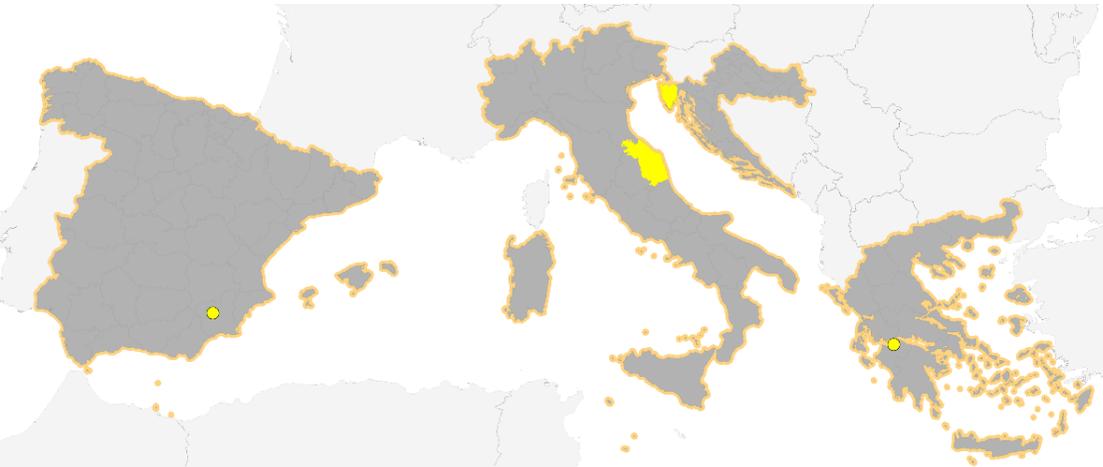




With the contribution of the European Community LIFE financial tool



ISTARSKA REGIJA
ŽUPANIJA ISTRIANA



LIFE SEC ADAPT PROJECT



Upgrading Sustainable Energy Communities in Mayor Adapt initiative by planning Climate Change Adaptation strategies

LIFE14/CCA/IT/000316

LAYMAN'S REPORT

-EN-

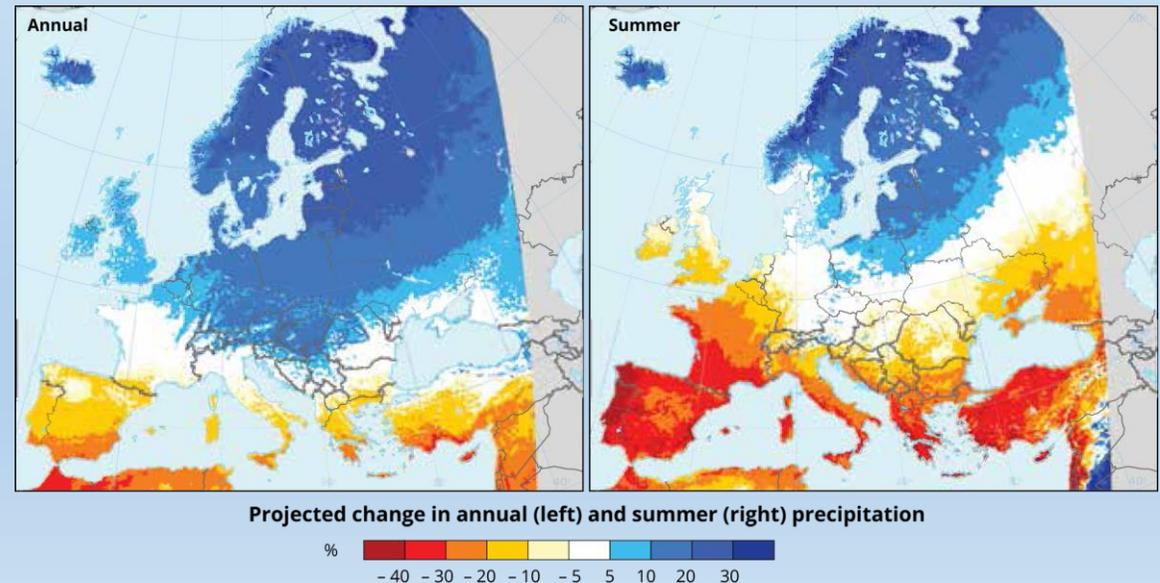


WHAT?



There is an indisputable scientific and political consensus, confirmed by the adoption of a series of international agreements and programmes, that **CLIMATE CHANGE is a threat and will remain a growing challenge for all humankind towards the end of the 21st century**. Many emerging climate change risks are concentrated in **URBAN AREAS**, which hold more than half the world's population (this number is predicted to grow to more than 70% by the end of the 21st century) and most of its built assets and economic activities. Consequently, cities also house a large proportion of the population and economic activities most at risk from climate change.

ADAPTATION TO CLIMATE CHANGE is considered, along with **mitigation** (i.e. reduction of net greenhouse gas emissions), the second important pillar of the implementation of climate policy, which is in the function of **preserving the values of society, the environment and the economy and ensuring the sustainable development**. Adaptation involves making adjustments in our decisions, activities and thinking because of observed or expected changes in climate, with the goals of moderating harm and taking advantage of new opportunities.



The **MEDITERRANEAN** territories has been affected by major impacts over recent decades as a result of decreased precipitation and increased temperature, and these are expected to worsen during the next decades. The envisaged negative impacts are mainly related to **increased frequency of extreme weather events** (heat waves, droughts and severe rainfalls) and **reduced annual precipitation and river flow**.

One specific problem for Mediterranean region is the possible decrease of tourism industry caused by less favorable climate conditions, especially in summer. Furthermore, Mediterranean states show **lower adaptive capacity**, in terms of economic, technical, and institutional skills and socio-economic conditions respect to Nordic countries.

THE COMBINATION OF THE TWO FACTORS (HIGHER CLIMATE CHANGE IMPACT AND LOWER ADAPTIVE CAPACITY) MAKE MEDITERRANEAN REGION THE MOST VULNERABLE AREAS IN EUROPE.

IPCC defines adaptation as *adjustments in ecological, social, or economic systems in response to actual or expected climatic stimuli and their effects or impacts. It refers to changes in processes, practices, and structures to moderate potential damages or to benefit from opportunities associated with climate change.*

Adaptation includes activities able to that reduce the negative impacts of climate change - taken before impacts are observed (**anticipatory**) and after impacts have been felt (**reactive**) - but also the possibility to take advantage of new opportunities that may be presented by climate change.

Mediterranean region

- Large increase in heat extremes
- Decrease in precipitation and river flow
- Increasing risk of droughts
- Increasing risk of biodiversity loss
- Increasing risk of forest fires
- Increased competition between different water users
- Increasing water demand for agriculture
- Decrease in crop yields
- Increasing risks for livestock production
- Increase in mortality from heat waves
- Expansion of habitats for southern disease vectors
- Decreasing potential for energy production
- Increase in energy demand for cooling
- Decrease in summer tourism and potential increase in other seasons
- Increase in multiple climatic hazards
- Most economic sectors negatively affected
- High vulnerability to spillover effects of climate change from outside Europe



WHERE?



Marche Region and Istria Region share **similar territorial and climate conditions**: the internal lands are characterized by mountains and hills that degrade to coast; both regions have relevant extension of coastal area, where are settled the main urban and productive infrastructures.

The **Marche Region** is situated in central Italy, framed between Apennine of Umbria and Marche on the west side and Adriatic Sea on the east side. River Foglia on the northern and river Tronto on the southern side are the two additional natural borders of regional territory. Marche Region has a Mediterranean climate in the coastal and middle-hill zone. Moving inward, climate becomes gradually sub-Mediterranean, while mountain areas can be considered as oceanic even though there are still Mediterranean influences.

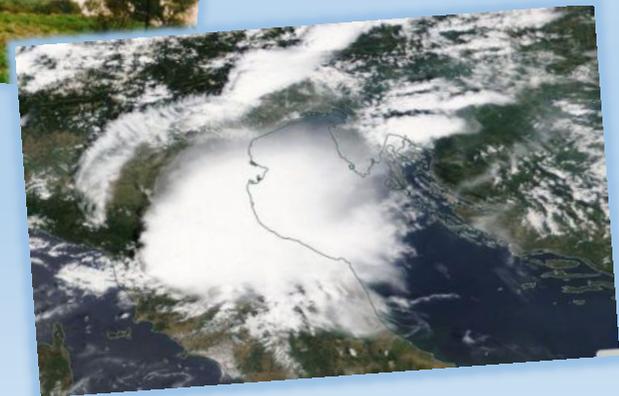
The **Region of Istria** includes a large part of Istria - the largest Adriatic peninsula. Situated in the north-west of the Adriatic Sea, Istria is surrounded by the sea from three sides, while the northern border towards the continent is made up by a line between the Miljski Bay in the direct vicinity of Trieste and the Preluk Bay, right next to Rijeka. Such favorable geographic position, almost at the heart of Europe, Istria has always represented a bridge connecting the Middle European continental area with the Mediterranean.

With specific regard to climate change in Marche Region and Istria Region, **it has been observed from 1950 an increasing of the mean temperature and decreasing precipitation.**

In the last years many extreme weather events have affected the territories of project partners; among others, since 2005 the Regional Department of Civil Protection has registered more than 30 extreme weather events within the Marche Region, mostly related to extreme rainfall and flooding, with deep impacts also to the economic and social activities.

With regard to **urban areas**, other specific impacts and vulnerabilities should be taken into account in addition to **flooding**, as soil drainage problems caused by **soil sealing**, but also phenomena like **heat waves** and **water scarcity** strictly related with the health impacts.

Even though it is not always possible to attribute these specific events to anthropogenic climate change, the rapid and unevenly urban growth especially in the coastlines, and the ongoing social condition (eg. an aging population), will contribute to **further increase the vulnerability of Mediterranean cities to climate change.**



THREATS



The Italian and Croatian partners are already actively engaged to climate mitigation carrying out their Sustainable Energy Action Plans (SEAPs), reached within the Covenant of Mayors initiative and developing Sustainable Energy Communities (SEC) in the two regions, identifying strategies and actions to contribute to GHG emission reduction by 2020. Due to the needs to strengthen their resilience to the inevitable impacts of climate change, the involved municipalities intend to act by integrating adaptation to climate change into relevant existing SEAPs, addressing the following relevant climate change impacts:

coastal zones: extreme weather events (floods, storms, etc.) and sea level rise may contribute to accelerate the existing erosion processes eventually leading to the degradation or loss of coastal lands, ecosystems, infrastructures and economic assets

water and hydro-geological system: higher stress on water resources which could lead to reduced water availability and quality; alterations of the hydro-geologic regime could increase the risk of landslides, flash mud/debris flows, rock falls and flash floods

infrastructure and economy: pressures to urban and rural infrastructures with possible inaccessibility or disruption of transport network, human settlements and socio-economic activities

LIFE SEC ADAPT project, financed within the framework of Life Programme 2014-2020, **aims to contribute to increase the climate resilience capacity of the European urban areas, thus facilitating the shift towards low-carbon economies.**

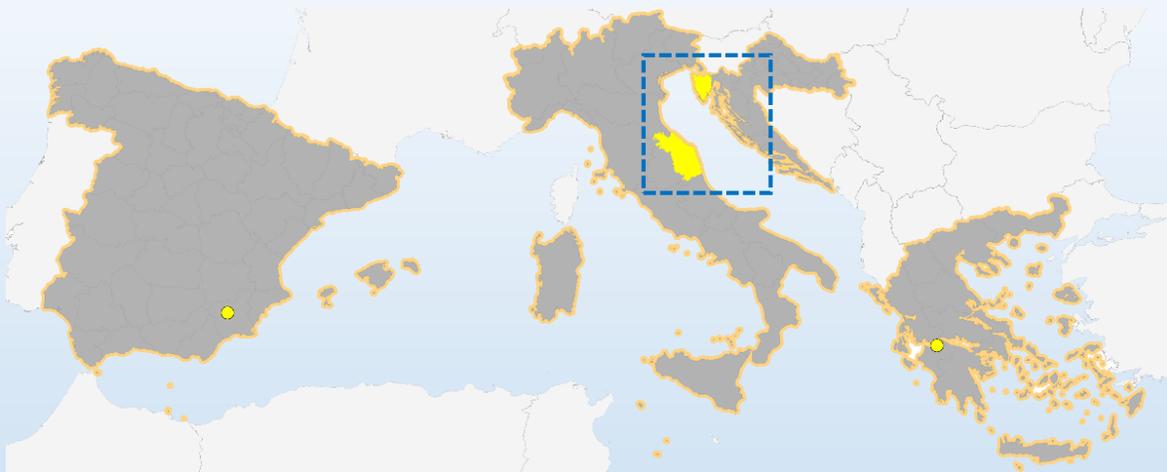
LIFE SEC ADAPT project also aims to **adopt and upgrade the model of the Sustainable Energy Communities (SEC) in supporting the improvement of climate governance**, as a best practice for the development of virtuous climate change adaptation process in local authorities under the coordination of regional authorities and development agencies at regional level.

Specific project objectives:

- **Increase awareness of local and regional decision makers** on the importance and the urgency to adopt climate change adaptation strategies to limit or avoid further natural, social and economic costs, by developing a capacity building process for municipalities in the involved regions and Member States, implemented through the exchange of best practice and lessons learnt by more experienced EU municipalities.

- **Contribute to reduce the knowledge gap of local and regional administrators on vulnerabilities and risks of territories**, thus allowing the development of effective adaptation strategies and plans to react to extreme climate events in short term and reduce social, economic and environmental impacts in the long term.
- **Sign and adopt climate change adaptation strategies and plans by the 17 municipalities beneficiaries in the framework of the “Mayor Adapt” initiative**, through the integration of existing sustainable energy plans (SEAPs).
- **Setting up and testing of the Energy and Climate Monitoring System (SEC_Adapt monitoring tool)** to constantly verify the progress of mitigation and adaptation actions and reorient the climate and energy strategy objectives by the municipalities involved, also as a tool to support the monitoring phases within the European initiative Covenant of Mayors for Climate and Energy.
- **Facilitate the adoption of climate adaptation and mitigation policies and actions at cross-border level.**

PARTNERSHIP



LIFE SEC ADAPT project involves 23 partners from 4 EU Member States: Italy, Croatia, Spain and Greece.

Coordinating Beneficiary

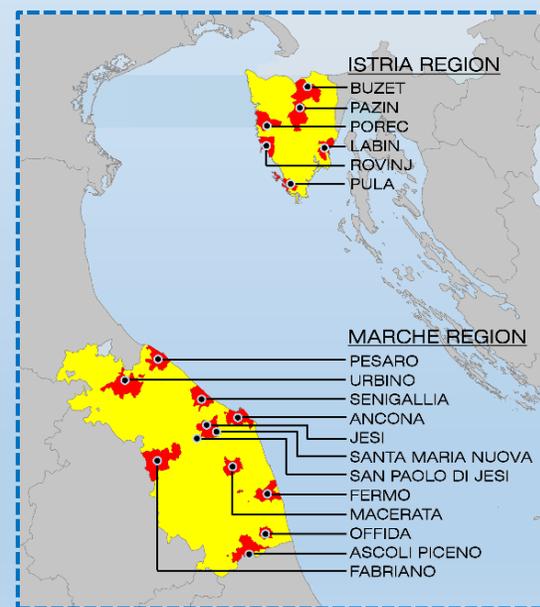
Sviluppo Marche S.r.l. – Marche Region Development Agency*

The LIFE SEC ADAPT project - Upgrading Sustainable Energy Communities in Mayor Adapt initiative by planning Climate Change Adaptation strategies (LIFE14/CCA/IT/0003169), was coordinated by Sviluppo Marche S.r.l., the Marche Region Development Agency, and had a total budget of 3.213.785 euro.

The EU supported the project with a 60% co-financing for a total of 1.928.225 euro, the remaining 40% has been cofinanced by the project beneficiaries: Sviluppo Marche S.r.l., Region of Istria, Istrian Development Agency, municipalities of Ancona, Ascoli Piceno, Fabriano, Fermo, Jesi, Macerata, Offida, Pesaro, San Paolo di Jesi, Santa Maria Nuova, Senigallia, Urbino, Buzet, Labin, Pazin, Porec, Pula, Rovinj, Bullas, Patras.

The project started on September 2015 and ended on June 2019.

<http://www.lifeseCADAPT.eu/>



Associated beneficiaries

**Region of Istria
Istrian Development Agency
20 EU Municipalities**

>>> 12 from Marche Region SEC (IT)

>>> 6 from Istria Region SEC (HR)

>>> Bullas (SPA)

>>> Patras (GRE)

* With technical-scientific support by Italian Institute for Environmental Protection and Research (ISPRA)

APPROACH FOR CLIMATE CHANGE ADAPTATION



RESULTS | 1. governance

CLIMATE CHANGE ADAPTATION TEAM setting up in each municipality, composed by political and technical representatives, in order to guarantee a multi-level and cross-sectorial approach to climate change issues at local level.



THEMATIC WORKING TABLES organized at territorial scale in order to ensure the coordination at different governance levels.

CAPACITY BUILDING ACTIVITIES centered on best practice exchange in order to guarantee a cross-border approach towards climate change option strategies.



I, [Name of the Mayor (or other equivalent representative)], [Mayor (or Job title)] of [Name of the local authority] have been mandated by the [Municipal Council (or equivalent decision-making body)] on [date] to sign up to the **Covenant of Mayors for Climate and Energy**, in full knowledge of the commitments set out in the official [Commitment Document](#) and summarised below.

Therefore, my local authority principally commits to:

- Reducing CO₂ (and possibly other greenhouse gas) emissions on its territory by at least 40% by 2030, namely through improved energy efficiency and greater use of renewable energy sources;
- Increasing its resilience by adapting to the impacts of climate change.

In order to translate these commitments into action, my local authority undertakes to fulfil the following step-by-step approach:

- Carry out a **Baseline Emissions Inventory** and a **Climate Change Risk and Vulnerability Assessment**;
- Submit a **Sustainable Energy and Climate Action Plan** within two years following the above date of the municipal council decision;
- Report progress** at least every second year following the submission of the Sustainable Energy and Climate Action Plan for evaluation, monitoring and verification purposes.

I accept that my local authority shall be suspended from the initiative – subject to prior notice in writing by the Covenant of Mayors Office – in case of non-submission of the above-mentioned documents (i.e. Sustainable Energy and Climate Action Plan and Progress Reports) within the established deadlines.

[Name and complete address of the local authority]
[Name, e-mail and phone number of the contact person]

SIGNATURE 

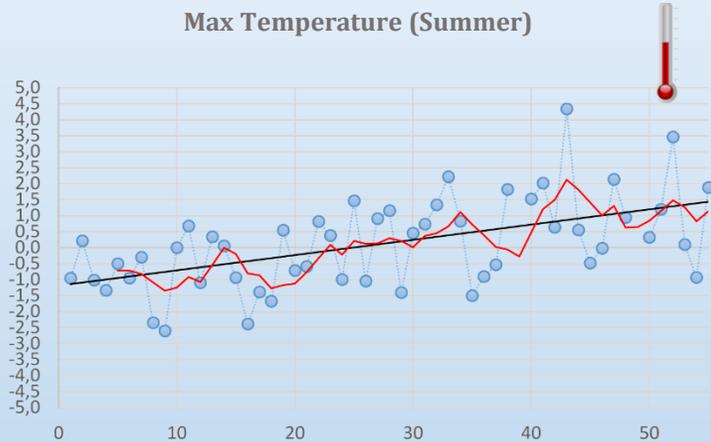


MAYOR ADAPT (COVENANT OF MAYORS FOR CLIMATE AND ENERGY) SIGNATURE BY EACH MUNICIPALITY, in order to ensure the political commitment in climate-resilient policies by mainstreaming and integrating climatic objectives into their policies and practice.

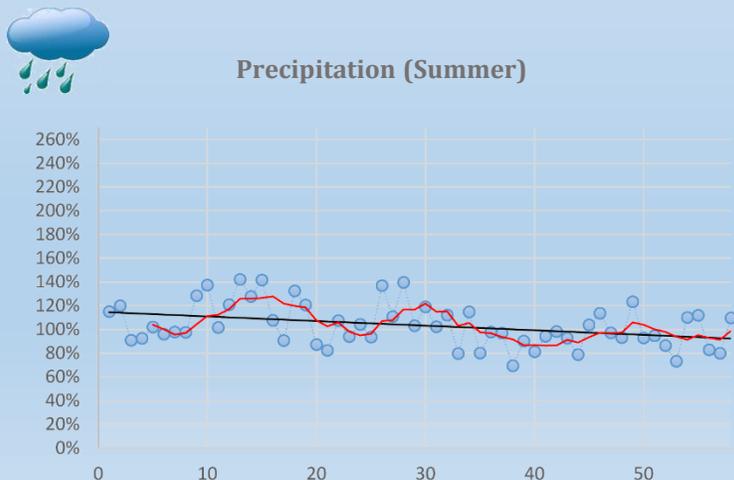
Climate variables Trends

by trend analysis of main climate variables
(Precipitation and Temperature mean, max and min)

Max Temperature (Summer)



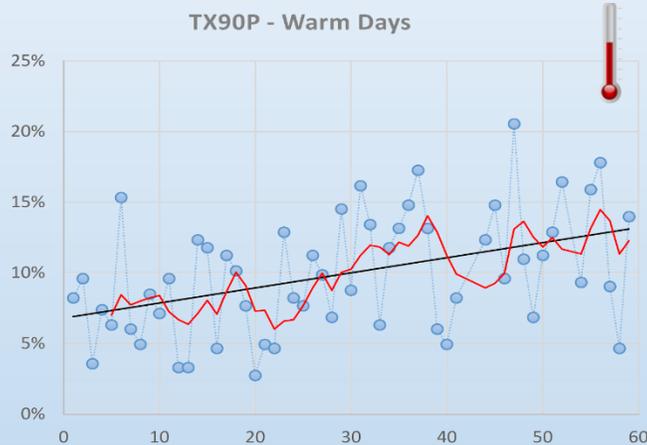
Precipitation (Summer)



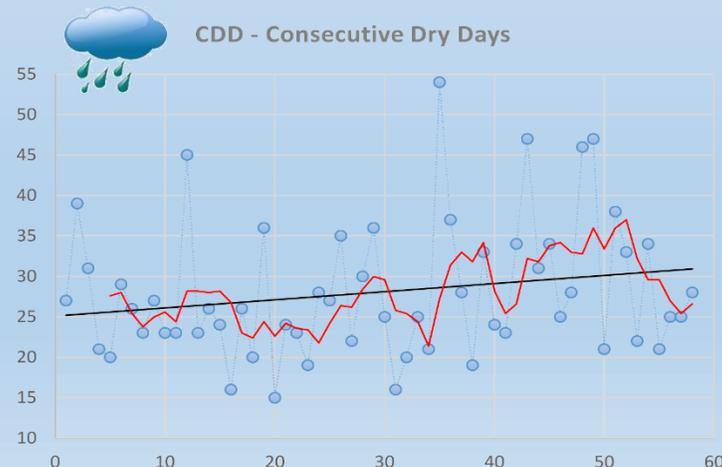
Climate extremes Indices

selected by the ET-SCI core set defined by WMO

TX90P - Warm Days



CDD - Consecutive Dry Days



Definition of 17 local climate baselines

on the basis of a common methodology set up
within the project

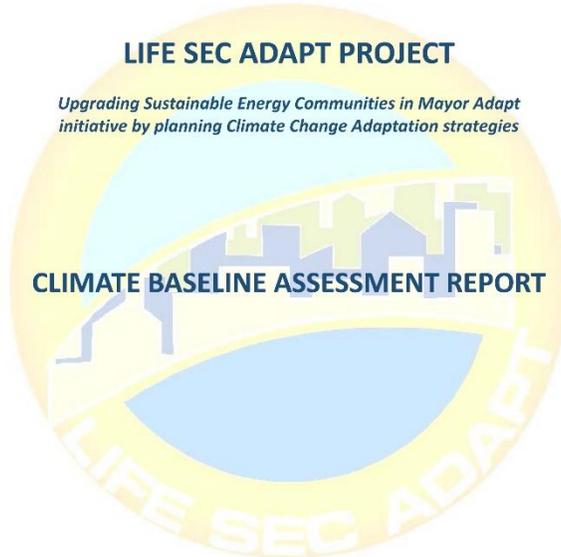
[read all reports here](#)



LIFE SEC ADAPT PROJECT

Upgrading Sustainable Energy Communities in Mayor Adapt initiative by planning Climate Change Adaptation strategies

CLIMATE BASELINE ASSESSMENT REPORT



LIFE SEC ADAPT
LIFE13A CCA/11/000316

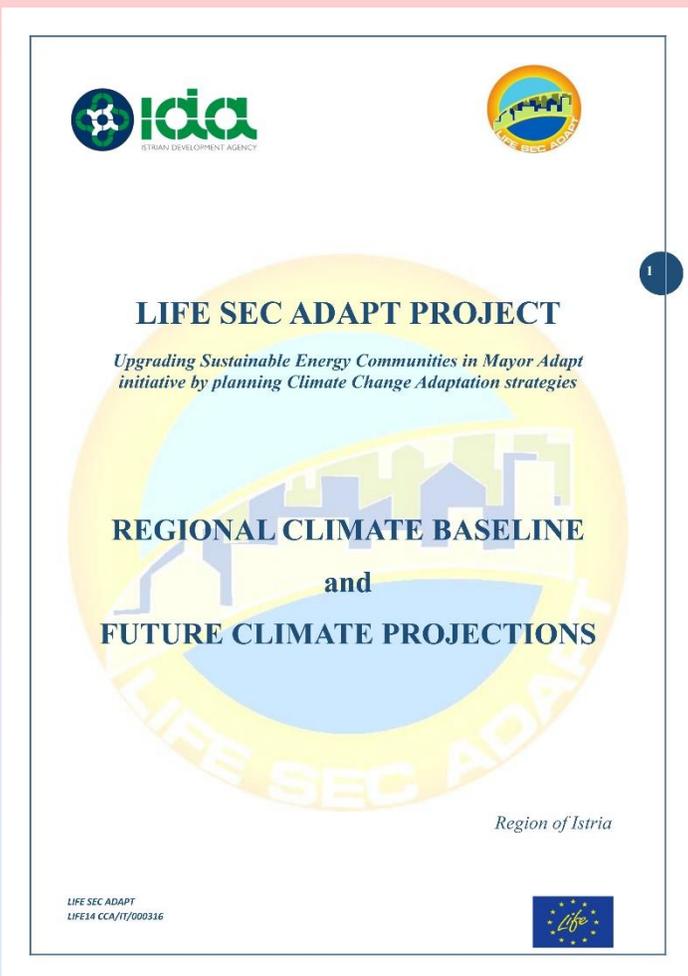


RESULTS | 2. climate baseline and scenario at regional level

Definition of 2 regional climate baselines

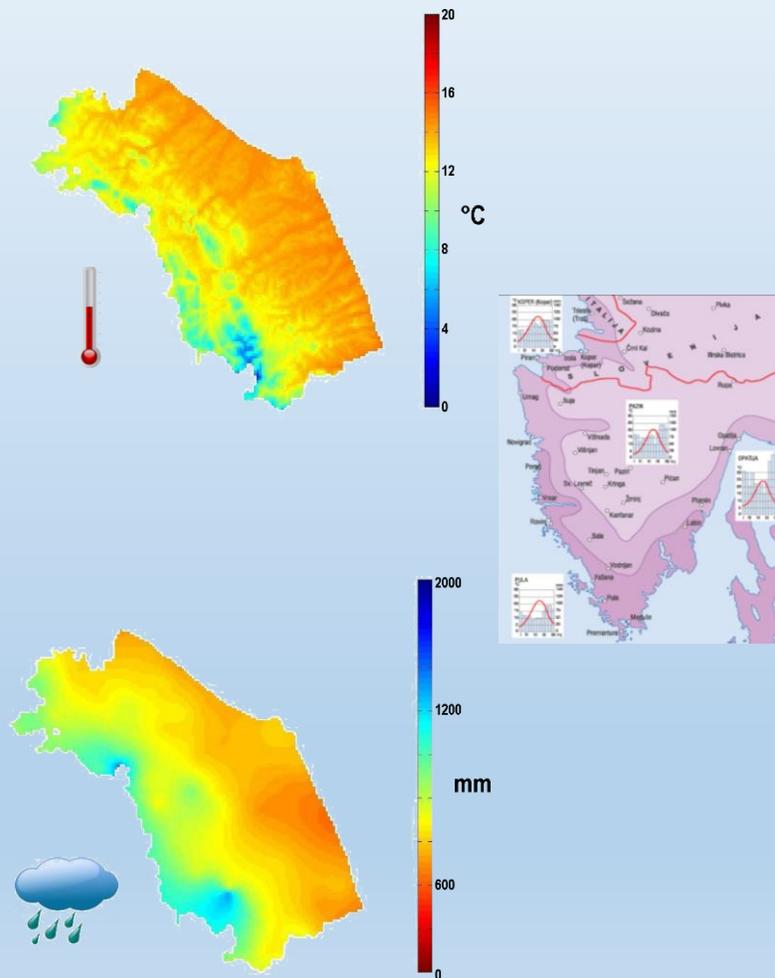
on the basis of the local climate baselines results and integrating them with further regional, national, EU data on long-term weather forecasts

[read all reports here](#)



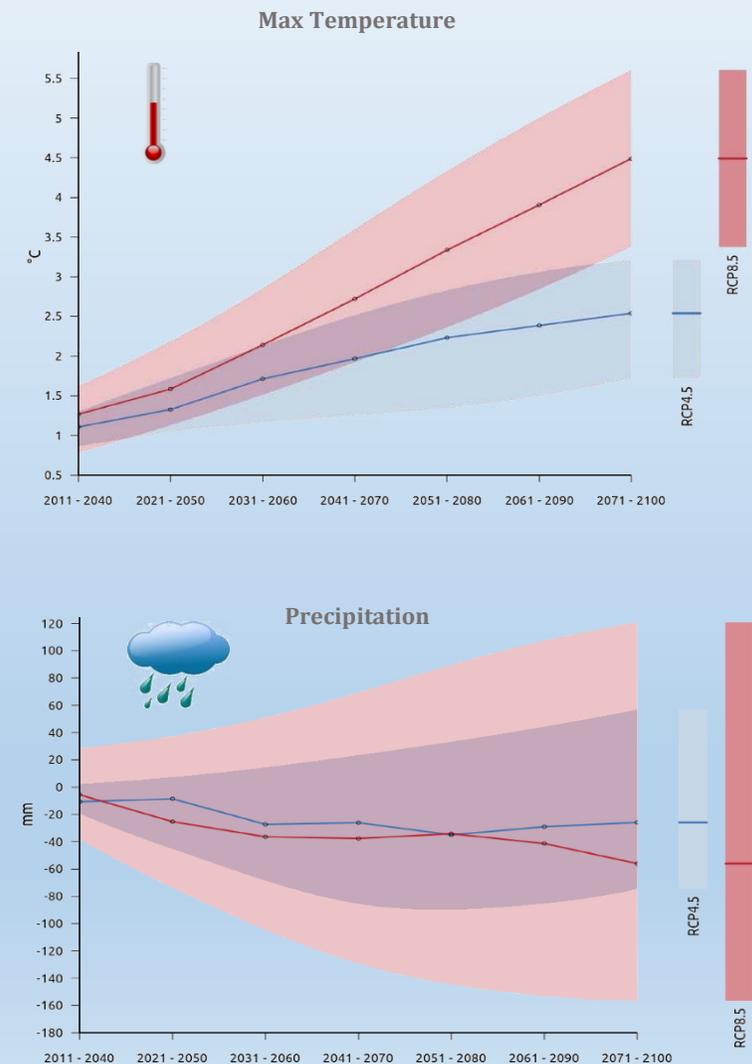
Climate variables Trends

by trend analysis of main climate variables (Precipitation and Temperature mean, max and min)



Long-term (2050) climate change scenarios

based on RCP4.5 and RCP8.5 scenarios



RESULTS | 3. vulnerability/risk assessment at local level

Vulnerability and Risk analysis

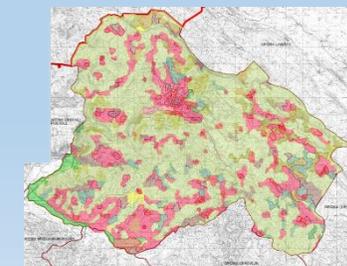
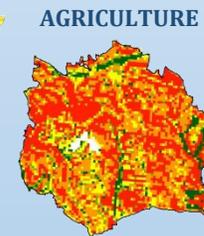
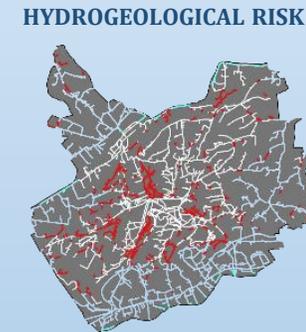
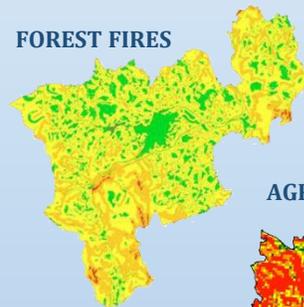
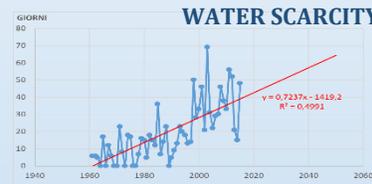
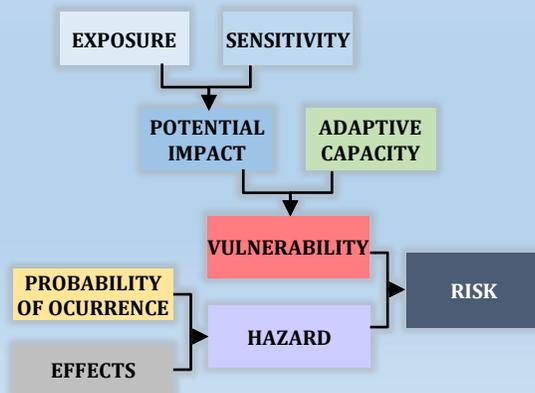
Based on the vulnerability definition provided by the Fourth Assessment Report of the IPCC (AR4)

The knowledge of climate change vulnerability and related risks helps policy makers to better comprehend the cause/effect relationships behind climate change and its impact on people, economic sectors and socio-ecological systems, allowing them to better define sustainable policies and strategies of mitigation and adaptation.

Vulnerability - distinguishing between four key components that determine whether, and to what extent, a system is susceptible to climate change: exposure, sensitivity, potential impact and adaptive capacity.

Risk - as result from the interaction between vulnerability and hazard.

A **final matrix**, matching vulnerability and risk results of each urban system analyzed, provides a clear overview of the most important sector of interventions on which the urban local adaptation strategy should focus in order to significantly reduce the climate change impact on the municipal urban system.



| | | | | | | |
|----------------------------|------------|---|---|---|---|---|
| 5 | Vrlo visok | | | | | |
| 4 | Visok | | | | | |
| 3 | Srednji | | | | | |
| 2 | Nizak | | | X | | |
| 1 | Zanemariv | | | | | |
| Vjerojatnost pojavljivanja | | 1 | 2 | 3 | 4 | 5 |

Definition of 17 local vulnerability and risk assessment

on the basis of a common methodology set up within the project and referred to specific key sectors identified by each municipality

[read all reports here](#)

| Sector - Potential Impact | Components of Vulnerability and Risk | Indicators | Climate Change variations | | | | | Value | | |
|---|--------------------------------------|-------------------------------------|---------------------------|------------|----------------|--------------|---------|-----------|-----------|-----------|
| | | | Raising T | Heat waves | Water shortage | Extreme prcp | Drought | Scale 0-5 | Scale 0-1 | |
| Cultural Heritage and Tourism - Degradation of monuments and changes in landscape | Exposure | Drought (SPEI) | x | x | ✓ | x | ✓ | 3,0 | 0,6 | Medium |
| | | Very heavy precipitation days (R20) | x | x | x | x | x | 2,0 | 0,4 | Low |
| | | Material erosion (R) | x | x | x | ✓ | x | 2,0 | 0,4 | Low |
| | | Tourist Comfort Index (TCI) | ✓ | ✓ | ✓ | ✓ | ✓ | 3,0 | 0,6 | Medium |
| | | Territorial Value (VT) | - | - | - | - | - | 2,3 | 0,4 | Medium |
| | Sensitivity | Territorial hazards (PT) | - | - | - | - | - | 2,5 | 0,5 | Medium |
| | | Employment in culture and tourism | - | - | - | - | - | 4,0 | 0,8 | High |
| | | Anthropic hazard (PA) | - | - | - | - | - | 3,0 | 0,6 | Medium |
| | | Restriction laws | - | - | - | - | - | 3,4 | 0,7 | High |
| | | Prevention level | - | - | - | - | - | 4,0 | 0,8 | High |
| Adaptive capacity | Vulnerability index | ✓ | ✓ | ✓ | ✓ | ✓ | 3,2 | 0,6 | MEDIUM | |
| Risk | Air-environment Risk index | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | MEDIUM | |
| Environmental protection - Forest fires | Exposure | Fire trigger factor | - | - | - | - | - | 3,4 | 0,7 | High |
| | | Climate factor | x | ✓ | ✓ | x | ✓ | 3,0 | 0,7 | High |
| | | Land use | - | - | - | - | - | 3,8 | 0,7 | High |
| | Sensitivity | Geomorphology | - | - | - | - | - | 3,0 | 0,6 | High |
| | | Territorial Value | - | - | - | - | - | 2,5 | 0,5 | Medium |
| | | Monitoring devices | - | - | - | - | - | 3,5 | 0,7 | High |
| Adaptive capacity | Vulnerability index | x | ✓ | ✓ | x | ✓ | 2,2 | 0,4 | MEDIUM | |
| Hazard | Hazard index | x | ✓ | ✓ | x | ✓ | 3,0 | 0,6 | MEDIUM | |
| Risk | Risk index | x | ✓ | ✓ | x | ✓ | - | - | HIGH | |
| Critical infrastructure - Hydrogeological risk | Exposure | % of hydrogeological risk areas | x | x | x | ✓ | ✓ | 1,6 | 0,3 | Low |
| | | Population | - | - | - | - | - | 1,1 | 0,2 | Low |
| | | Industrial buildings | - | - | - | - | - | 1,5 | 0,2 | Low |
| | | Main roads | - | - | - | - | - | 1,2 | 0,3 | Low |
| | Sensitivity | Secondary roads | - | - | - | - | - | 1,3 | 0,2 | Low |
| | | Strategic buildings | - | - | - | - | - | 1,0 | 0,2 | Low |
| | | Land maintenance | - | - | - | - | - | 3,7 | 0,7 | High |
| | | Vulnerability index | x | x | x | ✓ | ✓ | 1,6 | 0,3 | LOW |
| Adaptive capacity | Risk index | x | x | x | ✓ | ✓ | - | - | MEDIUM | |
| Agriculture - Soil erosion | Vulnerability | Vulnerability index | x | x | ✓ | ✓ | ✓ | 4,0 | 0,8 | HIGH |
| | Hazard | Hazard index | x | x | ✓ | ✓ | ✓ | 3,0 | 0,6 | MEDIUM |
| | Risk | Risk index | x | x | ✓ | ✓ | ✓ | - | - | VERY HIGH |
| Agriculture - Drought | Exposure | Drought (SPI-SPEI) | x | x | ✓ | x | ✓ | 3,0 | 0,6 | Medium |
| | | Agricultural land | - | - | - | - | - | 3,0 | 0,6 | Medium |
| | | Average water consumption | - | - | - | - | - | 6,0 | 0,8 | High |
| | | Source of water supply | - | - | - | - | - | 6,3 | 0,8 | Very high |
| | | Employment in agriculture | - | - | - | - | - | 1,0 | 0,2 | Very low |
| | Sensitivity | High quality crops | - | - | - | - | - | 2,0 | 0,4 | Low |
| | | Irrigation areas | - | - | - | - | - | 1,0 | 0,2 | Very low |
| | | Age of the farm head | - | - | - | - | - | 3,0 | 0,6 | Medium |
| | | Level of education of head of farm | - | - | - | - | - | 2,0 | 0,4 | Low |
| | | Level of farm computerization | - | - | - | - | - | 1,0 | 0,2 | Very low |
| | Adaptive capacity | Land ownership | - | - | - | - | - | 4,0 | 0,8 | High |
| | | Type of irrigation | - | - | - | - | - | 3,0 | 0,6 | Medium |
| | | Irrigation consulting | - | - | - | - | - | 4,0 | 0,8 | High |
| Vulnerability | Vulnerability index | x | x | ✓ | x | ✓ | 2,5 | 0,5 | MEDIUM | |
| Hazard | Hazard index | x | x | ✓ | x | ✓ | 2,5 | 0,5 | MEDIUM | |
| Risk | Risk index | x | x | ✓ | x | ✓ | - | - | HIGH | |

RESULTS | 3. vulnerability/risk assessment at regional level

Definition of 2 regional risk and vulnerability assessment
on the basis of the local risk and vulnerability assessment

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LIFE SEC ADAPT PROJECT

Upgrading Sustainable Energy Communities in Mayor Adapt initiative by planning Climate Change Adaptation strategies

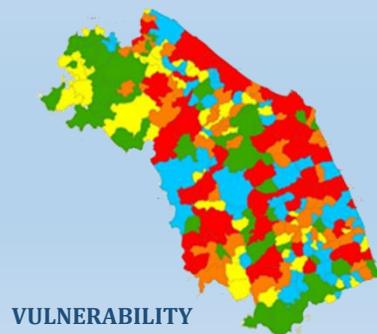
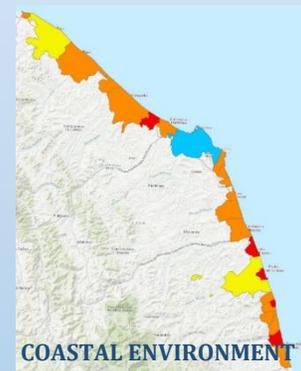
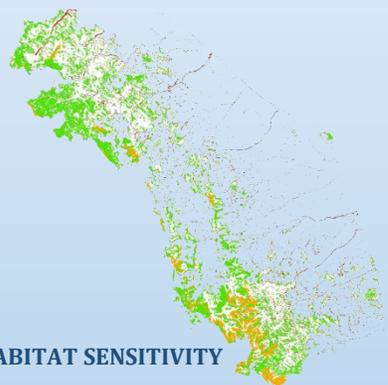
Nadogradnja energetski održivih urbanih sredina provedbom Mayor Adapt inicijative, te planiranjem strategija prilagodbe klimatskim promjenama

VULNERABILITY AND RISK ASSESSMENT ANALYSIS
PROCJENA RANJIVOSTI I RIZIKA

Region of Istria

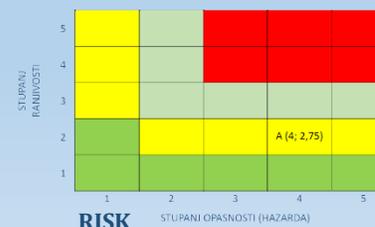
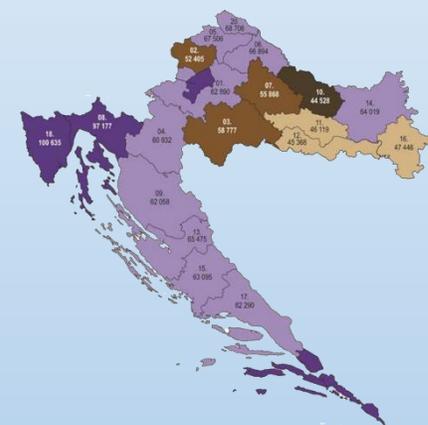
MARCHE REGION

- ecosystems and biodiversity
- hydrogeological risk
- coastal environment
- health
- agriculture
- energy and transport infrastructures
- tourism



ISTRIA REGION

- health
- tourism
- water supply
- water quality
- ecosystems and biodiversity
- spatial planning
- coastal area management



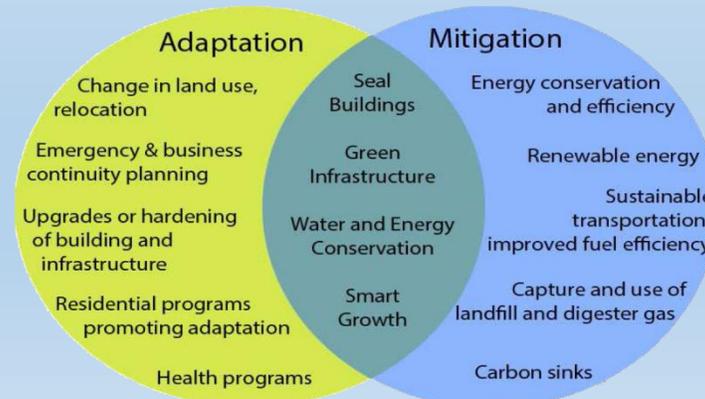
The Climate Change Adaptation Plan represents the strategic tool to actively adapt in order to reduce the damages from future climate change, but also to exploit the future opportunities that climate change might bring. It is composed of:

Political and strategic vision until 2050 - document approved by the political parties of each municipality containing set objectives and goals depending on specific risks and vulnerabilities previously detected, political priorities of the municipal administration in the medium and long term, availability of financial resources and planning areas under the direct municipal responsibility.

Strategy - drawn up with a medium-to-long-term scenario, with an objective established at the level of partnership, to 2050.

Potential adaptation options - defined on the basis of results of climate and risk analysis and on the urban systems and key sectors identified in the political vision.

Action Plan – prioritization and selection of the options achievable in the short-medium term (2030), on the basis of effectiveness, efficiency, equity, flexibility and sustainability.



Drafting of 17 Climate Change Adaptation Plans

[read all reports here](#)

Strategija prilagodbe klimatskim promjenama
Grada Poreča – Parenzo do 2030. godine
s prvim petogodišnjim planom provedbe

Town of Poreč – Parenzo
Climate change adaptation Strategy (2030) and Action plan

Comune di Urbino
PIANO DI ADATTAMENTO
AI CAMBIAMENTI CLIMATICI
- 2019 -

LIFE SEC/ADAPT PROJECT
Upgrading Sustainable Energy Communities in Major Adapt Initiative by planning

Finanziato con il programma comunitario Life
Climate change adaptation

LIFE SEC/ADAPT
LIFE14 CCA/IT/000316

RESULTS | 6. MONITORING AND UPGRADING

The screenshot displays three data tables from the SVIM Monitoring system:

- Monitoring Table:** Lists entities and years.

| Entity | Year |
|------------------|------|
| Comune di Ancona | 2011 |
| Comune di Ancona | 2012 |
| Comune di Ancona | 2013 |
| Comune di Ancona | 2014 |
| Comune di Ancona | 2015 |
| Comune di Ancona | 2017 |
| Comune di Ancona | 2019 |
- Consumptions Table:** Lists sectors, names, codes, groups, surface areas, energy sources, units of measure, consumption, and costs.

| Sector | Name | Code | Group | Surface area | Type of energy source | Energy source | Unit of measure | Consumption | Cost |
|---|----------------|------|-------|--------------|-----------------------|----------------------------------|-----------------|-------------|-----------|
| Comune di Ancona, 2015 Edifici settore terziario casa di riposo | casa di riposo | No | No | | Gas | Gas naturale | m³ | 2000 | 400.00 |
| Comune di Ancona, 2015 Edifici settore terziario casa di riposo | casa di riposo | No | No | | Liquidi | Diesel (Gasolio) - riscaldamento | l | 2000 | 3,000.00 |
| Comune di Ancona, 2015 Flotta municipale | flotta veicoli | Yes | Yes | | Biomassa | Biogas | m³ | 20000 | 8,000.00 |
| Comune di Ancona, 2015 Flotta municipale | flotta veicoli | Yes | Yes | | Energia eolica | | MWh | 100 | .00 |
| Comune di Ancona, 2015 Flotta municipale | flotta veicoli | Yes | Yes | | | | m³ | 25000 | 5,000.00 |
| Comune di Ancona, 2015 Flotta municipale | flotta veicoli | Yes | Yes | | | | m³ | 4800 | 960.00 |
| Comune di Ancona, 2015 Flotta municipale | flotta veicoli | Yes | Yes | | | | m³ | 35000 | 7,000.00 |
| Comune di Ancona, 2015 Flotta municipale | flotta veicoli | Yes | Yes | | | | m³ | 25000 | 5,000.00 |
| Comune di Ancona, 2015 Flotta municipale | flotta veicoli | Yes | Yes | | | | l | 8000 | 16,000.00 |
| Comune di Ancona, 2015 Flotta municipale | flotta veicoli | Yes | Yes | | | | m³ | 10000 | 4,000.00 |
- Adaptation Table:** Lists indicators, values, and states.

| Indicator | Value | State | Note |
|---|-------|-------|------|
| 110 | 30000 | | |
| Fonti idriche disponibili, N | 35 | | |
| Estensione superficie forestale, km² | 22500 | | |
| Campagne di comunicazione e divulgazione, N | 5 | | |
| Presenze turistiche nei mesi estivi, N | 2000 | | |
| 55 | 15 | | |
| Consumo idrico annuo per irrigazione, m³ | 900 | | |
| Estensione superfici impermeabili, km² | 15000 | | |

Monitoring represents a fundamental step of the planning processes, as it allows the planner to answer questions such as: *are we doing the right thing? are we doing things right? are our actions effective enough to achieve the established goals? If not, are we still in time to change our approach and better address our action? How could we demonstrate to stakeholders that our actions are producing good results?*

Therefore LIFE SEC ADAPT - with technical-scientific support by Italian Institute for Environmental Protection and Research (ISPRA) - developed the **ON-LINE OPEN SOURCE ENVIRONMENTAL AND ENERGY DATA MONITORING SYSTEM**, that represents a potentially useful tool for those administration that are willing to monitor their own SEAP, Climate Adaptation Plans - and finally their SECAP - both in terms of progress and effectiveness.

The tool has been set up on the basis of the project requirements and tested by the Italian and Croatian beneficiary municipalities and it can be customized based of the local needs of the user administrations.

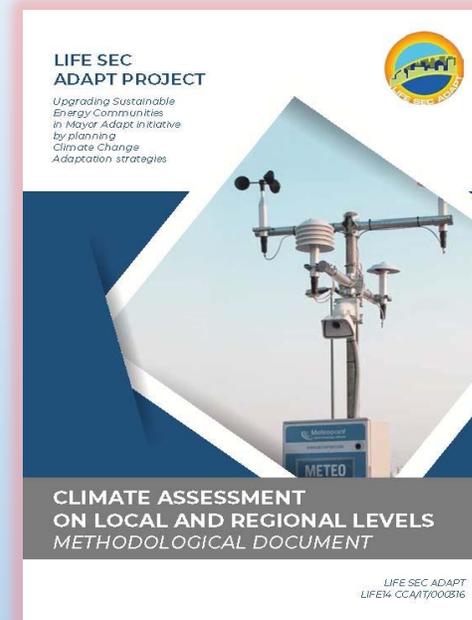
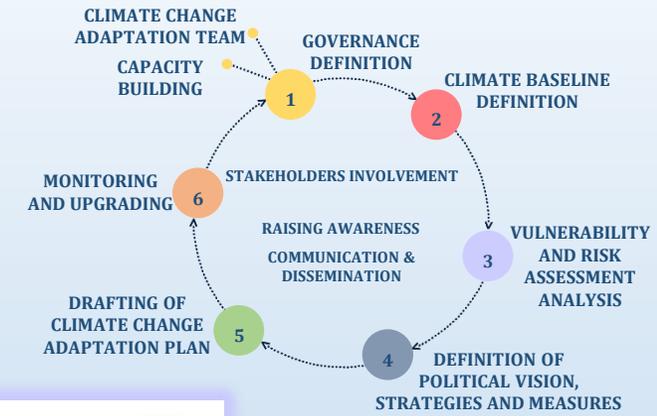


[Go to the tool](#) (including user manual)

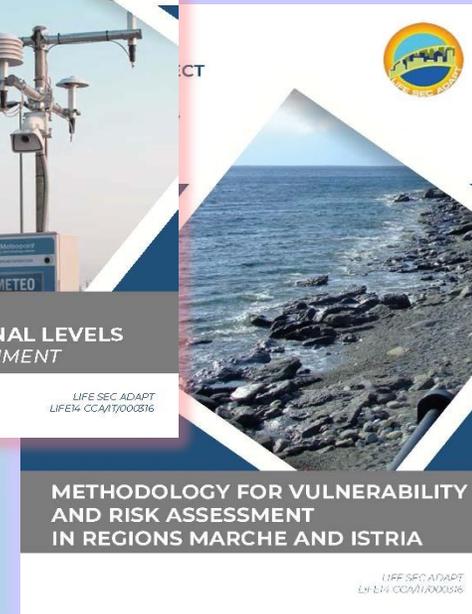
While there is a large variety of the guidelines and methodologies tailored just for the purpose of climate baseline, risk analysis and urban adaptation planning, the LIFE SEC ADAPT project partners have, in spite of that, felt that there is a need to develop **common methodologies** that would guide the municipal authorities in developing all activities aiming to define a local climate change adaptation strategy and related action plan.

Therefore, LIFE SEC ADAPT DEFINED 3 METHODOLOGIES USEFUL TO SUPPORT POLICY AND DECISION MAKERS IN DEVELOPING ACTIVITIES AND TOOLS LEADING TO:

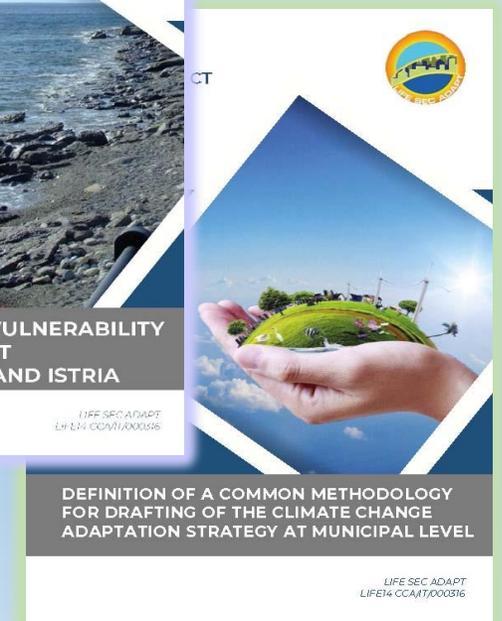
- Define the **local/regional climate baseline**
- **Assess the vulnerability and risk** degree at local level
- Drafting the **climate change adaptation strategy and action plan** at local level



[link for download](#)



[link for download](#)



[link for download](#)

RESULTS | TRANSFERABILITY

Thanks to the shared methodologies developed, LIFE SEC ADAPT partners draft the **Policy recommendation paper on cross-border climate adaptation, addressed to Adriatic-Ionian macro-region**, gathering the main outcomes related to the cross-border north Adriatic area resulting from the analysis carried out at local and regional level, with the aim to:

- **inform decision-makers** about adaptation policies to be undertaken in the cross-border context;
- **provide rationale for choosing policy course of action;**
- **describe policies briefly.**

Target audience

- **senior decision makers;**
- **technical experts** who are familiar with the basic issues, but not to understand the political context where the policies will be implemented;
- **other stakeholders (citizens, NGOs, private sector, etc.)** who can make pressure groups for the implementation of certain policies.



[link for download](#)

RECOMMENDATION 1 - training courses for urban planners on general aspect of climate change adaptation as well as specific courses on technical subjects; development of guidelines and toolkits on local adaptation planning specific for the project regions.

RECOMMENDATION 2 - organizing partnerships between public and private sector.

RECOMMENDATION 3 - using local media to inform population on the benefits of early adaptation to climate change; printing leaflets for the general population.

RECOMMENDATION 4 - twinning between municipalities to exchange of experience on urban adaptation subjects; participation of experts from one municipality in the concrete planning actions in another municipality; building networks of municipalities.

RECOMMENDATION 5 - prepare studies to show how nature based solutions could be beneficial to adaptation; showcase examples where economic benefits of adaptation are clear; define set of minimum parameters to monitor progress towards adaptation.



CoM REGIONAL BEST PRACTICES AND FINANCING OPPORTUNITIES TOWARDS 2030 OBJECTIVES
7 February 2019, Brussels



The event, organized by Marche Region and SVIM, aimed to **transfer experience and recommendations resulting from multi-level governance process** implemented and tested at local and regional levels through LIFE SEC ADAPT and EMPOWERING projects. **35 Mayors from Marche Region involved celebrated in EU the project Municipalities' commitment to SECAP actions towards 2030 objectives**, within the CoM framework, and got an overview on **financial opportunities for SECAP implementation**.



SECAP. HOW PLANNING, FUNDING AND IMPLEMENTING ACTIONS
3-4 June 2019, Rome



Multi-level workshop on the implementation of new CoM goals, focusing on planning, funding and implementing actions process, organized by ENEA (Italian Coordinator of CoM) and CoM.

SVIM shared LIFE SEC ADAPT experience and results about the **governance process for defining climate change adaptation strategies and plan for small-medium towns**.



COVENANT OF MAYORS PRACTITIONERS' GROUP (GoP)
26 March 2019, Brussels



LIFE SEC ADAPT experience and results shared during the **6th meeting of GoP**, which brings together **front-runner cities, regions and experts in climate change mitigation and adaptation from across EU** and give them the opportunity to contribute to consolidating and developing the initiative. Members share their experience in the field of mitigation, adaptation at local level, and access to energy and they give input on key methodological and strategic developments of CoM.



LOCAL AUTHORITIES AS DRIVERS TO ADDRESS CLIMATE CHANGE
19 June 2019, Brussels



During the Policy Conference of the **European Sustainable Energy Week (EUSEW)** - the biggest European conference dedicated to renewables and efficient energy use in Europe - LIFE SEC ADAPT shared output and experience gained about methodological tools, the development of the local adaptation strategy and action plan and the monitoring tool for climate and energy data to support the implementation of My Covenant monitoring tool.

COMMUNICATION AND DISSEMINATION

LOCAL AND REGIONAL

(public conferences, activities, public debates, etc.)

EUSEW – Local Energy Days

Green Talks

Green economy in the Apennine region

Fridays for Future

Regional plans for climate adaptation and implementation of energy policies

Regional meetings of Covenant of Mayors



3. ISTARSKI ENERGETSKI DANI

PAZIN 24.-26.5.2018.



10 years of European Covenant of Mayors



NATIONAL AND EUROPEAN

(international conferences, workshops, peer reviews, networking, etc.)

Resilient Cities - European Urban Resilience Forum

European Climate Change Adaptation Conference “Our Climate Ready Future”

Valencia Climate Change Festival

Covenant of Mayors Investment Forum

National and EU meetings of Covenant of Mayors

SISC Annual Conference

Interreg Europe Policy Learning Platform – Peer review



With the contribution of the
European Community LIFE financial tool

LIFE SEC ADAPT PROJECT

*Upgrading Sustainable Energy Communities
in Mayor Adapt initiative by planning Climate Change Adaptation strategies*
LIFE14/CCA/IT/000316

01.09.2015 – 30.06.2019

<http://www.lifeseadapt.eu/>

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