>

Sustainable Transport and Connectivity

GHG Reductions



Energy



Buildings



Transport



Services

Measure → Reduce → Offset → Report

Rationale

- The International Institute for Sustainable Development reported that transport is “at the center of many economic and social development challenges, accounting for about 64% of global oil consumption, 27% of all energy use, and 23% of the world’s energy-related carbon dioxide emissions” (IISD, 2021).
- And importantly, it was emphasized that “rethinking and revamping transit in the post-COVID era by implementing structural changes would go a long way toward reinforcing some of the positive impacts on emission levels and air quality created by efforts to curb the pandemic”.



Local Leverage Points for Sustainable Transport and Connectivity

The Secretary-General's High-level Advisory Group defined sustainable transport as “the provision of services and infrastructure for the mobility of people and goods — advancing economic and social development to benefit today's and future generations — in a manner that is safe, affordable, accessible, efficient, and resilient, while minimizing carbon and other emissions and environmental impacts” (United Nations, n.d.).



1. Transit-oriented development
2. Public transport
3. Active mobility
4. Shared mobility
5. Electric and fuel-efficient vehicles

Sources:

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https://urban-leds.org/wp-content/uploads/2019/resources/guidance_and_tools/ICLEI_Solutions-Gateway-Sourcebook.pdf

Transit-oriented development (TOD)

- TOD is described as “a type of urban development that clusters jobs, housing, services, and amenities around public transportation hubs” ([C40, 2019](#)).
- It is further characterized as compact, mixed-use, and pedestrian and cycle friendly, with multiple benefits including increased public transit use and revenues, reduced congestion and air pollution, increased job availability, convenience, and sense of community.



Public transport

Public transport can provide mass transit for millions of residents while reducing GHG emissions.

- conventional buses,
- light rail transit,
- bus rapid transit (combining bus and light rail),
- subway systems, and
- commuter rail lines.



Active mobility

Modes of active mobility include:

- walking,
- cycling, and
- hybrid modes (i.e., scooters, e-scooters, hoverboards, e-bikes, Segways).

Important parameters for advancing active transportation modes include land use mix and density, connectivity, safety and length of travel network.



Shared mobility

Use of carpool integration in the public transport system as well as autonomous electric bus connections between urban and peri-urban districts ([EC, 2010](#)).



Electric and fuel-efficient vehicles

Zero emission and more fuel-efficient passenger, commercial and public vehicles have the potential to significantly reduce GHG emissions and improve air quality in cities.

Among the options are:

- Electric,
- hybrid electric,
- plug-in hybrid electric, and
- fuel cell vehicles for
- more fuel-efficient combustion engines (including with blended biomass fuels)



Relevant Indicators

SDGs

- **Target 11.2:** By 2030, provide access to safe, affordable, accessible and **sustainable transport systems for all**, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities, and older persons.
 - Indicator 11.2.1: Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities.
- **Target 11.6:** By 2030 Reduce the adverse per capita environmental impact of cities, including by paying special attention to **air quality**, and municipal and other waste management.
 - Indicator 11.6.2: Annual mean levels of fine particulate matter in cities

Global Urban Monitoring Framework

- **Use of public transport**

Smart Sustainable Cities

- **Traffic monitoring**
- **Intersection control**
- **Public transport network**
- **Public transport network convenience**
- **Bicycle network**

- **Transportation mode share**
- **Travel time index**
- **Shared bicycles**
- **Shared vehicles**
- **Low carbon emission passenger vehicles**
- **Pedestrian infrastructure**

Sources:

<https://sdgs.un.org/goals>

<https://unhabitat.org/the-global-urban-monitoring-framework>

https://unece.org/DAM/hlm/documents/2020/ECE_HBP_2020_5-E.pdf

Case Example

Tracking progress of transit-oriented development

Many cities have created indicators and set targets to communicate their urban development plans to developers and citizens. For example:

Percentage of population with access to public transport

Cape Town's TOD Strategic Framework has set targets to improve access to transit by 12% by 2032, and to reduce passenger kilometres travelled by 23%.

Percentage of new development within a certain radius of transit stations

In New York, upzoning under plaNYC aims for 95% of new housing to be built within half a mile of mass transit stations.

Local Government Services

GHG Reductions



Energy



Buildings



Transport



Services

Measure → Reduce → Offset → Report

Rationale

- Local governments are responsible for the delivery of many basic community services including water supply, solid and liquid waste management, recycling and composting, management of green spaces, and land use planning.
- There are opportunities for reducing GHG emissions across all of these corporate services.
- As well, local governments are large organizations in and of themselves, with additional opportunities for realizing GHG emission reductions through vehicle fleet management, sustainable procurement, and indirect GHG reductions through carbon sequestration and purchasing local carbon offsets.



Local Leverage Points for Local Government Services

1. Water conservation and efficiency
2. Wastewater treatment
3. Solid waste management
4. Recycling and composting
5. Stormwater management and City Services

6. Natural asset management and City Services
7. Land use planning
8. Sustainable public procurement
9. Carbon sequestration and offsets

Sources:

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https://urban-leds.org/wp-content/uploads/2019/resources/guidance_and_tools/ICLEI_Solutions-Gateway-Sourcebook.pdf

Water conservation and efficiency

- Engineering services can work to reduce the loss of water from the urban water supply system, including from leaky pipes which can be responsible for up to 50% of water loss and ruptures ([ICLEI and UN-Habitat, 2016](#)).
- Managing the demand for water and the energy efficiency of supply can be another key strategy for reducing GHG emissions because pump and lift stations can use significant amounts of electricity ([TaRC, 2010; ICLEI and UN-Habitat, 2016](#)).
- This strategy is particularly important for communities that do not have a low-carbon electricity supply.



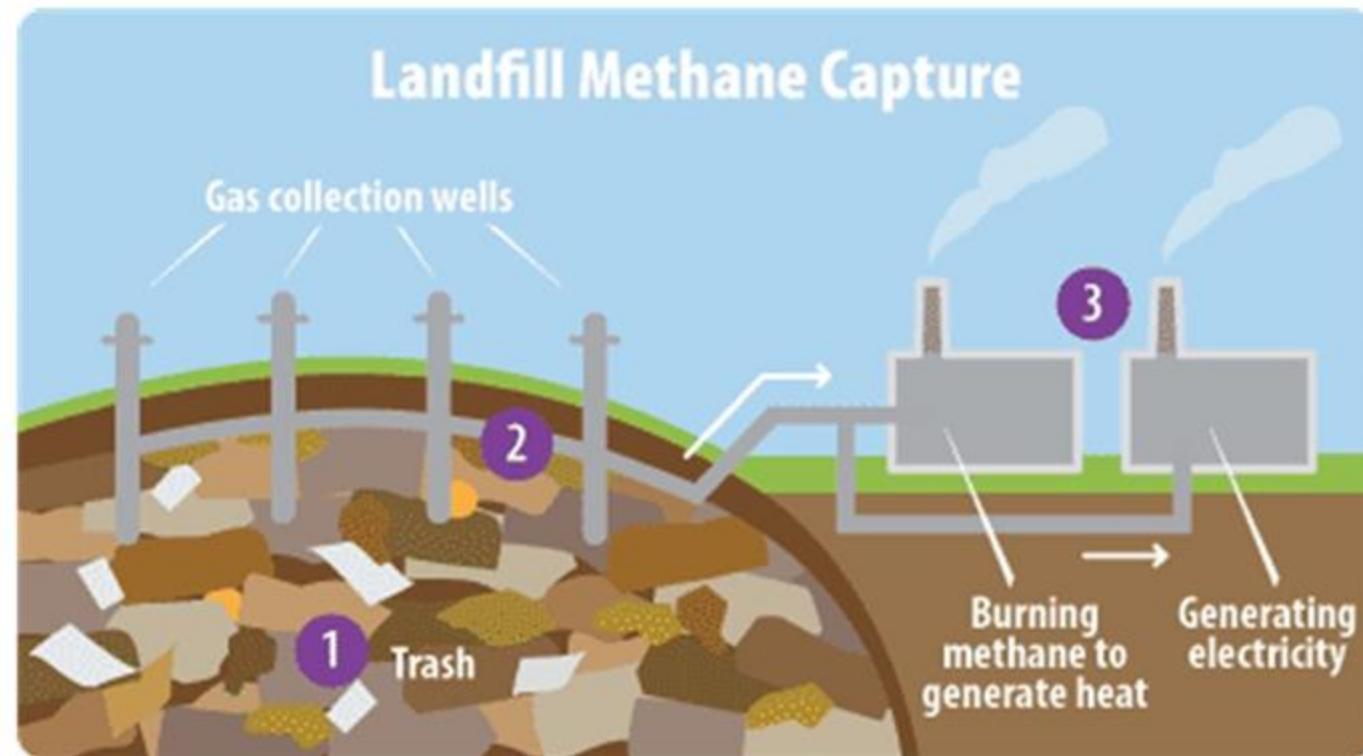
Wastewater management

- Sludge byproducts generated through anaerobic digestion by wastewater treatment plants presents a co-generation potential in that the biogas methane captured can be used for small-scale heat and electricity production, as fuel for vehicles, or purified as an injection in a natural gas grid ([ICLEI and UN-Habitat, 2016](#)).
- Each of these represents opportunities for reducing GHG emissions by local government, as well as potential sources of revenue.



Solid waste management

- There are a range of strategies to reduce GHG emissions from a community's solid waste management services, including waste incineration with energy recovery and landfill gas recovery for energy production ([ICLEI and UN-Habitat, 2016](#)).



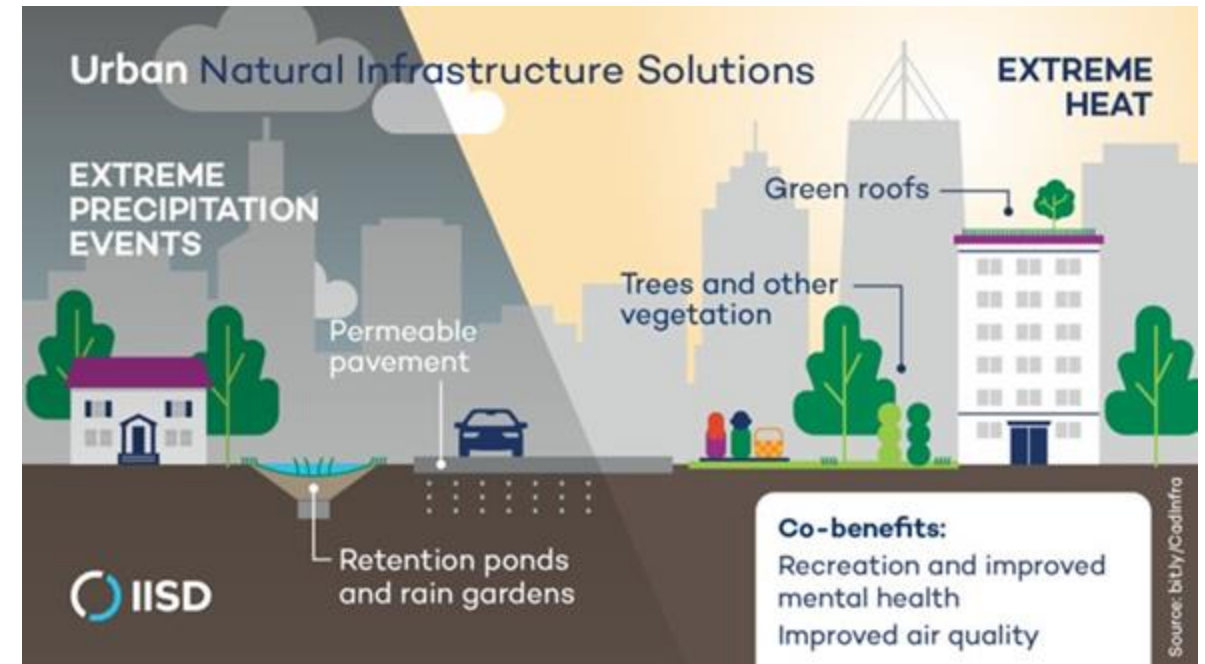
Recycling and composting

- Increased sorting and recycling can also help to reduce GHG emissions locally, given life cycle assessments illustrating that approximately one tonne of carbon dioxide emissions is reduced per tonne of material recycled (U.S. EPA, cited in [TaRC, 2010](#)).
- Diversion of organic waste from landfills is another leverage point, which can also produce co-benefits in the form of compost soil for fertilizer use and biogas for energy production ([TaRC, 2010](#)).



Stormwater management and City Services

- Principles of Sustainable Urban Drainage Systems (SUDS) help to address excess rainfall and runoff from buildings, road services, and open spaces.
- One key strategy is the separation of stormwater from wastewater so that it does not have to consume capacity and energy from the treatment plant and so that it can be used for more productive uses and not contribute to localized flooding ([ICLEI and UN-Habitat, 2016](#)).
- City Services can play a big role in SUDS, in the form of retention ponds, engineered wetlands, bioswales, permeable pavements, green roofs, and urban forests.



Natural asset management and City Services

- Urban forests, green spaces, and green roofs sequester carbon while at the same time deliver other co-benefits including cooling, enhanced aesthetics (and property values), and improved mental and physical wellbeing ([TaRC, 2010](#)).
- It is estimated that in the U.S., carbon sequestration from urban trees accounts for 22.8 Mt of carbon per year, equivalent to about 1.3% of total country emissions (U.S. EPA, cited in [TaRC, 2010](#)).



Land use planning

- Urban infill development is one type of strategy that can help reduce community GHG emissions by countering urban sprawl and creating a more compact built urban environment ([ICLEI and UN-Habitat, 2016](#)).
- Such a strategy also has many co-benefits, including a more vibrant urban fabric, potential regeneration of neglected neighborhoods, increased tax base, and improved walkability, accessibility, and safety.



Sustainable public procurement

- In the European Union, public procurement by government at all levels accounts for about 20% of GDP (as cited in [ICLEI and UN-Habitat, 2016](#)).
- Given the volume of services that are procured by governments, this represents an important leverage point for local governments to help reduce their corporate GHG emissions.
- SPP identifies service providers not just based on least cost, but also on the ability of a provider to deliver the service in a sustainable manner with positive social impact.
- For instance, in Austria, the Vienna Hospital Association used SPP to build a new hospital project which delivered reductions in heating demand and energy for cooling by 25% and 20%, respectively, below minimum legal requirements ([ICLEI and UN-Habitat, 2016](#)).



Carbon sequestration and offsets

Where desired corporate GHG emissions reductions cannot be achieved by directly local government, two strategies are potentially available:

1. Carbon Capture and Storage:

- Typically a high-capital cost strategy and
- Requires suitable sites already exist for it to be economical for communities, including underground coal beds, deep saline aquifers, deep ocean waters, or depleted oil and gas fields ([TaRC, 2010](#)).

2. Carbon offsets

- require that a market for offsets exist locally/regionally from which to purchase an offset from a verifiable carbon reduction project.
- Such markets to exist, but they may not be local, raising concerns of investment outflows from the community.
- There are examples where larger cities have created their own local offset market to increase investment in the community for carbon reductions, in San Francisco for instance (as cited in [TaRC, 2010](#)).

Relevant Indicators

SDGs

- **Target 11.6:** By 2030 Reduce the adverse per capita environmental impact of cities, including by paying special attention to **air quality**, and municipal and other waste management.
 - Indicator 11.6.2: Annual mean levels of fine particulate matter in cities
- **Target 11.4:** Strengthen efforts to protect and safeguard the world's cultural and natural heritage
 - Indicator 11.4.1: Total per capita expenditures on the preservation, protection and conservation of cultural and natural heritage, by source of funding, type of heritage and level of government
- **Target 11.7:** By 2030, provide universal access to safe, inclusive and accessible green and public spaces, in particular for women and children, older persons and persons with disabilities
 - Indicator 11.7.1: Average share of the built-up space of cities that is open space for public use for all, by sex, age and persons with disabilities

Global Urban Monitoring Framework

- **Wastewater safely treated**
- **Solid waste collection and disposal**
- **Green area per capita**
- **Change in tree cover**
- **Protected natural areas**
- **Efficient land use**

Smart Sustainable Cities

- **Green areas**
- **Green areas accessibility**
- **Protected natural areas**

Sources:

<https://sdgs.un.org/goals>

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https://unece.org/DAM/hlm/documents/2020/ECE_HBP_2020_5-E.pdf

Case Example

Wastewater Sludge Biogas Capture and Cogeneration in Almada, Portugal

A wastewater treatment plant in Almada, Portugal, serving about 80,000 residents captured biogas from its anaerobic sludge digestion facility and built two cogeneration units to convert the biogas to electricity and vapour and hot water.

The two cogeneration units generated together were able to meet 40% of the treatment plant's energy needs, representing 550 MWh and 180 tonnes of carbon dioxide emissions reductions per year.

Additionally, sludge from the treatment plant is used as an agriculture fertilizer and the treated water used watering green spaces and for outdoor washing operations.



Tips for Supporting Climate Neutrality through Strengthened VLRs

GHG Reductions



Energy



Buildings



Transport

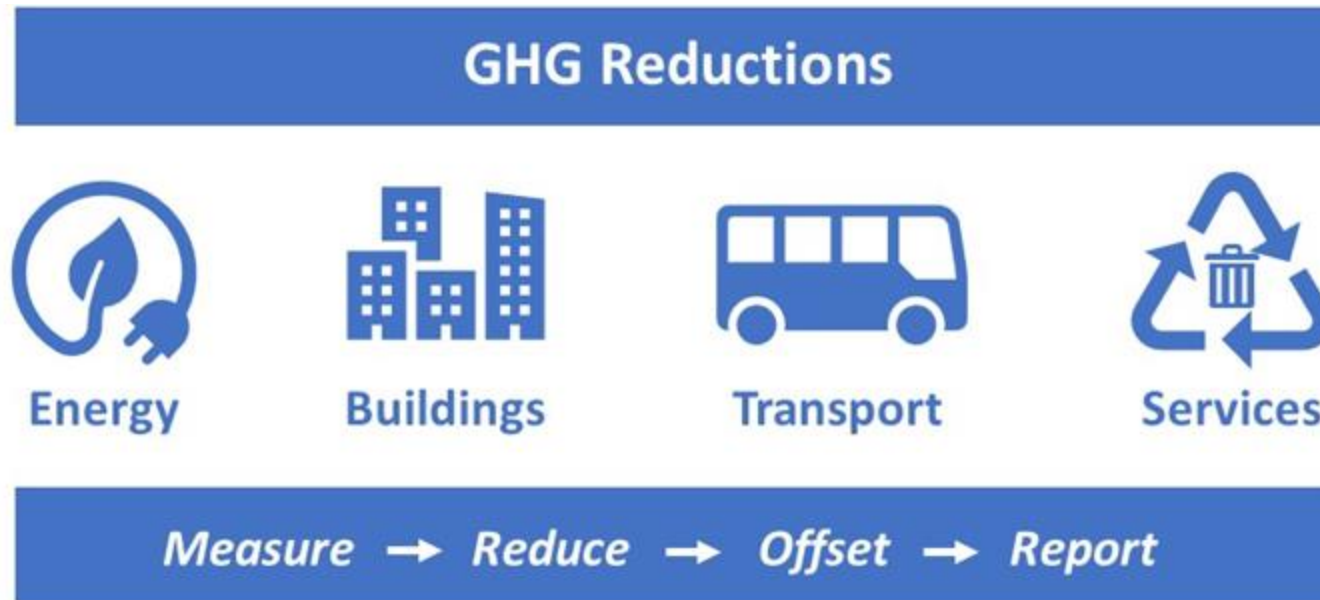


Services

Measure → Reduce → Offset → Report

Rationale

As an official of a local government or organization tasked with preparing a Voluntary Local Review (VLR), or as an expert assigned to assist a local official prepare a VLR, being aware of all the potential ways in which GHG emissions can be reduced in a community is the first and most important step in supporting local recovery and transitions that aspire to be climate neutral.



Supporting Climate Neutrality through Strengthened VLRs

1

Inform local government and the means of implementation

2

Inform your country's Voluntary National Review

Sources:

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https://urban-leds.org/wp-content/uploads/2019/resources/guidance_and_tools/ICLEI_Solutions-Gateway-Sourcebook.pdf

1

Inform local government and the means of implementation

I. Planning & Policy

- A. Identify and communicate local success stories in achieving local climate neutrality
- B. Assess and identify missed local leverage points for achieving climate neutrality
- C. Make coherent policy recommendations for local governments to implement leverage points for achieving climate neutrality

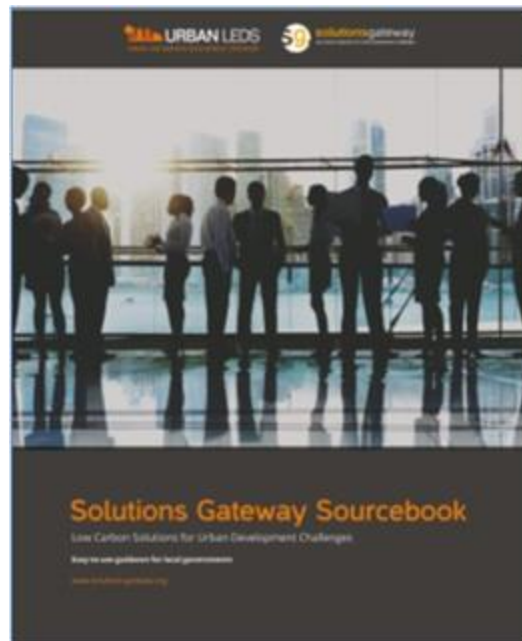
II. Budgeting & Finance

- A. Assess public budget expenditures allocated to achieving climate neutrality and report key gaps
- B. Make coherent recommendations for addressing expenditure gaps, including all potential financing sources and instruments
- C. Identify and communicate local success stories in climate finance

III. Reporting & Assessment

- A. Provide data and stories relevant to key performance indicators (KPIs) reported by local government, including by asset managers
- B. Identify KPI gaps and make recommendations for additional indicators for local government to use

Guidance Portal for strategies, actions and policies to support climate neutrality at the local level



The image is a screenshot of the Solutions Gateway website homepage. The browser address bar shows 'solutions-gateway.org'. The header includes the 'solutionsgateway' logo with the tagline 'Climate, Energy, and Finance Solutions', and the 'URBAN LEDS' logo with the tagline 'URBAN LOW EMISSION DEVELOPMENT STRATEGIES'. Navigation links for 'ABOUT', 'RESOURCES', 'CONTACT', and 'LOGOUT' are visible. The main content area features a large background image of two construction workers in hard hats. Overlaid on this is the text 'Solutions Gateway' and 'Climate, Energy and Finance Solutions for Sustainable Urban Development'. Below this, three green circular icons represent 'Solutions' (a single lightbulb), 'Solution Packages' (two lightbulbs), and 'Case Studies' (a document icon). Each icon is accompanied by a title and a brief description. The 'Solutions' section describes processes for low emission and climate resilient development. The 'Solution Packages' section describes groups of solutions clustered under a theme. The 'Case Studies' section describes inspiring examples from around the world.

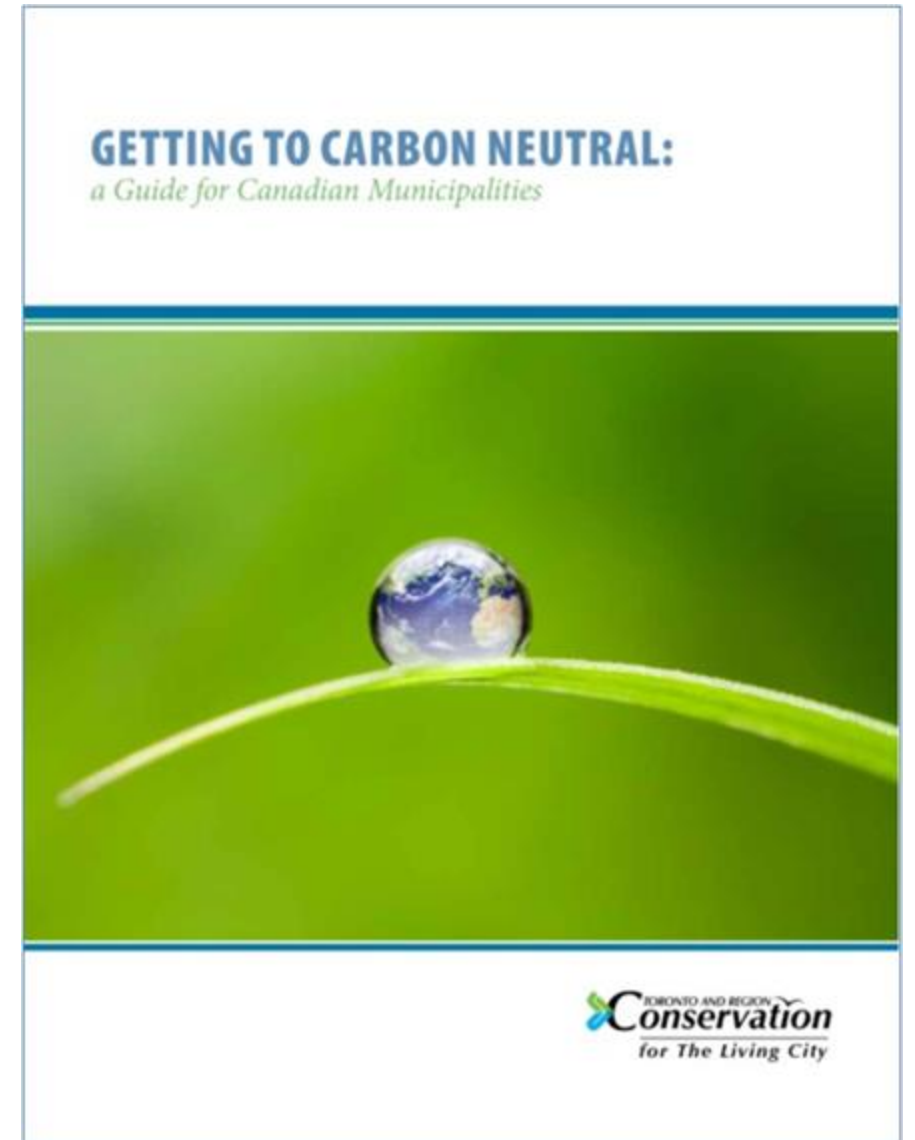


<https://www.solutions-gateway.org/>



https://research-and-innovation.ec.europa.eu/system/files/2021-11/ec_rtd_eu-mission-climate-neutral-cities-infokit.pdf

Example
Guides with
strategies,
actions and
policies to
support
climate
neutrality at
the local level

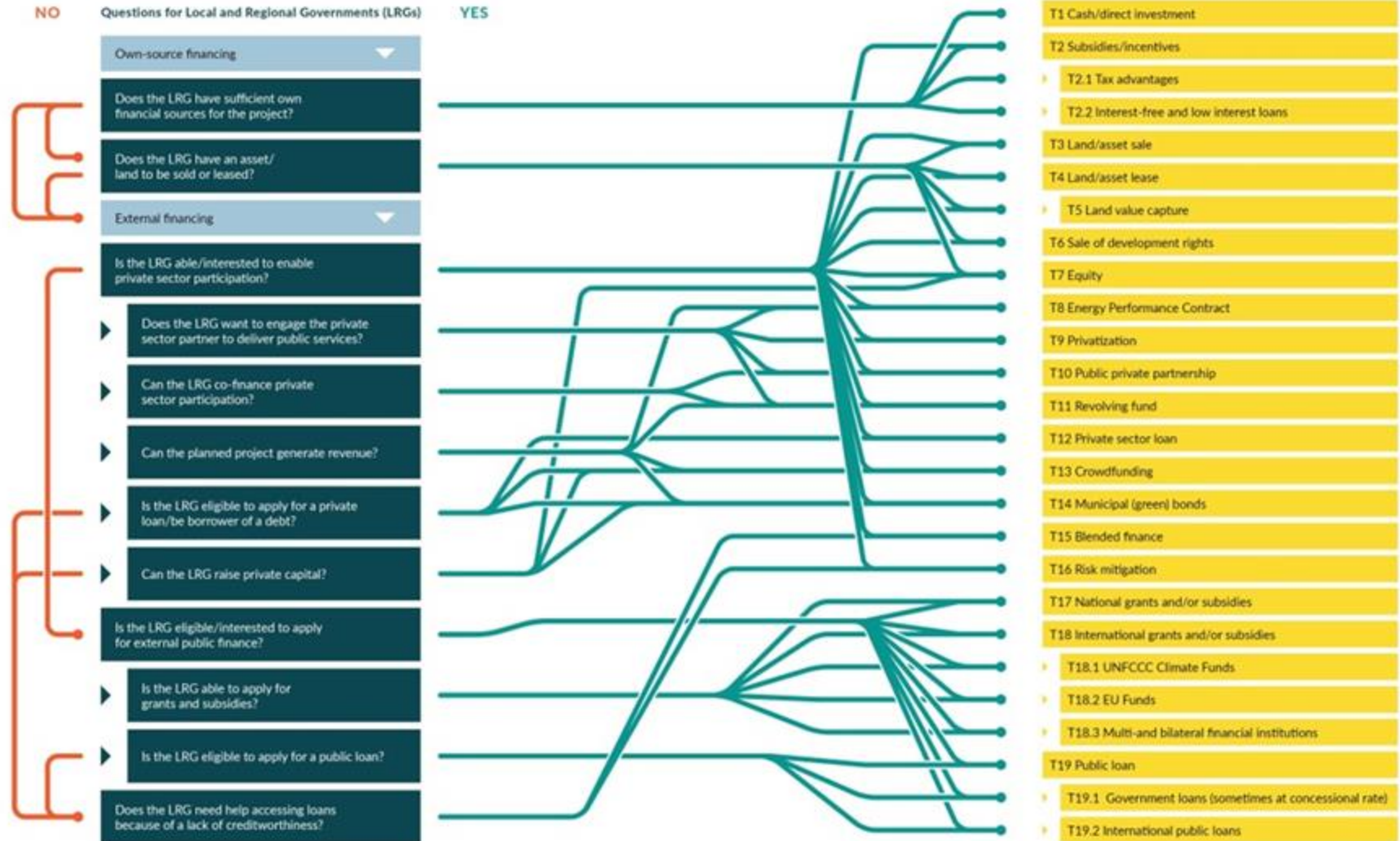


http://greenspace-alliance.ca/wp-content/uploads/2012/05/CarbonNeutralReport_May52010_FINAL-red.pdf

Financing guidance for supporting the local means of implementation

CLIMATE FINANCE DECISION MAKING TREE

This climate finance decision-making tree guides local and regional governments through a series of questions that help them consider different financing tools. Each financing tool is described, including advantages, disadvantages and case study examples. Here is an overview of the decision-making tree and the financing tools available to local and regional governments.



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Inform your country's Voluntary National Review (VNR)

I. Content

- A. Align the structure of your VLR with that of your country's VNR, to the extent possible
- B. Include success stories, barriers to implementation, and lessons learned towards achieving local climate neutrality
- C. Include recommendations for how national governments can support local efforts toward climate neutrality
- D. Highlight innovative local sources and instruments of finance for climate neutrality
- E. Promote utilization of local data and provide disaggregated data, aligned with indicators reported in the VNR, to the degree possible

II. Process

- A. Time your VLR with the preparation cycle of the VNR
- B. Inform your intent to prepare a VLR to the national government's VNR staff
- C. Ask VNR preparers at the national level to review and comment on your VLR
- D. Volunteer to provide local content and indicators to ensure the VNR captures local efforts toward climate neutrality
- E. Volunteer to be part of the VNR presenter's panel at the UN High-level Political Forum.