

ENERGee Watch

T6. Implementation & successful monitoring

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Cyprus
Energy
Agency



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The SECAP process



Initiation	Political commitment and signing of the CoM
	Mobilize all municipal departments involved
	Engage stakeholders for support
Planning	Assessment of the current framework: Where are we?
	Establishment of the vision: Where do we want to go?
	Elaboration of the plan: How do we get there?
	Plan approval and submission

Source: Covenant of Mayors

The SECAP process



Implementation	Activation all the previous steps/phases
Monitoring and reporting	Monitoring
	Reporting, submission and review

SECAP Implementation



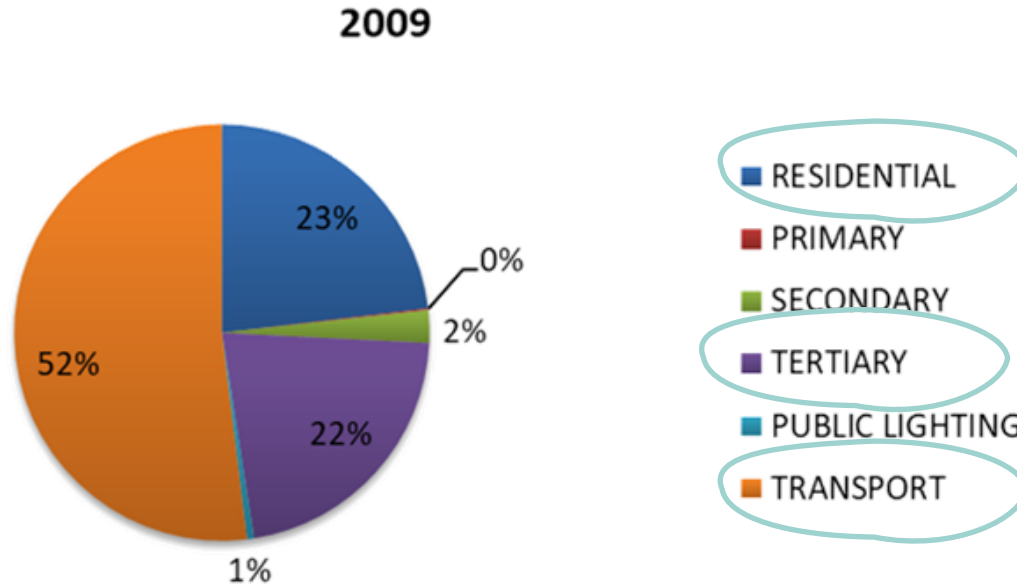
1. Adopt a Project Management approach (e.g., deadline control, financial control, planning)
2. Divide the project into different parts and select persons responsible
3. Identify priorities (e.g., per sector)
4. Establish a score-card system for tracking and monitoring the plan (indicators such as percentage of compliance with deadlines, percentage of budget deviations, percentage of emissions reduction)
5. Motivate and offer training and support to the team. Internal people are important stakeholders
6. Identify key stakeholders
7. Feasibility analysis/Business model
8. Inform frequently the city council and politicians in order to make them an important part of successes and failures and get their commitment
9. Secure Funding (Local, National, EU)

5 TIPS



SECAP Implementation

- Identify priorities (e.g., per sector)



BEI (CO₂) per sector for a typical Cypriot Municipality

SECAP Implementation



- Secure Funding

FUNDING

European Structural and Investment Funds	European Funding Programmes	Project Development Assistance	Financial Institutions Instruments	Alternative Financing Schemes
Cohesion Fund	CEF	EEEF	EFSI	Citizen Cooperatives
EAFRD	Horizon 2020 ▾	ELENA	Municipal loans	Crowd-funding
EMFF	JPI Urban Europe	Horizon 2020 PDA	NCCF	EPC
ERDF	LIFE	JASPERS		Green municipal bonds
ESF	Territorial Cooperation ▾			On-bill-financing
	UIA			Revolving loan funds
	URBACT			Soft loans, guarantees

Support services

European Investment Project Portal	
fi-compass	EIAH

SECAP Implementation

- **Funding example - Recovery and Resilience Facility – Cyprus case**
 - ❑ Grant Scheme to support Community Councils to climate measures
 1. Sustainable re-development of communities, climate adaptation and sustainable development
 2. NbS actions
 3. Sustainable mobility
 - ❑ Provision of technical support to rural Community Councils in developing Sustainable Energy and Climate Plans and implementing energy and climate investments
 1. Development of 30 joint SECAPs

Total budget: ≈ 4 M €



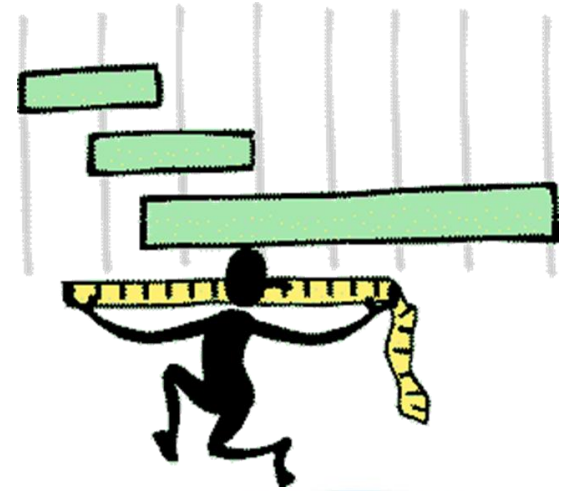
Local Communities in
Energy Transition &
Climate Adaptation
Cyprus Union of Communities &
Cyprus Energy Agency

SECAP monitoring



Monitoring is a very important part of the SECAP process. Regular monitoring followed by adequate adjustments of the plan allows initiating a continuous improvement of the process:

- Measure progress toward the targets set
- Track the impacts of the actions
- Understanding the barriers
- Identify and document best practices
- New opportunities for action/side benefits

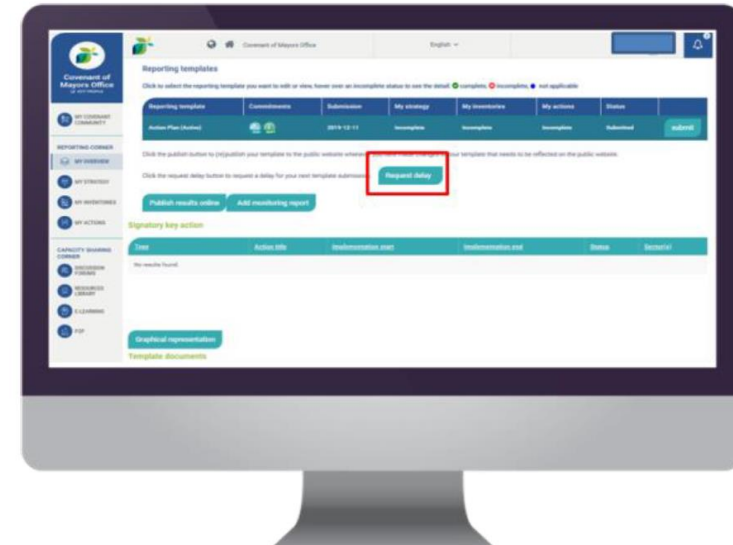


What are the minimum Covenant reporting requirements?



The monitoring and reporting of the SECAP is done via [MY COVENANT](#) platform:

- **My strategy**
- **Emission inventory**
- **Risks & vulnerabilities**
- **My Actions**



What are the minimum Covenant reporting requirements?



	Registration		Action plan		Monitoring	
	Year 0	Within 2 years	Within 4 years	Within 6 years	Within 6 years	Within 6 years
My strategy	o	✓	✓		✓	
Action plan documents upload	o	✓	o		o	
Emission inventory	o	✓ (BEI*)	o		✓ (MEI*)	
Risk & vulnerabilities assessment	o	✓	✓		✓	
Mitigation actions	o	✓ (min. 3 key actions)	✓		✓	
Adaptation actions	o	o	✓ (min. 3 key actions)		✓	
Energy poverty actions	o	o	✓ (min. 1 key action)		✓	

Table 1 Frequency of reporting

Legend: ✓ Mandatory | o Optional

BEI = Baseline Emission Inventory; MEI = Monitoring Emission Inventory

The action plan must be submitted within two years following the adhesion date (**Year 0**), i.e. the date when the Municipal Council (or equivalent decision-making body) formally decided to join the Covenant of Mayors

My strategy



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2) Target(s) and commitment(s)

Mitigation					
<u>CO₂ / GHG target</u>	<u>Unit</u>	<u>Target Year</u>	<u>Base Year</u>	<u>Reduction Type</u>	<u>Population estimates in target year</u>
	%	2020	[drop -down]	[drop -down]	
	%	2030	[drop -down]	[drop -down]	
		2050	[drop -down]	[drop -down]	

③ Only if your local authority has set up a 2020 objective.

③ Only if your local authority has set up a 2030 objective.

③ Add as many rows as necessary.

Adaptation				MONITORING
<u>Goal</u>	<u>Unit (% or other)</u>	<u>Target year</u>	<u>Base Year</u>	<u>Progress towards target</u>
		[drop -down]	[drop -down]	
		[drop -down]	[drop -down]	

③ Only if your local authority is committed to adaptation. // Add as many rows as necessary.

4) Staff capacity allocated

Type	Plan preparation			Plan implementation		
	Mitigation	Adaptation	(Estimated) full-time equivalent job(s)	Mitigation	Adaptation	(Estimated) full-time equivalent job(s)
Local authority	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<u>Other level(s) of governance (e.g. Covenant coordinator or supporter)</u>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
External consultant	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
Other	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
	Total		0	Total		0

Comments [v]

③ Click on the [+/-] button on the left to expand or collapse.

My strategy



ENERGee Watch

6) Budget

Overall budget foreseen for plan implementation			Budget spent so far		
Total (€)	Mitigation (%)		Total (€)	Mitigation (%)	
	Adaptation (%)			Adaptation (%)	
Budget period					
	From:	2012			
	To:	2030			

MONITORING

% to be reported only for signatories also committed to adaptation

depending on signatories' selected time horizon (2020/2020)

Financing sources	Share (in % of overall budget)
Local Authority's own resources	<input type="checkbox"/>
External sources	
> Public	<input type="checkbox"/>
> Private	<input type="checkbox"/>
Not allocated to any sources	

Comments [v]

Click on the [+/-] button on the left to expand or collapse.

700 chars left

My Actions_mitigation actions



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Indicators

Indicators	Parameters required
GHG emissions per unit of Gross Domestic Product (GDP) [t CO ₂ or t CO ₂ eq / million €]	Municipal GDP
Energy intensity of buildings [kWh/m ²]	Square meters of building floor area
Carbon intensity of transport [CO ₂ /km]	km driven by transport category
Public transport ridership [pkm/capita]	Passenger-km in public transport
Energy expenditure in the municipal sector [€/year]	Municipal energy expenditure
Energy expenditure in the residential sector [€/year]	Residential end-use energy price per energy carrier
Share of household income spent on fuel and electricity [%]	Annual household energy expenditure; Average household income
Share of population without access to electricity or commercial energy [%]	Number of population without access to electricity or commercial energy
Access to public transport [number]	Number of people within 0.5 km of public transit
Primary energy use per capita [MWh/capita]	Primary energy consumption
Emissions of air pollutants from road transport [µg/m ³ or mg/m ³]	Emissions of nitrogen oxides (NOx), Sulphur oxides (SOx), fine particulates, carbon monoxide (CO)

Area of intervention	Indicator
Municipal - Residential - Tertiary Buildings	
Building envelope	Number/surface area of buildings insulated [-/m ²]
Energy efficiency in space heating and hot water	Number of boilers replaced [-]
Energy efficient lighting systems	Number of lamps replaced [-]
Energy efficient electrical appliances	Number of electrical appliances replaced [-]
Renewable energy for space heating and hot water	Surface area of solar thermal panels installed [m ²]
Integrated action	Number/surface area of buildings retrofitted [-/m ²]
ICT	Number of buildings with smart meters installed [-] / Number of new buildings with domotic systems [-]
Behavioural changes	Number of participants in awareness raising campaigns [-] / Number of CFLs distributed [-]
Public Lighting	
Energy efficiency	Number of conventional traffic lights replaced by LED [-]
Integrated renewable power	Renewable power installed (kW)
ICT	Number of remote control systems installed [-]

Industry	
Energy efficiency in industrial processes	Number of boilers replaced [-]
Energy efficiency in buildings	Number of lamps replaced [-]
Renewable energy	Renewable power installed (kW)
Municipal - Public - Private Transport	
Cleaner/efficient municipal vehicles	Number of vehicles replaced [-]
Municipal fleet - efficient driving behaviour	Example: no. of courses given on total planned (%)
Cleaner/efficient public transport	Number of new CNG buses purchased [-]
Public transport infrastructure, routes and frequency	Network extension (km) / Number of services per day [-]
Electric vehicles infrastructure	Number of charging points [-]
Car sharing	Number of car share vehicles and locations [-]
Walking & cycling	Number of bicycle parking spaces [-]
ICT	Number of roads with Variable Speed Limits (VSB) introduced [-] / Number of teleworking schemes in place [-]
Efficient driving behaviour	Example: no. of courses/campaigns realised on total planned (%)

Source: The Covenant of Mayors for Climate and Energy Reporting Guidelines

My Actions_mitigation actions



Time series consistency

One of CoM guiding principles on the CO2 emission inventory is that the inventories are consistent throughout the years, from the baseline year to the target year 2030.

In order to ensure consistency between all reported years:

- BEI and MEIs follow the same methodologies and that consistent data sets are used to estimate emissions from the different activity sectors
- Both the data collection and emission inventory (IPCC or LCA) approaches should be maintained, while accounting for changes in energy consumption and emissions
- We don't change baseline year

Avoiding recalculations

In general, once the BEI is completed, there is no need to change the numbers later on. By using similar methods also in the MEIs, the local authority can ensure that the results are consistent, and thus the differences between BEI and MEIs correctly reflect the changes of emissions between the baseline year and the monitoring year

My Actions_mitigation actions



	Key actions	Responsible body	Implementation timeframe		Budget (€)	Progress	Implementation on cost so far (€)	Savings (€/έτος)
			Start	End				
1	ΕΝΕΡΓΕΙΑΚΗ ΑΝΑΒΑΘΜΙΣΗ ΔΗΜ. ΜΕΓΑΡΟΥ	ΔΗΜΟΣ	2015	2016	50.000	0%	0	8.000
2	Replacing public street lighting	LA	2023	2025	250.000	10% (Studies)	10.000	70.000

In 2022, the relevant amount should be included in the budget proposals of the Municipality for 2023-2025

In 2021, the public procurement terms and specifications must be prepared and announced-> service assignment

The savings that will result from the implementation of the project should be taken into account

My Actions_adaptation actions

This step assists local authorities and Covenant of Mayors signatory cities in developing a monitoring framework, including appropriate monitoring and evaluation (M&E) indicators, and complete the adaptation-related sections of the reporting platform MyCovenant (see also the offline working version of the [reporting template](#)) to report progress on adaptation actions and update, revise and readjust the adaptation strategy and/or action plan according to the findings of the M&E procedure.



Getting started

- 1 Preparing the ground for adaptation
- 2 Assessing climate change risks and vulnerabilities
- 3 Identifying adaptation options
- 4 Assessing and selecting adaptation options
- 5 Implementing adaptation
- 6 Monitoring and evaluating adaptation

- 6.1 Developing the monitoring and evaluation approach
- 6.2 Defining monitoring indicators
- 6.3 Finding examples of adaptation monitoring indicators
- 6.4 Using monitoring results to enhance the process of adaptation
- 6.5 Monitoring and evaluating adaptation: Self check

My Actions_adaptation actions

ANNEX 3 - Indicators for Adaptation

HOME

Below is a non-exhaustive list of indicators which may be used to complement the risks and vulnerability assessment. This is optional, the indicators below are illustrative examples and serve as a source of inspiration.
Please select any indicators that your local authority is using to measure progress and complete the list with your own indicators - simply add/delete the rows according to your needs.

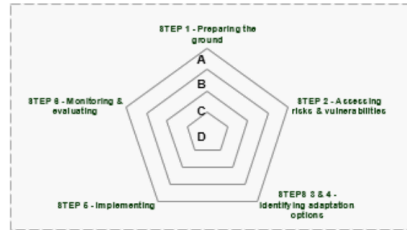
Table 1 Vulnerable sectors				
ID#	Sector	Indicator	Measurement unit	Numerical value
1.1	Buildings	Number or % of (public/residential/tertiary) buildings damaged by extreme weather conditions/events	(per year / over a certain period)	
1.2	Transport, Energy, Water, Waste, ICT	Number or % of transport/energy/water/waste/ICT infrastructure damaged by extreme weather conditions/events	(per year / over a certain period)	
1.3	Land Use Planning	% of grey/blue/green areas affected by extreme weather conditions/events (e.g. Heat Island Effect, Flood, Rockfalls and/or Landslides, Forest/Land Fire)	%	
1.4	Transport, Energy, Water, Waste, Civil Protection & Emergency	Number of days with public service interruptions (e.g. energy/water supply, health/civil protection/emergency services, waste)	No.	
1.5	Transport, Energy, Water, Waste, Civil Protection & Emergency	Average length (in hours) of the public service interruptions (e.g. energy/water supply, public transport traffic, health/civil protection/emergency services)	hours	
1.6	Health	Number of people injured/evacuated/relocated due to extreme weather event(s) (e.g. heat or cold waves)	(per year / over a certain period)	
1.7	Health	Number of deaths related to extreme weather event(s) (e.g. heat or cold waves)	(per year / over a certain period)	
1.8	Civil Protection & Emergency	Average response time (in min.) for police/fire-fighters/emergency services in case of extreme weather events	min.	
1.9	Health	Number of water quality warnings issued	%	
1.10	Health	Number of air quality warnings issued	No.	
1.11	Environment & Biodiversity	% of areas affected by soil erosion / soil quality degradation	%	
1.12	Environment & Biodiversity	% of habitat losses from extreme weather event(s)	%	
1.13	Environment & Biodiversity	% change in number of native species	%	
1.14	Environment & Biodiversity	% of native (animal/plant) species affected by diseases related to extreme weather conditions/events	%	
1.15	Agriculture & Forestry	% of agriculture losses from extreme weather conditions/events (e.g. drought/water scarcity, soil erosion)	%	
1.16	Agriculture & Forestry	% of livestock losses from extreme weather conditions	%	
1.17	Agriculture & Forestry	% change in crop yield / evolution of the annual grassland productivity	%	
1.18	Agriculture & Forestry	% of livestock losses from pests/pathogens	%	
1.19	Agriculture & Forestry	% of timber losses from pests/pathogens	%	
1.20	Agriculture & Forestry	% change in Forest composition	%	
1.21	Agriculture & Forestry	% change in water abstraction	%	
1.22	Tourism	% change in tourist flows / tourism activities	%	
1.23	Other	€ annual direct economic losses (e.g. in commercial/agricultural/industrial/touristic sectors) due to extreme weather event(s)	€/year	
1.24	Other	€ annual amount of compensation received (e.g. insurance)	€/year	
⊕ Add as many rows as necessary.				

Table 2 Adaptive capacity				
ID#	Adaptive capacity factor	Indicator	Measurement unit	Numerical value
2.1	Socio-economic	% of public funds available to address a climate hazard and its impacts (e.g. fire, flood, heatwave, etc)	%	
2.2	Socio-economic	% share of vulnerable population groups (e.g. elderly (65+) / young (25-) people, lonely pensioner households, low-income/unemployed households, migrants and displaced people) - compared to national average in year X in country X	%	
2.3	Socio-economic	Number of households educated in house energy/water/waste management	No.	
2.4	Socio-economic	Population density (compared to national/regional average in year X in country/region X)	People per km ²	
2.5	Socio-economic	% of population living in areas at risk (e.g. flood/drought/heat wave/ forest or land fire)	%	
2.6	Governmental & institutional	% change in green & blue infrastructure/areas (e.g. through new urban planning regulation/policy)	%	
2.7	Physical & environmental	Length of transport network (e.g. road/rail) located in areas at risk (e.g. flood/drought/heat wave/ forest or land fire)	Km	
2.8	Physical & environmental	Average time needed to reach a health facility	Hours	
2.9	Physical & environmental	% of areas non-accessible for emergency responses (e.g. firefighting services)	%	
2.10	Physical & environmental	% of (e.g. residential/commercial/agricultural/industrial/touristic) areas at risk (e.g. flood/drought/heat wave/ forest or land fire)	%	

Adaptation Scoreboard



Status Scale	Status	Indicative Completion Level
D	Not started or getting started	0-25 %
C	Moving forward	25-50 %
B	Taking the lead	50-75 %
A	Taking the lead	75-100 %



Self-assessment checklist:

- Helps to understand the situation about climate change and adaptation in our LAs
- Where to give emphasis when you are developing the adaptation process

Adaptation cycle steps	Actions	Self check of the Status	Comments
STEP 1 - Preparing the ground for adaptation STRATEGY	Adaptation commitments defined/integrated into the local climate policy Human, technical and financial resources identified Adaptation team (officer) appointed within the municipal administration and clear responsibilities assigned Horizontal (i.e. across sectoral departments) coordination mechanisms in place Vertical (i.e. across governance levels) coordination mechanisms in place Consultative and participatory mechanisms set up, fostering the multi-stakeholder engagement in the adaptation process Continuous communication process in place (for the engagement of the different target audiences)		500 char left
STEP 2 - Assessing risks & vulnerabilities to climate change RISKS & VULNERABILITIES	Mapping of the possible methods & data sources for carrying out a Risk & Vulnerability Assessment conducted Assessment(s) of climate risks & vulnerabilities undertaken Possible sectors of action identified and prioritised Available knowledge periodically reviewed and new findings integrated		500 char left
STEPS 3 & 4 - Identifying, assessing and selecting adaptation options ACTIONS	Full portfolio of adaptation options compiled, documented and assessed Possibilities of mainstreaming adaptation in existing policies and plans assessed, possible synergies and conflicts (e.g. with mitigation actions) identified Adaptation Actions developed and adopted (as part of the SECAP and/or other planning documents)		500 char left
STEP 5 - Implementing ACTIONS	Implementation framework set, with clear milestones Adaptation actions implemented and mainstreamed (where relevant) as defined in the adopted SECAP and/or other planning documents Coordinated action between mitigation and adaptation set		500 char left
STEP 6 - Monitoring and evaluating INDICATORS	Monitoring framework in place for adaptation actions Appropriate M&E indicators identified Progress regularly monitored and reported to the relevant decision-makers Adaptation strategy and/or Action Plan updated, revised and readjusted according to the findings of the M&E procedure		500 char left

Source: CoM Working template

Cypriot LA adaptation goals



Adaptation

<u>GOALS</u>	Unit	Target year	<u>Base Year</u>
Increasing of tree spaces (m2) in the urban center	25%	2030	2009
Reduction of sealing surfaces in the city center	15%	2030	2009
Biodiversity enhancement in the Pedieos river and in the surrounding area	50%	2030	2009
Increasing the reception areas of vulnerable groups in extreme temperatures	2	2030	2009
Reducing of flood incidents in the urban center	25%	2030	2009
Reducing water losses from the irrigation network	30%	2030	2009
Reducing water losses from the water supply network	30%	2030	2009

Successful monitoring process

- **Assign a dedicated person** to coordinate the process, and if deemed necessary establish a team or committee to meet periodically
- **Identify the data to be collected** and consistent methods for data collection.
- Identify the **data sources**, including departments and external stakeholders that will be able to provide data
- Establish the frequency of monitoring
- Ensure that the data collected is **reliable** and **comparable over time**.
- **Define monitoring indicators** and set specific benchmarks to compare their performance
- **Ensure a link between the results of the monitoring report and the municipal budget planning cycles**, so that any adjustments to your action plan can be incorporated, if necessary



Thank you!

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