

# **PROJECT TO DEVELOP A SYSTEM OF CLIMATE OASES IN EMILIA-ROMAGNA REGION**

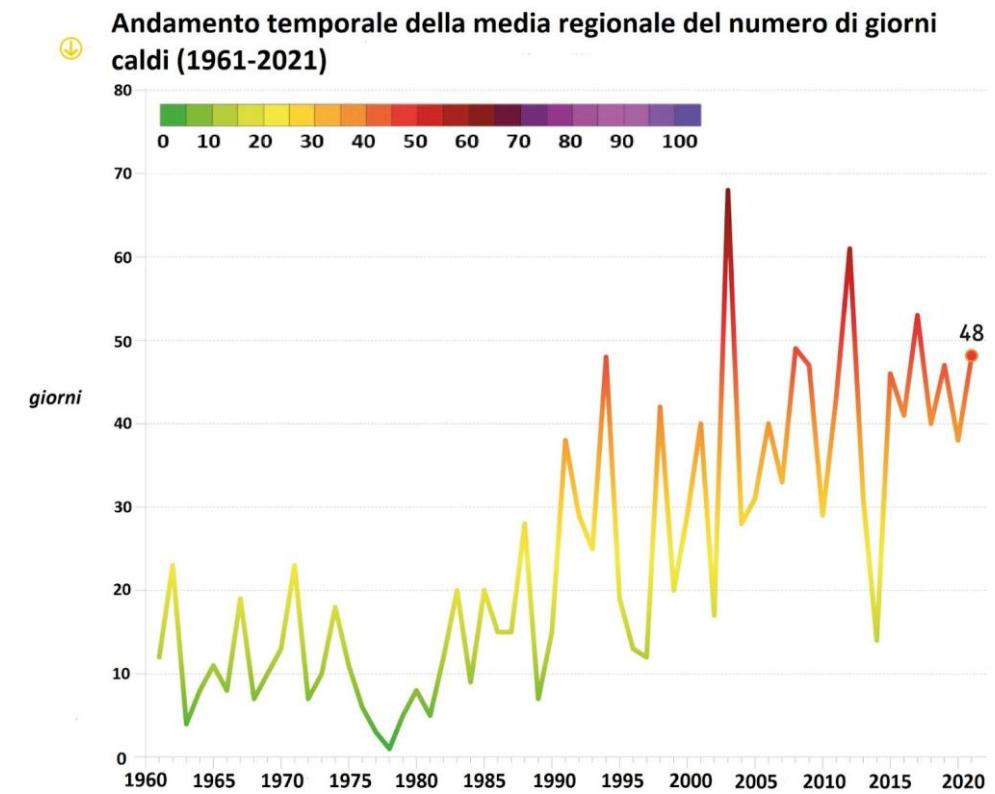
Paola Angelini, Regione Emilia-Romagna

Marco Pollastri, Centro Antartide

# INTRODUCTION

Future climate scenarios indicate that heatwaves will become more frequent, intense and prolonged due to climate change, both globally and in Emilia-Romagna. Scenarios with high greenhouse gas emissions predict a significant increase in temperatures, resulting in more extreme heatwaves than scenarios with lower emissions.

The health impacts will be significant, with an increase in mortality, particularly among the most vulnerable populations.



# SOCIAL AGGRAVATING FACTORS

Summer loneliness can be particularly hard on the elderly population, who may feel more isolated and abandoned during this period due to family members going on holiday. This isolation can have serious consequences on their physical and mental health, such as depression, apathy and an increased risk of cognitive decline and neurodegenerative diseases.

In Emilia-Romagna, a significant number of elderly people live alone, with over 330,000 people over the age of 65 living in single-person households, 208,000 of whom are over 75. This situation, combined with increased life expectancy, makes loneliness a significant issue, particularly in urban areas and where family ties are weaker.



# ECONOMIC AGGRAVATING FACTORS

It should be noted that another critical factor is the disadvantaged economic and social condition, which represents a factor of greater exposure to the effects of climate change, falling within what is defined as energy poverty.

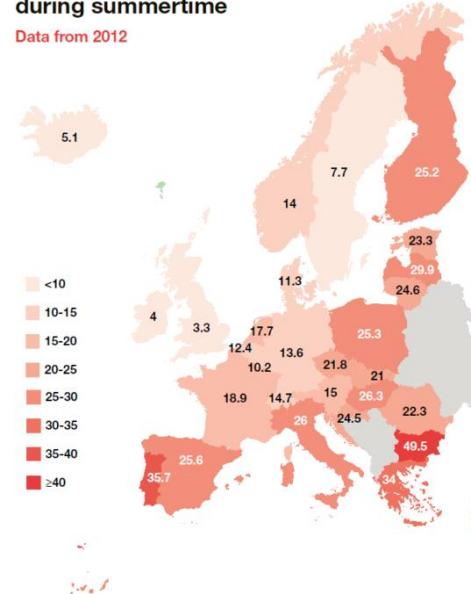
## Defining Energy Poverty

*“Energy poverty’ means a household’s lack of access to essential energy services that underpin a decent standard of living and health, including adequate warmth, cooling, lighting, and energy to power appliances, in the relevant national context, existing social policy and other relevant policies.”*

Source: EC’s proposal for the recast of the EU Energy Efficiency Directive (EED), Article 2 Definitions (49)

## Share of population living in a dwelling not comfortably cool during summertime

Data from 2012

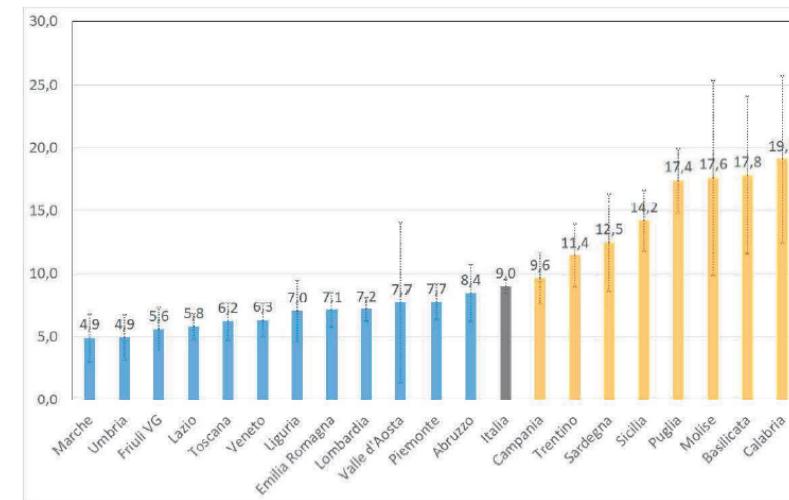


Bulgaria	49.5
Portugal	35.7
Greece	34
Latvia	29.9
Cyprus	29.6
Hungary	26.3
Italy	26
Spain	25.6
Poland	25.3
Finland	25.2
Lithuania	24.6
Croatia	24.5
Estonia	23.3
Romania	22.3
Czech Republic	21.8
Slovakia	21
EU	19.2
France	18.9
Netherlands	17.7
Austria	15
Switzerland	14.7
Norway	14
Germany	13.6
Belgium	12.4
Denmark	11.3
Luxembourg	10.2
Sweden	7.7
Iceland	5.1
Ireland	4
Great Britain	3.3

Source: Eurostat

## La povertà energetica per regione nel 2023

(valori percentuali)



Fonte: nostre elaborazioni sull’ Indagine sulle spese delle famiglie, Istat.

# THE PROJECT

Given the background Emilia Romagna region is acting through a Regional prevention plan with a specific program concerning Environment and Health

A project has been developed within this program, aiming to define a climate oasis model to be applied throughout the Emilia-Romagna region so that individual Municipalities can implement and manage it independently but in a coordinated manner at regional level.

Specifically, the model is being developed through experimentation in four pilot cities with the collaboration of health authorities and local administrations.

# CLIMATE OASES

The strategy to help reduce the impact of heatwaves and adapt to these events is based on creating a network of protected places for the most vulnerable population: climate oases.

The aim is to create a network of climate oases serving the entire community, which can perform multiple functions and be located in areas most exposed to heatwaves and conditions of fragility and discomfort during the summer.

Climate oases therefore not only guarantee conditions of well-being, but must also take consistent action to combat loneliness and thus become points of reference for the most vulnerable people, performing a function of social inclusion.



# ISSUES

There are some particularly important elements to consider:

- the model to be developed must be valid for cities of different sizes
- it is necessary to combine environmental aspects with socio-health aspects
- A fundamental element is to enhance the social dimension of climate oases
- The first step is to define shared methods of analysing the territory in order to identify exposure and vulnerabilities that are accessible to the various administrations in a possible enabling process

# WORK STEPS FOR THE STRUCTURING OF CLIMATE OASES



# STEP 1: TERRITORIAL ANALYSIS



This step is divided into several sub-actions that must be considered at both the regional and municipal levels:

ACTION 1\_ definition of composite indicator for assessing situations of territorial fragility

ACTION 2\_ weighting and analysis of data

ACTION 3\_ representation of data

ACTION 4\_ data return and access

## STEP 4: CLIMATE OASES MODEL DEFINITION



Climate oases are considered an adaptation or evolution of existing public spaces for meeting and socializing, even if their functions are not directly related to climate issues. This serves a dual purpose: on the one hand, to reduce costs and, on the other, to rely on spaces that are already familiar and well-known to the local community.

At the same time the engagement and animation of these spaces is essential to achieving objectives. In particular, it is necessary to activate local networks representatives in order to involve the largest possible portion of the population, especially the most vulnerable and at-risk groups.

The aim is to take a multi-impact approach, addressing climate vulnerability as well as social inclusion and community building.

# CLIMATE OASES FEATURES

The identified space must be able to accommodate people both indoors and outdoors in comfortable conditions, with furnishings that encourage socializing and relaxation. It is therefore necessary to have a cooling system indoors and adequate shade outdoors.

The spaces must also be fully accessible, pleasant, and welcoming, and perform their functions continuously so that they remain a point of reference beyond the period affected by heat waves.



# CLIMATE OASES SOCIAL FEATURES

In order to build truly inclusive spaces, it is essential to accompany the design process with the adequate and structured construction of a local network that allows us to reach and involve the local population, particularly the most vulnerable members who are usually more reluctant to participate. In this regard, it is necessary to make use of formal and informal social animators.

It will also be necessary to organize activities and meetings on broad topics (not only and directly related to climate issues) with a wide target audience that can attract but also actively engage people to motivate them to frequent these spaces even beyond the period of climate risk and discomfort.



# Contact

Paola Angelini, Regione Emilia-Romagna  
[paola.angelini@regione.emilia-romagna.it](mailto:paola.angelini@regione.emilia-romagna.it)

Marco Pollastri, Centro Antartide  
[marco.pollastri@centroantartide.it](mailto:marco.pollastri@centroantartide.it)