A leap forward to sustainable Energy Cities

Milestones

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A leap forward to sustainable Energy Cities
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   Luxor Governorate
   Red Sea Governorate

3. Israel
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4. Jordan
   Aqaba
   Irbid
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The project and its achievements

The story of CES-MED

The objective of the EU-funded “Cleaner Energy Saving Mediterranean Cities” or CES-MED Project, is to “develop the capacities of local authorities in the ENP-South region to formulate and implement more sustainable local policies, such as those implied by joining the Covenant of Mayors (CoM) and developing the related Sustainable Energy Action Plans (SEAPs)”. The CoM is the mainstream European movement that involves local and regional authorities, voluntarily committing to increasing energy efficiency and use of renewable energy sources on their territories. Closely linked to this, the Project is to contribute to making national authorities more aware of and responsive to the need for and advantages of strong involvement of cities in policy issues, which impact them directly, e.g. local waste and water management, urban mobility and transport, and local energy use.

CES-MED started its activities in January 2013. It was initially set to last three years, but later was extended for 18 months to June 2017, then 9 months till April 2018. Following the mobilization of the project’s core team of experts, including a Team Leader, Key Experts for Maghreb and Mashreq regions, a Communication Expert and an Energy Expert (in addition to several short-term experts and consultants affiliated for different tasks), two regional offices were created: a “Maghreb” office in Rabat, Morocco, and a “Mashreq” office in Beirut, Lebanon. In parallel, and in each affiliated country, a CES-MED’s “Focal Point” (FP) was officially designated. The FP - typically affiliated to a chief national local development or energy agency - has since been acting as the key national partner of the Project, and all subsequent activities per country have been coordinated with him.

Three cities were selected per country to become CES-MED’s Partner Cities or its principal beneficiaries, totaling 21 cities in seven countries (Algeria, Israel, Jordan, Lebanon, Morocco, Palestine and Tunisia), two Governors in Egypt and three Libyan cities (who joined briefly prior to the deterioration of the security situation and subsequent termination of activities in Libya). There is a long list of additional cities who have applied or subsequently requested to join the Project. Some have engaged in preparing SEAPs and SECAPs and have benefited from guidance through the CES-MED Help Desk function.

As outlined hereafter, CES-MED actions have been conducted following a participatory, institutional and technical capacity-building approach, and its deliverables have been tailored to provide maximum benefit to those local authorities (cities, municipalities, regions and communes) and partner national authorities with practical and effective tools to improve sustainability policies and to support the preparations and later the funding of SEAPs and SECAPs:

- **Assuring partnership of national and local authorities.** The Project created a National Coordination Group (NCG) in each country, presided by the FP and affiliating key national development and energy ministries. The Group acted as the project’s implementation body at the national level, assuring that the CES-MED decentralized actions at a local (cities) level are supported and are in line with national programmes and regulations, and thus more suitable to be sustained and replicated. The alliance of NCGs with the cities through CES-MED project is de facto a national- local partnership in support of decentralization and sustainable local planning;

- **Recommending national actions.** Proposals to consolidate the national-local authorities’ partnership towards applying sustainable energy policies and solutions were defined for each partner country in a “Recommended National Sustainable Urban and Energy Savings Actions” Report and “Donors and Funding Initiatives in the Areas of Sustainable Development at the Local Level” Report, both forming the “National Report”. This was prepared by CED-MED in collaboration with the NCG. Each Report gives an analytical overview of the institutional, legal and financial frameworks. It then assesses the improvement needs,
before advancing proposals to ameliorate policies and to encourage and back the preparation of SEAPs and SECAPs at the national and local administrations’ levels.

The Report also identifies the main actors to be engaged in this process and their role; and the main national and international opportunities and schemes to finance the preparation and implementation of the SEAPs and SECAPs. In the second phase of the project and prior to its closing stage, the “Donors’ Reports” were revised to update the needs and recommendations, with emphasis on identifying and sustaining CES-MED’s results through the establishment of SEAP Support Mechanism (SSM) in each country. This SSM further proposes systematic processes to fund, sustain and replicate CES-MED actions.

- **Providing SEAPs preparation manuals.** In addition to the “National Reports”, CES-MED has produced and disseminates directly or through its website the comprehensive “Information Kit to develop SEAPs”. This Info Kit has been issued in three languages (Arabic, French and English), and includes:
  - A “Guidebook for the preparation of a SEAP, with an update for SECAP, for ENPI South countries”;
  - A “Community Awareness and Promotion Planning Guidebook” with Benchmark examples;
  - Two “Baseline Emissions Inventory (BEI) preparation manuals”
  - Several CoM explanatory documents (such as official texts and Adhesion Forms).

The Kit has been widely used by cities and municipalities in the preparation of their SEAPs and a learning tool by CES-MED Help-Desk support. All its documents, in addition to produced SEAPs, are found on the website: www.ces-med.eu

- **Direct support to prepare 23 Pilot Sustainable Energy Action Plans.** Together with the NCGs and the contracting authority (the EU), we concluded from the start of the Project’s operations that it would be constructive to prepare a SEAP for each affiliated city. So far 18 cities have prepared SEAPs and five SECAPs prepared in Egypt and Jordan following updated CoM methodology. Moreover, six cities have prepared plans on their own with the Project’s guidance or help desk assistance. Each SEAP or SECAP should be approved by the city’s municipal or local council. A plan includes the city or municipality’s vision and strategy for energy savings and alternative energy; the Baseline Emissions Inventory (BEI); Action Plans, Action Fiches describing at least five Priority Projects including first identification of funding sources; and detailing of awareness actions to support the application of the city’s strategy and vision as well as to facilitate the implementation of the Priority Projects.

The replicable SEAPs and SECAPs, next to the National Reports and the Info Kit manuals are the core – and not the only – deliverables of the Project. They are usable as effective tools to improve policies and systematize the preparation and financing of the plans jointly by national and local authorities.

- **Applying a Capacity Building and learn-while-you-do training methodology.** Teams of international and national consultants have been engaged to assist each of the 23 partner city/region in the preparation of their SEAPs and SECAPs. In doing so, a capacity building and training approach is applied, through which the consultants work closely with CES-MED experts and with a municipal team of technicians or a “SEAP Team”. Together they prepare the plan as an on-the-job training or a learn-while-you-do exercise. The objective of such an approach is to ensure that the municipality - through its participatory involvement in the preparation - will develop capacity to adopt, adapt, and later manage the implementation of the Plan. Through coordination with the NCG, the municipality will also assure that the SEAP or SECAPs is complying with relevant national strategies and regulations.

- **Community Awareness and Promotion Planning (CAPP).** Awareness raising activities have been in-
The core role of CES-MED is to raise awareness of the global importance of Sustainable Energy, decentralization and the joining global alliances to fight Climate Change (such as CoM);

At a national level, CES-MED raises awareness of national authorities of the importance of national-local partnerships in support of sustainable energy and decentralization;

At a local level, the CAPP, which is included as a main component in each SEAP, is essential to the coherence of the SEAP as it has multiple important purposes:

- To inform the city’s residents and stakeholders of the pioneering initiative of the municipality towards adopting sustainable energy solutions and fight climate change; To promote and have them adhere to the city’s vision and strategy, which is part of the SEAP/SECAP; to have all actors take a constructive part in the successful implementation of the SEAP’s Priority Projects.

To sum up, the objective of the CAPP is to make citizens proud of their city, so that they and other key actors, adhere to its SEAP’s vision and strategy and take part in implementing its projects.

- Providing Help Desk function. The CES-MED Help Desk function provides distant, yet constantly accessible assistance support to municipalities. The Help Desk responds to their questions in regard to their work in the preparation of SEAPs, eventual adherence to the CoM and approval of SEAPs submitted to the European Joint Research Centre (discussed below JRC). In this context, an important task of the Help Desk is to guide and coach ten of cities - other than the 23 CES-MED partners – that are preparing SEAP/SECAP without consultants’ support, i.e. relying on their own personnel and resources.

- Collaboration with the EU Joint Research Centre (JRC). Collaboration with the JRC, which is responsible for reviewing and approving the SEAP or SECAP methodology of CoM applicant cities, has been sought since the start of the project. JRC has been assisting CES-MED in its training activities, and CES-MED has helped the JRC update the CoM Guidelines and Baseline Emission manuals for the use of Mediterranean countries. Moreover, JRC is reviewing and approving the plans of CES-MED affiliated cities once they have been submitted to the CoM. The JRC and CES-MED regularly share ideas and take part in discussions to adapt CoM requirements to South Mediterranean cities needs and capacities, and to better assist them when reviewing the plan’s methodologies to reduce emissions.

- Long term sustainability: SEAP Support Mechanisms. Building on the secured partnership and support of national authorities through the NCGs, CES-MED has taken active steps to establish a SEAP Support Mechanism per country. The Mechanisms are fully developed and approved by the NCGs and aim to institute, prescribe, and make systematic the preparation and subsequently the funding of projects, with the support of central authorities. The SSMs define step by step actions to assist cities and follow the recommendations of the country National Report.

- Assistance towards funding the SEAPs’ projects. In the framework of developing SSMs, and in order to identify the most appropriate funding schemes and opportunities for SEAP and SECAP projects, CES-MED has regularly informed national and international financing agencies and development organizations of cities’ progress in preparing plans and their readiness to receive funding. CES-MED has actively shared the plans “Project Fiches” as most fundable projects, and from those, a pipeline of 24 bankable projects has been developed and is promoted for financing by International Funding Institutions (IFIs). Funding roundtables or “Donors’ Meetings” were also held with IFIs, national authorities and donors to promote the projects of the SEAP and SECAPs.
Development and the Leap Forward

During the extension phases of the Project, our objective is to assure that the project’s results and actions will continue and will be sustained. CES-MED has provided advanced methodological tools and training to a number of municipalities and national authorities. This has resulted in building the recipients capacities and instigating the replication of SEAPs’ preparation through the existing systems or newly set ones though SSMs, supported by key central authorities. Yet, capacities (technical and financial) of cities and municipalities remain very limited in all the countries. Technical support from NAs (through well operating SSMs) or via external TA is still required to help tens of engaged LAs to prepare SECAPs by themselves. Support is also crucial to help them engage in sustainable development plans and join the CoM or other similar initiatives.

CES-MED technical assistance in its final year is focusing on the exit and sustainability strategies by further consolidating the SSMs, which would take the lead upon the completion of CESMED in replicating its technical assistance action. Next to this, priority is given to providing extensive trainings; conducting pilot demonstrations, awareness raising events; and defining the best ways to fund projects prescribed in the SEAPs, as demonstrated by putting 24 projects in the funding process. Importance given to cutting-edge Training of Trainers (TOT) both for technical preparation of SECAPs, for project formulation, funding and the preparation of community and awareness raising plans. Through TOTs, about 100 cities will undertake their first steps to prepare their own plans.

Adapting and following new CoM and requirements from SEAP to SECAP. Since 2009 onwards, some 7755 local authorities have already committed to the CO2 reduction objective. As part of the “new and integrated Covenant of Mayors for Climate and Energy”, signatory cities will pledge action to support implementation of the new 2030 EU targets, namely 40% of emission reductions by 2030, a joint approach to tackling mitigation and adaptation to climate change, and the extension of the initiative to a more global scope.

The new Covenant of Mayors for Climate and Energy introduces the following three major pillars:
- On one hand the global dimension of the initiative;
- At a second level, reaching a 40% reduction target by 2030;
- Finally, the integration of adaptation and mitigation in the local authorities’ actions.

Based on the above, the municipalities are now invited to prepare SECAPs. These plans, besides the different parameters of target and time, follow the basic structure and guidelines that were developed for the SEAPs, with the following additions:
- The formulation of the adaptation scoreboard;
- The elaboration of a Climate Change Risk and Vulnerability Assessment (RVA) plan, which can be included as a chapter in the overall SECAP or comprise a separate report.

The above requirements have been addressed by CES-MED, starting by five SECAPs for Egyptian and Jordanian cities. This change of methodology has been proven easy to handle, and in this context, to establish it as the norm to apply in the future. The revision of the SEAP Guidelines into the SECAP Guidelines is regularly assured, and then uploaded to the CES-MED website.
Chapter 02

Algeria

Population: 41.2 million (2016)
Surface: 2 381 740 km²

Partner cities that prepared a SEAP
- Sidi Bel-Abbès, capital of the Wilaya of Sidi Bel-Abbès
- Batna, capital of the Wilaya of Batna
- Boumerdès, capital of the Wilaya of Boumerdès

National Partners
Members of the CES-MED “National Coordination Group”
- Ministry of Foreign Affairs, CES-MED National Focal Point
- Ministry of Energy, Agency for the Promotion, Rationalization and Use of Energy APRUE, National Technical Focal Point and SEAPs Coordinator
- Ministry of the Interior, Local Government and Regional Planning: Directorate General of Local Authorities (DGCL)
- Ministry of the Environment and Renewable Energies

CES-MED actions and progress
- One national report prepared on "Institutional and Regulatory Analysis for the Development of Energy Efficiency and Renewable Energies at the local level"
- One national report prepared with: “Analysis of financing sources for Energy Efficiency and Renewable Energies in local communities”
- One training workshop held in each city on “Identifying Sustainable Energy Needs”
- One training workshop “Support cities / municipalities with the design of their SEAPs” held in each city
- One joint training workshop on BEI methods held in Boumerdès
- A territorial BEI conducted and a SEAP finalized for three cities following an on-the-job-training approach along the preparation
- Realization of a portfolio of set priority action fiches in each of the participating cities
- One common workshop held in Algiers for communication and awareness raising training
- Study for the establishment of the SEAPs National Support Mechanism (SSM) and the Energy Audits in coordination with APRUE and DGCL.
- One national conference held in Algiers to announce the SEAP Support Mechanism and promote SEAPs and the CoM.
- One training of trainers on BEIs and SECAPs
- Annual National Coordination Group meeting held, next to the regular consultations with key national authorities.
- Expertise engaged to identifying funding and consolidating the National Unit for SECAP support.
- Help Desk assistance: Provides municipalities with information, manuals and support related to their adhesion to CoM, as well as the necessary support in the design and implementation of their SEAPs
- Five general training sessions per region conducted for municipalities on the topic: “Introducing SEAPs and SECAPs: Planning Sustainable Energy for cities and municipalities” (Algiers, Oran, Ghardaïa, Annaba and Batna).
- Expertise engaged to help financing of priority Action Fiches and to consolidate the National SEAP support mechanism
- Plan the preparation of the SECAPs for the communes of Algiers, Oran, Ghardaïa, Annaba and Batna

Recommended National Sustainable Urban and Energy Savings Actions

Legal and regulatory framework measures
- Take measures for the development and implementation of SEAPs at the national level, the extension of the SEAP actions to all local authorities, and their integration into the National Climate Plan
- Develop a local strategy for the SEAP development in each commune
- Provide training of municipal and national actors and operators
- Consolidate coordination and networking
- Conduct communication and citizens’ awareness raising

Priority Actions for the Communes
- Conduct inventory of the Commune’s properties and assets towards a sustainable energy management
- Improve the energy efficiency of local government properties’ infrastructures, systems and equipment
- Improve the energy efficiency of public and residential lighting
- Undertake actions in favour of sustainable transport
- Raise awareness about EE and RE
- Develop renewable energies
- Develop incentives to create a local EE and RE market
- Improve sustainable municipal waste management

Financing measures
Facilitate access to existing funds dedicated to SECAPs projects:
- Initiate information campaigns for the benefit of municipalities and local companies
- Provide training on Project Financing
- Creation Networks of Competences
- Provide expertise to conduct capacity building and Training of Trainers
- Provide information and raise awareness on the benefits of EE and RE
- Create a forum for the exchange of experiences and good practices between elected officials and technicians
- Training of Communes’ leaders on the preparation of action plans and BEIs
Global Strategy of the SEAP

The recent signature of the CoM is a clear demonstration of the involvement of the Assemblée Populaire Communale (APC) in the CES-MED project that aims to develop a SEAP. Batna municipality hopes to make energy consumption and energy bill reduction strategic priorities for the city. The elected representatives of Batna consider the SEAP as a development tool for the city that will contribute to turning the stated objectives into concrete results. By devising an action plan, the municipality has decided to work towards three main objectives:

• Reducing the energy bill: energy is a significant issue for Batna due to the substantial share of the municipal budget that it represents. Energy is used primarily to power the mosques and schools in the care of the local government, and is integrated into the strategy for annual climate fluctuations (cold winter/hot summer).
• Making Batna a model of sustainable municipalities in Algeria. To achieve this, the municipality must make full use of all of the existing national provisions available and raise awareness among citizens.
• Improving quality of life through an ambitious transport policy: elected representatives in Batna hope to resolve transport congestion, particularly in the city centre, by providing new ways to commute that reduce the use of personal cars.

The Action Plan proposed focuses on the following areas:

1. The assets and public services directly controlled by the Local Government Popular Assembly (APC);
2. All of the activities across the municipal area, including all actors, to strengthen their commitment to reducing energy consumption and to increasing the local production of renewable energy.

The APC has the objective of creating and applying new models for energy consumption and production. The vision of the council could be achieved by focusing on the following four strategic levers:

• Strengthening and promoting energy efficiency across the municipality;
• Increasing the share of energy produced through renewable sources in the municipality;
• Promoting sustainable construction and building projects across the municipal area;
• Involving all actors in improving energy efficiency and promoting renewable energy.

Overall results of the Baseline Emissions Inventory (BEI)

• Consuming Sectors: Housing and transport sectors represent 85% of the municipality’s energy consumption.
• Emitting Sectors: Residential (47%), Transport (30%) and Industry (11%) are the biggest emitting sectors for Green House Gases (GHG). As a result, they represent the main areas where action should be focused and in which projects that reduce emissions should be developed.
• Municipal assets’ emissions: Public lighting is responsible for a third of emissions from municipal holdings. It is a similar percentage for mosques, whereas schools are responsible for about a quarter of GHG emissions. It is on these three points that the APC should work to become a model in the reduction of energy consumption from GHG.

Actions and results

• While the effect of individual actions is difficult to measure, by implementing a full set of actions it will be possible to reach the 2020 target to reduce GHG emissions by 20.3% compared with current trends.
• Total emissions avoided, without taking into consideration any secondary effect (only through the actions described in the action plans), correspond to 130,487 t CO2 eq/year.

SEAP Priority projects and costs in Euros

<table>
<thead>
<tr>
<th>Batna</th>
<th>1 052 849</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimizing the energy efficiency of public lighting by installing an integrated lighting management system</td>
<td>158 333</td>
</tr>
<tr>
<td>Pilot operation for 2 schools in the municipality (EE and ER / awareness, training)</td>
<td>193 183</td>
</tr>
<tr>
<td>Pilot operation for 2 mosques of the municipality (EE and ER)</td>
<td>188 000</td>
</tr>
<tr>
<td>Declination of the national program “Sustainable Building” at the local level</td>
<td>333 333</td>
</tr>
<tr>
<td>Identification of a pilot industrial zone for “sustainable” energy</td>
<td>180 000</td>
</tr>
</tbody>
</table>
Global Strategy of the SEAP

The recent signing of the CoM is a clear demonstration of the involvement of the Assemblée Populaire Communale (APC) in the CES-MED project to develop a SEAP. The elected representatives of Boumerdès see the SEAP as a potential way to develop the municipality. By devising this action plan, the municipality has decided to work towards three main objectives:

- **Promoting a low energy consumption housing programs**: there are many construction projects in the area that include participative, social or promotional housing. They do not, however, respect any of the environmental or energy standards currently in force;
- **Integrating the limitations imposed by commuting** (vicinity of Algiers): the touristic nature of the city must be a key element in developing the SEAP;
- **Working to raise citizen awareness**: a pilot project of separated recycling (as part of the Ecojem mechanism) in a Boumerdès neighbourhood was cancelled following protests by the inhabitants. It is therefore vital to support the city and develop good practices for raising awareness so that this scenario doesn’t happen again.

The Action Plan proposed focuses on the following areas:

1. The assets and public services directly controlled by the Local Government Popular Assembly (APC)
2. All of the activities across the municipal area, including all actors, to strengthen their commitment to reduce energy consumption and to increase the local production of renewable energy.

Today, the municipality of Boumerdès hopes to make the fight against climate change one of its key priorities. The APC aims to create and implement new models for energy consumption and production. The municipality’s targets could be reached by working on the following four strategic levers:

- Strengthening and promoting energy efficiency across the municipality;
- Increasing the share of energy produced through renewable resources in the municipality;
- Promoting sustainable construction and building projects across the municipal area;
- Involving all of the stakeholders in the territory in promoting energy efficiency and renewable energy solutions.

Overall results of the Baseline Emissions Inventory (BEI)

- **Consuming Sectors**: The housing sector represents more than half of the energy consumption in the municipality (51%), followed by transport, the tertiary sector and industry.
- **Emitting Sectors**: Housing (39%), transport (17%), the tertiary sector (16%) and waste (13%) are the sectors that produce the most GHG emissions, and as a result should be the focus of any action.
- **Municipal assets’ emissions**: Public lighting is responsible for more than 65% of the emissions coming from municipal assets. As a result, the APC will develop actions focused in this area to become a model for the reduction of GHG emissions.

Actions and results

- While the effect of many “standalone” measures is difficult to assess, by implementing a full set of actions, we should be able to reach the 2020 target of reducing GHG emissions by 20.3% compared to the forecast data.
- **Total emissions avoided**, without taking into consideration any secondary effects (only the actions that are found in the action plan), correspond to 20,274 t CO2 eq/year.

### SEAP Priority projects and costs in Euro

<table>
<thead>
<tr>
<th>Boumerdès</th>
<th>779 165</th>
</tr>
</thead>
<tbody>
<tr>
<td>New public lighting generation in a pilot neighborhood</td>
<td>116 666</td>
</tr>
<tr>
<td>Pilot project in two schools of the municipality (EE / ER and awareness)</td>
<td>166 166</td>
</tr>
<tr>
<td>Local sustainable building program (social and private park)</td>
<td>100 000</td>
</tr>
<tr>
<td>Strategy and cooperation with stakeholders from the tourism sector</td>
<td>270 833</td>
</tr>
<tr>
<td>Program “for a clean and welcoming city of tourism”</td>
<td>125 500</td>
</tr>
</tbody>
</table>
Global Strategy of the SEAP

The recent signature of the CoM is a clear demonstration of the involvement of the Assemblée Populaire Communale (APC) in the CES-MED project to develop a SEAP. Energy consumption is a crucial issue in Sidi Bel-Abbès due to the significant portion of the municipal budget dedicated to care for the area’s many mosques and schools. The elected representatives of Sidi Bel-Abbès see the SEAP as a tool that will contribute to boosting development in the municipality. By devising the SEAP, which will be integrated into the overall development plan of the municipality, the APC intends to work towards four main objectives:

- Improving the quality of life for those living in the municipal area: through the reduction of pollution coming from different sources in the water, air and soil. Elected representatives hope to improve this situation by proposing new and innovative practices for all major areas of pollution;
- Reducing the energy bill: through the reduction of energy consumed by public lighting, by schools, and by mosques which represent a significant burden on the city budget;
- Developing industrial sectors and involving public and private operators in the region;
- Improving the transport policy of the city: elected representatives hope to resolve transport congestion, particularly in the city centre, by providing new ways to travel that reduce the use of a personal car.

The Action Plan proposed focuses on the following areas:

1. The assets and public services directly controlled by the Local Government Popular Assembly (APC);
2. All of the activities across the municipal area, including all actors, to strengthen their commitment to reduce energy consumption and to increase the local production of renewable energy.

Today the municipality of Sidi Bel-Abbès hopes to make the fight against climate change one of its main priorities. The APC has the objective of creating and applying new models for energy consumption and production. The vision of the city could be reached by working on the following four strategic areas of intervention:

- Strengthening and promoting energy efficiency across the municipality;
- Increasing the share of energy produced through renewable resources in the municipality;
- Promoting sustainable construction and building projects across the municipal area;
- Involving all of the actors in the area in the reduction of energy consumption and the fight against climate change.

**Overall results of the Baseline Emissions Inventory (BEI)**

- **Consuming Sectors:** Housing and transport represent around three quarters of overall energy consumption in the Sidi Bel-Abbès area.
- **Emitting Sectors:** Transport (38%), housing (27%) and waste (13%) are the sectors that emit the most GHG. As a result, they represent the main areas where action should be focused and in which projects that reduce emissions should be developed.
- **Municipal assets’ emissions:** Public lighting is responsible for half of the GHG emissions coming from municipal assets, while schools are responsible for a quarter. These are the two sectors in which the APC will focus action in order to become a model for the reduction of GHG emissions.

**Actions and results**

- While the effect of many “standalone” measures is difficult to assess, by implementing a full set of actions, we should be able to reach the 2020 target of reducing GHG emissions by 20.3% as compared to the forecast data.
- Total emissions avoided, without taking into consideration any secondary effects (only the actions that are found in the action plan), correspond to 104,342 t CO2 eq/year.

**SEAP Priority projects and costs in Euros**

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Cost (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pilot Operation in Schools (EE, ER / Awareness)</td>
<td>203 850</td>
</tr>
<tr>
<td>Pilot Operation in Mosques (EE, ER / Awareness)</td>
<td>146 666</td>
</tr>
<tr>
<td>Local declaration of the national sustainable building program</td>
<td>266 666</td>
</tr>
<tr>
<td>Strategic plan for the development of the bicycle</td>
<td>441 655</td>
</tr>
<tr>
<td>Identification of a pilot industrial zone for sustainable energy</td>
<td>170 000</td>
</tr>
</tbody>
</table>
Population: 100 million  
Surface: 1,001,450 km²

Partner governorates that prepared a Sustainable Energy and Climate Action Plan (SECAP)  
• Luxor Governorate  
• Red Sea Governorate

National Partners  
Members of CES-MED “National Coordination Group”  
• The Ministry of Foreign Affairs, CES-MED National Focal Point  
• Ministry of Local Government  
• Representatives in the Governorates  
  - Ministry of Electricity  
  - Ministry of Environment  
  - Ministry of Agriculture  
  - Ministry of Interior

CES-MED actions and progress  
• One “Recommended National Sustainable Urban and Energy Savings Actions” report prepared  
• One “Donors and Other Funding Initiatives in the Areas of Sustainable development at the Local Level” report prepared  
• One training workshop “Sustainable Energy Needs Assessment” held for the two governorates  
• One training workshop “Support cities/municipalities with the design of their SEAPs” held for the two governorates  
• One training workshop on the methods of Baseline Emission Inventory (BEI) held in each governorate with workshop held in for communication and awareness raising training  
• BEI conducted and a SECAP finalized for two governorates following an on-the-job-training approach along the preparation  
• Prepare a set of project Priority Action Fiches for each city  
• One Training of Trainers workshop held: “Technical Steps for The Preparation of SECAPs” for technicians of 19 cities from the New Urban Communities Authorities (NUCA)  
• Financial expertise engaged to finance Actions Fiches and to consolidate the National Support Mechanism; the project pipeline development is ongoing  
• Help-Desk assistance: Provide municipalities with information, manuals and support related to their adhesion to CoM, as well as the necessary support in the design and implementation of their SECAPs  
• A Donors Meeting is planned, in coordination with the EU delegation  
• Support is requested to 32 cities of NUCA towards preparing their SECAPs

Recommended National Sustainable Urban and Energy Savings Actions  
• Provide technical assistance, training and skills enhancement in sustainable energy planning and implementation to governorates  
• Adapt the institutional / organizational set-up of the governors to establish responsibilities and tasks linked to adopting SECAPs and their actions.  
• Create a Sustainable Energy Unit (SSEU) or Energy Efficiency Unit (EFU) with a trained Manager to implement the SECAPs.  
• Empower the governorates to initiate additional taxes in coordination with the Ministries of Electricity and Renewable Energy (MERE) and Local Development (MoLD), and support energy saving measures in different sectors.  
• Invite and enable Governorates with the Ministries of Electricity and Renewable Energy (MERE) to engage in Public Private Partnership agreements and/or start companies (or joint venture) for RE and EE investments.  
• Integrate high energy performance criteria in procurement regulations and Energy Efficiency codes to facilitate upgrading of buildings  
• Develop model business plans that supports solar, wind or waste energy projects, since the new electricity law governing the sale of electricity generated from RE is enacted and in operation  
• On the transport side, the legal and operational frameworks (at national and local government levels) should be reviewed to reflect the energy saving ambition of Government of Egypt, including energy conservation, clean transport, and to develop related implementable plans  
• On the transport side, the legal and operational frameworks (at national and local government levels) should be reviewed to reflect the energy saving ambition of Government of Egypt, including energy conservation, clean transport solutions, and to develop related implementable plans  
• SECAPs should be tailored to specific conditions, e.g. the case of Luxor as a World Heritage Site with concentration of monuments, which requires control of negative impacts of land and water traffic, agricultural pollution, waste practices, mass tourism, anarchic urban development etc.; and the case of the Red Sea governorate as a touristic hub that encompasses hotels and resorts;
Global Strategy of the SECAP

The SECAP takes into consideration many complex elements including the extended size of the area (thus the plan’s action is limited to the capital, its vicinities and the Nile’s West Bank), its nature as a unique extended historical world heritage site, pressure from growing urbanization and pollution, and interaction with the rural areas.

The SECAP’s strategy is structured along two main priority actions: Reduce energy consumption and promote clean and local energy production. Energy efficiency is to focus on three major consuming sectors: Transport, residential buildings and tourism. However, in order to mobilize all stakeholders, the Governorate has to first give the example and reduce consumption in all public buildings and services that are under its control: Street lighting, waste management, sustainable urban planning and mobility.

The action plan particularly focuses on the following areas:

- Reduce use of individual cars, promote clean public transport, cycling and walking and review the city planning documents to reduce and control transport of both goods and people.
- Reorganize tourism activities to reduce the impacts on antiquities’ sites and monuments, and enhance their value and preservation. This includes refurbishing hotels to reduce energy consumption and develop on-site energy production (solar PV and water heating), organize cruise ship fleet, improve environmental quality, reorganize Nile dock sites and equip them with renewable energy tools, restructure access to monuments to reduce pollution and mass visit effects and in this context, prepare integrated plans to manage the World Heritage site on West Bank of the Nile.
- Refurbish residential buildings to reduce energy consumption and transform individual buildings into energy production micro units using solar energy.
- Promote energy efficiency and application in hotels and resorts.

Overall results of the Baseline Emissions Inventory (BEI)

Consuming Sectors: overall energy consumption reaches 4,938 GWh/year (8,164 KWh/year / capita) shared among main sectors as follows: transport 41%, residential building 25 %, tourism 17%, industry 10%, services activities 6 %.

Emitting Sectors: overall GHG emissions amount 1,760 Teq-CO2/year (3.07 TeqCO2/year/capita) shared among main sectors as follows: transport 32 %, residential building 31 %, tourism 15 %, industry 10%, services activities 10 %.

Municipal assets’ emissions represent 20 TeqCO2/year for 21GWh consumed per year and costs of 18.5 M. EGP.

Actions and results

- While the effect of many “standalone” measures is difficult to assess, by implementing a full set of actions, we should be able to reach the 2030 target of reducing GHG emissions by 26.0% compared to the business as usual scenario.
- Total emissions avoided based alone on the actions included in the plan are 599,882 tCO2e / year.

SECAP first Priority projects costs in Euros

The SECAP expects to achieve a 26% GHG emission reduction by 2030 compared to business as usual scenario. This represents 600k t CO2 eq/year reduction in 2030 (36% cut compare to 2015 level).

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Cost (Euros)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban Sustainable Mobility Master Plan</td>
<td>100,000</td>
</tr>
<tr>
<td>Sustainable and Green Boats</td>
<td>2,810,000</td>
</tr>
<tr>
<td>Green Residential Buildings Plan</td>
<td>5,682,000</td>
</tr>
<tr>
<td>Greening Hotels and Resorts</td>
<td>1,430,000</td>
</tr>
<tr>
<td>Green Governorate Buildings Plan</td>
<td>10,542,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Cost (Euros)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refurbish and expand tourist center and ticketing office</td>
<td>200,000</td>
</tr>
<tr>
<td>Clean transportation on the West Bank</td>
<td>480,000</td>
</tr>
<tr>
<td>Solar PV system for heritage sites</td>
<td>150,000</td>
</tr>
<tr>
<td>Management of the agricultural waste</td>
<td>310,000</td>
</tr>
<tr>
<td>Conduct replicable awareness campaigns</td>
<td>100,000</td>
</tr>
<tr>
<td>Waterfront aesthetics</td>
<td>225,000</td>
</tr>
<tr>
<td>Prepare an Integrated Master Plan for the World Heritage Site</td>
<td>235,000</td>
</tr>
</tbody>
</table>

NOTE: Funding requirements are approximate.
Global Strategy of the SECAP

The SECAP focuses on the City of Hurghada, which has grown since the 1980s from a small fishing village-like center to an internationally renowned coastal hub with a significant number of hotels and touristic attractions, which counts 180,000 inhabitants.

The SECAP takes into consideration several elements including the very large size of the area, the tourism infrastructures concentrated on the coastline of the city, its seaports and the extended residential zone. The SECAP is to contribute to the protection of fragile natural environment, noting that the Red Sea’s rich coral reefs and marine life that are under threat from intrusive tourism facilities, landfilling of the coral plateau, invasive diving and anchoring and pollution from fossil fuel use.

Similar to Luxor, the SECAP’s strategy is structured along two main priority actions: Reduce energy consumption and promote clean and local energy production. Energy efficiency is to focus on three major consuming sectors: Transport, residential buildings and tourism. However, in order to mobilize all stakeholders, the Governorate has to first give the example and reduce consumption in all public buildings and services that are under its control: Street lighting, waste management, sustainable urban planning and mobility.

The action plan particularly focuses on the following areas:

- Reduce use of individual cars, promote clean public transport, cycling and walking and review the city planning documents to control transport of both goods and people.
- Reorganize tourism activities to limit impacts on the fragile coastal environment and marine bio-diversity and enhance their value and preservation. This includes refurbishing hotels and resorts to reduce energy consumption and develop on-site energy production (solar PV and water heating), optimize the environmental performance of the diving boats to reduce pollution and match tourists’ natural-beauty expectation, reorganize sea-ports and dock sides operations and equip them with renewable energy production tools.
- Greening the public buildings owned and managed by the governorates.
- Refurbish residential buildings to reduce energy consumption and transform individual buildings into energy production micro units using solar energy.

Overall results of the Baseline Emissions Inventory (BEI)

Consuming Sectors: overall energy consumption reaches 3,338 GWh/year (11.9 MWh/year/capita) shared among main sectors as follows: tourism 39 %, transport 36 %, residential building 13 %, services activities 9 %.

Emitting Sectors: overall GHG emissions amount 1,277 TeqCO2/year (4.6 TeqCO2/year/capita) shared among sectors as follows: transport 39 %, tourism 28 %, residential building 17 %, services 12 %.

Municipal assets’ emissions represent 12 TeqCO2/year for 25.2 GWh consumed per year and a cost of 16 M. EGP.

Actions and results

- While the effect of many “standalone” measures is difficult to assess, by implementing a full set of actions, we should be able to reach the 2030 target of reducing GHG emissions by 27.0% compared to the business as usual scenario.

- Total emissions avoided based alone on the actions included in the plan are 468,540 tCO2e/year.

SECAP Priority projects and costs in Euros

The SECAP expects to achieve a 27% GHG emission reduction by 2030 compared to business as usual scenario. This represents 468,540 k t CO2 eq/year reduction in 2030 (41% cut compared to 2015 level).

<table>
<thead>
<tr>
<th>Hurghada</th>
<th>60,722,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban Sustainable Mobility Master Plan</td>
<td>4,340,000</td>
</tr>
<tr>
<td>Sustainable and Green Boats – Tourism and Water Transport</td>
<td>5,000,000</td>
</tr>
<tr>
<td>Greening Hotels and Resorts – Tourism and Energy</td>
<td>1,780,000</td>
</tr>
<tr>
<td>Greening Hotels and Resorts</td>
<td>10,584,000</td>
</tr>
<tr>
<td>Green Governorate Buildings Plan</td>
<td>8,668,000</td>
</tr>
<tr>
<td>Green Residential Buildings Plan</td>
<td>30,110,000</td>
</tr>
<tr>
<td>Energy Supply and Renewable Energy Development</td>
<td>4,340,000</td>
</tr>
<tr>
<td>Environmental Awareness Unit Hurghada Green City</td>
<td>240,000</td>
</tr>
</tbody>
</table>

NOTE: Funding requirements are approximate.
Population: 8.38 million
Surface: 22,070 km²

Partner cities that prepared a SEAP
- Rosh HaAyin, District Centre
- Shfar ‘Am, District North
- Ramla, District Centre

National Partners
Members of CES-MED “National Coordination Group”
- Ministry of Energy (MOE), CES-MED National Focal Point and Leader of SEAP Support Mechanism

CES-MED actions and progress
- One “Recommended National Sustainable Urban and Energy Savings Actions” report prepared
- One “Donors and Other Funding Initiatives in the Areas of Sustainable development at the Local Level” report prepared
- One training workshop “Sustainable Energy Needs Assessment” held in each city
- One training workshop “Support cities/municipalities with the design of their SEAPs” held in each city
- One training workshop on the methods of Baseline Emission Inventory (BEI) held in each city
- BEI conducted and a SEAP finalized for three cities following an on-the-job-training approach along the preparation
- Prepare a set of project Priority Action Fiches for each city
- National SEAP Support Mechanism set under the leadership of the Ministry of Energy
- One National Conference held to announce the SEAP Support Mechanism and promote the SEAP and the CoM
- One Training of Trainers workshop held: “Technical Steps for the Preparation of SECAPs”
- Annual National Coordination Group meeting held, next to continuous consultations with key national authorities
- Financial expertise engaged to further identify funding and to consolidate the National Support Mechanism
- Help-Desk assistance: Provide municipalities with information, manuals and support related to their adherence to CoM, as well as the necessary support in the design and implementation of their SEAPs.
- One National Municipal Training workshop “Introducing the SEAP and SECAP: Planning for Sustainable Energy for Cities and Municipalities”
- Financial expertise engaged to identify funding of selected priority projects of the SEAPs
- Provide training than coaching to new municipalities in developing their SECAPs

Recommended National Sustainable Urban and Energy Savings Actions

Legal and regulatory framework measures
- Local Authorities should be required to implement at least 10 % of the energy consumption reduction targets set in the compulsory energy audits conducted every 5 years; and to appoint an Energy Manager and conduct municipal staff trainings
- Support local authorities that are committed to the CoM and to SEAPs-like planning in governmental programmes and calls for proposals
- Establish an inter-ministerial governmental body to promote energy efficiency
- Facilitate the availability of data from the Israeli Electricity Company (IEC)

Financing measures
- Offer tax benefits and other incentives to local authorities, businesses, organisations and house owners who engage into applying energy saving technologies
- Establish a National energy revolving efficiency fund to finance innovative measures
- Promote third party financing solutions, such as ESCOs and equipment performance contracting
- Municipalities should create a revolving fund, where resources saved from one project finance other energy efficient or RES activities
- The Union of Local Authorities should negotiate with local banks a clear mechanism to facilitate municipalities’ access to “green” credit
Global Strategy of the SEAP

The Municipality of Ramla agreed to the adherence to the CoM in March 2014, committing to a reduction of the municipality’s GHG emissions by at least 20% and has additionally signed the Israeli Initiative Tag HaSviva.

The target of the SEAP implementation is to reduce the Carbon footprint of the Municipality with a total reduction of 231,954.27 tn CO2 by 2020, which is 20% of the municipality’s total emissions under the BAU scenario.

- Ramla works continuously towards flourishing living conditions and clean environment for its citizens. Every year, millions of Shekels (NIS) are invested to promote and develop the city, to build infrastructure and new neighbourhoods, to develop new green areas gardens and to create a vibrant community and cultural life.
- As the Mayor of Ramla states: “We shall continue improving our city to be Clean, Healthy, and Safe, with the highest quality of life and environment for our citizens. We shall develop the necessary infrastructure, have bicycle lanes, public transportation, energy efficient homes, offices and buildings, cleaner air, more green jobs. Our joining the CoM and the CES-MED project will help us realize our joint goals.”
- The involvement of all citizens and stakeholders in the municipality’s development efforts is considered crucial for achieving the set targets. On the other hand, the existence of large scale industrial consumers dictates the need to achieve high level of cooperation with their representatives, in order to accomplish an important reduction in emissions from the industrial sector.
- During the SEAP implementation, the municipality of Ramla is planning to work closely with other municipalities that are members of the CoM, as well as with the Tag HaSviva Programme and the respective Ministries. The municipality has already been working on an extended adaptation of its administrative structures to support the SEAP implementation and to monitor the status of progress.

The Baseline Emissions Inventory covers all the compulsory sectors and three optional sectors. The action plan includes multiple interventions in the following areas:
- Municipal Public Lighting;
- Municipal Buildings, Equipment / Facilities;
- Tertiary (non Municipal) Buildings / Equipment / Facilities;
- Residential Buildings;
- Commercial Buildings, Equipment and Facilities;
- Industrial sector;
- Transport;
- Agriculture.

Overall results of the Baseline Emissions Inventory (BEI)

- Consuming Sectors: The transport sector contributes the most with an overall consumption of 40%, followed by the residential sector with 22% of the total energy consumptions, the tertiary sector (20%) and industry (16%).
- Emitting Sectors: Tertiary (28%), residential (26%) and industry (22%) are the sectors contributing the most in the greenhouse gas emissions, and therefore the main areas where actions should be realized.
- Municipal assets’ emissions: The municipal buildings are responsible for more than 60% of the sector’s emissions, with street lighting contributing with another one third (36%). It is along these axes that the municipality can implement exemplary actions in terms of GHG emission reduction. In addition, waste, although not directly under the municipal management, have high emissions and the municipality can take actions in this direction (e.g. further promotion of recycling).

Actions and results

- While several actions can only be approximated, the implementation of all actions is possible to achieve by 2020 a 20.0% reduction in GHG emissions compared to the baseline scenario.
- Total emissions avoided based alone on the actions included in the plan are 231,954 t CO2 eq / year.

SEAP Priority projects and costs in Euros

<table>
<thead>
<tr>
<th>Ramla</th>
<th>4,608,950</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upgrading of the municipal buildings’ AC facilities</td>
<td>950,000</td>
</tr>
<tr>
<td>Use of cool colours in municipal roofs</td>
<td>71,500</td>
</tr>
<tr>
<td>Campaign for old ACs, lamps and fridges substitution</td>
<td>857,000</td>
</tr>
<tr>
<td>The 10% voluntary commitment campaign</td>
<td>130,950</td>
</tr>
<tr>
<td>Cycling promotion and creation of related infrastructure</td>
<td>2,600,000</td>
</tr>
</tbody>
</table>
Global Strategy of the SEAP

The target of the SEAP implementation is to reduce the Carbon footprint of the Municipality with a reduction of 73,963.67 t CO2 eq by 2020, which is 20% of the municipality’s BAU total emissions.

- The Municipality of Rosh HaAyin continuously improves the citizens’ quality of life, while consolidating the social and community structures. The newly planned neighbourhoods will be smart and applying advanced sustainable energy requirements.
- The Mayor’s vision for the future of Rosh HaAyin is that of a city on the verge of unprecedented growth. The agglomeration is growing fast, a process bringing much development and refurbishment both to the existing neighbourhoods, and to the new areas that are being built. The Mayor’s plan foresees doubling of the city’s population in the coming years and to make Rosh HaAyin a Green City with Sustainability, Good Transportation and more, ensuring its citizens’ good quality of life.
- During the SEAP implementation, the Municipality of Rosh HaAyin is going to work closely with the rest of the Israeli Municipalities that are members of the CoM, as well as the Tag HaSviva Programme and the respective Ministries. Like Ramla and Shfar’Am, the municipality has already undergone an extended adaptation of its administrative structures to support the SEAP’s implementation and to monitor the status of its progress.
- The involvement of all citizens and stakeholders is considered crucial for achieving the set targets. The citizens are the most important resource for the city, especially to reach the GHG saving targets. In addition, and in all schools, several programs for GHG emission reduction are incorporated.

The Ministry of National Infrastructures, Energy and Water Resources and the Ministry of Education have developed a program suitable for children from grades 1-9. This way all children will be taught about the importance of energy saving. The Baseline Emissions Inventory covered all the compulsory sectors and three optional sectors. The action plans include multiple interventions in the following areas:

- Municipal Buildings / Equipment / Facilities;
- Tertiary (non Municipal) Buildings / Equipment / Facilities;
- Residential Buildings;
- Public Lighting;
- Transport (Municipal / Public / Private);
- Industry;
- Agriculture;
- Solid Waste Treatment.

Overall results of the Baseline Emissions Inventory (BEI)

- **Consuming Sectors**: The tertiary sector contributes the most with an overall consumption of 33%, followed by the residential sector with 31% of the total energy consumptions and the transport sector (29%).
- **Emitting Sectors**: Tertiary (42%), residential (31%) and transport (13%) are the sectors contributing the most in the greenhouse gas emissions, and therefore the main areas where actions should be realized.
- **Municipal assets’ emissions**: The municipal buildings and the municipal lighting are contributing almost equally to the sector’s emissions, with a little lower than 50% each. It is along these axes that the municipality can implement exemplary actions in terms of GHG emission reduction. In addition, waste, although not directly under the municipal management, have high emissions and the municipality can take actions in this direction (e.g. further promotion of recycling).

Actions and results

- While several actions can only be approximated, the implementation of all actions is possible to achieve by 2020 a 20.0% reduction in GHG emissions compared to the baseline scenario.
- Total emissions avoided based alone on the actions included in the plan are 73.964 t CO2 eq / year.

SEAP Priority projects and costs in Euros

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Cost in Euros</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness raising campaigns to reduce the amounts of discarded food</td>
<td>47,600</td>
</tr>
<tr>
<td>Municipal Lighting System Upgrade</td>
<td>2,271,500</td>
</tr>
<tr>
<td>Promotion of Green buildings’ concept</td>
<td>59,500</td>
</tr>
<tr>
<td>Seminars for professional groups</td>
<td>142,900</td>
</tr>
<tr>
<td>Cycling promotion and creation of related infrastructure</td>
<td>14,490,000</td>
</tr>
</tbody>
</table>
Shfar’Am

Global Strategy of the SEAP

The total target of the SEAP implementation is to reduce the Carbon footprint of the Municipality with a total reduction of 27,705.27 t CO2 by 2020, which is 20% of the municipality’s total emissions.

- Part of the vision of the SEAP for a cleaner environment and a better overall status of the Municipality of Shfar’ Am are the creation of better parking infrastructure, development of the public transport, reduction of environmental burden and better waste management. Local leaders have started to implement the waste management program, with waste separation of plastic, paper and cardboard, as well as the designation of an area for treatment of plant cuttings that can be treated within city borders for uses such as earth covering and heating, all would be in complementarity with the SEAP actions working on the infrastructure, urban services and energy is also related to the local authorities’ intend to render Shfar’Am as a tourist center, due to its many archaeological sites, for both Israeli and foreign tourists.

- The Mayor of Shfar’Am sees the opportunity of the CoM as his mission to be a leader to the general public, but especially to the Palestinian citizens of Israel. It should be noted that Shfar’Am is the first Arab city to commit to the CoM and among the few Arab ones participating in the Tag HaSviva Programme.

- During the SEAP implementation, the municipality is going to work closely with other municipalities that are members of the CoM, as well as other programmes and the respective Ministries. Like Ramla, the municipal administration has already implemented an extended adaptation of its administrative structures to support the SEAP implementation and to monitor its status.

- The SEAP indicate that the participation and partnership with the population and stakeholders is considered primordial for achieving the set targets. Women volunteer groups and students are expected to play an important role for the accomplishment of the proposed actions. The role of families who are about to be settled in a newly built area is significant, because the new neighbourhood would be built applying sustainability and resource management regulations.

The Baseline Emissions Inventory covered all the compulsory sectors and three optional ones. The action plans include multiple interventions in the following areas:

- Municipal Buildings / Equipment / Facilities;
- Tertiary (non Municipal) Buildings / Equipment / Facilities;
- Residential Buildings;
- Public Lighting;
- Transport (Municipal / Public / Private);
- Industry;
- Agriculture;
- Solid Waste Treatment.

Overall results of the Baseline Emissions Inventory (BEI)

- Consuming Sectors: The residential sector contributes the most with an overall consumption of 44%, followed by the transport sector with 37% of the total energy consumptions and the tertiary sector (14%).

- Emitting Sectors: Residential (42%), tertiary (19%) and transport (18%) are the sectors contributing the most in the greenhouse gas emissions, and therefore the main areas where actions should be realized.

- Municipal assets’ emissions: The municipal buildings and the municipal lighting are contributing almost equally to the sector’s emissions, with 50% each. It is along these axes that the municipality can implement exemplary actions in terms of GHG emission reduction. In addition, waste, although not directly under the municipal management, have high emissions and the municipality can take actions in this direction (e.g. further promotion of recycling).

Actions and results

- While several actions can only be approximated, the implementation of all actions is possible to achieve by 2020 a 20.0% reduction in GHG emissions compared to the baseline scenario.

- Total emissions avoided based alone on the actions included in the plan are 27,705 t CO2 eq / year

SEAP Priority projects and costs in Euros

<table>
<thead>
<tr>
<th>Shfar’Am</th>
<th>4,105,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promotion of Recycling</td>
<td>262,000</td>
</tr>
<tr>
<td>Municipal Lighting System Upgrade</td>
<td>1,237,000</td>
</tr>
<tr>
<td>The 10% Voluntary commitment at the residential sector</td>
<td>107,000</td>
</tr>
<tr>
<td>Women groups on energy efficiency</td>
<td>119,000</td>
</tr>
<tr>
<td>Improvement/development of Parking Infrastructure</td>
<td>2,380,000</td>
</tr>
</tbody>
</table>
Population: 7.6 million
Surface: 89,320 km²

Partner cities that prepared a SEAP
- Aqaba, Aqaba Governorate
- Irbid, Irbid Governorate
- Karak, Karak Governorate
- Sahab, Amman Governorate

National Partners
Members of CES-MED “National Coordination Group”
- The Ministry of International Cooperation & Planning, CES-MED National Focal Point
- Joint Services Council for Irbid Governorate
- Emergency Unit of the Northern Region
- Ministry of Municipal Affairs
- Ministry of Environment, Department of Projects

CES-MED actions and progress
- One Recommended National Sustainable Urban and Energy Savings Actions report prepared.
- One “Donors and Other Funding Initiatives in the Areas of Sustainable development at the Local Level” report prepared.
- One training workshop “Sustainable Energy Needs Assessment” held in each city.
- One training workshop “Support cities/municipalities with the design of their SECAPs” held in each city.
- One training workshop on the methods of Baseline Emission Inventory (BEI) held in each city.
- BEI conducted and a SEAP finalized for three cities following an on-the-job-training approach along the preparation.
- Prepare a set of project Priority Action Fiches for each city.
- One common workshop held in for communication and awareness raising training for all municipalities
- National SEAP Support Mechanism set and under discussion with National and Local Authorities.
- One “Donors meeting” held in Amman with participation of main funding institutions from national and international programs.
- One Training of Trainers workshop held: “Technical Steps for The Preparation of SECAPs”.
- Regular National Coordination Group meetings held, next to regular consultations with key national authorities.
- Financial expertise engaged to further identify funding and to consolidate the National Support Mechanism.
- Help-Desk assistance: Provide municipalities with information, manuals and support related to their adhesion to CoM, as well as the necessary support in the design and implementation of their SECAPs.

- National Conference is foreseen to announce the SEAP Support Mechanism and promote the SEAP and the CoM
- Financial expertise engaged to identify funding of selected priority projects of the SEAPs

Recommended National Sustainable Urban and Energy Savings Actions

Legal and regulatory framework measures
- The municipal SECAPs are included in the NEEAP update. It could be considered to include the RE projects in the NREAP
- Municipality budgeting can include energy projects, accordingly also funds for human resources for development and implementation of SECAPs are to be assigned.
- Include in regulations updates actions to support Municipal SECAP development: SECAP methodology can be part of Municipal strategic planning for Energy Sector.
- Streamline procedures for energy (supply) projects, make them transparent and inform municipalities about them
- Create investor awareness for Energy Efficiency and Renewable Energy to be integrated in new urban projects

Institutional framework
- Staff is assigned on Local and National level to coordinate and support SECAP preparation for the participating municipalities; The Local Development Units are the key-contact, as well as a Committee in MoMA.
- Assign a CoM coordinator to support municipalities
- Provide utilities to issue transparent electricity bills (transparent) electricity bills
- Create Mobile Energy and Environment Clinic as initiated by the Amman Chamber for Industry

Financing measures
- The development of bankable projects is of great importance in attracting financing. Larger municipalities may have the technical capacity and resources to do so, but for smaller municipalities, application efforts and preparation of bankable projects should be supported by a mediating entity.
- Promote donor’s support to finance SECAPs.
- Develop technical capacity to handle project funding for smaller municipalities.
- Propagate municipal planning in support of Sustainable Energy
- Develop a link with the National Sharing Platform (NSP), under development by the Green Economy Unit (MoEnv), and the Committee in MoMA, for sustainable energy projects.

The SECAP for Aqaba is approved, the letter to join the CoM is signed by the Chief Commissioner in collaboration with the board of commissioners responsible of the Aqaba Special Economic Zone Authority (ASEZA), and registration is taking place. Key objectives are to convert Aqaba city into a Sustainable Zone and raise the tourist attractiveness, considering the existence of unique world heritage site “Petra” and adjacent historical sites.

The SECAP is in line and complements major developments planned in Aqaba, starting by the Urban Planning Facility Initiative (UPFI) project to be funded by EIB and French Development Agency (AFD), which in line with the SECAP, is invited to apply SE, EE and climate adaptation measures in its conception and regulatory framework.

The ultimate target of the SECAP is to reduce the Carbon footprint of the city by 14% by 2020 (short term target), and 40% by 2030 (long term target). Importance is given to collaboration with various actors and integrating the following projects planned by ASEZA:

- Energy Efficient and Street Lighting applications.
- Smarter Transportation System
- Aqaba landfill development
- Eco Science Park & Green Economy Centre

Overall results of the Baseline Emissions Inventory (BEI)

- **Consuming Sectors:** Tertiary sector contributes the most with an overall consumption of 32%, followed closely by the private transportation and residential sectors which consume 27% and 26% respectively where the public transport consumes 10%.
- **Emitting Sectors:** Tertiary sector 39%, residential sector 26%, private transportation sector 15% and solid waste management 9% are the sectors contributing the most in the greenhouse gas emissions, and therefore the main areas where actions should be realized.
- **Municipal assets’ emissions:** The Waste management is responsible for almost 46% of the sector’s emissions, followed by public transport 28%, municipal buildings and public lighting contributing with 11% each. It is along these axes that the municipality can implement exemplary actions in terms of GHG emission reduction.

**Actions and results**

- While several actions can only be approximated, the implementation of all actions is possible to achieve by 2030 a 40% reduction in GHG emissions compared to the baseline scenario.
- Total emissions avoided based alone on the actions included in the plan are 246,899 t CO2 eq / year.

**SEAP Priority projects and costs in Euros**

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Cost in Euros</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eco-Science Park</td>
<td>1,323,300</td>
</tr>
<tr>
<td>Smarter Transportation System (STS)</td>
<td>242,990</td>
</tr>
<tr>
<td>Energy rationalization in ASEZA main building</td>
<td>1,576,850</td>
</tr>
<tr>
<td>Rationalize energy consumption used in street lighting</td>
<td>4,693,31</td>
</tr>
<tr>
<td>Aqaba landfill development</td>
<td>17,497,13</td>
</tr>
</tbody>
</table>
Irbid finalized their SECAP in mid 2017, the Municipal Council approved the SECAP, signed the CoM submission letter and is now preparing the accession to the Covenant. The target to reduce the Carbon footprint of the city is 14% by 2020 (short term), and 40% by 2030 (long term) through developing multi-potential projects, in close collaboration of local, national and international actors. The priority projects include:

- Wheeling PV plants (16 MWp is under progress) to fully cover the city’s demand
- Green/EE Public/Municipality Buildings
- Energy Efficient Street Lighting
- Construction of multi-story parking lot
- Shuttle bus
- Smart Municipal Services

The SECAP is in line and complements the Local Development Economical Strategy of Irbid, a Municipality that is economically developed, sustained and culturally preserved, to invest in the agriculture, industry and tourism. That stimulates entrepreneurship, empowerment and sustainability for purposes of employment, building the capacities of individuals, and improving the quality of life of all community groups at present and in the future, in cooperation with local and international partners. Which is also a response to the Governorates’ need to address the impact of the Syria crisis on Jordan’s host communities, noting the concentration of refugees in Irbid.

**Overall results of the Baseline Emissions Inventory (BEI)**

- **Consuming Sectors**: The residential sector has the highest consumption level of 53%, followed closely by the tertiary and transport sectors with 26% and 20% respectively.
- **Emitting Sectors**: Residential sector 49%, tertiary 38% and transportation 12% are the sectors contributing the most in the greenhouse gas emissions, and therefore the main areas where actions should be realized.
- **Municipal assets’ emissions**: The municipal lighting is responsible for almost 67% of the sector’s emissions, followed by municipal fleets contributing with 29%, since the municipal buildings contribution is very small 4%. It is along these axes that the municipality can implement exemplary actions in terms of GHG emission reduction.

**Actions and results**

- While several actions can only be approximated, the implementation of all actions is possible to achieve by 2030 a 40% reduction in GHG emissions compared to the baseline scenario.
- Total emissions avoided based alone on the actions included in the plan are 633,430 t CO2 eq / year.

**SEAP Priority projects and costs in Euros**

<table>
<thead>
<tr>
<th>Irbid</th>
<th>37,051,760</th>
</tr>
</thead>
<tbody>
<tr>
<td>16MW utility-scale solar PV power plant</td>
<td>13,697,981</td>
</tr>
<tr>
<td>Brilliant lighting for Greater Irbid Municipality</td>
<td>18,259,489</td>
</tr>
<tr>
<td>Smart Municipal services</td>
<td>1,132,064</td>
</tr>
<tr>
<td>Smart multi-storey parking lot</td>
<td>1,981,113</td>
</tr>
<tr>
<td>Shuttle Bus</td>
<td>1,981,113</td>
</tr>
</tbody>
</table>
Karak municipality approved the SECAP and signed the CoM letter and is starting the adhesion to the Covenant, in line with its plans to convert the city into a sustainable city through developing and implementing short and long-term actions and strategies, to be largely addressed in the SECAP. The local council of Karak is preparing planning tools to facilitate the prescription and implementation of comprehensive projects, while inviting the stakeholders to be partners in the sustainable energy building process.

The SECAP of Karak is complementing and integrated to national and area development plans, including 2016-2018 Karak Development Programme and other projects, such as Karak City Revitalization Project, as a SE and Climate component to add and/or seeking to apply related measures interactively with the SEACAP programming.

The ultimate target of Karak's SEAP is to reduce the Carbon footprint of the city by 14% by 2020 (short target), and 40% by 2030 (long target) through developing projects in the following areas:

- Energy Efficient Street Lighting.
- Wheeling PV plants (3 MWp is under progress)
- Municipal Cars/Diesel Vehicle Replacement
- Bio Waste Management
- Green Buildings Initiatives in the Municipality Buildings and PV on the roof

Overall results of the Baseline Emissions Inventory (BEI)

- **Consuming Sectors:** The residential sector has consumption level of 43%, followed closely by the tertiary and private transport sectors with 26% and 25% respectively.
- **Emitting Sectors:** Residential sector 33%, tertiary 27%, private transportation 10% and Waste 25% are the sectors contributing the most in the greenhouse gas emissions, and therefore the main areas where actions should be realized.
- **Municipal assets' emissions:** The Waste management is responsible for almost 85% of the sector's emissions, followed by municipal buildings and public lighting contributing with 5% individually, since the municipal and public transportation contribution is very small. It is along these axes that the municipality can implement exemplary actions in terms of GHG emission reduction.

Actions and results

- While several actions can only be approximated, the implementation of all actions is possible to achieve by 2030 a 40% reduction in GHG emissions compared to the baseline scenario.
- Total emissions avoided based alone on the actions included in the plan are 168,599 t CO2 eq / year.

SEAP Priority projects and costs in Euros

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Cost in Euros</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replacing non-efficient lamps with LED lamps for the street lighting</td>
<td>4,425,180</td>
</tr>
<tr>
<td>3 MW PV Station installation</td>
<td>3,275,000</td>
</tr>
<tr>
<td>Replacing the old Municipal diesel vehicles with new efficient vehicles</td>
<td>863,898</td>
</tr>
<tr>
<td>Bio Waste Management</td>
<td>11,790,000</td>
</tr>
<tr>
<td>Making the Municipal Buildings Green</td>
<td>1,687,353</td>
</tr>
</tbody>
</table>
Partner cities that prepared a SEAP
- Achkout, Kesrouan District
- Baakline, District of Chouf Souwayjani
- Beirut, Governorate of Beirut
- Kab Elias, Zahle District
- Menjez, Akkar District

National Partners
Members of CES-MED “National Coordination Group”
- Ministry of Interior and Municipalities – CES-MED National Focal Point
- Ministry of Energy and Water
- Ministry of Environment
- Lebanese Green Building Council
- UNDP Lebanon

CES-MED actions and progress
- One “Recommended National Sustainable Urban and Energy Savings Actions” report prepared
- One “Donors and other Funding Initiatives in the Areas of Sustainable Development at the Local Level” report prepared
- One training workshop “Sustainable Energy Needs Assessment” held in each city
- One training workshop “Support cities/municipalities with the design of their SEAPs” held in each city
- One training workshop on the methods of Baseline Emission Inventory (BEI) held in each city
- BEI conducted and a SEAP finalized for three cities following an on-the-job-training approach along the preparation
- Prepare a set of project Priority Action fiches for each city
- One common communication and awareness raising workshop held for all municipalities
- Support the city of Beirut in preparing the awareness campaign or Bike Sharing activities
- National SEAP Support Mechanism set under the leadership of the Ministry of Interior and Municipalities with the support of CES-MED
- One National Conference held to announce the SEAP Support Mechanism and promote the SEAP and the CoM.
- One “Donors meeting” held in Beirut with participation of main funding institutions from national and international programs
- One Training of Trainers workshop held: “Technical Steps for The Preparation of SECAPs”
- Regular National Coordination Group meetings held, next to regular consultations with key national authorities
- Financial expertise engaged to further identify funding and to consolidate the National Support Mechanism
- Help-Desk assistance: Provide municipalities with information, manuals and support related to their adhesion to CoM, as well as the necessary support in the design and implementation of their SEAPs
- Develop simplified and tailor-made templates to support Local Authorities in the preparation of the SECAPs
- Provide training than coaching to new municipalities in developing their SECAPs
- 7-Additional municipalities have joined the CoM, Batloun, Hasbayla, Jezzine, Kawkaba, Kherbet Rouha, Menjez & Moukhtara

Recommended National Sustainable Urban and Energy Savings Actions

Legal and regulatory framework measures
- Appointment of a sustainability manager in municipalities above a certain size, or unions of municipalities.
- Strengthening the Central Administration for Statistics (CAS) service for updating the energy database.
- Set up a CoM coordination body to assist municipalities
- Provide coaching and technical assistance to municipalities to prepare SECAPs
- Improve the tax collection system for municipalities
- Remove legal barriers preventing Municipalities from using their assets.
- Amend law to allow Municipalities to take loans from the banks.

Financing measures
- Establish a central mechanism to act as a resource mobilization hub for municipalities.
- Enable the National Environmental Fund to provide an operational mechanism to support municipalities.
- Promote donor’s support to finance SECAPs.
- Develop technical capacity to prepare bankable projects for municipalities and unions of municipalities.
- Promote municipal planning in support of Sustainable Energy
- Facilitate and support municipalities obtaining and managing loans for Sustainable Energy projects.
- Establishment of a Local Development Fund.
Achkout is committed to reducing its greenhouse emissions by 20% by 2020, and thereby positioning itself as a “Pioneer Municipality” in RE and EE in Lebanon. The quantitative target for the SEAP implementation is to mitigate carbon emission with a total reduction of 8,535 tCO2.

The objectives of the SEAP are to enhance and better implement energy and climate policies, make the sustainable energy part of all key activities of the local authority; Reduce expenditure on energy; Decrease the city’s CO2 emission; Support the installation of renewable and sustainable energy systems, Invest in public transport and improve infrastructure; Reduce electric demand through conservation and smart grid technology and through this, work towards a healthier, safer and more liveable environment that supports the wellbeing of all citizens. By 2020, Achkout will be on the path to transforming its energy use pattern, as the City Council is identifying with the SEAP projects to reduce energy demand and consumption, and increase renewable energy. This will be achieved in partnership with stakeholders and the community representatives.

Altogether, the city is undertaking a range of short and long term initiatives which will help to maintain Achkout as a smart, sustainable city by 2020.

- Municipality buildings/equipment/facilities;
- Drinking Water;
- Public Street Lighting;
- Local Renewable Energy Production;
- Residential Buildings;
- Tertiary Buildings;
- Transportation (Municipality Fleet/Public/Private).

On immediate or short term, the SEAP proposes to apply small and simple actions-solutions that would yield immediate results, starting by working on the municipality - controlled buildings and gradually – supported by awareness raising activities – propagate EE and RE applications among the population and other stakeholders (to apply it in their buildings, commerce and offices). Actions include:

- Prepare, distribute and apply Energy Savings Instructions to employees for use in municipal buildings e.g.: Fixing of the thermostats of air-conditions; Utilize as possible daylight through windows and reduce using artificial lights as much as possible; Set PC monitor on sleep mode for maximum two minutes; Switch off PC UPS and printer when leaving the work.

Minimize the usage of printing as possible. This in addition to other simple technological solutions to reduce consumption.

- At a longer term, move towards transitions to low carbon economy starting with the easiest to implement and fund actions e.g. using LED lamps, installing motion lighting sensor, replacing the air conditions units that consume high energy etc.

### Overall results of the Baseline Emissions

**Inventory (BEI)**

- **Consuming Sectors**: The residential sector contributes the most with an overall consumption of 56%, followed by the tertiary sector (20%) and transport (18%).
- **Emitting Sectors**: Residential (46%), tertiary (30%) and transport (12%) are the sectors contributing the most in the greenhouse gas emissions, and therefore the main areas where actions should be realized.
- **Municipal assets’ emissions**: The municipal lighting is almost solely responsible for all municipal emissions in the territory (96%). It is along this axis that the municipality can implement exemplary actions in terms of GHG emission reduction.

### Actions and results

- While several actions can only be approximated, the implementation of all actions is possible to achieve by 2020 a 20.0% reduction in GHG emissions compared to the baseline scenario.
- Total emissions avoided based alone on the actions included in the plan are 8.535 t CO2 eq / year.
Global Strategy of the SEAP

The total target of the SEAP implementation is to reduce the Carbon footprint of the city by 8,139 tCO2 by 2020, which represents more than 25% of the city's total emissions.

The local authority intends to make Baakline a city of great interest for visitors seeking to discover the unique experience of its local heritage and natural resources. The long-term anticipated actions to develop a sustainable city, include the improvement of water and electricity supplies, the development of waste water infrastructure, the provision of adequate parking arrangements, reliable public transportation services and major improvement of waste management to clean-up the negative impact of the solid waste crisis in Lebanon.

The city’s sustainable energy strategy, as detailed in its SEAP, stipulates a number of measures to be implemented with partner stakeholders and sectors. The objective is to put forward sustainable development and achieve a healthier, more livable, and safer community. Measures linked to sustainable energy use target primarily public procurement, adaptation of the municipality's and residential buildings, usage of renewable resources and applying more energy efficient lighting and public transportation.

The SEAP acknowledges that making Baakline a sustainable community requires the adhesion and collaboration of local, national and international actors. Thus, emphasis is also put on awareness raising and communication as success factor in the accomplishment of planned projects.

SEAP actions are prescribed based on the results of the BEI, the road map to mitigate the GHG emissions, with prioritization of urgent interventions, while in line with the municipality’s vision for Baakline to become “Sustainable Smart City”, which means:

- Setting a strategic framework to enhance and better coordinate adapted energy and climate policies, Defining, creating and translating into action short and long-term solutions to reduce of CO2 emission
- Making sustainable energy policy a key activity of the local authority.

The city of Baakline has moved forward and started de facto the implementation of the SEAP’s actions, which specifies the following sectors:

- Solid Waste Treatment;
- Water Waste Treatment;
- Local Renewable Energy Production;
- Residential and Tertiary Buildings;
- Transportation.

Overall results of the Baseline Emissions Inventory (BEI)

- **Consuming Sectors**: The residential sector contributes the most with an overall consumption of 46%, followed closely by the transport sector (42%).
- **Emitting Sectors**: Residential (50%) and transport (31%) are the sectors contributing the most in the greenhouse gas emissions, and therefore the main areas where actions should be realized.
- **Municipal assets’ emissions**: The municipal lighting is responsible for almost 80% of the sector’s emissions, followed by municipal buildings contributing with 18%, since the municipal fleet’s contribution is very small. It is along these axes that the municipality can implement exemplary actions in terms of GHG emission reduction.

Actions and results

- While several actions can only be approximated, the implementation of all actions is possible to achieve by 2020 a 25.0% reduction in GHG emissions compared to the baseline scenario.
- Total emissions avoided based alone on the actions included in the plan are 8.139 t CO2 eq / year

SEAP Priority projects and costs in Euros

<table>
<thead>
<tr>
<th>Baakline</th>
<th>Cost (Euros)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitor and Regulate the water Supply (comprehensive system)</td>
<td>1,396,000</td>
</tr>
<tr>
<td>Support the implementation of the sorting from source for the solid waste by Purchasing New Fuel Saving Truck for Solid Waste Collection</td>
<td>3,490,000</td>
</tr>
<tr>
<td>Smart city with intelligent public street lighting</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Green Building enhance and motivate the installation of solar water heater in residential sector and promote green behaviour in tertiary sector</td>
<td>270,000</td>
</tr>
<tr>
<td>Increase the capacity of parking area</td>
<td>2,000,000</td>
</tr>
</tbody>
</table>
Global Strategy of the SEAP

The target for the SEAP implementation is to mitigate carbon emission with a total reduction of 1,157,673.4 tCO2 by 2020, which represents more than 37% of the city's total emissions. The Capital city has set out to transform its energy management system and upgrade its infrastructure, towards factual contribution to fight climate change and sustainable energy applications in the agglomeration.

Beirut's Governorate and Municipality are working on developing a "climate change resistant identity" for the city (and vis à vis international community), thus committed to actively participate in the global effort to address the challenge of climate change, in parallel to facing the practical challenge to apply sustainable urban development solutions.

Beirut’s Governorate and Municipality are working on developing a “climate change resistant identity” for the city (and vis-à-vis international community), thus committed to actively participate in the global effort to address the challenge of climate change, in parallel to facing the practical challenge to apply sustainable urban development solutions.

The SEAP’s aim is to help develop a Smart City Model, noting that this first requires built capacity to handle such task and to face urgent needs. Realizing the SEAP’s vision: “Get Smarter, Live Better” demands a thorough assessment of priorities, in addition to the BEI results, prior to defining actions and implementation models, that need to primarily improve living conditions and enhance economic growth.

The SEAP exercise is also part of a multi-sectors plan to face problems caused by traffic congestion, water shortage, power outage, anarchic build-up extension and other urban management malfunctions.

As noted in the plan, the SEAP’s successful implementation will require close partnership of all stakeholders, who are invited to work jointly and in a coordinated way to implement the SEAP projects, all linking this to job creation, environmental protection and social benefits to the city.

The SEAP’s recommended actions are prescribed to mitigate the GHG emissions, with prioritization of interventions in the following sectors:

- Municipality buildings/equipment/facilities;
- Drinking Water;
- Public Street Lighting;
- Solid Waste Treatment;
- Water Waste Treatment;
- Local Renewable Energy Production;
- Residential Buildings;
- Tertiary Buildings;
- Transportation (Municipality Fleet/Public/Private).

Overall results of the Baseline Emissions Inventory (BEI)

- Consuming Sectors: The transport sector contributes the most with an overall consumption of 70%, followed by the tertiary sector (22%).
- Emitting Sectors: Transport (47%), tertiary (39%) and residential (14%) are the sectors contributing the most in the greenhouse gas emissions, and therefore the main areas where actions should be realized.
- Municipal assets’ emissions: The municipal lighting is responsible for approximately 60% of the sector’s emissions, with municipal buildings contributing with the rest, since the municipal fleet’s contribution is very small. It is along these axes that the municipality can implement exemplary actions in terms of GHG emission reduction.

Actions and results

- While several actions can only be approximated, the implementation of all actions is possible to achieve by 2020 a 37.0% reduction in GHG emissions compared to the baseline scenario.
- Total emissions avoided based alone on the actions included in the plan are 1,157.673 t CO2 eq / year.

SEAP Priority projects and costs in Euros

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Cost (in Euros)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Capacity of the newly created SEAP UNIT</td>
<td>2,000,000</td>
</tr>
<tr>
<td>Solid Waste Management - Sustainable solutions for solid waste management</td>
<td>9,100,000</td>
</tr>
<tr>
<td>Bright City and Brilliant Beirut with intelligent public street lighting: Preparation and implementation (partial) of the “Schéma Directeur d’Aménagement Lumière de La Ville de Beyrouth”</td>
<td>61,140,000</td>
</tr>
<tr>
<td>Awareness raising towards Changing Behaviour: Concentrate on Energy Conservation and RE usage</td>
<td>2,120,000</td>
</tr>
<tr>
<td>Master plan for smart transportation</td>
<td>2,000,000</td>
</tr>
</tbody>
</table>
Global Strategy of the SEAP

The target of the SEAP’s implementation is to mitigate carbon emission by 26% with a total reduction of 17,269 t CO2 by 2020. The Municipality of Kab Elias – Wadi Ed Delm, motivated by the CoM, is very keen to see the city developing towards sustainability and to actively take part in reducing its GHG emission and shifting into a low carbon economy.

Kab Elias has set out to transform its energy supply – consumption system and upgrade its infrastructure, towards improved economic efficiency and better social and environmental conditions for its residents and to accommodate the refugees, whose number equals that of the population itself.

The city’s vision of the future is to build a “Sustainable Pilot City” applying a low-carbon approach while meeting growing energy demand; preserving the city’s unique culture, while ensuring a sustainable economic future and a clean environment.

To help move forward with the city’s vision, Kab Elias – using the SEAP as tool – plans to tackle greenhouse emissions in all sectors and implement a number of initiatives, including:

- Develop green energy and creating related jobs;
- Promoting EE and RE sources;
- Investing in public transport and improving infrastructure;
- Build livable communities;
- Reducing electric demand through conservation and smart grid technology.

The Municipality has included in its actions the following sectors:

- Municipality buildings/equipment/facilities;
- Drinking Water;
- Public Street Lighting;
- Solid Waste Treatment;
- Water Waste Treatment;
- Local Renewable Energy Production;
- Residential Buildings;
- Tertiary Buildings;
- Transportation (Municipality Fleet, Private).

Overall results of the Baseline Emissions Inventory (BEI)

- Consuming Sectors: The residential sector contributes the most with an overall consumption of 64%, followed by the transport sector (29%).
- Emitting Sectors: Residential (66%) and transport (23%) are the sectors contributing the most in the greenhouse gas emissions, and therefore the main areas where actions should be realized.
- Municipal assets’ emissions: The municipal lighting is responsible for approximately 44% of the sector’s emissions, followed closely by municipal buildings contributing with 42%, since the municipal fleet’s contribution is very small (14%). It is along these axes that the municipality can implement exemplary actions in terms of GHG emission reduction.

Actions and results

- While several actions can only be approximated, the implementation of all actions is possible to achieve by 2020 a 26.0% reduction in GHG emissions compared to the baseline scenario.
- Total emissions avoided based alone on the actions included in the plan are 17,269 t CO2 eq/year.

SEAP Priority projects and costs in Euros

<table>
<thead>
<tr>
<th>Kab Elias</th>
<th>1,139,100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building municipality capacity for implementation of SEAP and demonstrate pilot project with renewable energy</td>
<td>55,600</td>
</tr>
<tr>
<td>Water supply and waste water treatment</td>
<td>151,000</td>
</tr>
<tr>
<td>Solid Waste Management: reducing the consumption of fuel related to the solid waste collection</td>
<td>78,000</td>
</tr>
<tr>
<td>Public Street Lighting</td>
<td>854,500</td>
</tr>
<tr>
<td>Residential and Tertiary Sectors conducting awareness campaigns for tertiary sector</td>
<td>296,000</td>
</tr>
</tbody>
</table>
Global Strategy of the SEAP

The Municipality of Menjez is committing to a 25% emission reduction by the year 2020 starting at the baseline emissions of the year 2013. By this, the municipality assured the required 20% commitment and joined the CoM.

The decision taken by the municipality reflects the people of Menjez’ vision to create a Sustainable, Smart, and Environmentally-Responsible Village: MENJEZ THE GREEN VILLE.

In September 2014, the municipality of Menjez thus signed the CoM, submitted its SEAP, which was successfully reviewed by EU Joint Research Center (JRC), and Menjez is now a full member of CoM.

The SEAP specifies actions and priority projects the following sectors:

- Municipality buildings/equipment/facilities;
- Drinking Water and waste water;
- Public Street Lighting;
- Local Renewable Energy Production;
- Residential and Tertiary Buildings;
- Transportation (Municipality Fleet/Public/Private);
- Agriculture.

The SEAP is a complementary part of many actions anticipated to achieve sustainable economic development in Menjez through an “appropriate use of the village’s natural and cultural resources”, exploiting and preserving 1) the well preserved rural aspect of the village, (2) its rich cultural and natural resources, (3) its unique tangible and intangible heritage, and (4) the valorisation of good practices and tourism as a vector of rural development.

The Mayor of Menjez and members of its local council provide a very active leadership, working on development projects and successfully raising funds from multiple sources. They have created a momentum through which the population is taking part in a village development process, actively reducing its carbon emissions and shifting towards low carbon economy. Projects are supervised by a special committee and pertain to different sectors: energy, agriculture, environmental management and tourism. Some of the work achieved include:

- USAID BALADI Program: Installation of a solar energy plant, in collaboration with René Mouawad Foundation;
- EU - Forestry Action in Lebanon: Agro-forestry development Plans and Actions, (9000 trees planted in Menjez in 2015), in collaboration with University of Balamand;
- Reforestation and sustainable Laurel Black Forest Management Strategy and Action Plan;
- Modernization of the drinking water system with consumption monitoring and Water Replenishment Project (30.5 million litres/year);
- Rural Tourism Strategy and Action Plan including Archaeological site and Community Tourism mapping, in collaboration with national cultural and tourism authorities.

Overall results of the Baseline Emissions Inventory (BEI)

- Consuming Sectors: The transport sector contributes the most with an overall consumption of 40%, followed by the residential sector (21%) and the tertiary one (14%).
- Emitting Sectors: Residential (44%), tertiary (25%) and transport (22%) are the sectors contributing the most in the greenhouse gas emissions, and therefore the main areas where actions should be realized.
- Municipal assets’ emissions: The municipal lighting is contributing more than half of the municipal assets’ emissions (51%), followed by the municipal fleet (29%) and the buildings (20%). It is along these axes that the municipality can implement exemplary actions in terms of GHG emission reduction.

Actions and results

- While several actions can only be approximated, the implementation of all actions is possible to achieve by 2020 a 29.0% reduction in GHG emissions compared to the baseline scenario.
- Total emissions avoided based alone on the actions included in the plan are 500 t CO2 eq / year.
Partner cities that have prepared a SEAP
- Agadir, Souss-Massa-Draa Region
- Benslimane, Casablanca Region - Settat
- Oujda, Oriental Region

National Partners

Members of the “National Coordination Group”
- Ministry of Energy, Mines and Sustainable Development (MEMDD). (Cooperation and Communication Observation Directorate) - National focal point and coordinator of the “City and Energy” unit supporting the implementation of the municipal SEAP with the Renewable Energies Directorate
- Ministry of Interior, (General Directorate of Local Government - DGCL)
- Municipal Equipment Fund (MEF)
- Ministry of National and Urban Planning, Housing and City Policy.

CES-MED actions and progress
- One national report prepared on “Institutional and Regulatory Analysis for the Development of Energy Efficiency and Renewable Energy at the local level”
- One national report prepared on “Analysis of financing sources for Energy Efficiency and Renewable Energies in local communities”
- One training workshop held in each city on “Sustainable Energy Needs Assessment”
- One training workshop in each city on the theme: “Support cities / municipalities in designing their SEAPs”.
- One training workshop on the methods of Baseline Emission Inventory (BEI) held in each city
- One training conducted for AMEV and other communes on SECAPs

Recommended National Sustainable Urban and Energy Savings Actions

Legal and regulatory framework measures
- Ensure sustainable planning and energy management for the communes
  - Set urban and territorial planning based on sustainable development principles
  - Adequate financial resources for the implementation of the legal and regulatory framework
  - Set a National Technical Support System for energy development at local level
- Renewable Energies
  - Empowering local authorities to produce and market the electricity produced from Renewable Energy Systems (RES)
  - Allow connection to medium-voltage (MV) and low-voltage (LV) networks
  - Enhance biogas by using electricity production
- Energy Efficiency
  - Integrate EE standards in public procurement and institutionalize technical assistance to communes
  - Establish support mechanisms and incentives for the application of EE standards

National support for the preparation and implementation of the SECAPs
- Political engagement of the State to support cities; Establishing a communal energy certification label
- Systematic data collection, BEI and Energy Audits
- Launch SECAP preparation, ensuring its alignment to national requirements, follow-up and evaluation

Financing measures
- For the International Funding Institutions (IFIs), International Cooperation agencies and donors
  - Restructure investment projects to support local authorities and supporting small and medium-sized communes
  - Facilitate bank credit in favour of projects promoting “high climate or energy added value”
- For the Moroccan public institutions
  - Establish a platform for the collection of information related to funds and funding mechanisms and create a National Financial Support Mechanism.
  - Provide technical assistance to communal project holders.
- For the territorial authorities
  - Consolidate the commitment of prefectures and regions
  - Integrate the SECAPs in the next generation of Communal Action Plan (2017-2023)
With regards to the issues faced and following an assessment of the works already carried out with the technical services and municipal actors, the commune of Agadir has committed itself to a 20% reduction of emissions by 2020.

As a first exercise in “energy-climate” planning at a territorial level, the SEAP aims to structure and strengthen the ability of municipal teams to intervene through partnerships with all public and private actors. The roll out of this ambitious strategy over the whole territory will be focused around three main areas:

- Defining a model of low carbon urban development by working on the determining factors in urban growth and understanding all the activities that reduce GHG emissions in the long-term. The SEAP will contribute to strengthening the status of Agadir as a pilot city across all of Morocco.
- The move towards a cross-cutting, integrated approach in the fight against climate change while continuing the work undertaken as part of the Jiha Tinou strategy involves creating a series of “tools” that strengthen abilities in diagnostics, planning, monitoring and evaluation, as well as the creation of public policies and the intervention of the commune.
- Establishing the leading role of the commune in the municipal area to allow local teams to intervene across all activities and sectors that produce GHG. This requires, on the one hand, that the image of public powers be strengthened so as to be an example to follow, and on the other, that participative and partner focused approaches are piloted with all actors across the municipal area (in particular in the residential, industrial and tertiary sectors).

Within the action plan proposed, there are 6 axes of intervention that each include a series of predefined measures. There is an intervention axis specifically dealing with the operations and activities of the commune.
- Putting in place exemplary approaches within the municipality;
- Developing sustainable urban mobility to move people around;
- Promoting and creating highly energy efficient buildings across the municipal area;
- Improving the economic performance of businesses in the municipal area;
- Putting in place an integrated system of added value waste management;
- Involving actors in the municipal area and raising awareness. Structuring actions around “intervention axes” will facilitate the creation of an integrated multi-disciplinary vision of action on climate change within municipal teams. It will also ensure better understanding of how the various actions chosen are structured and staggered over time.

Overall results of the Baseline Emissions Inventory (BEI)

- **Consuming Sectors**: The transport sector represents more than half of the energy consumption in the municipality (51%), in second and third place there are the housing and the tertiary sector.
- **Emitting Sectors**: Transport (36%), housing (22%), and the tertiary sector (21%) are the areas that produce the most GHG emissions and are, as a result, the focus of any action.
- **Municipal assets’ emissions**: The management of wastewater is responsible for 58% of emissions while public lighting is responsible for 23%.

**Actions and results**

- At times “standalone” actions are difficult to measure, but by implementing a full set of actions it will be possible to reach the 2020 target to reduce GHG emissions by 20.8% compared with current trends.
- Total emissions avoided without taking into consideration any secondary effects (only the actions that are found in the action plan) correspond to 234,116 t CO2 eq/year.

**SEAP Priority projects and costs in Euros**

<table>
<thead>
<tr>
<th>Agadir</th>
<th>12 532 800</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste management: Biogas recovery and valorisation</td>
<td>2 110 000</td>
</tr>
<tr>
<td>Modernization of public lightning management in the municipality</td>
<td>10 200 000</td>
</tr>
<tr>
<td>Solarization of Souk El Had: Production of RE to supply the souk</td>
<td>222 800</td>
</tr>
</tbody>
</table>
Benslimane Global Strategy of the SEAP

With regards to the issues faced and an assessment of the works already carried out with the technical services and municipal actors, the commune of Benslimane has committed itself to a 20% reduction of emissions by 2020.

As a first exercise in climate planning, the SEAP action plan aims to structure and strengthen the ability of municipal teams to intervene through partnerships with all public and private actors. The roll out of this ambitious strategy over the whole territory will be focused around four main areas:

• Strengthening the “Green City” status of Benslimane by working on determining factors in urban growth and understanding all the activities that reduce GHG emissions. This will require creating a global vision of the environmental impact of projects and public policies carried out by the commune, not only the energy savings; and to anticipate future changes to the municipal area.

• Carrying out a detailed analysis of the potential to add value to energy from the STEP in Benslimane, in close partnership with the company SEPGBS that is responsible for promoting golf in Benslimane;

• The move towards a multidisciplinary, cross-cutting, integrated approach in the fight against climate change, requiring the creation of a series of scalable “tools” and the strengthening of the commune skills in diagnostic solution, public policy and intervention;

• Affirming the leading role of the commune in the municipal area to allow local teams to intervene on all of the GHG-producing activities and industries.

This goal, requires, on the one hand, that the image of public powers as an example to follow be strengthened and on the other, that participative and partner focused approaches are piloted with all actors across the municipal area (in particular in the residential, industrial and tertiary sectors).

As part of the SEAP action plan, 6 intervention axes were defined:

• Strengthening the model “Green City” status of the commune;

• Guaranteeing the energy efficiency of the commune real estate assets and taking control of urbanisation;

• Supporting the development of the tertiary sector and industrial activities leading to lower Greenhouse Gas Emissions;

• Making soft mobility a corner stone of the transport policy;

• Adding value to solid and liquid waste;

• Involving actors in the municipal area and raising awareness.

Structuring actions around “intervention axes” will facilitate the creation of an integrated multi-disciplinary vision of action on climate change within municipal teams. It will also ensure better understanding of how the various actions chosen are structured and staggered over time.

Overall results of the Baseline Emissions Inventory (BEI)

• Consuming Sectors: The transport sector represents less than half of the energy consumption in the municipality (48%); in second and third place are housing and industry.

• Emitting Sectors: Transport (33%), housing (25%), and industry (21%) are the sectors that produce the most GHG emissions and are, as a result, the focus of any action.

• Municipal assets’ emissions: The management of waste water is responsible for 75% of GHGs and public lighting is responsible for 23%.

Actions and results

• At times “standalone” actions are difficult to measure, but by implementing a full set of actions it will be possible to reach the 2020 target of reducing GHG emissions by 20.0% compared with current trends.

• Total emissions avoided without taking into consideration any secondary effects (only the actions that are found in the action plan) correspond to 20,278 t CO2 eq/year.

SEAP Priority projects and costs in Euros

<table>
<thead>
<tr>
<th>Benslimane</th>
<th>1 280 000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modernization of public lighting in the municipality</td>
<td>680 000</td>
</tr>
<tr>
<td>Biogas and energy valorisation: Production of electricity from the wastewater treatment plant</td>
<td>600 000</td>
</tr>
</tbody>
</table>
Global Strategy of the SEAP

With regard to the issues faced and following an assessment of the works already carried out with the technical services and municipal actors, the commune of Oujda has committed itself to a 20% reduction of emissions by 2020.

As a first exercise in climate planning, the SEAP action plan aims to structure and strengthen the ability of municipal teams to intervene through partnerships with all public and private actors. The roll out of this ambitious strategy over the whole territory will be focused around three main areas:

- Defining a model of low carbon urban development by working on the determining factors in urban growth and understanding all the activities that reduce GHG emissions in the long-term. The SEAP will thus contribute to strengthening the status of Oujda as a pilot city across Morocco.
- The move towards a cross-cutting, integrated approach in the fight against climate change while continuing the work undertaken as part of the Jiha Tinou project involves the creation of a series of “tools” that strengthen abilities in diagnostics, creating public policies and monitoring the impact of actions as well as boosting the intervention of the municipality.
- Establishing the leading role of the municipality in the municipal area to allow local teams to intervene across all activities and sectors that produce GHG. This requires, on the one hand, that the image of public powers be strengthened so as to be an example to follow, and on the other, that participative and partner focused approaches are piloted with all actors across the municipal area (in particular in the residential, industrial and tertiary sectors).

Within the action plan proposed, there are 6 axes of intervention that each include a series of predefined measures.

- Making the commune an example to follow in terms of its assets and services;
- Developing sustainable urban mobility to transport people and merchandise;
- Getting energy consumption linked to urbanisation and household behaviour under control;
- Establishing a low-carbon economy across the territory;
- Knowing, managing and mobilising potential renewable energy sources or energy recuperation methods;
- Involving all actors across the area and raising awareness.

Structuring actions around the above “intervention axes” will facilitate the creation of an integrated multi-disciplinary vision of action on climate change within the municipal teams. It will also ensure better understanding of how the various actions chosen are structured and staggered over time.

Overall results of the Baseline Emissions Inventory (BEI)

- **Consuming Sectors**: The transport sector represents more than half of the energy consumption in the municipality (54%), after that comes housing (28%), the tertiary sector (7%) and industry (7%).
- **Emitting Sectors**: Transport (42%), housing (35%), and the tertiary sector (9%) are the sectors that produce the most GHG emissions and are, as a result, the focus of any action.
- **Municipal assets’ emissions**: Public lighting is responsible for more than 40% of the emissions coming from municipal assets.

Actions and results

- At times “standalone” actions are difficult to measure, but by implementing a full set of actions it will be possible to reach the 2020 target to reduce GHG emissions by 20.3% compared with current trends.
- Total emissions avoided without taking into consideration any secondary effects (only the actions that are found in the action plan) correspond to 155,956 t CO2 eq/year.

SEAP Priority projects and costs in Euros

<table>
<thead>
<tr>
<th>Oujda</th>
<th>4 406 000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creation of a communal information, training and communication centre (CIFCC)</td>
<td>585 000</td>
</tr>
<tr>
<td>Solar lighting of the Oujda-Bnidrar axis: Installation of an automatic solar lighting system</td>
<td>1 640 000</td>
</tr>
<tr>
<td>Traffic Improvement: Implementation of an Automatic Traffic Light Control System</td>
<td>165 000</td>
</tr>
<tr>
<td>Energy valorisation in Ben Kachour: Study of the geothermal potential of Ben Kachour springs</td>
<td>130 000</td>
</tr>
<tr>
<td>Oujda green electricity project (PEVO-I): Decentralized production of green photovoltaic electricity on a site of 8'000 m2 (landfill)</td>
<td>1 886 000</td>
</tr>
</tbody>
</table>
Partner cities that prepared a SEAP
- Hebron Municipality, Hebron Governorate
- Nablus Municipality, Nablus Governorate
- Tulkarem Municipality, Tulkarem Governorate

National Partners
Members of CES-MED “National Coordination Group”
- Ministry of Local Government (MLG) – CES-MED National Focal Point
- Municipal Development and Lending Fund (MLG)
- Palestinian Energy Andand Natural Resources Authority.
- Palestinian Electricity Regulatory Council

CES-MED actions and progress
- One “Recommended National Sustainable Urban and Energy Savings Actions” report prepared
- One “Donors and other Funding Initiatives in the Areas of Sustainable Development at the Local Level” report prepared
- One training workshop “Sustainable Energy Needs Assessment” held for all cities
- One training workshop “Support cities/municipalities with the design of their SEAPs” held for all cities.
- One training workshop on the methods of Baseline Emission Inventory (BEI) held in each city
- BEI conducted and a SEAP finalized for three cities following an on-the-job-training approach along the preparation
- One common communication and awareness raising workshop held for all municipalities
- National SEAP Support Mechanism set under the leadership of the Ministry of Local Government in partnership with the MLDF
- One National Conference held announce the SEAP Support Mechanism and promote the SEAP and the CoM
- One “Donors meeting” held in Ramallah with the participation of main funding institutions from national and international programs
- One Training of Trainers workshop held: “Technical Steps for The Preparation of SECAPs”
- Regular National Coordination Group meeting held, next to regular consultations with key national authorities
- Financial expertise engaged to finance Actions Fiches and to consolidate the National Support Mechanism
- Help-Desk assistance: Provide municipalities with information, manuals and support related to their adhesion to CoM, as well as the necessary support in the design and implementation of their SEAPs
- One National Municipal Training workshop held: “Introducing the SEAP and SECAP: Planning for Sustainable Energy for Cities and Municipalities to launch the preparation of 10 SECAPs

Recommended National Sustainable Urban and Energy Savings Actions

Legal and regulatory framework measures
- Implement a stable regulatory framework that provides financial support to the development of Renewable Energy in Palestine
- Provide financing and fiscal incentives and mechanisms to support RE investment
- Further diversify the existing power sources, in line with the national strategy
- Assign the Energy Conservation and Renewable Energy Unit in municipalities to run a sustainable energy applications awareness campaigns
- Strengthen the relationship with local energy research centers and global institutions
- Implement short term energy saving actions as part of municipal projects
- Establish the strategic planning unit, comprising technical expertise from different municipal departments, to design projects in perspective of the energy issues and prepare project proposals on the basis of sustainability for donor grants’ awards

Financing measures
- Assign a COM supporter per region who can provide LAs with related technical assistance and funding facilitation
- Make systematic the funding of projects through MDLF as linked to SSM
- Enhance the role of Electricity Distribution campaigns as part of the operations of SEAPs Support Mechanism.
- Set a central system to act as a resource mobilization and distribution for municipalities
- Provide systematic donor’s support facility to finance SECAPs and priority actions
- Develop technical capacity to finance municipal projects
Global Strategy of the SEAP

The target of the SEAP implementation is to reduce energy consumption and GHG emissions by 20% in the Municipality by 2020, compared to the business as usual scenario and using the 2014 baseline.

The SEAP strategy is structured around two levels: Reduce energy consumption in all sectors through energy conservation and efficiency (EE), towards providing better services while reducing costs and impacts; and promote energy production from locally available (RE) resources in order to cover, as much as possible, energy needs from decarbonized sources.

Emphasis is to be put on information and awareness raising actions to support the above actions and as a factor of change towards energy consumption reduction and production of local renewable energy by all actors, stakeholders and in multiple sectors.

In accordance with national policy, the SEAP proposes the following strategic objectives:

- Reinforce, integrate and promote EE in municipal properties and public infrastructure and in housing-construction projects:
  - Implicate territorial actors in the promotion of EE and RE and develop partnerships to support the implementation of the SEAPs.
  - Inform the public about the true cost of energy and about the SEAP's EE and RE incentives and initiatives.
  - Reduce energy needs during peak periods by managing electricity demand and by changing energy and gas consumption behaviours and habits.
  - Coordinate with the government on the national strategy and EE and RE action plan, as well as on the review of the municipal sustainable energy action plan.

Moreover, Hebron Municipality plans to work on two different scopes:

1. Municipality buildings and services, directly controlled by the Municipal Council:
   - Street lighting;
   - Water delivery;
   - Water and waste water treatment;
   - Solid waste management;
   - Other services and long-term responsibility;
   - Awareness campaign.

2. Actions within the territorial limits of Hebron area, including:

Overall results of the Baseline Emissions Inventory (BEI)

- **Consuming Sectors**: The transport sector contributes the most with an overall consumption of 40%, followed by the residential sector with 33% of the total energy consumptions, the industrial sector (16%) and tertiary (10%).

- **Emitting Sectors**: Transport and the residential sector are equally contributing with 25% each, followed by industry (19%) and waste (17%). These sectors contributing the most in the greenhouse gas emissions are therefore the main areas where actions should be realized.

- **Municipal assets’ emissions**: Waste contributes the most (90%) in the municipal sector’s emissions. Not taking them into consideration and focusing on the rest of the municipal consumptions, the municipal lighting is responsible for more than 50% of the sector’s emissions, with municipal buildings contributing with another 25%. It is along these axes that the municipality can implement exemplary actions in terms of GHG emission reduction.

Actions and results

- While several actions can only be approximated, the implementation of all actions is possible to achieve by 2020 a 20.0% reduction in GHG emissions compared to the baseline scenario.

- Total emissions avoided based alone on the actions included in the plan are 231,954 t CO2 eq / year.

SEAP Priority projects and costs in Euros

<table>
<thead>
<tr>
<th>Baakline</th>
<th>Cost (Euros)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitor and Regulate the water Supply (comprehensive system)</td>
<td>1,396,000</td>
</tr>
<tr>
<td>Support the implementation of the sorting from source for the solid waste by purchasing New Fuel Saving Truck for Solid Waste Collection</td>
<td>3,490,000</td>
</tr>
<tr>
<td>Smart city with intelligent public street lighting</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Green Building enhance and motivate the installation of solar water heater in residential sector and promote green behaviour in tertiary sector</td>
<td>270,000</td>
</tr>
<tr>
<td>Increase the capacity of parking area</td>
<td>2,000,000</td>
</tr>
</tbody>
</table>
Global Strategy of the SEAP

The SEAP work plan results in a 20% GHG emission cut compared to the BAU scenario, whereby GHG emission would reach 493,814 tCO2eq/year.

Nablus Municipality developed a Strategic Road Map for 2012-2015 based on the vision of a city described as: “Capital of Economy, Incubator of Education, Symbol of Steadfastness, and Address of Authenticity”. The strategic plan addresses issues interacting with the energy sector (e.g. transportation and road safety infrastructure and water management). The SEAP of Nablus builds on the Strategic Road Map and directly addresses energy consumption and supply. The complementarity of the Road Map and the SEAP is sought which made the SEAP an even more important tool to strengthen the energy-related urban strategy.

Nablus Municipality vision will be realized through the SEAP by working towards five strategic objectives: Improve and promote energy efficiency; Increase the amount of energy produced from sustainable and renewable sources; Promote sustainable construction and projects; Engage and inspire the community to meet the challenges of climate change; and Adapt to and manage the effects of climate change at municipal level.

The first priority of the Municipality Council is to act – as first step forward – within its direct perimeter of responsibility: that is municipal buildings and services. It is only by being exemplary on its own perimeter that the Municipality will be able to assure mobilization of all stakeholders, inviting them to reduce their energy consumption and contribute to the development of renewable energy, showing the municipal exemplary action. This direct involvement by acting on its own perimeter constitutes an opportunity for the municipality to experiment its actions, assess results and impacts, in order to design more appropriate and adapted approaches that could be then proposed and promoted to the citizens, the companies, the local groups who will be invited to take part in the aimed energy transition.

Nablus Municipality plans to work on two different scopes:

1. Municipality buildings and services, directly controlled by the Municipal Council:
   - Street lighting;
   - Water delivery;
   - Waste water treatment;
   - Solid waste management;
   - Other services and long term projects (Municipal fleet, public procurement policy, sustainable urban planning, skills and expertise development);
   - Awareness raising campaigns.

2. Activities within the whole of Nablus area covering:
   - Residential, Transport, Energy, Agriculture and Forestry, as well as energy supply and renewable energy applications.

Overall results of the Baseline Emissions Inventory (BEI)

- **Consuming Sectors**: The transport sector contributes the most with an overall consumption of 40%, followed by the residential sector with 34% of the total energy consumptions.
- **Emitting Sectors**: The emissions are mostly equally shared between transport (24%), the residential sector (23%) and waste treatment (22%). The tertiary buildings also contribute with another 16%. These sectors are therefore the main areas where actions should be realized.
- **Municipal assets’ emissions**: Waste contributes the most (71%) in the municipal sector’s emissions. Not taking them into consideration and focusing on the rest of the municipal consumptions, the water management contributes with 63%, the municipal buildings are responsible for almost 22% of the sector’s emissions, while the municipal lighting is contributing with another 14%. It is along these axes that the municipality can implement exemplary actions in terms of GHG emission reduction.

Actions and results

- While several actions can only be approximated, the implementation of all actions is possible to achieve by 2020 a 20.0% reduction in GHG emissions compared to the baseline scenario.
- Total emissions avoided based alone on the actions included in the plan are 493,814 t CO2 eq / year.

SEAP Priority projects and costs in Euros

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Cost (Euros)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street lighting efficiency improvement</td>
<td>400,000</td>
</tr>
<tr>
<td>Environmental public awareness unit</td>
<td>160,000</td>
</tr>
<tr>
<td>Urban mobility master plan</td>
<td>300,000</td>
</tr>
<tr>
<td>Development of solar PV production on public buildings</td>
<td>10,000,000</td>
</tr>
<tr>
<td>Solar PV Development revolving fund</td>
<td>1,000,000</td>
</tr>
</tbody>
</table>
Global Strategy of the SEAP

The SEAP work plan results in a 20% GHG emission cut compared to the BAU scenario where GHG emission would reach 237,545 tCO2eq/year.

For Tulkarem municipality, the SEAP constitutes a tool to implement the objectives of the municipal strategy as well as those of the national strategy. The municipal strategy, thus the SEAP’s is structured around two levels (i) Reduce energy consumption in all sectors through energy conservation and efficiency, and (ii) Promote energy production from locally available renewable resources, all with emphasis on information and awareness raising actions towards energy consumption reduction and increased production local renewable energy by all actors and in multiple sectors.

Establishing the conditions that would assure success of the SEAP is taken into full consideration, including: involving local officials, reflecting the BEI results in the planned actions, creating a Municipal Sustainable Energy Unit to manage the SEAP, follow EE and RE regulations and policy, allocate necessary budgets, inform, educate and train municipal employees, create relevant partnerships, raise complementary funds; and develop public private partnerships (PPP).

In accordance with national policy, the SEAP proposes the following strategic objectives:

- Reinforce, integrate and promote EE in municipal properties, public infrastructure and in housing construction projects
- Implicate territorial actors to promote EE and RE, develop partnerships, provide communication and awareness raising, inform about the true cost of energy and about EE and RE incentives and initiatives.
- Reduce energy needs during peak periods by managing electricity demand and by changing energy and gas consumption behaviors and habits
- Coordinate with the government on the national strategy and EE and RE Action Plan, as well as on the review of the municipal sustainable energy action plan.

Tulkarem Municipality plans to work on two different scopes:

1. Municipality buildings and services, directly controlled by the Municipal Council:
   - Municipal buildings;
   - Street lighting;
   - Water distribution and treatment;
   - Solid waste management;
   - Waste to Energy
   - Other services and long-term responsibility;
   - Awareness raising campaigns.

2. Action plan for Tulkarem urban area:
   - Residential and tertiary buildings, Transport, Industry, Agriculture and Forestry.

Overall results of the Baseline Emissions Inventory (BEI)

- Consuming Sectors: The residential sector contributes the most with an overall consumption of 44%, followed by the transport sector with 40% of the total energy consumptions, the tertiary sector (7%) and industry (6%).
- Emitting Sectors: The residential sector is contributing with 35%, followed by waste (26%) and transport (22%). These sectors contributing the most in the greenhouse gas emissions are therefore the main areas where actions should be realized.
- Municipal assets’ emissions: Waste contributes the most (84%) in the municipal sector’s emissions. Not taking them into consideration and focusing on the rest of the municipal consumptions, the municipal lighting is responsible for almost 35% of the sector’s emissions, followed closely by water facilities (34%), while the municipal buildings are contributing with another 23%. It is along these axes that the municipality can implement exemplary actions in terms of GHG emission reduction.

Actions and results

- While several actions can only be approximated, the implementation of all actions is possible to achieve by 2020 a 20.0% reduction in GHG emissions compared to the baseline scenario.
- Total emissions avoided based alone on the actions included in the plan are 237.545 t CO2 eq / year.

SEAP Priority projects and costs in Euros

<table>
<thead>
<tr>
<th>Tulkarem</th>
<th>41,650,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street lighting efficiency improvement</td>
<td>400,000</td>
</tr>
<tr>
<td>Car park in the city (in three phases)</td>
<td>12,100,000</td>
</tr>
<tr>
<td>Electric grid Improvement (in four phases)</td>
<td>20,150,000</td>
</tr>
<tr>
<td>Solar PV in municipal buildings (in three phases)</td>
<td>8,000,000</td>
</tr>
<tr>
<td>Solar PV development revolving fund</td>
<td>1,000,000</td>
</tr>
</tbody>
</table>
Partner cities that have prepared SEAPs
- Sousse, Sousse Governorate
- Sfax, Sfax Governorate
- Kairouan, Kairouan Governorate

National partners
Members of the "National Coordination Group"
- Ministry of Industry, Energy, Mining and Renewable Energy (ANME)
- Agence nationale pour la maîtrise de l'énergie (ANME), National Focal Point and Coordinator of the SEAPs and the SSM
- Ministry of Local Affairs and the Environment, Directorate General of Local Government (DGCPL)
- Ministry of Development, Investment and International Cooperation

CES-MED actions and progress
- One national report "Institutional and Regulatory Analysis for the Development of Energy Efficiency and Renewable Energies at the local level" prepared
- One national report: "Analysis of Energy Efficiency and Renewable Energies financing sources in local authorities"
- One joint training workshop held in each city on "Identifying Sustainable Energy Needs".
- One joint training workshop held in Sousse on the design of a SEAP
- One joint training for the preparation of BEI held in Sfax
- BEIs conducted and a SEAP finalized for three cities following an on-the-job-training approach along the preparation
- Development of a portfolio of set priority action fiches in each of the participating cities.
- One Joint workshop held in Tunis for communication and awareness raising
- Study for the establishment of the SEAPs National Support Mechanism (SSM) and the Energy Audits in coordination with ANME, CDPC and DGCPL.
- Study for a book of procedures for the implementation of communal actions with the Alliance of Communes for the Energy Transition (ACTE).
- One National Conference held in Tunis on the SECAPs and the Covenant of Mayors
- One training of trainers’ workshop on BEI and SECAPs
- One general training workshop held per region for the communes: “Introducing the SEAP and the SECAP: Planning for Sustainable Energy Actions in the Tunisian communes"
- Annual National Coordination Group meeting held, next to the regular consultations with key national authorities.

- Expertise engaged to identify funding and consolidate the National Support Unit for SECAPs
- CES-MED Help Desk assistance: Provides municipalities with information, manuals and support related to their adhesion to CoM, as well as the necessary support in the design and implementation of their SECAPs
- One training workshop for the launch of 10 new SECAPs in Sousse
- Expertise engaged to help financing of priority Action Fiches and to consolidate the National Unit for SECAPs support
- Plan the preparation of the 10 new SECAPs

Recommended National Sustainable Urban and Energy Savings Actions

Legal and regulatory framework measures.
- Supporting the preparation and implementation of the SEAPs
  - Create, in each municipality, an Information Point on Sustainable Energy
  - Create, in each municipality, an Energy Efficiency Committee
  - Prepare a Training Plan for municipal officials on Sustainable Energy
- Specific actions
  - Public lighting
  - Generalization of Urban Mobility Plans (PDU) in Tunisian cities

Financing measures
- Strengthen local community officers capacity in urban planning, fundraising, implementation and monitoring and evaluation of local projects
- Support exchange of experiences between local authorities in the field of Sustainable Energies and SEAPs funding
- Create a National Committee for Financing Sustainable Energy Projects (ACTE)
- Promote twinning projects
Global Strategy of the SEAP

As a signatory to the Convention of Mayors and in the preparation of the SEAP, the municipality aims to achieve three main objectives:

- Define a model of low carbon urban development that would improve the quality of life of its inhabitants. The SEAP will help achieve this objective through the integration of sustainable development issues into long-term urban planning.
- Understanding and managing the city energy bill. The energy survey carried out as part of preparations for the BEI provided an analysis of the main energy consumption points. Through this analysis it will be possible to target those areas that consume the most energy in the Action Plan.
- Making economic and tourism development adhere to a low-energy approach. The SEAP will strengthen the historic and social characteristics of the city through a sustainable approach applied when preparing for future development programs.

The SEAP will help reach this objective by establishing a strategic framework for the future development of municipal policies that are closely linked to the issues of energy and climate. It will allow the implementation of specific action plans to help the city reach its mitigation objectives as part of the CoM and to build momentum between the various stakeholders of Action Plan projects.

The proposed Action Plan is split into two types of action. The first group focuses on raising awareness and communication while the second is concentrated on direct action to reduce emissions (known as “techniques”) built itself around the following areas of intervention:

- General actions;
- Municipal buildings and facilities;
- Public lighting;
- Municipal vehicle fleet;
- Residential housing;
- Tertiary sector;
- Industrial activities;
- Transport:
  - These techniques were calculated based on their cost and the energy saved/emissions avoided. A provisional implementation time frame was also suggested. This work will eventually contribute to achieving the 2020 goal of a 20% reduction in emissions.
  - Communications and awareness work has, where possible, been taken into consideration in the action plan figures.

Overall results of the Baseline Emissions Inventory (BEI)

- **Consuming Sectors**: The transport sector represents more than half of the energy consumption in the municipality (54%), in second and third place are housing and industry.
- **Emitting Sectors**: Transport (46%), housing (26%), and industry (13%) are the sectors that produce the most GHG emissions and are, as a result, the focus of any action.
- **Municipal assets’ emissions**: Public lighting is responsible for more than 65% of the emissions coming from municipal assets.

**Actions and results**

- At times “standalone” actions are difficult to measure, but by implementing a full set of actions it will be possible to reach the 2020 target of reducing GHG emissions by 20.2% compared with current trends.
- Total emissions avoided without taking into consideration any secondary effects (only the actions that are found in the action plan) correspond to 81,284 t CO2 eq/year.

**SEAP Priority projects and costs in Euros**

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Cost (in Euros)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct an energy audit of municipal buildings and implement recommendations</td>
<td>58 000</td>
</tr>
<tr>
<td>Modernization of public lighting</td>
<td>1 240 000</td>
</tr>
<tr>
<td>Optimization of the management and use of the municipal fleet</td>
<td>145 000</td>
</tr>
<tr>
<td>Perform a study, develop a PDU and implement a system of TCSP</td>
<td>100 270 000</td>
</tr>
<tr>
<td>Establishment of a 2 MW photovoltaic plant (municipal buildings)</td>
<td>3 200 000</td>
</tr>
</tbody>
</table>
Global Strategy of the SEAP

Through the SEAP, the city of Sfax aims to continue building on efforts already undertaken to boost sustainable development and make the city a model for the rest of the country. The SEAP will help reach this objective by establishing a strategic framework for the future development of municipal policies that are closely linked to the issues of energy and climate. It will allow the implementation of specific action plans to help the city reach its mitigation objectives as part of the CoM and to build momentum between the various stakeholders of Action Plan projects.

As part of the CoM, the city of Sfax has committed itself to a 20% reduction in emissions by 2020. Through its SEAP, the city hopes to strengthen its sustainable development vision that began back in 2013 when it carried out a Carbon Assessment of the Greater Sfax area. In particular the SEAP aims to continue and further clarify the actions identified as part of the Carbon Assessment. It will then build the abilities of municipal teams to intervene through partnerships with all public and private actors.

The Action Plan which is proposed is split into two types of interventions. The first group focuses on raising awareness and communication, while the second is concentrated on direct action to reduce emissions (known as “techniques”), built itself around the following areas of intervention:

- Municipal buildings and facilities;
- Municipal lighting;
- Municipal vehicle fleet;
- Tertiary Sector;
- Residential;
- Transport;
- Industrial activities.

These “techniques” were calculated in terms of the energy saved/emissions avoided, as well as in terms of cost. A provisional implementation schedule was also proposed. In the long term these actions will help to reach the objective of a 20% reduction in emissions by 2020 compared with current data.

Communication and awareness work has been taken into consideration in the action plan figures.

Overall results of the Baseline Emissions Inventory (BEI)

- **Consuming Sectors**: The transport sector represents less than half of the energy consumption in the municipality (49%), in second and third place are industry and housing.
- ** Emitting Sectors**: Transport (41%), industry (30%), and housing (13%) are the sectors that produce the most GHG emissions and are, as a result, the focus of any action.
- **Municipal assets’ emissions**: Public lighting is responsible for more than 65% of the emissions coming from municipal assets.

Actions and results

- At times “standalone” actions are difficult to measure, but by implementing a full set of actions it will be possible to reach the 2020 target of reducing GHG emissions by 20.0% compared with current trends.
- Total emissions avoided without taking into consideration any secondary effects (only the actions that are found in the action plan) correspond to 257,129 t CO2 eq/year.

SEAP Priority projects and costs in euro

<table>
<thead>
<tr>
<th>Sfax Priority</th>
<th>Cost in Euro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implement the recommendations of the energy audit of municipal buildings</td>
<td>125 200</td>
</tr>
<tr>
<td>Modernization of public lighting</td>
<td>3 535 000</td>
</tr>
<tr>
<td>Promote / encourage the use of photovoltaic systems in industry</td>
<td>30 000 000</td>
</tr>
<tr>
<td>Development of the Taparura site. The rehabilitation and decontamination costs in the area amounted to 86.86 million euros. The cost of construction work in the area is not yet known but they should represent several hundred million Dinars.</td>
<td>Not specified</td>
</tr>
<tr>
<td>Optimizing the management and use of the vehicle fleet</td>
<td>149 000</td>
</tr>
</tbody>
</table>
Global Strategy of the SEAP

Through the SEAP, the municipality of Sousse aims to protect its “natural capital” and become a sustainable and attractive city for its inhabitants and tourists.

The SEAP will help reach this objective by establishing a strategic framework for the future development of municipal policies that are closely linked to the issues of energy and climate. It will allow the implementation of specific action plans to help the city reach its mitigation objectives as part of the CoM and to build momentum between the various stakeholders of Action Plan projects.

As part of the CoM, the city of Sousse has committed itself to a 20% reduction in emissions by 2020. This is, however, an ambitious commitment considering demographic growth, the area’s economic momentum and the short time frame compared with the baseline year.

The coordination of activities linked to the SEAP and the implementation of the action plan could be jointly guaranteed by the Works Department and the Department of Hygiene, Health and the Environment. These Departments could make use of other municipal services as needed to manage the implementation of actions, monitoring of techniques and the updating of the GHG inventory.

The Action Plan which is proposed is split into two types of action. The first group focuses on raising awareness and communication while the second is concentrated on direct actions to reduce emissions (known as “techniques”) which are themselves built around the following areas of intervention:

- General actions
- Municipal buildings and facilities
- Municipal lighting
- Tertiary sector
- Industrial activities
- Transport

These “techniques” were calculated in terms of the energy saved/emissions avoided, as well as in terms of cost. A provisional implementation schedule was also proposed. In the long term these actions will help to reach the objective of a 20% reduction in emissions by 2020.

- The communication and awareness work has, where possible, been taken into consideration in the action plan.

Overall results of the Baseline Emissions Inventory (BEI)

- Consuming Sectors: The transport sector represents less than half of the energy consumption in the municipality (44%), in second and third place are housing and industry.
- Emitting Sectors: Transport (34%), industry (25%), and housing (25%) are the sectors that produce the most GHG emissions and are, as a result, the focus of any action.
- Municipal assets’ emissions: Public lighting and the municipal fleet of vehicles are each responsible for 45% of the emissions coming from municipal assets.

Actions and results

- At times “standalone” actions are difficult to measure, but by implementing a full set of actions it will be possible to reach the 2020 target of reducing GHG emissions by 20.15% compared with current trends.
- Total emissions avoided without taking into consideration any secondary effects (only the actions that are found in the action plan) correspond to 168,012 t CO2 eq/year.

SEAP Priority projects and costs in Euros

<table>
<thead>
<tr>
<th>Sousse</th>
<th>11 455 940</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct an energy audit of municipal buildings and put in place recommendations</td>
<td>92 000</td>
</tr>
<tr>
<td>Design the new Town Hall of Sousse as an energy neutral building (BEPOS)</td>
<td>5 000 000</td>
</tr>
<tr>
<td>Modernization of public lighting</td>
<td>5 810 000</td>
</tr>
<tr>
<td>Optimizing the management and use of the transport fleet</td>
<td>145 000</td>
</tr>
<tr>
<td>Implementation of ANME recommendations and program contracts (STT)</td>
<td>408 940</td>
</tr>
</tbody>
</table>
The Covenant of Mayors

From CoM to GCoM

The global dimension of the CoM was first introduced through the establishment of Covenant of Mayors for East Europe (CoM EAST), as well as through the CES-MED project for Maghreb and Mashreq Mediterranean countries, since early 2013.

A new and integrated Global Covenant of Mayors for Climate and Energy, or (GCoM) was launched in 2015 to extend the scope of the initial CoM, introducing the following three major principles:

- Further expanding the global dimension of the CoM initiative;
- Setting a 40% reduction target by the 2030, to be reflected in a Sustainable Energy and Climate Action Plan (SECAP), which is a variation of the SEAP;
- Integrating adaptation and mitigation in the local authorities’ actions.

GCoM and COM-MED

Linked to GCoM, the official establishing of a CoM-MED initiative for ENPI South countries is envisaged to accommodate the special conditions and needs. Through CoM-MED, the emission reduction target is either 40% by 2030 or alternatively would be the target set in the INDC or national target per country.

CoM and the role of CES-MED

From the initiation of CES-MED, the CoM initiative and preparation of SEAPs/SECAPs in the South Mediterranean region has been booming:

- So far 62 municipalities have adhered to CoM, including Amman and Ramallah which joined GCoM. Some 130 cities have declared that they are planning to join, and interest is rising among regions, associations of cities and union of municipalities.
- CES-MED has thus reached out to a great number of LAs, initiating the preparation of SEAPs /SECAPs and promoting CoM by constantly providing training, training of trainers, coaching, technical assistance, capacity building seminars, and preparation manuals (in English, Arabic and French).
- So far, 100 cities have been trained and are engaged independently in the preparation of SECAPs; they have requested to receive CES-MED like support to join CoM and to prepare their plans.
Why join the CoM

The benefits of joining the initiative, and the reason behind the increasing pace of municipalities joining, include the following:

- Visibility at the local level as pioneer towards sustainable development and high international recognition.
- Better financial opportunities for your local climate and energy projects.
- Innovative ways to network, exchange experiences and build capacity through events, twinning, webinars or online discussions.
- Practical support (helpdesk), guidance material and tools.
- Quick access to “excellence know-how” and inspiring case studies.
- Credible commitments through progress review and monitoring.
- Facilitated self-assessment and peer-to-peer exchange through common monitoring and reporting template.
- Flexible reference framework for action, adaptable to local needs.
- Opportunity to contribute to shaping the EU’s climate and energy policy.
- Enhanced cooperation and support from national and sub-national authorities.

Municipalities do not have any financial obligation against joining the CoM. The only obligation they have is to:

- Submit a SECAP for 2030, two years following their adhesion.
- Submit monitoring reports, every two years, on the progress realized with the implementation of climate and energy actions.

Using INDC Targets to Join CoM

All countries have submitted to the Conference of Parties (COP) their Intended Nationally Determined Contributions (INDCs) Target. These are classified into two categories:

- INDC Unconditional Target, which the country will aim as a minimum target by 2030, based on its own resources.
- INDC Conditional Target: which the country will aim as a minimum target by 2030, provided that international financial support will be granted.

For the ENPI South countries, including CES-MED countries, there is the possibility of utilizing the INDC targets as 2030 commitment to join the Covenant of Mayors.

The CES-MED cities

Cities applied so far to the CoM, and two to the Global CoM

155 Municipalities on the list

for a 20% or 40% CO₂ Reduction

23 SEAPs

5 SECAPs prepared

100 cities trained towards preparing SECAPs
<table>
<thead>
<tr>
<th>Acronyms</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADEME</td>
<td>French Environment and Energy Management Agency</td>
</tr>
<tr>
<td>ADEREÉ</td>
<td>Agence nationale pour le développement des énergies renouvelables et de l’efficacité énergétique</td>
</tr>
<tr>
<td>AFD</td>
<td>Agence Française de développement</td>
</tr>
<tr>
<td>ANME</td>
<td>Agence Nationale pour la maîtrise de l’énergie</td>
</tr>
<tr>
<td>APC</td>
<td>Assemblée populaire communale</td>
</tr>
<tr>
<td>APRUE</td>
<td>Agence nationale pour la promotion et la rationalisation de l’utilisation de l’énergie</td>
</tr>
<tr>
<td>ASEZA</td>
<td>Aqaba Special Economic Zone Authority</td>
</tr>
<tr>
<td>BAU</td>
<td>Business-As-Usual</td>
</tr>
<tr>
<td>BEECs</td>
<td>Energy Efficiency Codes for industrial buildings</td>
</tr>
<tr>
<td>BEI</td>
<td>Baseline Emissions Inventory</td>
</tr>
<tr>
<td>CAPP</td>
<td>Community Awareness and Promotion Plan</td>
</tr>
<tr>
<td>CAS</td>
<td>Central Administration for Statistics</td>
</tr>
<tr>
<td>CES-MED</td>
<td>Cleaner Energy Saving Mediterranean Cities</td>
</tr>
<tr>
<td>GCoM</td>
<td>Global Covenant of Mayors for Climate and Energy</td>
</tr>
<tr>
<td>CoM-MED</td>
<td>Covenant of mayors for the Mediterranean</td>
</tr>
<tr>
<td>COP</td>
<td>Conference of the Parties to the United Nations Framework Convention on Climate Change</td>
</tr>
<tr>
<td>DGCL</td>
<td>Direction générale des collectivités urbaines</td>
</tr>
<tr>
<td>DGCPFL</td>
<td>Direction générale des collectivités publiques locales</td>
</tr>
<tr>
<td>EE</td>
<td>Energy Efficiency</td>
</tr>
<tr>
<td>EFU</td>
<td>Energy Efficiency Unit</td>
</tr>
<tr>
<td>EIA</td>
<td>Environmental Impact Assessment</td>
</tr>
<tr>
<td>EIB</td>
<td>European Investment Bank</td>
</tr>
<tr>
<td>ENP</td>
<td>European Neighbourhood Policy</td>
</tr>
<tr>
<td>ENPI</td>
<td>European Neighbourhood and Partnership Instrument</td>
</tr>
<tr>
<td>ESCO</td>
<td>Energy Service Companies</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>FEC</td>
<td>Communal Equipment Fund</td>
</tr>
<tr>
<td>FP</td>
<td>Focal Point</td>
</tr>
<tr>
<td>GHG</td>
<td>Green House Gas</td>
</tr>
<tr>
<td>GWh</td>
<td>Gigawatt hour</td>
</tr>
<tr>
<td>IEC</td>
<td>Israel Electric Company</td>
</tr>
<tr>
<td>IFI</td>
<td>International Finance Institution</td>
</tr>
<tr>
<td>ILO</td>
<td>United Nation’s International Labour Organization</td>
</tr>
<tr>
<td>INDCs</td>
<td>Intended Nationally Determined Contributions</td>
</tr>
<tr>
<td>JRC</td>
<td>Joint Research Centre</td>
</tr>
<tr>
<td>LAs</td>
<td>Local Authorities</td>
</tr>
<tr>
<td>LGBC</td>
<td>Lebanese Green Building Council</td>
</tr>
<tr>
<td>MDFL</td>
<td>Municipal Development and Fund Lending</td>
</tr>
<tr>
<td>MDLF – MLG</td>
<td>Municipal Development and Lending Fund</td>
</tr>
<tr>
<td>MEMEE</td>
<td>Ministry of Energy, Mines, Water and Environment</td>
</tr>
<tr>
<td>MEWR</td>
<td>Energy and Conservation Department</td>
</tr>
<tr>
<td>MLG</td>
<td>Ministry of Local Government</td>
</tr>
<tr>
<td>MoEMR</td>
<td>Ministry of Energy and Mineral Resources</td>
</tr>
<tr>
<td>MoENV</td>
<td>Ministry of Environment</td>
</tr>
<tr>
<td>MoERE</td>
<td>Egypt: Ministry of Electricity and Renewable Energy</td>
</tr>
<tr>
<td>MoEW</td>
<td>Ministry of Energy and Water</td>
</tr>
<tr>
<td>MoLD</td>
<td>Ministry of Local Development</td>
</tr>
<tr>
<td>MV</td>
<td>Medium-voltage networks</td>
</tr>
<tr>
<td>MW</td>
<td>Megawatt</td>
</tr>
<tr>
<td>MWp</td>
<td>Megawatt peak</td>
</tr>
<tr>
<td>NAs</td>
<td>National Authorities</td>
</tr>
<tr>
<td>NCG</td>
<td>National Coordination Group</td>
</tr>
<tr>
<td>NREAP</td>
<td>National Renewable Energy Action Plan</td>
</tr>
<tr>
<td>NSP</td>
<td>National Sharing Platform</td>
</tr>
<tr>
<td>PERC</td>
<td>Palestinian Energy Research Centre</td>
</tr>
<tr>
<td>PPP</td>
<td>Public private partnerships</td>
</tr>
<tr>
<td>PV</td>
<td>Photovoltaics</td>
</tr>
<tr>
<td>RCREEE</td>
<td>Regional Centre for Renewable Energy and Energy Efficiency</td>
</tr>
<tr>
<td>RE</td>
<td>Renewable Energy</td>
</tr>
<tr>
<td>RES</td>
<td>Renewable Energy Systems</td>
</tr>
<tr>
<td>RVA</td>
<td>Risk and Vulnerability Assessment</td>
</tr>
<tr>
<td>SEAP</td>
<td>Sustainable Energy Action Plan</td>
</tr>
<tr>
<td>SECAP</td>
<td>Sustainable Energy and Climate Action Plan</td>
</tr>
<tr>
<td>SSEU</td>
<td>Strategic Sustainable Energy Unit</td>
</tr>
<tr>
<td>SSM SEAP</td>
<td>Support Mechanism</td>
</tr>
<tr>
<td>STS</td>
<td>Société de transport du Sahel</td>
</tr>
<tr>
<td>tCO2 eq/tCO2</td>
<td>Tonnes of carbon dioxide equivalent</td>
</tr>
<tr>
<td>UfM</td>
<td>Union for the Mediterranean</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
</tr>
<tr>
<td>UoLA</td>
<td>Union of Local Authorities</td>
</tr>
<tr>
<td>UPFI</td>
<td>Urban Projects Finance Initiative</td>
</tr>
<tr>
<td>WB</td>
<td>World Bank</td>
</tr>
</tbody>
</table>