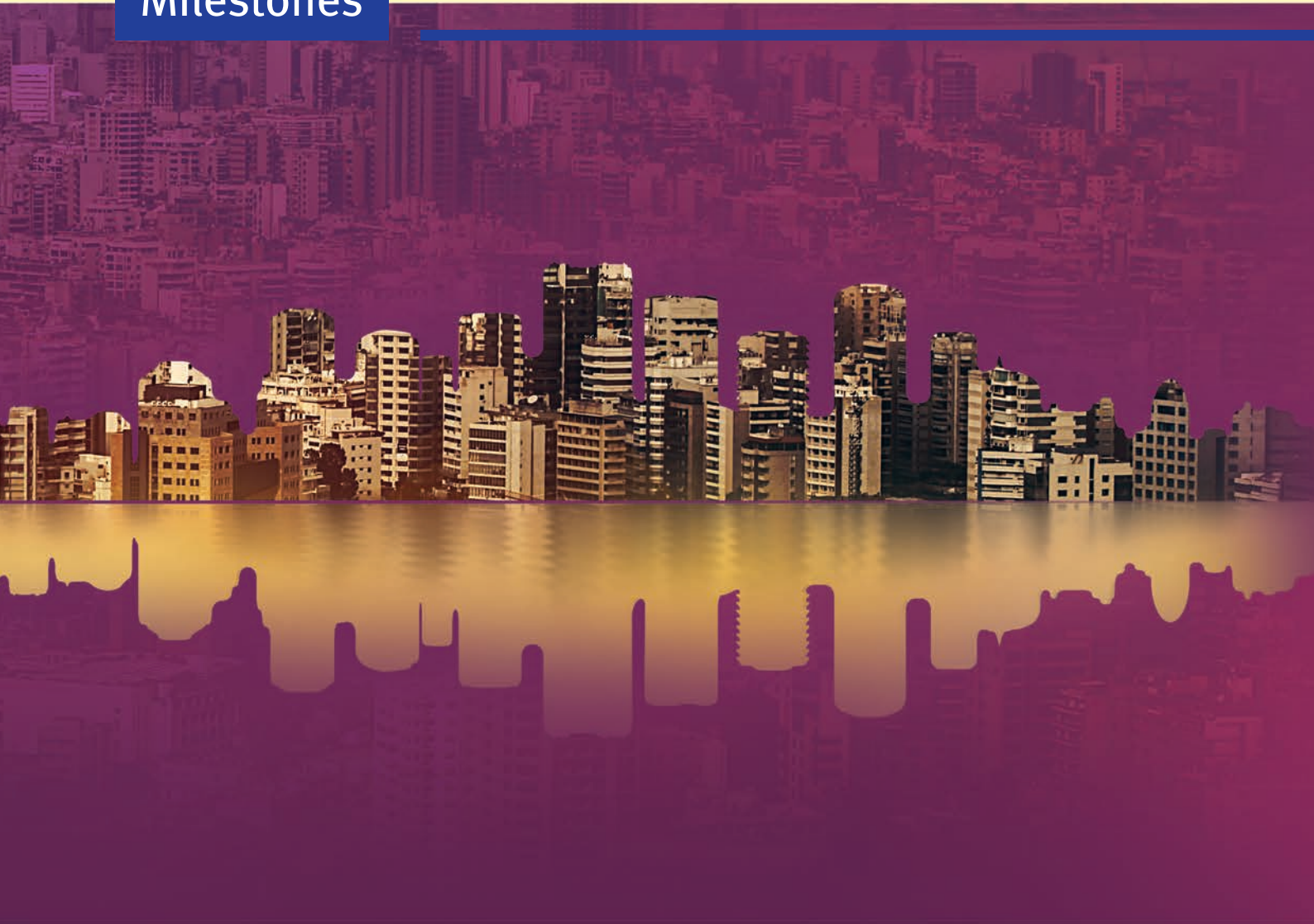


CES-MED

CLEANER ENERGY SAVING MEDITERRANEAN CITIES

A leap forward to sustainable Energy Cities

Milestones



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*A digital copy of this report along with supporting appendices are available on the project website: **www.ces-med.eu***

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CLEANER ENERGY SAVING MEDITERRANEAN CITIES

A leap forward to
sustainable Energy Cities

Milestones



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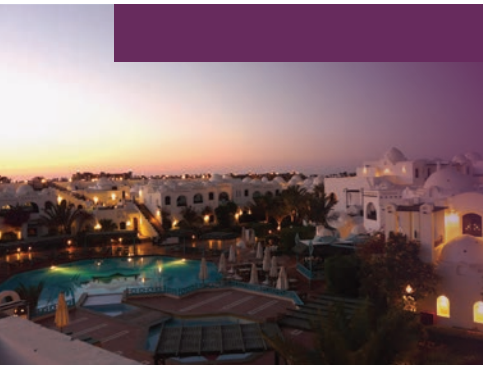


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Chapter 01

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. Following the mobilisation 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 ad-hoc 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 Governorates in Egypt and three Libyan cities (who joined briefly prior to the deterioration of the security situation and subsequent terminating 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 have benefited from overall 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:

- **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 decentralised 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 decentralisation 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 CES-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 Sustainable Energy Action Plans SEAPs 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.

In the second phase of the project and prior to its closing stage, the “National Reports” will be revised to update the needs and recommendations. This process will emphasis identifying and sustaining CES-MED’s results through the establishment of SEAP Support Mechanism (SSM) in each country. This SSM will discuss further systematic funding processes and continuing CES-MED.

- **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 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 as a manual 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 more are now being 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 should be approved by the city’s municipal or local council.

A SEAP 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 funding sources; and detailing of awareness actions to support the applica-



tion of the city’s strategy and vision as well as to support the implementation of the Priority Projects.

The replicable SEAPs, next to the National Reports and the Info Kit manuals are the core – and not the only – deliverables of the Project. Those Deliverables are usable as effective tools to improve policies and systemise the preparation and financing of SEAPs 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 SEAP. 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 SEAP as an on-the-job training or a learn-while-you-do exercise. The objective of such an approach is to ensure the municipality – through its participatory involvement in the preparation of the SEAPs – 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 is complying with relevant national strategies and regulations.
- **Community Awareness and Promotion Planning (CAPP).** Awareness raising activities have been integrated as a major part of CES-MED actions at all levels, considering that:

- The core role of CES-MED is to raise awareness of the global importance of Sustainable Energy, decentralisation 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 decentralisation;
- 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; 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 regards 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). In this context, an important task of the Help Desk is to guide and coach 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 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 SEAPs 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 (SSM) per country. The Mechanisms are fully developed and approved by the NCGs and aim to institute, prescribe, and make systematic the preparation of SEAPs, with the support of central authorities. The SSMs define a sequence of 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 SEAPs’ projects, CES-MED has regularly informed national and international financing agencies and development organisations of cities’ progress in preparing plans and their readiness to receive funding.

CES-MED has actively shared the SEAPs’ “Project Fiches” as most fundable projects, as from those, a pipeline of bankable projects is being developed and will be promoted for financing by IFIs. The holding of funding roundtables is also envisaged. The newly identified financing possibilities will be included in the foreseen updates of the countries’ National Recommendations Reports.



Development and the Leap Forward

In the second phase of the Project, our objective is to assure that the project 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 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 them prepare SEAPs by themselves. Support that allows them to engage in sustainable development plans and join the CoM or other similar initiatives.

CES-MED technical assistance in its final year is focussing on the exit strategy by further consolidating the SSMs. The SSMs will take the lead upon the termination of CES-MED in replicating its technical assistance action. Next to this, priority is given to providing extensive trainings; conducting pilot demonstration awareness raising events; and defining the best ways to fund projects prescribed in the SEAPs. Trainings, which are tailored to the needs of each country, are already being conducted, importance given to cutting-edge training of trainers both for technical preparation of SEAPs, for project formulation, funding and the preparation of community and awareness raising plans.

Adapting and following new CoM and requirements from SEAP to SECAP. Since 2009 onwards, some 6,500 local authorities have already committed to the 2020 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 Sustainable Energy and Climate Action Plans (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 are being addressed by CES-MED, currently supporting the preparation of five SECAPs for Egyptian and Jordanian cities who were the last to affiliate to the project. 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 JRC is undertaking the revision of the SEAP Guidelines into the SECAP Guidelines, which will be then uploaded to the CES-MED website.

Chapter 02

Algeria

Population: 39.67 million
Surface: 2,381,740 km²



Partner cities that prepared a SEAP

- Sidi Bel Abbès, Wilaya of Sidi Bel Abbès
- Batna, Wilaya of Batna
- Boumerdès, Wilaya of Boumerdès

National Partners

Members of CES-MED "National Coordination Group"

- Ministry of Foreign Affairs, CES-MED National Focal Point
- Ministry of Energy, Agence pour la promotion, la Rationalisation de l'Utilisation de l'Energie APRUE, CES-MED Technical Focal Point and SEAP Coordinator
- Ministry of Interior: Direction générale des autorités locale (DGCL)
- Ministry of Housing, of Planning and the City

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 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 in each city
- One training workshop on the methods of Baseline Emission Inventory (BEI) held in each city
- One common training workshop "Method of preparation of BEI" held for all cities in Boumerdès
- BEI conducted and a SEAP finalized for three cities following an on-the-job-training approach along the preparation
- A set of Project Action Fiches was prepared in each city
- One common workshop held in Algiers for communication and awareness raising training
- National SEAP Support Mechanism and support to energy audits set under the leadership of the APRUE and DGCL
- One National Conference held in Algiers to announce the SEAP Support Mechanism and promote the SEAP and the CoM
- One Training of Trainers workshop held in Algiers: "Technical Steps for The Preparation of SECAPs"
- One National Municipal Training workshop planned: "Introducing the SEAP and SECAP: "Planning For Sustainable Energy For Cities and Municipalities"
- Financial expertise engaged to finance Actions Fiches and to consolidate the National Support Mechanism
- Annual National Coordination Group meeting held, next to regular consultations with key national authorities

- 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

Recommended National Sustainable Urban and Energy Savings Actions

Legal and regulatory framework measures

- Take measures for the development and implementation of SEAPs
- Develop a strategy for the development of SEAP at local level
- Assure application of thermal regulations
- Provide training of national authorities' actors and national operators
- Consolidate coordination and networking
- Design and conduct communication and citizens' awareness raising actions

Priority Actions for the Communes

- Conduct inventories of the Commune's properties and assets towards a sustainable energy management
- Improve the energy efficiency of infrastructures, systems and equipment
- Apply energy efficiency for public and residential lighting
- Undertake actions in favour of sustainable transport
- Raise awareness about EE and RE
- Develop RE solutions
- Improve solid waste management

Financing measures

Facilitate access to 140 existing sources of funding for projects:

- Initiate information campaigns for the benefit of municipalities and companies
- Ensure the provision of training on Project Financing and Energy Audit
- Create 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
- Training of Communes' leaders on the preparation of action plans and BEIs

Algeria

Batna

A Clean & Green City

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_{eq}CO₂/year.**

SEAP Priority projects and costs in Euros

Batna	1,052,849
Optimising energy efficiency for public lighting by installing an integrated lighting management system.	158,333
Pilot project for two existing schools in the area (Energy control and RE/Awareness)	193,183
Pilot project for two existing mosques in the area (Energy control and RE)	188,000
Putting into motion the "Sustainable building construction" program at a local level	333,333
Locating a pilot industrial zone where we may implement our sustainable energy program	180,000

Algeria

Boumerdès

A Green, Welcoming Eco-city

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 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 action 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_{eq}CO₂/year.**

SEAP Priority projects and costs in Euros

Boumerdès	779,165
New generation of public lighting in a pilot neighbourhood	116,666
Pilot project involving two schools in the area (Energy control and RE/Awareness)	166,166
Sustainable building program at a local level (in the social and private domain)	100,000
Strategy and cooperation with tourism actors	270,833
Becoming a city dedicated to clean tourism	125,500

Algeria

Sidi Bel Abbès

A Green, Clean and Safe City

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_{eq}CO₂/year.**

SEAP Priority projects and costs in Euros

Sidi Bel Abbès	1,228,847
Pilot project for schools (Energy control and RE/Awareness)	203,850
Pilot project for mosques (Energy control and RE/Awareness)	146,666
Development of a SUSTAINABLE LOCAL building program	266,666
Strategic plan to develop cycling	441,665
Locating a pilot industrial zone where we can implement our sustainable energy program	170,000

Egypt

Population: 91.50 million
Surface: 1,001,450 km²

Partner cities that prepared a SEAP

- 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 Electricity, representation in the Governorates
- Ministry of Local Development, representation in the Governorates
- Ministry of Municipal Affairs, representation in the Governorates
- Ministry of Environment, representation in the Governorates

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
- Consultants to prepare the SECAP selected

Planned activities to start in November 2016

- One training workshop on the methods of Baseline Emission Inventory (BEI) in each city
- BEI and a SECAP preparation for three cities following an on-the-job-training approach along the preparation and expected to be finalized by end of April 2017
- National SEAP Support Mechanism set up
- One Training of Trainers workshop: "Technical Steps for The Preparation of SECAPs"
- One National Municipal Training workshop: "Introducing The SEAP and SECAP: Planning For Sustainable Energy For Cities and Municipalities"
- Help-Desk assistance

Recommended National Sustainable Urban and Energy Savings Actions

Legal and regulatory framework measures

- Governorates need support, budget, knowledge management, enhancing skills and know-how as well as capacity building and training
- The institutional set-up of the two selected governorates (municipalities) in its current structure needs technical support to clarify responsibility of the planning of Sustainable Energy
- Establish a Strategic Sustainable Energy Unit (SSEU) or Energy Efficiency Unit (EFU) at the Governorate level with a trained Manager or an officer is vital to accomplish SEAPs (SECAPs)

- Governorates (Municipalities) can initiate additional taxes in coordination with Ministry of Electricity and Renewable Energy (MoERE) and Ministry of Local Development (MoLD) related to encouragement of implementation energy saving measures for the mentioned sectors.
- Governorates are recommended to engage in Public Private Partnership agreements and/or start a company (or joint venture), for the purpose of RE; and EE
- Governorates (municipalities) are recommended to develop national procurement regulations to include energy performance criteria.

Sectoral recommendations

Facilitate access to 140 existing sources of funding for projects:

- On the transport side, the legal framework is not yet developed in a sustainable and clean energy that reflects the energy saving ambition of Government of Egypt. Thus it is recommended to develop a new transport strategy, including energy conservation and clean transport solutions;
- Since the Governorate of Luxor has almost one-fifth of the world's heritage sites and monuments, air and water pollution from traffic and transport (land and water), mainly CO₂ should be reduced in order to mitigate its negative (direct and indirect) impacts - with time on heritage sites and monuments. SEAPs (SECAPs) can develop plans and projects to assist in reducing such negative impacts;
- The procurement regulations should be aligned with energy and regulations including energy performance criteria and to be supported by Donors to upgrade the Governmental and industrial buildings Energy Efficiency Codes (BEECs);
- Develop a business plan that supports solar, wind or waste to energy projects, since the new electricity law governing the sale of electricity generated from RE is enacted and in operation;
- Initiate energy audits in government buildings
- The impact from the nearby agricultural farms closer to heritage sites and monuments can affect these sites. Hence, SEAPs (SECAPs) can apply plans to reduce waste through recycling (waste-to-energy), underground water migration, and CO₂ capturing projects: Tourism, Antiquities, and Heritage sites;
- The urban development closer to registered heritage sites and monuments casts pollution from construction and negative impacts on these heritage sites. Hence, SEAPs (SECAPs) can assist in developing plans to reduce such negative impacts;
- Since the Governorate of Red Sea is a touristic hub and encompasses many hotels and resorts; thus, SEAPs (SECAPs) can develop plans and projects to assist in transferring these hotels and resorts to be smart, green, and sustainable.

Egypt

Luxor Governorate

Red Sea Governorate

Luxor Governorate occupies 2959 Km² (pop. 1,3 million) of which about 800 km² are classified as “inhabited” areas. The Capital City Luxor is located 760 Km south of Cairo on both banks of the Nile. Like the Governorate of Red Sea, the SEAP preparation is challenging, considering the many complex elements to take into account:

- The extended size of the area, which comprises agriculture zones, touristic facilities, the Nile river, rural areas, extended desert and one of the most unique and largest historical world heritage site.
- Threatening conditions to historic heritage: Luxor comprise antiquities’ sites and monuments among the most unique in the world. They are subjected to decay and even destruction from over visitation and close proximity to inhabited areas. One of the related energy solutions is to use RE and EE in lighting historic sites and museums, adapt transportation for mass tourism using buses to control high polluting effects on the living and antiquities environment
- The docking of hundreds of cruise-ships along the banks of the Nile in the city, the fact that they use diesel fuel, and continuously keep their engines turning is a major source of threat both to people and to the monuments.
- The lack of comprehensive plans to manage the very extended World Heritage site of the West bank of the Nile.

The Red Sea Governorate occupies 203,683 km², an area equivalent to more than fifth of Egypt’s surface (pop. 337,050). It extends from Suez city, south of the Suez Canal, along the Gulf of Suez down till the Sudanese-Egyptian borders. and westward bordering upper Egypt Governorates. The SEAP preparation is challenging, considering the complex elements that will be taken into account:

- The extended size of the area covered by the SECAPs: The governorate comprises industrial zones, touristic cities, seaports, remote rural areas and extended international maritime and land borders, including the existence of very concentrated tourism facilities both in cities and in linear coastal gated resorts.
- The fragility of natural environment: The Red Sea exhibits a very rich coastal zone and marine life that is under threat from intrusive construction of tourism facilities, landfilling of coral plateau, invasive diving and anchoring and pollution from fossil fuel use.
- The impact of sizable future plans for industrial and tourism developments
- The rapid expansion of the capital Hurghada which, since the 1980s, has grown from small fishing villages to internationally renowned resort and now counts 180,000 inhabitants, with a significant number of hotels and touristic attractions.
- Bedouin communities and villages scattered and lacking necessary services in the extreme south of the governorate.



Israel

Population: 8.38 million
Surface: 22,070 km²

Partner cities that prepared a SEAP

- Rosh Ha’ayin, District Centre
- Shefa ‘Amr, District North
- Ramla, District Centre

National Partners

Members of CES-MED “National Coordination Group”

- Ministry of National Infrastructures, Energy and Water Resources (MEWR), CES-MED National Focal Point and Leader of SEAP Support Mechanism
- Mashav Programmes, Ministry of National Infrastructures, Energy and Water Resources and Union of Municipalities

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
- A set of Project Action fiches was prepared for each city
- National SEAP Support Mechanism set under the leadership of the MEWR
- One National Conference held to announce the SEAP Support Mechanism and promote the SEAP and the CoM
- One Training of Trainers workshop planned: “Technical Steps for the Preparation of SECAPs”
- One National Municipal Training workshop planned: “Introducing the SEAP and SECAP: Planning For Sustainable Energy For Cities and Municipalities”
- Financial expertise engaged to assist in financing priority Actions Fiches and update National Reports
- Annual National Coordination Group meeting held, next to continuous consultations with key national authorities.
- 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

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

Israel

Ramla

It's our responsibility
to become greener

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 intends to continuously work 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 tCO₂e / year.

SEAP Priority projects and costs in Euros

Ramla	4,608,950
Upgrading of the municipal buildings' AC facilities	950,000
Use of cool colours in municipal roofs	71,500
Campaign for old ACs, lamps and fridges substitution	857,000
The 10% voluntary commitment campaign	130,950
Cycling promotion and creation of related infrastructure	2,600,000

Israel

Rosh HaAyin

Life is good when
the Heart is green!

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 tn CO₂ by 2020, which is 20% of the municipality's BAU total emissions.

- The Municipality of Rosh HaAyin plans to improve 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 shall be 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 tCO₂e / year.

SEAP Priority projects and costs in Euros

Rosh HaAyin	17,011,500
Awareness raising campaigns to reduce the amounts of discarded food	47,600
Municipal Lighting System Upgrade	2,271,500
Promotion of Green buildings' concept	59,500
Seminars for professional groups	142,900
Cycling promotion and creation of related infrastructure	14,490,000

Israel

Shfar'Am

Let's make it cleaner and greener!

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 tn 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 lately 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 tCO₂e / year

SEAP Priority projects and costs in Euros

Shfar'Am	4,105,000
Promotion of Recycling	262,000
Municipal Lighting System Upgrade	1,237,000
The 10% Voluntary commitment at the residential sector	107,000
Women groups on energy efficiency	119,000
Improvement/development of Parking Infrastructure	2,380,000

Jordan

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
- Ministry of Energy and Mineral Resources, Energy Efficiency department
- 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 SEAPs" held in each city
- One training workshop on the methods of Baseline Emission Inventory (BEI) held in each city
- BEI and a SECAP preparation ongoing for three cities following an on-the-job-training approach along the preparation and expected to be finalized by end of April 2017
- National SEAP Support Mechanism planned
- National Conference is foreseen to announce the SEAP Support Mechanism and promote the SEAP and the CoM
- One Training of Trainers workshop planned: "Technical Steps for the Preparation of SECAPs"
- One National Municipal Training workshop planned: "Introducing the SEAP and SECAP: Planning For Sustainable Energy For Cities and Municipalities"
- Annual National Coordination Group meeting held, next to ongoing consultations with key national authorities
- Financial expertise engaged to finance Actions Fiches and to consolidate the National Support Mechanism
- Annual National Coordination Group meeting held, next to continuous consultations with key national authorities

- 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

Recommended National Sustainable Urban and Energy Savings Actions

Legal and regulatory framework measures

- Include development of municipal SEAP in the NEEAP update and NREAP
- Include in regulations updates in actions to support Municipal SEAP development.
- Streamline procedures for energy (supply) projects, make them transparent and inform municipalities about them
- Integrate flexibility in municipality budgeting to assign funds for human resources and energy saving measures following a 'light procedure
- Create investor awareness for Energy Efficiency and Renewable Energy to be integrated in new urban projects

Institutional framework

- Assign responsible person/staff or entity to coordinate and support SECAP preparation for municipalities; and within municipalities
- Provide utilities to issue transparent electricity bills (transparent) electricity bills
- Facilitate distribution to allow access to grid
- Assign a CoM coordinator to support municipalities
- 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), could provide the opportunity to function as a 'hub' for private sector, interested in developing sustainable energy projects and municipalities planning to include such projects in their SEAP.

Jordan

Aqaba

Irbid

Karak

The preparation of the SECAP for Aqaba Municipality is in the making in collaboration with the municipality and Aqaba Special Economic Zone Authority (ASEZA). Key objectives are to convert Aqaba city into a Sustainable Zone and the raise the tourist attractiveness, considering the existence of unique world heritage site "Petra" and adjacent historical sites.

The SECAP will be in line and complement 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 under-preparation SEAP is to reduce the Carbon footprint of the city by 5% by 2020 (short term target), and 15% by 2030 (long term target). Importance is given to collaboration with various actors and integrating the following projects planned by ASEZA:

- Solar Street Lighting
- Energy Efficient and Street Lighting applications
- Energy Efficiency Measures in Household Sector
- Wheeling PV plants
- Green Buildings Initiatives in the Municipality Buildings
- Smarter Transportation System
- Eco-tourism, creation of Eco-Park, adapted lightening of archaeological sites

Irbid also started developing their SECAP during the second semester of 2016. Its anticipated target is to reduce the Carbon footprint of the city by 5% by 2020 (short term), and 15% by 2030 (long term) through developing multi-potential projects, in close collaboration of local, national and international actors. Anticipated projects include:

- Solar Street Lighting
- Energy Efficient Street Lighting
- Energy Efficiency Measures in Household Sector
- Wheeling PV plants (16 MWp is under progress) to fully cover the city's demand
- Electricity Generation from Waste Energy (Bio-gas)
- Green Buildings Initiatives in the Municipality Buildings

The SECAP will be in line and complement the Local Development Economical Strategy of Irbid (developed jointly by ILO) and ongoing and future physical plans, including the creation of Irbid Development Area (IDA) (a 3,2 Km2 development area, located 20 km east of Irbid city and 80 km north of Amman); and Local Economic Development Plans for Irbid (and Mafraq), aiming at boosting business growth and employment in northern Jordan, which came as 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.

Karak municipality also intends 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 seeking the preparation of 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 will be in 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 5% by 2020 (short target), and 14% by 2030 (long target) through developing projects in the following areas:

- Solar Street Lighting and Energy Efficient Street Lighting
- Energy Efficiency Measures in Household Sector
- Wheeling PV plants (8 MWp is under progress)
- Electricity Generation from Waste Energy

Lebanon

Population: 5.85 million
Surface: 10,450 km²

Partner cities that prepared a SEAP

- Ashkout, 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" reports 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
- A set of Project Action Fiches was prepared in each city
- One workshop held in for communication and awareness raising training for each municipality
- 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 Training of Trainers workshop held: "Technical Steps for The Preparation of SECAPs"
- One National Municipal Training workshop held: "Introducing The SEAP and SECAP: Planning For Sustainable Energy For Cities and Municipalities"
- 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

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 bank.



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.

Lebanon

Achkout

Global Strategy of the SEAP

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 tCO₂e / year.**

Lebanon

Baakline

Towards a Smart Sustainable City, leading change into Chouf Souayjani region

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 liveable, 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 s of CO₂ emission,
- Making sustainable energy policy a key activities of the local authority.

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

- Municipality buildings/equipment/facilities;
- Drinking Water;
- Public Street Lighting;

- 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 tCO₂e / year.**

SEAP Priority projects and costs in Euros

Baakline	8,156,000
Monitor and Regulate the water Supply (comprehensive system)	1,396,000
Support the implementation of the sorting from source for the solid waste by Purchasing New Fuel Saving Truck for Solid Waste Collection	3,490,000
Smart city with intelligent public street lighting	1,000,000
Green Building enhance and motivate the installation of solar water heater in residential sector and promote green behaviour in tertiary sector	270,000
Increase the capacity of parking area	2,000,000

Lebanon

Beirut

Get smart,
live better Beirut

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.

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 tCO₂e / year.**

SEAP Priority projects and costs in Euros

Beirut	76,360,000
Building Capacity of the newly created SEAP UNIT	2,000,000
Solid Waste Management - Sustainable solutions for solid waste management	9,100,000
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"	61,140,000
Awareness raising towards Changing Behaviour: Concentrate on Energy Conservation and RE usage:	2,120,000
Master plan for smart transportation	2,000,000

Lebanon

Kab Elias

A pilot
green city

Global Strategy of the SEAP

The target of the SEAP's implementation is to mitigate carbon emission by 26% with a total reduction of 17,269t 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 liveable 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 tCO₂e / year.**

SEAP Priority projects and costs in Euros

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

Lebanon

Menjez

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 tCO₂e / year.**

Morocco

Population: 34.37 million
Surface: 446,550 km²

Partner cities that prepared a SEAP

- Agadir, Agadir-Souss Region
- Benslimane, Benslimane Province
- Oujda, Oriental Region

National Partners

Members of CES-MED "National Coordination Group"

- **Ministry of Energy, Mines, Water and Environment (MEMEE)**, Directorate of Observation, Cooperation and Communication - National Focal Point and SEAP Support Mechanism Coordinator
- **Ministry of Interior, General Directorate of local government (DGCL)**
- **Communal Equipment Fund (FEC)**
- **Ministry of Housing, Planning and the City.**

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
- BEI conducted and a SEAP finalized for three cities following an on-the-job-training approach along the preparation
- One training workshop on the methods of Baseline Emission Inventory (BEI) held in each city
- One workshop held in for communication and awareness raising training for each municipality
- A set of Project Action Fiches was prepared in each city
- National SEAP Support Mechanism set under the leadership of the MEMEE
- One National Conferences held in Rabat to announce the SEAP Support Mechanism and promote the SEAP and the CoM
- One Training of Trainers workshop planned: "Technical Steps for the Preparation of SECAPs"
- One National Municipal Training workshop planned: "Introducing the SEAP and SEACP: "Planning For Sustainable Energy For Cities and Municipalities".
- Financial expertise engaged to finance Actions Fiches and to consolidate the National Support Mechanism
- Annual National Coordination Group meeting held, next to regular consultations with key national authorities
- 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

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 sustainable development principles
 - Adequate financial resources for the implementation of the legal regulatory framework
 - Set a National technical support system for energy development et local level
- Renewable Energies
 - Empowering local authorities to produce and market the electricity produced from Renewable Energy Systems (RES)
 - Allow connection to medium-voltage networks (MV) and low voltage (BT)
- Energy Efficiency
 - Integrate EE standards in public procurement and institutionalize technical assistance to municipalities;
 - Establish support mechanisms and incentives for the application of EE standards.

National support for the preparation and implementation of the SEAPs

- Political engagement of the State to support cities; Establishing a communal energy certification label
- Make systematic data collection, BEI and Energy Audits
- Make systematic the preparation of SEAPs, ensuring its alignment to national requirements, follow-up, monitoring and adjustment

Funding measures

- For the International Funding Institutions, International Cooperation agencies and donors
 - Restructure the investment projects to support local authorities
 - Facilitate bank credits in favour of projects promoting "high climate or energy value"
 - Support small and medium-sized communes and/or for small-scale projects
- For the Moroccan public institutions
 - Establish a platform for the collection of information related to funds and funding mechanisms
 - Create a National Financial Support Mechanism to conduct energy and climate actions
 - Provide technical assistance to community project leaders.
- For the territorial authorities
 - Strengthen the commitment of prefectures and regions
 - Integration of the SEAP in the next generation of Community Development Plans (PCD) 2017-2023.

Morocco

Agadir

A Sustainable City in the Making

Global Strategy of the SEAP

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 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. 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 AUC.
- Establishing the leading role of the AUC 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 AUC.

- 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 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 teqCO₂/year.

SEAP Priority projects and costs in Euros

Agadir	12,532,800
Recuperating and marketing biogas	2,110,000
Modernising the management of public lighting across the Urban municipal area of Agadir	10,200,000
Souk El Had: Producing solar energy (RE) to supply the souk	222,800

Morocco

Benslimane

The Green Heart of the Region

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 BUC 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 BUC, 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 BUC skills in diagnostic solution, public policy and intervention;
- Affirming the leading role of the BUC in the municipal area to allow local teams to intervene on all of the GHG-producing activities and industries.

This wish, on the one hand, requires 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 BUC;
- Guaranteeing the energy efficiency of BUC 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 teqCO₂/year.

SEAP Priority projects and costs in Euros

Benslimane	1,280,000
Modernising the management of public lighting across the urban municipality	680,000
Collecting biogas and selling the extra energy: Producing electricity from the used water of the STEP	600,000

Morocco

Oujda

Greater Oujda
2020

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 municipality 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. 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 municipality 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 municipal area;
- Knowing, managing and mobilising potential renewable energy sources or energy recuperation methods;
- Involving all actors across the municipal 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 there is 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_{eqCO₂}/year.**

SEAP Priority projects and costs in Euros

Agadir	4,406,000
Creating a municipal information centre, in Oujda, for training and communication (CIFCC)	585,000
Solar powered lighting on the Bnidrar-Oujda route in the Municipality of Oujda: Installation of an automatic system of solar powered lighting	1,640,000
Improving traffic flow: Putting in place a system to automatically regulate traffic light systems	165,000
Exploiting energy in Ben Kachour: Studying the geo-thermal potential of sources in Ben Kachour	130,000
Green electricity project in Oujda (PEVO-I): Decentralised production of green electricity from a photovoltaic power station located on 8,000 m ² of the landfill site	1,886,000

Palestine

Population: 4.17 million
Surface: 6,220 km²

Partner cities that prepared a SEAP

- **Hebron**, Hebron Governorate
- **Nablus**, Nablus Governorate
- **Tulkarem**, Tulkarem Governorate Centre

National Partners

Members of CES-MED “National Coordination Group”

- **Ministry of Local Government (MLG)** – CES-MED National Focal Point
- **Municipal Development and Lending Fund (MDLF - MLG)**
- **Palestinian Energy Research Center.**

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
- National SEAP Support Mechanism set under the leadership of the Ministry of Local Government with the support of MDLF
- One common workshop held in for communication and awareness raising training for all municipalities
- One National Conference planned to announce the SEAP Support Mechanism and promote the SEAP and the CoM
- One Training of Trainers workshop planned: “Technical Steps for The Preparation of SECAPs”
- One National Municipal Training workshop planned: “Introducing The SEAP and SECAP: “Planning For Sustainable Energy For Cities and Municipalities”
- Annual 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

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

Palestine

Hebron

A Participative and Economically Performing City

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:

- Residential, Transport, Energy, Agriculture and forestry, Energy supply and Renewable Energy Development.

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 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 231.954 tCO₂e / year.**

SEAP Priority projects and costs in Euros

Hebron	11,070,000
Street lighting Efficiency improvement	400,000
Restructuration of Water Distribution	150,000
Water Recuperation and Local Development	160,000
Waste to Energy Strategy	200,000
Environmental Public Awareness Unit	160,000
Development of solar PV production on public buildings and public spaces	10,000,000

Palestine

Nablus

Inspiring the community towards improving energy efficiency

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 tCO₂e/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 realised 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 mobilisation 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 tCO₂e / year.**

SEAP Priority projects and costs in Euros

Nablus	11,860,000
Street lighting efficiency improvement	400,000
Environmental public awareness unit	160,000
Urban mobility master plan	300,000
Development of solar PV production on public buildings	10,000,000
Solar PV Development revolving fund	1,000,000

Palestine

Tulkarem

Performing a Better Energy Efficiency Management

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 tCO₂e/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 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.

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;

- Other services and long term responsibility;
- Awareness raising campaigns.

2 Action plan for Tulkarem's 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 tCO₂e / year.**

SEAP Priority projects and costs in Euros

Tulkarem	41,650,000
Street lighting efficiency improvement	400,000
Car park in the city	12,100,000
Electric grid Improvement	20,150,000
Solar PV In municipal buildings	8,000,000
Solar PV development revolving fund	1,000,000

Tunisia

Population: 11.11 million
Surface: 163,610 km²

Partner cities that prepared a SEAP

- Sousse, Sousse Governorate
- Sfax, Sfax Governorate
- Kairouan, Kairouan Governorate

National Partners

Members of CES-MED "National Coordination Group"

- **Ministry of Industry, Energy and Commerce** – CES-MED National Focal Point
- **Agence Nationale de la Maîtrise de l'Energie** – ANME – SEAP Coordinator and SEAP Support Mechanism Leader
- **Ministry of Interior**, Directorate of local government (DGCPL)
- **Ministry of Development, Investment and International Cooperation**

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" prepared
- One training workshop "Sustainable Energy Needs Assessment" held in each city
- One joint training workshop "Support cities/municipalities with the design of their SEAPs" held in Sousse
- One joint training for the preparation of BEI held in Sfax
- BEI conducted and a SEAP finalized for three cities following an on-the-job-training approach along the preparation
- A set of Project Action Fiches was prepared in each city
- National SEAP Support Mechanism set under the leadership of the ANME
- One National Conference held in Tunis to announce the SEAP Support Mechanism and promote the SEAP and the CoM
- One Training of Trainers workshop planned: "Technical Steps for the Preparation of SECAPs"
- One National Municipal Training workshop planned: "Introducing the SEAP and SEACP: "Planning For Sustainable Energy For Cities and Municipalities".
- Financial expertise engaged to finance Actions Fiches and to consolidate the National Support Mechanism
- Annual National Coordination Group meeting held, next to regular consultations with key national authorities
- 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

Recommended National Sustainable Urban and Energy Savings Actions

Legal and regulatory framework measures

Supporting the preparation and implementation of the SEAPs.

- Horizontal actions
 - 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
 - Setup a system for thermal regulation of buildings,
 - Certification of household appliances
 - Public lighting
 - Urban transport Plan (PDU)
 - Engine diagnosis
 - Establish and support a program for the dissemination of a solar technology (thermal and photovoltaic)



Sectoral recommendations

- Strengthen the capacities of local authorities' officials in urban planning, funding, and the implementation and monitoring of local projects
- Organise a national conference of local authorities for the development of sustainable energies
- Encourage the exchange of experience between local authorities in the field of sustainable energies
- Increase exchange of experiences in financing SEAPs
- Create a national committee for the funding of sustainable energy projects
- Promote twinning projects

Tunisia

Kairouan

Modernisation Through Renewable Energy

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 Action Plan proposed 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") itself built around the following avenues 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 teqCO₂/year.**



SEAP Priority projects and costs in Euros

Kairouan	104,913,000
Carrying out an energy audit for municipal buildings and putting in place recommendations	58,000
Modernising public lighting	1,240,000
Optimising the management and use of the Kairouan municipal vehicle fleet	145,000
Creating an Urban Transport Plan and developing a system of Bus lanes	100,270,000
Putting in place a 2 MW photovoltaic system (municipal buildings)	3,200,000

Tunisia

Sfax

A Model Mobilised City

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 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"), itself built around the following avenues 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 teqCO₂/year.**

SEAP Priority projects and costs in Euros

Sfax	33,809,200
Implementing the recommendations from the energy audit of municipal buildings	125,200
Modernising public lighting	3,535,000
Promoting/Encouraging the use of photovoltaic systems in industry	30,000,000
Developing the Taparura site. The cost of redevelopment works and clean-up operations in the area is to the order of EUR 86.86 million. The cost of construction works in the area is not yet known but should be around several hundred million Dinars.	Not specified
Optimising the management and use of the vehicle fleet	149,000

Tunisia

Sousse

An Attractive & Sustainable City

Global Strategy of the SEAP

Through the SEAP, 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 avenues 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 there 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_{eq}CO₂/year.**

SEAP Priority projects and costs in Euros

Sousse	11,455,940
Carrying out an energy audit on municipal buildings and implementing the recommendations	92,000
Designing the new City Hall of the Sousse Municipality as an Energy Plus Building	5,000,000
Modernising public lighting	5,810,000
Optimising the management and use of the vehicle fleet	145,000
Implementing the recommendations and program contracts from the National Agency for Energy Efficiency or NAEF (STS)	408,940

Chapter 03

The Covenant of Mayors



Covenant of Mayors
for Climate & Energy

The CoM

The Covenant of Mayors or CoM (www.covenantofmayors.eu) is an EU funded initiative to bring together local and regional authorities voluntarily committed to implementing EU climate and energy objectives on their territory.

Since its launching in 2008, some 7000 cities, municipalities and regions have committed to the 2020's CO₂ reduction objective set by the CoM initiative, and to preparing and implementing a comprehensive Sustainable Energy Action Plan (SEAP) that sets methodology and concrete projects to reach this target.

From CoM to CoM-GLOBAL

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

A “New and integrated Covenant of Mayors for Climate and Energy” or CoM Global 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.

CoM Global and COM-MED

Linked to CoM Global, the 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 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 in the South Mediterranean region has been booming:

- From 23 cities, who have been directly assisted by CES-MED to prepare SEAPs (selected from a longer list of candidates), 18 have produced SEAPs (and 5 are now preparing them). From the 18, 15 have joined and 9 have submitted SEAPs so far. The rest is joining gradually.
- CES-MED has reached out to a greater number of municipalities, initiating SEAPs and promoting CoM by constantly providing training, technical assistance, capacity building seminars, help desk services and SEAP preparation manuals (in English, Arabic and French).
- Another 44 cities have either applied to CoM or/and are engaged in the preparation of SEAPs, and more than 100 have requested to receive further support from the CES-MED, to join CoM and/or to prepare SEAPs.

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 Sustainable Energy and Climate Action Plan (SE-CAP) 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.

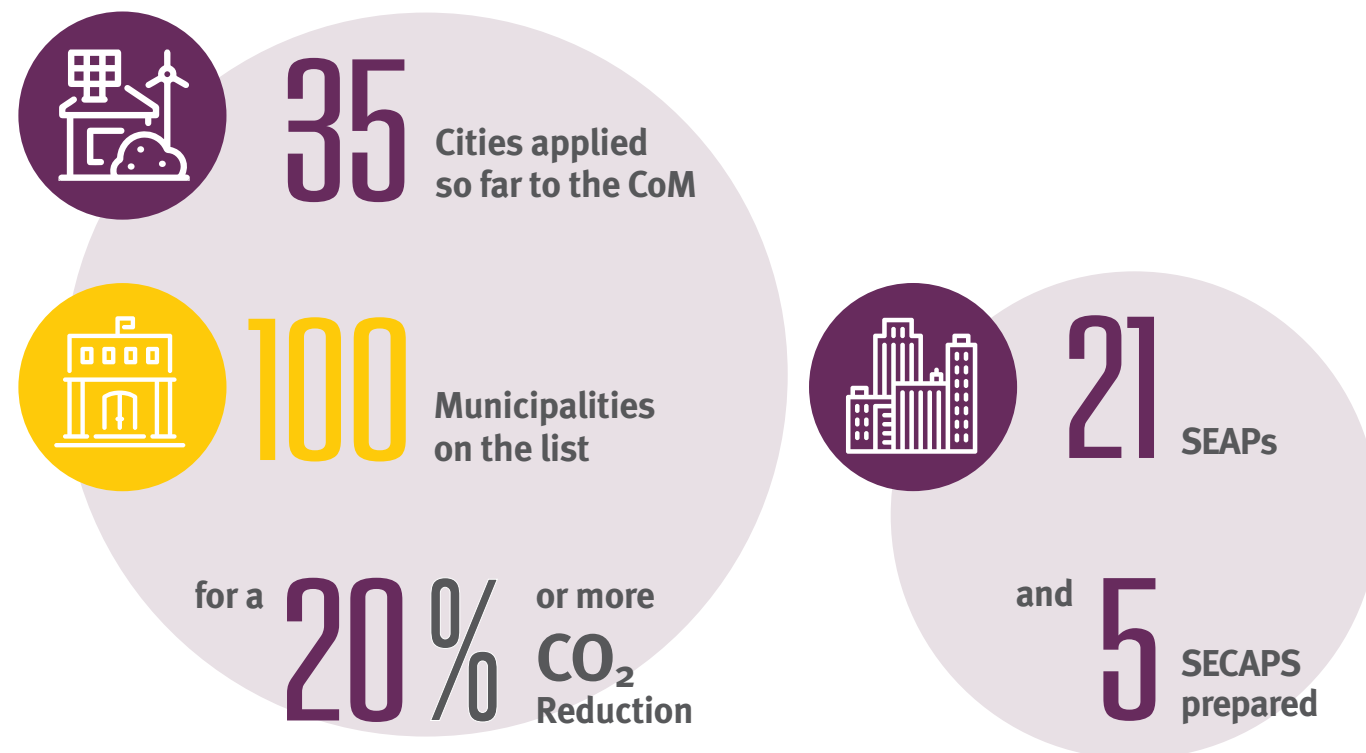
Using INDC Targets to Join CoM

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

- INDC Unconditional Target, which the country will undertake as a minimum target by 2030, based on its own resources.
- INDC Conditional Target: which the country will undertake 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



Acronyms

ADEME French Environment and Energy Management Agency
ADEREE Agence nationale pour le développement des énergies renouvelables et de l'efficacité énergétique
AFD Agence Française de développement
ANME Agence Nationale pour la maîtrise de l'énergie
APC Assemblée populaire communale
APRUE Agence nationale pour la promotion et la rationalisation de l'utilisation de l'énergie
ASEZA Aqaba Special Economic Zone Authority
BAU Business-As-Usual
BEECs Energy Efficiency Codes for industrial buildings
BEI Baseline Emissions Inventory
CAPP Community Awareness and Promotion Plan
CAS Central Administration for Statistics
CES-MED: Cleaner Energy Saving Mediterranean Cities
CoM-GLOBAL New and integrated Covenant of Mayors for Climate and Energy
CoM-MED: Covenant of mayors for the Mediterranean
COP: Conference of the Parties to the United Nations Framework Convention on Climate Change
DGCL Direction générale des collectivités locales
DGCPL Direction générale des collectivités publiques locales
EE: Energy Efficiency
EFU: Energy Efficiency Unit
EIA Environmental Impact Assessment
EIB European Investment Bank
ENP European Neighbourhood Policy
ENPI European Neighbourhood and Partnership Instrument
ESCO Energy Service Companies
EU European Union
FEC: Communal Equipment Fund
FP: Focal Point
GHG Green House Gas
GWh Gigawatt hour
IEC Israel Electric Company
IFI International Finance Institution
ILO: United Nation's International Labour Organization
INDCs Intended Nationally Determined Contributions
JRC Joint Research Centre

LAs Local Authorities
LGBC Lebanese Green Building Council
MDFL Municipal Development and Fund Lending
MDLF – MLG Municipal Development and Lending Fund
MEME Ministry of Energy, Mines, Water and Environment
MEWR: Energy and Conservation Department
MLG Ministry of Local Government
MoEMR Ministry of Energy and Mineral Resources
MoENV Ministry of Environment
MoERE, Egypt: Ministry of Electricity and Renewable Energy
MoEW Ministry of Energy and Water
MoLD Ministry of Local Development
MV Medium-voltage networks
MW Megawatt
MWp Megawatt peak
NAs National Authorities
NCG National Coordination Group
NREAP National Renewable Energy Action Plan
NSP National Sharing Platform
PERC Palestinian Energy Research Centre
PPP Public private partnerships
PV Photovoltaics
RCREEE Regional Centre for Renewable Energy and Energy Efficiency
RE Renewable Energy
RES Renewable Energy Systems
RVA Risk and Vulnerability Assessment
SEAP Sustainable Energy Action Plan
SECAP Sustainable Energy and Climate Action Plan
SSEU Strategic Sustainable Energy Unit
SSM SEAP Support Mechanism
STS Société de transport du Sahel
tCO₂/teqCO₂: Tonnes of carbon dioxide equivalent
UfM Union for the Mediterranean
UNDP United Nations Development Programme
UoLA Union of Local Authorities
UPFI Urban Projects Finance Initiative
WB World Bank

CES-MED

CLEANER ENERGY SAVING MEDITERRANEAN CITIES

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