



# How to develop a **Sustainable Energy Access and Climate Action Plan (SEACAP)** in Sub-Saharan Africa

*Short starting guide*

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## Content:

- ✓ What is a SEACAP?
- ✓ Where to start? Initiation phase
- ✓ What's next? Planning phase
- ✓ Implementation and monitoring

## What is a SEACAP?

The Covenant of Mayors in Sub-Saharan Africa (CoM SSA) is the "regional covenant" of the Global Covenant of Mayors for Climate & Energy (GCoM).

It is a bottom-up and voluntary initiative that invites cities to define and meet ambitious and realistic energy and climate targets. Local authorities are encouraged to define long-term vision and actions towards a sustainable future based on the **pillars of Climate Change Mitigation and Adaptation, and sustainable, affordable and secure Access to Energy.**

The Covenant of Mayors concerns action at local level within the competence of the local authority. In order to translate the political commitment into practical measures, CoM SSA signatories commit to elaborate and implement a strategic and operational document: the Sustainable Energy Access and Climate Action Plan (SEACAP). The **SEACAP** is the key document that shows how a Covenant signatory will reach its commitments. The SEACAP includes measures aimed at reducing GHG emissions, adaptation actions in response to the impacts of Climate Change and access to sustainable energy.



## SEACAP principles

The SEACAP is the key document that sets the strategies, plans and actions for a sustainable and low greenhouse gas (GHG) emission development while including climate adaptation actions and ensuring access to secure, affordable and sustainable energy, in response to the current and future impacts of Climate Change in the territory. The SEACAP defines concrete measures for climate mitigation, adaptation and access to sustainable energy.

Signatories commit themselves to submitting their climate action plans by year 3 at the latest (following adherence to the initiative).

The SEACAP should not be regarded as a fixed and rigid document. It can be updated if circumstances change and as the ongoing actions provide results.

The SEACAP should consolidate and integrate existing initiatives and it should be developed in collaboration with local stakeholders and the community.

The SEACAP covers the geographical area under the jurisdiction of the local authority and includes actions by both public and private sectors.

## The SEACAP process

The SEACAP process includes several phases: initiation, planning (pre-assessment, elaboration of the plan), implementation and monitoring and reporting.

### THE SEACAP PROCESS: MAIN PHASES



## THE SEACAP PROCESS: MILESTONES, TIMEFRAME AND MAIN PHASES.

### Milestones and time frame

#### ● YEAR 0

Political Commitment  
Signature of PCD

#### ● YEAR 2

Baseline Emissions Inventory (BEI); Risk and Vulnerability Assessment (RVA); Access to Energy Assessment (AEA) targets and goals.

#### ● YEAR 3

Sustainable Energy Access and Climate Action Plan  
Submission of the document

#### Every 2 years

after submission local plan

● Progress report  
Submission of the document

### Initiation

Political commitment  
Mobilize all municipal departments involved  
Stakeholders engagement

### Planning

Gain better understanding of local emissions, vulnerability to climate change impacts and access to energy services.  
Current policy framework

#### Climate Mitigation

Prepare a **Baseline Greenhouse Gas** (GHG) emissions inventory: The inventory determine baseline emissions, identifying main emission sources and reduction opportunities.

#### Climate Adaptation

Prepare a **Climate Change Risk and Vulnerability Assessment** (RVA): Cities conduct an RVA to identify current and future risks to people and assets.

#### Access to Energy

Produce an **Access to Energy Assessment** (AEA): as a dashboard, to overviewing the local status of electrification and cooking fuels access.

Establishment of the vision, where do we want to go? > **TARGET**  
Elaboration of the plan: how do we get there? > **ACTIONS**  
What to consider when designing actions to reach the targets?

#### Climate Mitigation

**Sectors:**

- Buildings / Stationary Energy
- Transport
- Waste

#### Climate Adaptation

**Type of hazards:**

- Extreme heat/cold
- Extreme precipitation/drought
- Floods
- Sea level rise

#### Access to Energy

**Sectors:**

- Electricity
- Cooking fuels

### Implementation

Deliver practical actions

### Monitoring and reporting

Review progress and readjust priorities

## Where to start? Initiation phase

The Initiation phase relates to the overall SEACAP principles and covers the strategic issues of political commitment, mobilization of all municipal departments involved, and stakeholders' engagement. The SEACAP requires a formal approval by the municipal council (or equivalent body). Adequate human resources shall be in place to

prepare and implement the SEACAP, since it is a challenging and time-consuming process. It requires well-planned and continuous collaboration and coordination among local and higher authorities and administrative departments (i.e. environmental protection, land use and urban planning, economics and social affairs, buildings, mobility and transport, budget and finance). The SEACAP process should be integrated in the everyday work of each department.

### Initiation phase:

- ✓ *Political commitment*
- ✓ *Mobilize municipal departments*
- ✓ *Stakeholders engagement*

Citizens and other stakeholders should be invited to take part in important stages of the SEACAP elaboration process. Whenever possible, local authorities and key actors should define together the paths to transform the vision into action.

Communication is an essential mean of keeping external and internal stakeholders motivated and supportive. The SEACAP should include a clear communication strategy that uses accessible language, is feasible, efficient and adapted to local needs and cultural context.

### Stakeholder engagement is a key:

- ✓ *Decision-making transparency;*
- ✓ *More extensive knowledge;*
- ✓ *Long-term acceptance, legitimacy.*

## What's next? Planning phase

Planning phase includes a *Pre-assessment phase* and a *Development phase*. Pre-assessment phase includes local governments' assessments, on which the SEACAP elaboration is built, as they provide knowledge on the nature of the emitting entities, risk and vulnerabilities and status of access to energy in the local territory. Local authorities shall develop:

- ✓ a GHG emissions inventory - Baseline Emission Inventory (BEI),
- ✓ a Risk and Vulnerability Assessment (RVA),
- ✓ the Access to Energy Assessment (AEA).

A long-term vision is to be established and then it should be translated into more specific objectives and targets, for the different sectors in which the local authority intends to take action. The SEACAP shall include mitigation target(s) and/or climate

### Planning phase:

- ✓ *Pre-assessments: BEI, RVA and AEA*
- ✓ *Set targets*
- ✓ *Define actions*

resilience goal(s) and access to energy targets.

Development phase is dedicated to the description of technical, measures and policies that can be implemented at local level by the local authority per sector of activity regarding mitigation, adaptation and energy access.

## Pillar I: MITIGATION

Local authorities should identify and prioritize the mitigation actions in the required and/or most effective sectors according to the outcomes of the BEI. Local authorities should establish a long-term vision with clear objectives for each sector. The SEACAP must include the BEI and a coherent set of measures in the selected sectors. Those measures should be measurable in terms of energy consumption and GHG emissions reduction.

### Pre-assessment: BEI

By developing a Baseline Emission Inventory (BEI) a local authority is measuring its GHG emission level in a base year, according to a common methodological approach. BEI identifies the principal anthropogenic sources of CO<sub>2</sub> (and other GHGs) emissions and allows to prioritize the reduction measures accordingly. The emissions accounting in the BEI is based on the sources, the types of gases and the boundary of the inventory. Local authorities shall account for emissions of the following gases: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O), but reported in TCO<sub>2</sub> or TCO<sub>2</sub>eq. The three main sources of GHG emissions to be potentially included in the emission inventory are:

- ✓ Direct emissions due to fuel combustion in the buildings, equipment/facilities and transportation sectors within the city boundary. These emissions physically occur inside the city boundary;
- ✓ Non-energy related: Other direct emissions that are not related to fuel combustion, including: fugitive emissions from disposal and treatment of waste generated within the city boundary, which may occur inside or outside the city boundary and fugitive emissions from natural gas distribution systems (such as equipment or pipeline leaks);

## SOURCES OF EMISSIONS

<b>Stationary energy</b>	All GHG emissions (direct emission from fuel combustion and indirect emission due to consumption of grid-supplied energy) occurring in stationary sources within the local authority boundary shall be reported. These emissions come from final energy consumption in residential, commercial and institutional buildings and facilities, as well as from industrial buildings and facilities and agriculture/forestry/fisheries. GHG emissions from sources covered by a regional or national emissions trading scheme (ETS), or similar, should be identified. GHG emissions from “energy generation” industries should not be reported under this sector to avoid double counting of emissions. All fugitive emissions within the city boundary shall be reported.
<b>Transportation</b>	All GHG emissions (direct emission from fuel combustion and indirect emission due to consumption of grid-supplied energy) occurring for transportation purposes within the local authority boundary shall be reported. In addition, local authorities shall where possible further disaggregate by mode: on-road, rail, waterborne navigation and off-road and it is recommended to disaggregate road and rail travel by fleet type: municipal, public, private and commercial transport. Local authorities may use the “fuel sales”, “geographic (territorial)”, “resident activity” and “city-induced” methodologies to estimate activity data in the transport sector.
<b>Waste</b>	All GHG emissions non-energy related from disposal and treatment of waste and wastewater generated within the city boundary shall be reported and disaggregated by treatment type. Where waste/wastewater is used for energy generation, emissions should not be reported under this sector to avoid double counting of indirect emission (instead the notation key IE should be used).
<b>Energy Supply</b>	All GHG emissions from generation of grid-supplied energy within the local authority boundary, and all GHG emissions from generation of grid-supplied energy by facilities owned (full or partial) by the local authority outside the local authority boundary shall be reported, disaggregated by electricity-only, CHP and heat/cold production plants. To avoid double counting, these emissions will not be part of the total direct emissions, but accounted through the local emission factor for indirect emissions. In addition, local authorities are recommended to report all activity data for distributed renewable energy generation.

- ✓ Indirect emissions due to consumption of grid-supplied energy (electricity, heat or cold) within the geographic boundary. Depending on where energy is generated, these emissions may occur inside or outside the city boundary.

The sources of emissions to be included are reported in the following table.

Local authorities can choose between two methodological approaches:

- ✓ **Activity based**, according to IPCC approach and
- ✓ **LCA** Life Cycle Analysis.

To build the emission inventories, the GHG emissions from energy related activity sector are calculated by multiplying the activity data by the emission factor per energy carrier (fuels and grid supplied energy).

$$\text{GHG emissions} = (\text{Activity data} \times \text{Emission factor})$$

Activity data quantifies the human activity occurring in the local territory (i.e. amount of natural gas used for space heating in residential buildings; distance travelled by private car; amount of waste). It is expressed in MWh. Emission factors (EF) are coefficients which quantify the emissions per unit of activity (i.e. CO<sub>2</sub> emitted per unit of NG consumed, CO<sub>2</sub> emitted per unit of electricity). EFs are expressed in tCO<sub>2</sub>/MWh or tCO<sub>2</sub>eq /MWh.

With regards to mitigation, local authorities are required to set emissions reduction targets with the following characteristics:

**Boundary:** shall be consistent with all emissions sources included in the GHG emissions inventory;

**Target type:** 4 target types: base year emissions target, base year intensity target, baseline scenario target, or fixed level target (see table below);

**Target year:** the same as the one adopted in the Nationally Determined Contributions (NDC). If it is beyond 2030, an interim target between now and 2030 shall be included.

**Base year:** the same as the one of the NDC;

**Ambition:** At a minimum as ambitious as the unconditional components of the NDC;

**Units:** Targets shall be reported as a percentage (%) reduction from the base year or scenario year. The absolute emissions in the target year(s) in metric tonnes CO<sub>2</sub>eq shall also be reported;

The use of **transferable emissions units** is only permissible when target ambition exceeds the NDC;

Any **conditional components** included in the target shall be identified.

### Mitigation: TARGET TYPE



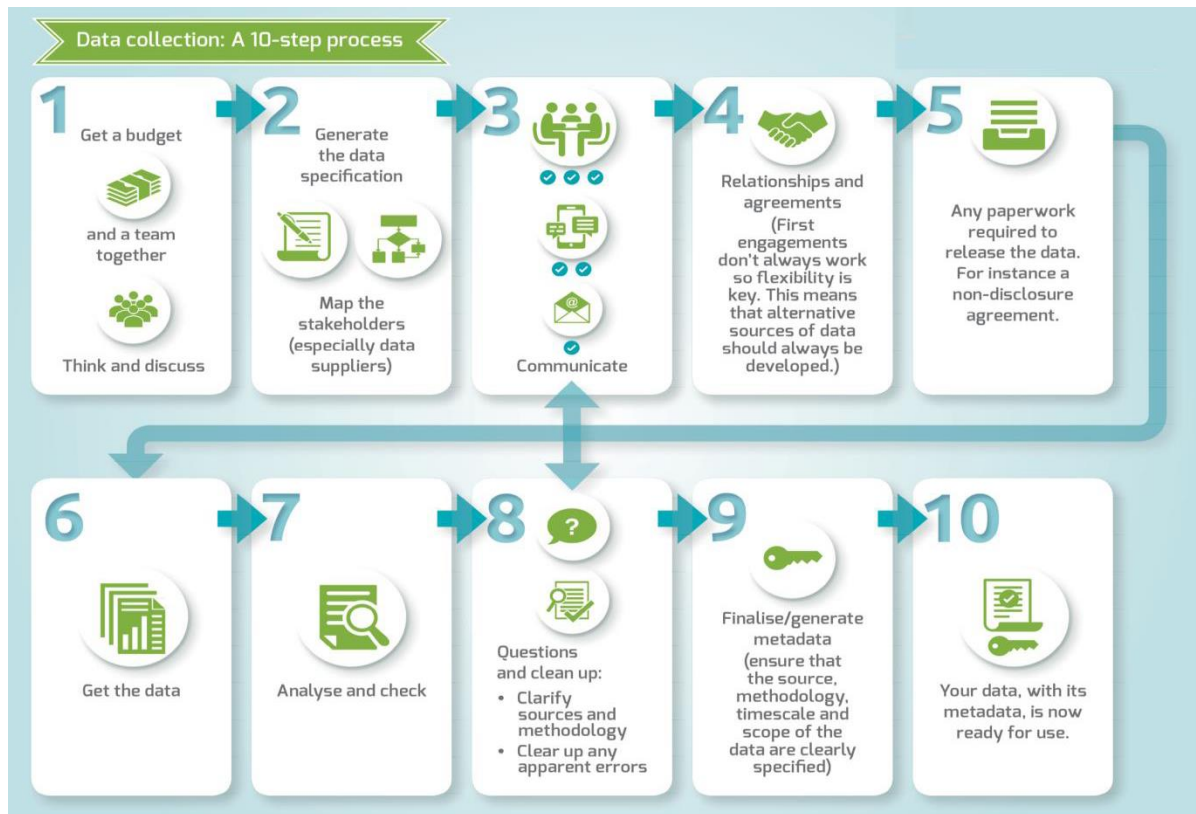
**Base year emissions target:** Reduce, or control the increase of, emissions by a specified quantity relative to a base year. For example, a 25% reduction from 1990 levels by 2030.

**Base year intensity target:** Reduce emissions intensity (emissions per unit of another variable, typically per Gross Domestic Product – GDP or per capita) by a specified quantity relative to a base year. For example, a 40% reduction from 1990 base year intensity by 2030.

**Baseline scenario target:** Reduce emissions by a specified quantity relative to a projected emissions baseline scenario. A Business as Usual (BaU) baseline scenario is a reference case that represents future events or conditions most likely to occur in the absence of activities taken to meet the mitigation target. For example, a 30% reduction from baseline scenario emissions in 2030.

**Fixed-level target:** Reduce, or control the increase of, emissions to an absolute emissions level in a target year. One type of fixed-level target is a carbon neutrality.

## DATA COLLECTION: A 10 STEPS PROCESS



Source: Covenant of Mayors in Sub-Saharan Africa (CoM SSA).

Guide available at <http://comssa.org/wp-content/uploads/2018/07/data-collection-low-res.pdf>.

### Data collection

The collection of data to develop the assessment is a key step for all the assessments within the SEACAP process. However, data is not always available. It also may vary in terms of detail, scale, aggregation, and typology. Collecting information from every energy consumer within the local territory is not always possible or practical. Therefore, a variety of approaches are likely to be adopted and often a combination of them is necessary to have an overall picture. Before starting the data collection process, it is recommended to investigate if there are already national or regional mechanisms, which could help to collect relevant data for the building of the local GHG inventory and the other assessments. A useful practical step-by-step guidance to energy and emissions data collection in developing cities is illustrated in the figure above.

### Mitigation actions

Local authorities play a key role in facing Climate Change issues and have the capacity to support and

mobilize action for carbon emissions and energy consumption reduction through several modes of urban climate governance:

- ✓ Municipal self-governing: LAs can govern their own activities and undertake strategic investments in municipality-owned assets;
- ✓ Municipal enabling: the LA has an active facilitator role in enabling cooperation between community actors;
- ✓ Governing through provision: the LA is a provider of urban services and has control over infrastructure development;
- ✓ Governing by authority: in addition to capacities as implementer, enabler, and provider, LAs govern by authority through setting regulations.

It is often necessary to combine multiple modes of governance to be more effective and to reflect the condition of LAs. The most common sectors and strategies for mitigation are listed next, while boxes depict best practice examples.

**Public buildings** are one of the sectors where large reductions in energy consumption can be achieved. However, local authorities can foster mitigation

strategies in other sectors, by adopting one or more of the four described approaches of governance.

**Public procurement** refers to the process by which public authorities purchase work, goods or services from companies. Public procurement offers a significant opportunity for local authorities to improve their overall energy efficiency. **Green public procurement** is the process whereby public authorities seek to procure goods, services and works with a reduced environmental impact.

**Public awareness and social engagement** play a pivotal role for successful climate action. Measures to induce behaviour change and to provide education significantly contribute to the decrease of energy consumption through social and non-technological approaches.

**Buildings and transport** are among the most energy

intensive sectors at local level and fields where local authorities can take action to reduce energy consumption and carbon emissions. One of the most common strategies is the energy retrofitting of buildings. Other simple measures may contribute in the reduction of energy consumption in buildings and in configuring sustainable buildings simultaneously, such as: behaviour, building management, and location. Strategies for improving the energy efficiency in buildings vary according to building characteristics. Urban form, land use and characteristics of the building stock are strategic issues in improving energy performance. GHG emissions at urban level are deeply influenced by the layout of neighbourhoods. In particular the key issues that influence carbon emissions are urban density and efficient urban mobility.

**ENABLE** - To establish an efficient and responsible governance system, capable of anticipating needs, guiding action and ensuring integrated management and development of urban transport systems

- ✓ **E1** To define, adopt and implement, at central government level, a national urban transport strategy that ensures the sustained development and management of urban transport systems.
- ✓ **E2** To ensure that the main urban transport public responsibilities at urban / metropolitan level of government are assigned and carried out.
- ✓ **E3** To set up an entity in charge of urban transport planning and of guiding and coordinating public action aimed at the provision of the multimodal urban transport system.
- ✓ **E4** To provide all institutions and stakeholders in the urban transport sector with adequate human resources.
- ✓ **E5** To increase financial resources allocated to urban transport systems and to ensure the availability of long-term funding for urban transport
- ✓ **E6** To create the preconditions for continued civil society participation in the development of urban transport systems
- ✓ **E7** To enhance the involvement of the private sector in the provision of transport infrastructure and services

**AVOID**- To minimize the need for individual motorized travel through adequate land-use and transport planning and management.

- ✓ **A1** To plan for urban forms and land use that minimize the need for individual motorized travel and promote public transport and non-motorized transport modes.
- ✓ **A2** To deploy transport infrastructure and services in a manner that promotes sound urban forms and land use.
- ✓ **A3** To strengthen land use management.

**SHIFT** - To maintain or increase the modal shares of public transport and non-motorized transport modes such as walking and cycling

- ✓ **S1** To adopt and systematically introduce, at all levels and scales, a multimodal approach to the development and management of urban transport systems.
- ✓ **S2** To develop and maintain for each urban area a pedestrian network that is continuous, safe and accessible for all throughout the day; and to develop and maintain bicycle paths with similar characteristics.
- ✓ **S3** To provide an integrated and hierarchical public transport system that is efficient, reliable and capable of serving the needs of constantly evolving populations and the urban economy.
- ✓ **S4** To plan and implement mass transit systems that operate on exclusive infrastructure and can form the backbone of the urban public transport system.
- ✓ **S5** To enhance the level of service provided by paratransit operators by way of full integration in the public transport system, which requires restructuring, modernizing and promoting them.

**IMPROVE** - To improve the efficiency and safety of transport modes while minimizing their environmental footprint.

- ✓ **I1** To improve planning, operation and maintenance of urban roads taking into account and balancing the needs of all transport modes, and keeping the use of individual motorized vehicles under check.
- ✓ **I2** To define and implement realistic and gradually more demanding requirements in terms of fuel components, energy efficiency and gas emissions.
- ✓ **I3** To promote safe and environmentally responsible behavior by all urban transport stakeholders by strengthening technical control of vehicles and by keeping the public informed of the negative externalities of individual motorized transport.

Source: The World Bank (2015), "Policies for sustainable accessibility and mobility in urban areas of Africa", Africa Transport Policy Program (SSATP), TRANSITEC Consulting Engineers Ltd (M. Stucki), in collaboration with ODA, CODATU and Urbaplan



## BEST PRACTICES : MITIGATION ACTIONS

### Bus rapid transit and clean vehicles in SSA

New BRT systems and clean buses are in development in cities in Africa such as BRT in Lite Lagos, DART in Dar es Salaam, Addis Abbaba, Rea Vaja in Johannesburg.

The awarding of the 2010 (19th) FIFA World Cup event to Johannesburg stimulated an intense interest in improving the transport system in order to live up to the projected image of being a 'World Class City'. The **Rea Vaja** started in 2009, the key characteristics include: dedicated priority infrastructure, frequent and rapid services, a pre-board fare collection and fare verification, a fare-integration between routes, corridors, and services, secure enhanced stations, Clean Euro 4 vehicles. The project was financed through: National grant for infrastructure R 2.3 billion (US\$ 300 million), a structure developed by HSBC, including financing of vehicles by Brazilian development bank and German government grant for planning (BMZ/KfW/GTZ) € 2 million euros.

The project for **DART** aimed at ensuring orderly flow of traffic on the city streets and roads by increasing the level of mobility, improving public urban transport, promoting the use of non-motorized transport, and at meeting the ever increasing travel demand of the city residents with ultimate aim of increasing comfort and quality of life and urban development. In addition, DART system intends to generate jobs to residents by inviting people to invest in the DART bus operations, fund management and fare collection companies. The Dar BRT System comprises six phases, at the end of which a total 130.3 km network, with 18 terminals and more than 200 stations will be provided. Phase 1 has been completed with financing from the World Bank and the Government of Tanzania. The vehicles are modern and based on low emission engines according to international standards. Among the positive impacts of the project, improved drainage and traffic flow, reduction in emissions, improved Air Quality, direct and indirect employment generation.



*Africa's First Full Rapid Bus System: the Rea Vaya Bus System in Johannesburg, Republic of South Africa- Heather Allen. Case study prepared for Global Report on Human Settlements 2013 Presentation of L. Wright at UN Forum on Climate Change Mitigation, Fuel Efficiency and Sustainable Urban Transport - Seoul, Republic of Korea, 16 March 2010 "Dar es Salaam Bus Rapid Transit: Environmental and Social Impact" (PDF). afdb.org. African Development Bank March 2015. © GIZ / Claus Nakata*

among mitigation, adaptation and access to energy strategies. Land use and transport interaction, green infrastructures and local energy production are some of the main fields where urban planning may have a role to address Climate Change at local level. Strategic planning decisions impact cities both in the way they function and in the behaviours of urban community. For this reason, these decisions need to be carefully and holistically considered, by taking into account the complex interdependencies among fields and potential trade-offs due to the implementation of different measures.

**Local energy generation** is an effective field of action at the local level for the local authority. Planning urban form to enable renewable, low carbon and smart energy can offer significant benefits in terms of reducing emissions, but also improving access to sustainable and secure energy supply.

**Local waste management** strategies are particularly crucial for enabling the minimization of the amount of waste generated through waste prevention, the diversion of waste from landfills through recycling, reuse, and composting, and the utilization of environmentally-conscience waste-to-energy options.

More than 90% of waste generated in Africa is disposed of at uncontrolled dumpsites and landfills, often associated with open burning. Water management has also a direct impact on energy

**Transport** is at the core of a number of major sustainability challenges, including Climate Change. Action in this field would bring numerous co-benefits in related fields. There is a large number of possible interventions that local authorities can initiate in their jurisdiction to positively influence travel behaviour, vehicle choice and use (i.e. shaping urban form and planning local transport infrastructures, integrated urban planning, regulate, fund and operate public transport service). A powerful policy tool for transport (adapted for SSA context) is the EASI conceptual framework that includes four strategies for intervention in the transport sector (enable, avoid, shift, improve), see page 6.

**Urban and land use planning** is the field through which LAs could coordinate the mitigation measures in numerous sectors and manage the relationship

## BEST PRACTICES : MITIGATION ACTIONS

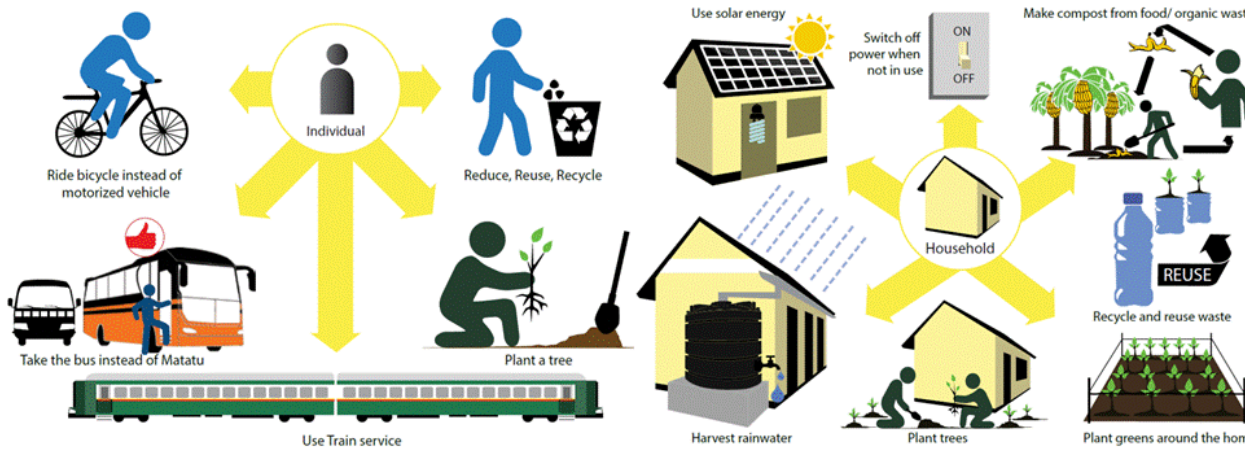
### Waste and water management projects in SSA

#### Sustainable Urban Resilient Water for Africa

SURewater4Africa project was part-funded by EuropeAid and works with local governments in six African countries in the Southern African Development Community (SADC). The project aims to contribute to sustainable climate change (CC) resilient urban water planning mechanisms and action based on international benchmarking within local authorities while ensuring multiplier effects to the region.

<http://africa.iclei.org/activities/agendas-projects/resource-efficient-productive-city/surewater4africa.html>

What can I do to contribute? Coordination of everyone to promote action



Source: Plan for the city of Kampala.

usage at the local level through the electricity that is used for the preparation of tap water and its pumping through pressurized water distribution systems to reach end-users.

## BEST PRACTICES: MITIGATION ACTIONS

### Sustainable energy projects in SSA

LuMa Sustainable Energy Project – 2016 to 2018, Lusaka Zambia

The Lusaka City Council and the City of Malmo in Sweden has partnered to embark on sustainable energy project which will last for three years whose main aim is to promote sustainable energy solutions through municipal partnerships. The project was conceived to help tackle unsustainable energy use among the citizens which was identified as the main problem during an inception project meeting held in 2015. The unsustainable energy use in Lusaka is mainly due to limited knowledge of sustainable energy alternatives, lack or limited contact amongst the different stakeholders in the communities, lack of resources to promote sustainable energy use and business as usual style of living where people tend to stick to the same solutions when it comes to energy choices.

The use of unsustainable energy such as charcoal has different effects which include but not limited to health problems due to bad air quality and smoke from charcoal used for cooking and depletion of natural resources bringing about climate change impacts both locally and globally.

Sustainable development is the way most nations globally want to proceed. The United Nations has set out Sustainable Development Goals (SDGs) to be achieved by 2030. Lusaka City Council is actively working to achieve SDGs. This pilot project will be implemented in Matero compound where charcoal is mostly used as energy source. Different local stakeholders working in this space have been identified and are part of the project. Among the stakeholders working on the project include Emerging Cooking Solutions, NECOS, WWF, University of Zambia, local drama groups and many more.

Lusaka City Council will benefit from the project as it will help promote sustainable energy instead of using charcoal for cooking. Charcoal is highly used especially in peri-urban areas where over 70% of the population in Lusaka lives. There will also be knowledge transfer between the two participating cities as implementation will be done both in Lusaka – Zambia and in Malmo- Sweden.. The project will also help Lusaka City Council develop a Sustainable Energy Access and Climate Action Plan (SEACAP) which currently does not exist. It is important that a city like Lusaka develops a SEACAP for effective monitoring of gains made towards climate change adaptation and mitigation.

<https://www.lcc.gov.zm/luma-sustainable-energy/>



Source: Plan for the city of Kampala.

## Pillar II: ADAPTATION

Adaptation is the process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. Africa is highly exposed to Climate Change and its structural weaknesses result in lower resilience. Africa is one of the most exposed areas to global warming. The impacts of Climate Change in the region include: sea level rise, coastal erosion, increase of rainfalls, extreme temperatures, water scarcity and drought. These, among others, affect the water, agriculture and health sectors. The main risk factor in the water sector is the multiple stresses on water resources that are currently facing significant strain. There is a risk of reduction in the crop productivity associated with heat and drought stress. The risk factors in the health sector mainly originated from the changes in the incidence and geographic range of vector and water-borne diseases.

### Pre-assessment: RVA

A Risk and Vulnerability Assessment (RVA) determines the nature and extent of a risk by analysing potential hazards and assessing the vulnerability that could pose a potential threat or

harm to people, property, livelihoods and the environment on which they depend. This can take the form of a single assessment or various assessments undertaken per sector. The RVA enables local authorities to identify their exposure to current and future climate hazards, their vulnerabilities, and understand the main city specificities that contribute to aggravating the consequences of a climate hazard. Similarly to the BEI, the RVA defines the basis for

### ADAPTATION: SOURCES OF INFORMATION

#### Climate data and future projections

-  Climate Information Portal (CIP) by CSAG (<http://cip.csag.uct.ac.za>)
- Future Climate Africa (<http://www.futureclimateafrica.org>)
- The African Risk Capacity (ARC) (<http://www.africanriskcapacity.org/>)

#### Disasters, disasters losses and disaster resilience

-  Global Assessment Report Risk Data Platform (<http://risk.preventionweb.net>)
- DesInventar (<http://www.desinventar.net>)
- EM-DAT: The International Disaster Database (<http://www.emdat.be>)
- PREVIEW Global Risk Data Platform (<http://preview.grid.unep.ch>)
- Disaster Resilience Scorecard for Cities (<https://www.unisdr.org/campaign/resilientcities/home/toolkit>)

setting the priorities of adaptation action and investment and monitoring the effectiveness of implemented adaptation measures for a specific region or sector.

RVAs are the most commonly used tools for identifying, quantifying and prioritising key risks of a system to Climate Change. However, it is worth noting that not all issues that emerge from vulnerability assessments can be addressed, mainly due to budgetary limitations. Therefore, to identify the optimal level of adaptation it is required to assess the trade-off between the costs of investment in resilience and the expected benefits in terms of reduced losses and damages, versus a scenario of inaction. This cost-benefit analysis is a crucial step in developing adaptation plans, and cities are encouraged to undertake robust estimations of costs, benefits and uncertainties to the extent possible.

Many tools and methods exist for undertaking vulnerability and adaptation assessments. The choice should be based on the purpose, the spatial scale of assessment and the resources available, including data, tools, budget and technical skills. Three different common methodological approaches are: indicator based, model and GIS based and participatory approach. The Model- and GIS-based approach typically requires advanced technical skills and it is indicated for big cities. The indicator-based approach requires less resources and technical skills, hence it is a viable option for small and medium cities.

FROM RVA TO IMPLEMENTATION OF ADAPTATION STRATEGY



Adaptation actions:

The adaptation pillar of CoM covers the following types of climate hazards that could potentially affect negatively societies, its economies and the

**BEST PRACTICES: ADAPTATION ACTIONS**  
**Floods and urban planning in SSA**

**Drones Help Communities Map Flood Risk in Dar Es Salaam Slums**

With almost 70 percent of its inhabitants living in informal settlements, Dar es Salaam is highly vulnerable to flooding, but drones can help communities map the flood risk.

With the help of drones, city authorities are drawing up plans to protect and assist suburbs at risk of flooding.

Officials in Tandale are also using the maps to work out where flooding could trigger disease outbreaks

Source and more information:  
<http://floodlist.com/africa/tanzania-drones-help-communities-map-flood-risk-dar-es-salaam-slums>

environment: extreme heat, extreme cold, extreme precipitation, floods, sea level rise, droughts, storms, landslides, and forest fires. However, other hazards may also be listed (such as vector-borne diseases, water scarcity) according to the specificities of the city.

**Floods and droughts** are the most frequent types of disasters in Sub-Saharan Africa, followed by **wind storms**. However, **droughts** tend to affect a much larger number of people. Among the problems that will be exacerbated by Climate Change, particular attention should be paid to the highly interrelated issues of desertification, food security, and water supply.

Adaptation actions should be suitable to the local context, depending also on the local needs and the national situation. Actions could be framed as *strategic actions, related to alert and communication* and as *technical measures*. Best practice examples are reported in the boxes.

**Informal Settlements** and urban informality are wide spread in developing countries. Climate Change mitigation and adaptation of these areas is challenging. In particular, people living "informally" are more vulnerable to climate related impacts being more sensitive and less able to adapt. Therefore, the coping with informal settlements, upgrading them and introducing infrastructure is highly important for Climate Change adaptation. Nevertheless, policies and actions on these areas shall be developed in an integrated way with mitigation.

## BEST PRACTICES : ADAPTATION ACTIONS

### Floods and urban planning in SSA

#### Kroo Bay, Freetown, Sierra Leone.

Kroo Bay, one of the largest coastal slums with an estimated population of 6,000, has flooded every year since 2008. Freetown’s population is now over one million, a tenfold increase since independence in 1961. During the 1990s, many fled towards the capital as civil war engulfed the country. There they began to build on pockets of land previously unused for housing – and the majority stayed. The city extended outwards to accommodate this influx, but it did not do so with any urban strategy or plan in place.


During heavy rainfall blocked drains deposit huge amounts of debris – including medical and other perilously unhygienic waste material – in the city’s coastal slums. So flooding brings not only the immediate risk of death and loss of property but also heightened risk of disease. Already the frequent flooding of August and September gives way to severe water shortages in March. In informal settlements, water pipes are cut as people desperately seek access to this basic service while those who can afford it ‘negotiate’ with Guma Valley, the main water company, to have water delivered to tanks. A seasonal threefold escalation in price is not uncommon.

Developing a long-term plan for the city that is climate-sensitive, addresses waste disposal, appropriately financed and designed in consultation with residents of informal communities should be a priority. In the short term, efforts to resolve political wrangling over unblocking drains, to implement and uphold a moratorium on building in the Peninsula forest and to improve weather forecasting could help to protect life and property for those who have little to begin with.

Presently, the EU support to the Freetown Development Plan include the following actions: An institutional strengthening project to assist with the capacity building, Urban Roads Rehabilitation Project, The Risk Mitigation Project, The Peri and Urban Community Action for Food Security Programme and The Conservation of the Western Peninsula Forest Reserve and its Watersheds.

Source and more information: (Hitchen, 2015)

[http://www.eeas.europa.eu/archives/delegations/sierra\\_leone/eu\\_sierra\\_leone/tech\\_financial\\_cooperation/infrastructure/the\\_freetown\\_development\\_plan/index\\_en.htm](http://www.eeas.europa.eu/archives/delegations/sierra_leone/eu_sierra_leone/tech_financial_cooperation/infrastructure/the_freetown_development_plan/index_en.htm)



## LANDSCAPING A MORE RESILIENT LOW CARBON KAMPALA


<b>PP3. INTEGRATED LANDSCAPE POLICY</b>		
STATUS	Developed the Kampala Physical Development Plan(KPDP), actualisation of KPD Framework	
IMPLEMENTERS	KCCA, Ministry of Lands, Housing and Urban Planning	

<b>PP2. URBAN ECOLOGICAL PLANNING, ENGAGING MULTI-LEVEL STAKEHOLDERS</b>	<b>PP4. URBAN RESILIENCE STRATEGY</b>	<b>PP5. GIS</b>
STATUS	STATUS	STATUS
Advocating for better land use management, integration of planning, mobility and \ infrastructure sectors	Conducting a community disaster and risk vulnerability mapping	Updating KCCA GIS unit, enabling large scale city planning
IMPLEMENTERS	IMPLEMENTERS	IMPLEMENTERS
	KCCA	KCCA
		PARTNERS
		World Bank (KIDP)

<b>PP6. CITY AND SOLAR CADASTRES</b>	<b>PP9. DATA REPOSITORY</b>	<b>PP11. BUILDING REGULATION, PERMIT ALLOCATION PROCESS</b>
Build policy support to landscape policy, identify the solar energy potential areas	Build city database, information collection and storage capacity to aid monitoring activities.	Incorporate environmental & energy efficiency criteria in building codes
IMPLEMENTERS	IMPLEMENTERS	IMPLEMENTERS
	KCCA	KCCA, Ministry of Lands, Housing and Urban Development, Ministry of Energy & Mineral 4 Development

<b>PP13. NEAR 0 CARBON NEIGHBOURHOOD</b>	<b>PP14. ECO-GUIDELINES FOR PROMOTERS AND DEVELOPERS</b>
Promoting energy efficiency at household level & clean waste management	Integrate environment criteria in permit allocation process

<b>PP15. ENVIRONMENTAL IMPACT ASSESSMENT (EIA)</b>	
STATUS	Required for construction projects as part of permit allocation process
IMPLEMENTERS	NEMA



Source: Plan for the city of Kampala.

## Pillar III: ACCESS TO ENERGY

Energy is a key input for meeting basic needs and for achieving socio-economic development goals. Energy access is linked to other basic services such as water and sanitation. The use of energy, the types of energy used and the lack of access to sufficient energy have far reaching implications for a city's economic development, its environmental health and for the poor. Access to energy is one of the factors that bring together human development, economic growth and sustainability. Energy planning and energy policy are tackled across different levels of government. Many in Sub-Saharan Africa do not have access to electricity: those who do, consume on average 162 kilowatt-hours (kWh) per capita a year, the lowest level of electricity for any region in the world. One-third of the region's population lives in countries where annual electricity use averages less than 100 kWh each. Four in five people in Sub-Saharan Africa (785 million) rely for cooking on solid biomass, mainly fuel wood and charcoal. Clean, non-polluting cooking facilities are vital to reduce the number of death from household air pollution in Africa, and yet access to these, is even more restricted than access to electricity.

### Sustainable Development Goal 7 (SDG7)

SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all. The targets are:

- 7.1** By 2030, ensure universal access to affordable, reliable, and modern energy services.
- 7.2** Increase substantially the share of renewable energy in the global energy mix by 2030.
- 7.3** double the global rate of improvement in energy efficiency by 2030.

SDG7 specifically mentions four key attributes that could be used with the purpose of defining and measuring energy access: *affordable, reliable, sustainable and modern*.

- ✓ Within African countries, the electricity grid serves mostly urban areas. Among the poorest 40% of the population, coverage rates are well below 10%.
- ✓ Inadequate or unreliable access to electricity remains one of the biggest binding constraints on economic development. Power outages are considered one of the biggest obstacles faced by firms.

- ✓ Local renewable energy sources such as biomass, solar radiation, hydropower and wind are all abundant in Africa and especially relevant for cities.

### Pre-assessment: AEA

Access to energy has a multi-dimensional nature which makes its assessment challenging. The access to energy assessment (AEA) is developed as a dashboard of multiple indicators that help to figure out a clear picture of the current condition of the local authority.




In the framework of the CoM SSA initiative the fields to be considered to assess the energy access in Sub-Saharan Africa are: clean cooking and electricity in households and public buildings.

For electricity, 10 indicators have been developed. There is an overall indicator and then 9 indicators which are individually related to one of the three key attributes of energy access (sustainable, secure and affordable). To lead the AEA, the local authority has to select and evaluate at least one indicator per each category, along with the overall one. The overall indicator gives a general picture of the current situation of the access to energy in the local authority. The indicators related to secure aspects aim at assessing the reliability and the quality degree to which households and public buildings have access and use electricity. The indicators related to sustainability mainly refer to renewable energies, while the ones referring to affordability attribute assess the potential and the current capacity to pay for electricity.

For clean cooking, 9 indicators have been developed. There is one overall indicator and then 8 indicators which are individually related to one of the three key attributes of energy access, (sustainable, secure and affordable). To lead the AEA, the local authority has to select and evaluate at least one indicator per each category, along with the general one. The indicators related to secure aspects refer to access to and primary use of modern fuels and technologies, including natural gas, liquefied petroleum gas (LPG), electricity and biogas, or improved biomass cook stoves. The access to clean cooking is achievable principally through sustainable supply and improved cook stoves, while the affordability aspects mainly refer to ability to pay and financial incentives in place.




## INDICATORS: Access to electricity

### 1. Percentage of population or households having access to electricity (grid/off-grid) [%]

-  2. Number of hours per day of available electricity [*h/day*]
- 3. Average number of electricity interruptions per day [*n°/day*]
- 4. Number of days without electricity per year [*n°/year*]
-  5. Percentage of electricity from RES [%]
- 6. Number of minigrids and stand-alone systems [*n°*]
- 7. Laws and regulations in place for mini-grids/stand-alone systems [+/-]
-  8. Percentage of population able to pay for electricity [%]
- 9. Percentage of expenditure of Public Buildings for electricity [%]
- 10. Financial and regulatory incentives for renewable energy in place [+/-]

## INDICATORS: Access to clean cooking

### 1. Percentage of population /households with clean cooking access [%]

-  2. Percentage of pop./households relying on traditional biomass [%]
- 3. Percentage of pop./households relying on LPG or other sources [%]
- 4. Time and distance to gather fuelwood [*h and km*]
-  5. Number of improved cook stoves [*n°*]
- 6. Sustainable charcoal production [*Y/N*]
- 7. Awareness / Education programmes in place [*Y/N*]
-  8. Financial and regulatory incentives in place [+/-]
- 9. Percentage of pop. able to pay for the transition to clean cooking [%]

## Access to Energy: actions

Energy in the city is essential for almost every activity and function. Local authorities have a big influence within their boundaries over current and future energy use patterns through building regulations, urban layout, transport planning, bylaws, standards & codes, air quality control measures and electrification. Cities will be crucial in achieving national energy targets. Local authorities can serve as a vehicle to implement top-down policies from national governments, and they can design solutions to Climate Change that are consistent with local policy priorities. It is the responsibility of leaders in all spheres of government, commerce, industry and civil society to promote action towards more efficient and renewable energy use. LAs are not in charge of the energy distribution networks management. For electricity, this is the responsibility of the national agencies and companies under the supervision of a National Ministry. However, LAs have a significant role to play with national authorities to integrate and articulate physical and energy planning. The political context, not just national but also local will be a decisive factor when deciding on aid policy.

To increase the access to sustainable, secure and affordable energy, resources as well as policy and regulatory frameworks to support energy service delivery need to be urgently reviewed.

A major focus has been put on providing **access to electricity**. Different approaches include the following technologies:

- ✓ Large-scale grids: Expanding the central electrical grid;
- ✓ Mini-grids still capable of supplying electricity in quantities that can match the services supplied by the grid;
- ✓ Solar home systems (SHS) can supply electricity to isolated households that are too dispersed to be connected through mini grids;
- ✓ Solar appliances provide electrification on a smaller scale than SHSs and therefore result in the lowest up-front cost, but also the highest cost of electricity.

**Renewable energy** improves energy security, by increasing the share of domestically available alternative sources.

Regardless of size, local authorities should undertake policy development to support renewable energy deployment in association with other policies, including national policies linked to sustainability goals and Climate Change, and local policies relating to energy security, energy access, health, employment, equity and reducing energy demands. Cities must target specific renewable energy resources that best suits their conditions.

Policy recommendations for improving **access to electricity** and scale up renewable energies include:

- ✓ Consumer centred policies;
- ✓ Governance should involve stakeholders from multiple sectors;
- ✓ Support renewable energy deployment in association with other policies;
- ✓ Enabling environment with the right policies, institutions, strategic planning, regulations, and

## BEST PRACTICES : ACCESS TO ENERGY

### Electricity access to the poorest

#### Bringing Electricity to Kenya's Slums

Giving electricity access to the poorest seems a daunting challenge. But there are examples of how new approaches can help overcome difficulties. One recent example is how the Kenya Power and Lighting Company (KPLC), with support from the World Bank, is working to increase legal connections in poor areas, including the Kibera slum. While the program struggled to take off in the initial period, with only 5,000 connections in 2014, they counted 150,000 a year later. KPLC changed its business process: instead of taking down illegal connections, it listened to community leaders and marketed the benefits of legal connections. It collaborated with the Kenya Informal Settlements Improvement Project (supported by the World Bank). The World Bank provided funding to KPLC for each legal connection – reducing the cost of electricity, using the 'last mile' approach and ensuring electricity was available to households. Consequently, using power legally became less expensive for consumers than the illegal lines (World Bank 2015). In mid-2016, KPLC reported that 60 percent of Kibera was connected. The ability to increase electrification is not only dependent on financial and resource availability. Implementing innovative policies and a strategic framework can speed up this process. Factors for the success: Using a community-based approach, Kenya Power has gone from 5,000 households connected under its informal settlements program, to over 150,000, in just one year. First of all, Kenya Power changed the way it was doing business, adopting a community-based approach in slum communities. This meant no longer taking down illegal connections. Instead, it focused on listening to community members and leaders, and marketing the benefits of the legal connections – safety, reliability, and affordability. The utility also stepped up collaboration with the Kenya Informal Settlements Improvement Project (KISIP), a World Bank-supported government program with widespread networks and a strong reputation in the slums. This collaboration helped Kenya Power 'segment' the country's slum areas and target areas where the new approach was most likely to take hold.

Source and more information: World Bank 2015.  
<http://www.worldbank.org/en/news/feature/2015/08/17/bringing-electricity-to-kenyas-slums-hard-lessons-lead-to-great-gains>

incentives is imperative for achieving universal access;

- ✓ Planning should focus on the energy services provided;
- ✓ Assessment of available energy resources should be undertaken prior to promoting the use of renewable energy.

The traditional African way of cooking is on a three stone wood fire. In urban areas, where wood is not readily available, charcoal tends to be the fuel of choice. Although urban residents tend to have greater access to modern fuels for cooking, such as LPG and electricity, the majority still rely on biomass.

**Energy-poor** households suffer from a wide range of impacts, from increased risk of premature death due to indoor pollution to forgone productivity gains and lower quality of life. On top of these impacts, energy-poor households must spend a greater proportion of their income to meet their basic energy needs. They also spend more time engaging in energy-intensive tasks than do wealthier households who have access to modern energy sources.

Policy recommendations for improving **access to clean cooking** include:

- ✓ Increase support for clean cooking solutions;
- ✓ Design interventions to drive consumer behavior change; simply distributing cleaner cooking solutions and fuels will not lead to optimal health and environmental outcomes;
- ✓ Prioritize market-based approaches and deploy direct subsidies linked to health and climate impacts;
- ✓ Support sustainable production of clean-biomass and renewable fuel alternatives alongside efforts to improve stove efficiency and reduce emissions;
- ✓ Focus on providing critical public goods to accelerate the development of the clean cooking sector;
- ✓ Policy makers should emphasize consumer education, access to finance, funding for R&D, the expansion of standards and testing, and enabling fiscal and trade reforms (e.g., tax, tariff, and subsidy reform).

## BEST PRACTICES : ACCESS TO ENERGY

### Access to clean cookstoves

"Using the Improved Cookstove has increased our family savings!"

**FUMBALIVE**  
Cooking just got better



- Saves you money
- Less smoke
- Less charcoal



Always use an Improved Cookstove with the Quality Label



Awareness campaigns 'Fumbalive' and "Good Stove Better Cooking" brand

The Uganda Ministry of Energy and Mineral Development, together with the Global Alliance for Clean Cookstoves and Uganda National Alliance of Clean Cookstoves (UNACC) launched in 2016 a campaign dubbed 'Fumbalive' aimed at encouraging consumers to adopt the use of the improved cookstoves as a way of promoting energy saving cooking practices. The locally made improved cookstoves have also been clearly marked with the Good Stove-Better cooking quality mark as the standard sign for genuine stoves.

The first-ever certification program for improved cookstoves in Uganda. Market transformation policies – such as standards and labelling – can help accelerate the transition to cleaner and more efficient cookstoves that burn less fuel. In the case of Uganda, "Good stove better cooking" brands, Serves as a quality seal for buyers to identify quality stoves. All stoves promoted under the brand are tested to: Save at least 40% in (specific) consumption of fuel and Show measurable and significant reductions in emissions.

Source: <http://www.cleancooking2015.org> and <http://cleancookstoves.org/about/news/04-06-2016-alliance-launches-fumbalive-cookstoves-campaign-in-uganda.html>



Clean cooking fuels and technologies that can be adopted to increase the access to energy in this field include:

- ✓ Liquefied Petroleum Gas (LPG): A bottled gas containing mainly propane and butane, among the most effective and available large-scale alternatives to solid fuels. Requires an LPG stove connected to a LPG cylinder;
- ✓ Biogas: A combustible gas (mainly methane) produced by anaerobic digestion of organic materials such as animal wastes and, to a lesser extent, agricultural residues and human excrement. Biogas is not a universal fuel, as its potential is largely restricted to rural households owning a sufficient number of livestock and being located within a certain temperature and altitude range to ensure adequate gas production;
- ✓ Solar cooking: Emission free solar stoves convert solar radiation into energy used for cooking;
- ✓ Alcohol fuels: Ethanol (bio-ethanol) is a high-viscosity liquid produced by sugar fermentation from a variety of feedstocks including sugar-, starch- and cellulose-containing materials. Methanol is a fossil fuel produced by natural gas or oil products at a production cost usually lower than for ethanol. Methanol is toxic to humans and should be handled carefully. Its use in the cooking sector is limited to feasibility studies.

Support from citizens and local businesses, for a greater deployment of renewable energy technologies and for promoting energy access, is essential. The personal benefits that would result for individuals and businesses need to be identified and disseminated. Leaders can motivate residents, offer them enhanced pride in their community as a result of being an early adaptor, as well as provide them with greater energy independence, energy security, employment and social cohesion. Strong leadership based on clear objectives is essential.

## Implementation and monitoring

The implementation phase takes the longest time, the most efforts and the largest portion of financial resources. It requires the involvement of all stakeholders.

### Tips for putting the SEACAP into practice

- ✓ Adopt a Project Management approach.
- ✓ Divide the project into different parts and select persons responsible.
- ✓ Strengthen horizontal cooperation between different policy-areas and mainstream climate actions into existing strategies.
- ✓ Prepare specific procedures and processes aimed at implementing each part of the project.
- ✓ Plan the follow-up with the stakeholders establishing a calendar of meetings in order to inform them.
- ✓ Anticipate future events and take into account negotiation and administrative steps to be followed by the Public Administration.
- ✓ Propose, approve and put into operation a training programme.
- ✓ Motivate and offer training and support to the involved team.

Monitor the evolution and impacts of the actions included in the SEACAP and update it regularly allows to ensure continuous improvement in the process. CoM signatories must submit a Progress Report every second year following the submission of the SEACAP for evaluation, monitoring and verification.

## Financing a SEACAP

SEACAP(s) elaboration and implementation require tailored dedicated financing. The achievement of the sustainable targets often implies big investments at local and national level. To deliver such investments, local authorities face the challenge of accessing to finance. Moreover, LAs should take this challenge with holistic approaches in identifying both the kind of support required within the SEACAP process and available schemes and mechanisms. The need of financing support may arise for different stages of the SEACAP process: capacity buildings and trainings, technical and legal studies, feasibility assessments, assistance with financial studies for actions and their implementation. Financing options are oriented at



### ✓ **Local Authorities' own financial resources:**

May come from grants (national or external), local taxes (houses, business, income producing sources), borrowing in terms of debt financing and loans.

**EXAMPLE:** *Kampala Climate Change Action – Energy and Climate Profile* (<https://www.kcca.go.ug/revenue-collection#>)

### ✓ **Grant programs:**

Investment grants or interest rate subsidies are often provided by governments to support the upfront cost of energy efficiency projects that may entail too high investment costs and long amortisation periods.

### ✓ **Soft loans:**

Soft loan schemes which offer below market rates and longer payback periods, and loan guarantees, which provides buffer by first losses of non-payment, are mechanisms whereby public funding facilitates/triggers investments in EPC.

### ✓ **Green Bonds:**

Bond markets can be a source of low-cost capital for cities and municipalities. Green bonds are bonds where revenues are allocated to "green" projects. In particular, these bonds have emerged as a financing tool for climate change mitigation and adaptation actions within cities.

**EXAMPLE:** *City of Cape Town's Green Bonds*

<https://propertywheel.co.za/2018/04/city-of-cape-towns-first-green-bond-wins-uk-award/>

### ✓ **Public-private partnerships (PPPs):**

The public-private partnership (PPP) is the collaboration between local authority, local investors, and local citizens, based on the awareness that both the public and private sectors can benefit by combining their financial resources, know-how and expertise.

**EXAMPLE:** *iShack project in South Africa* (<https://www.ishackproject.co.za/>)

**EXAMPLE:** *Transformative Actions Programme (TAP)* (<http://tap-potential.org/>)

### ✓ **Revolving funds:**

Revolving funds are intended to establish sustainable financing for a set of investment projects. The fund may include loans or grants and have the ambition of becoming self-sustainable after its first capitalisation.

### ✓ **Crowdfunding:**

Based on individuals' efforts to support other's initiatives or projects by investing small sums of money. The main channel to gather money is internet: projects seeking funding are displayed in an online accessible portal.

**EXAMPLE:** *Develatech campaign* (<https://www.kenyacic.org/>)

### ✓ **Third-party financing:**

The third-party financing is a mechanism that allows another party (as ESCOs) to provide the capital and take the financial risk.

supporting the building capacity of actors involved in the process, who will then be able to seek and apply for funding autonomously. Frequent mechanisms and funding opportunities that can be used to support key actions in cities are reported in figures.

## Key definitions



**Funding:** refers to how a project is paid for over time.

**Financing:** refers to how debt or equity is raised to pay for immediate capital investment

## Financing and funding opportunities



- ✓ **The Africa Climate Change Fund – ACCF > Funds** (AfDB)
- ✓ **Global Environment Facility (GEF) implementing Agency> Funds** (AfDB)
- ✓ **The African Development Bank Partial Risk Guarantees (PRGs) > Risk guarantee product** (AfDB)
- ✓ **The African Development Fund (ADF) Partial Risk Guarantees> Risk guarantee product** (AfDB)
- ✓ **The Africa Climate Business Plan >** (WB)
- ✓ **Maximizing Finance for Development (MFD) >** (WB)
- ✓ **The External Investment Plan (EIP) >** (EU)
- ✓ **European Fund for Sustainable Development (EFSD) >** (EU)
- ✓ **The Africa Investment Platform (AIP, former AfIF) >** Regional investment platform (European Union)
- ✓ **The Neighborhood Investment Platform (NIP, former NIF) >** Regional investment platform (EU)
- ✓ **The French Fund for the Global Environment (FFEM) >** bilateral funding instrument (AFD)
- ✓ **CICLIA (Cities and Climate change in Sub-Saharan Africa Initiative) >** regional facility (AFD)
- ✓ **The C40 Cities Finance Facility (CFF) >** implemented by GIZ and C40 (BMZ, USAID, IADB)
- ✓ **The TAP (Transformative Actions Programme) >** incubator/project preparation facility for municipalities (ICLEI)
- ✓ **The Green Climate Fund (GCF)**
- ✓ **The Climate Investment Funds (CIF) >** (WB, AfDB)
- ✓ **The Global Environment Facility Trust Fund (GEFTF)**
- ✓ **The Global Energy Efficiency and Renewable Energy Fund (GEEREF) >** (European Union, Germany and Norway)
- ✓ **The Adaptation Fund**

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