



# LIFE SEC ADAPT PROJECT

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

1

## D. Monitoring of the impact of the project actions

### Action D.2.: Socio-economic impact assessment

## *Final socio-economic impact assessment Report*

*- Perception of the effects of climate change in the Marche and Istria Region. -*

PROGRAMME	LIFE 2014 – 2020 – Climate Change Adaptation
PROJECT ACRONYM	LIFE SEC ADAPT
PROJECT CODE	LIFE14/CCA/IT/000316
TITLE	Socio-economic impact assessment
ACTION/TASK RELATED	D.2
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VERSION	FINALE
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## Summary

2

1. INTRODUCTION .....	3
2. THE SURVEY .....	5
3. MAIN RESULTS .....	6
4. GENERAL INFORMATION (QUESTIONS 1 >>> 6) .....	8
5. PERCEPTION AND KNOWLEDGE ABOUT CLIMATE CHANGE (QUESTIONS 7 >>> 18) .....	10
6. CAPACITY AND LEVEL OF RESILIENCE OF THE TARGET GROUPS (QUESTIONS 19 >>> 71) ..	14
CITIZENS AND CONSUMERS ASSOCIATIONS .....	14
AGRICULTURAL ACTIVITIES .....	15
HEALTH AND SOCIAL SERVICES .....	15
COMMERCIAL AND HANDICRAFT ACTIVITIES .....	16
ENVIRONMENTAL ASSOCIATIONS .....	20



## 1. INTRODUCTION

Action D.2 aims to assess the **perception of climate change socio-economic impacts** on the productive and social sectors at regional level in Marche and Istria regions, through the involvement of stakeholders at regional and municipal level, representatives of the key economic and social sectors of the communities that are usually most affected by the climate change process.

The Report "Evaluation of socio-economic impacts. Perception of the effects of climate change in the Marche and Istria Region ", implemented as part of the Action D.2 Socio-economic impact assessment of the LIFE SEC project ADAPT - Upgrading Sustainable Energy Communities in Mayor Adapt initiative by planning climate change adaptation strategies (LIFE14 / CCA / IT / 000316), is aimed at collecting information and assessing in the identified target groups (commercial and handicraft activities - agricultural activities - health and social services - Citizens and consumers associations - environmental associations):

1. The **sensibility and knowledge about climate change trends and adaptation measures and their possible major impacts on the productive and/or social sectors;**
2. The **knowledge of possible adaptation actions**, including those at the structural and organizational level;
3. The **willingness to accept the adoption of adaptive measures.**

The socio-economic impact assessment is realized through a **survey activity** in order to assess the sensibility and interest of all sectors of the communities about the problem of climate change and about the need and willingness to adopt adaptive capacities.

The report therefore presents the aggregated and combined results and evidence of the survey carried out at regional level through the submission and distribution of an online questionnaire

from April 2018 to January 2019 by the Climate Change Adaptation Teams of the Marche and Istria municipalities involved in the project, illustrating therefore the main findings and evidence of the survey conducted at the level of the Adriatic macro-region.

The results of the survey activity allow to have a clear knowledge about the **sensibility and interest of all sectors of the communities** about the problem of the climate change and about the need to act urgently, increasing the adaptive capacities of the involved territories, in order to limit major socio-economic impacts caused by extreme wheatear events and long-term effects of climate change, paving the way for a change in the comprehension of the climate change.

The aim is to encourage a conscious behavior both of social and economic stakeholders, inducing an informed change in their habits and thus contributing to sustainable development.

## 2. THE SURVEY

The on-line questionnaire has been realized through *Google Form* by the project partner - Municipality of Bullas (Spain), involving in the process of defining the final structure of the questionnaire all the 18 project partner municipalities, which contributed to the final version guaranteeing a more direct correspondence with the various local specificities.

The *Municipal Climate Change Adaptation Teams* (established under the LIFE SEC ADAPT Project), through their main communication channels (mailing list, newsletters, official Facebook page, etc.), in the period April 2018 / January 2019 have distributed the questionnaires to the identified target groups (commercial and handicraft activities - agricultural activities - health and social services - citizens and consumers associations - environmental associations).

A total of 160 fill-out questionnaires has been received.

**The survey is composed by 71 questions, which refer to 3 specific sections:**

**1. General Information** (questions 1 >>> 6)

Classification of the subject to which the survey is submitted (City, age, sex, level of education, occupational / professional field)

**2. Perception and knowledge about climate change** (questions 7 >>> 18)

General perception of climate change trends and impacts, and knowledge about the problem concerned (Sensibility and Knowledge)

**3. Capacity and level of resilience of the target groups** (questions 19 >>> 71)

Resilience of the subject to which the survey is submitted (knowledge and willingness to accept adaptation measures).

This final part of the survey it is intended to assess the extent to which those impacts are recognized and taken into account by stakeholders groups and citizens in general (specific

impacts in the target group, knowledge of possible adaption measures and willingness to adopt them).

*Target groups:*

- a. **Citizens and consumers associations** (questions 19 >>> 29)
- b. **Agricultural activities** (questions 30 >>> 37)
- c. **Health and social services** (questions 38 >>> 47)
- d. **Commercial and handicraft activities** (questions 48 >>> 60)
- e. **Environmental associations** (questions 61 >>> 71)

The main results of the survey are reported below.

### 3. MAIN RESULTS

The Report analyses some aspects related to the climate change issue with respect to some stakeholder categories. The knowledge about climate change trends are growing. This fact is also confirmed by comparing this final analysis with the previous one carried on during the implementation of the project proposal. Around 21% of people interview connect the issue of climate change with the issue of greenhouses gas emissions, also underlining a big problem of deforestation (17%).

Knowledge grows up together with the age of people. Youngers and Older people (which are the most vulnerable categories) are often the less informed about climate change.

Internet & social media (13%) and newspapers (10%) and television (13%) are the most relevant channels of information. Family (5%), school (6%) and University (%) achieve a lower rate.

The perception of climate risks is still too low with respect to should be and the knowledge of what adaptation solutions to be possibly adopted by citizens during their daily-live is not well known yet. Around 80% of interviewed consider Scientists/Universities/Academies the most important providers of certified information ("lot important"). Civil protection plays also an important role. Around 60% of interviewed think that it plays a pivotal role in providing information on climate change, on its causes and possible adaptive measures". This could be considered a good result for sure. Internet/social media are also considered important providers of knowledge. Social media are mostly used by common people as tool for acquiring information, with the high risk of receiving a superficial or not correct information.

Another important results to be highlighted regard the SMEs. Around the 48% of them confirm that SME not have adequate risk assessment and risk management tools. Furthermore more than 50% of them do not envisage to allocate resources for the implementation of climate risk mitigation actions.

Finally, the most voted adaptation measures are as following:

- “Appropriate land use planning bearing in mind impacts of climate change“ (14%)
- “Promoting sustainable agriculture practices (conserving moisture, improved irrigation, soil erosion prevention measures, integrated management, selection of appropriate varieties for cultivation)“ (13%)
- “Implementing plans or projects for conservation of Biodiversity” (10%)
- “Disaster response enhancement (improved reaction in extreme weather situations- warning systems for flood and droughts)” (9%)

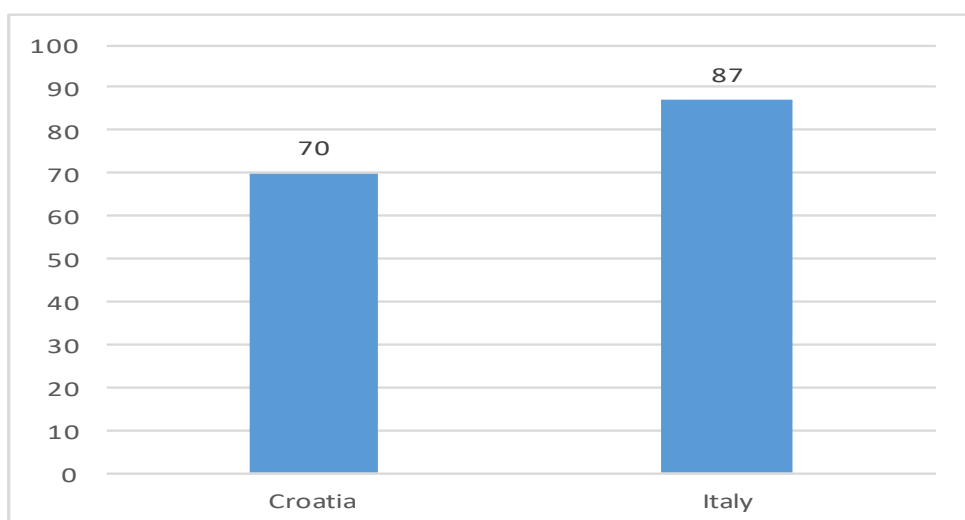
### **Lesson Learnt:**

- Sustaining/organizing information campaigns for schools and families.
- Involving citizens in planning adaptation strategies and Early warning system in order to increase the perception of climate risks and reduce wrong behaviour during extreme events
- Reducing the consumption of soil by investing in green/blue infrastructure
- Strengthening the cooperation between Institution (Local/Regional Administration) Universities and SMEs in order to increase the resilience of the productive system
- Sustaining a cross-sectoral approach in urban planning in order to increase the adaptive capacities of local communities.

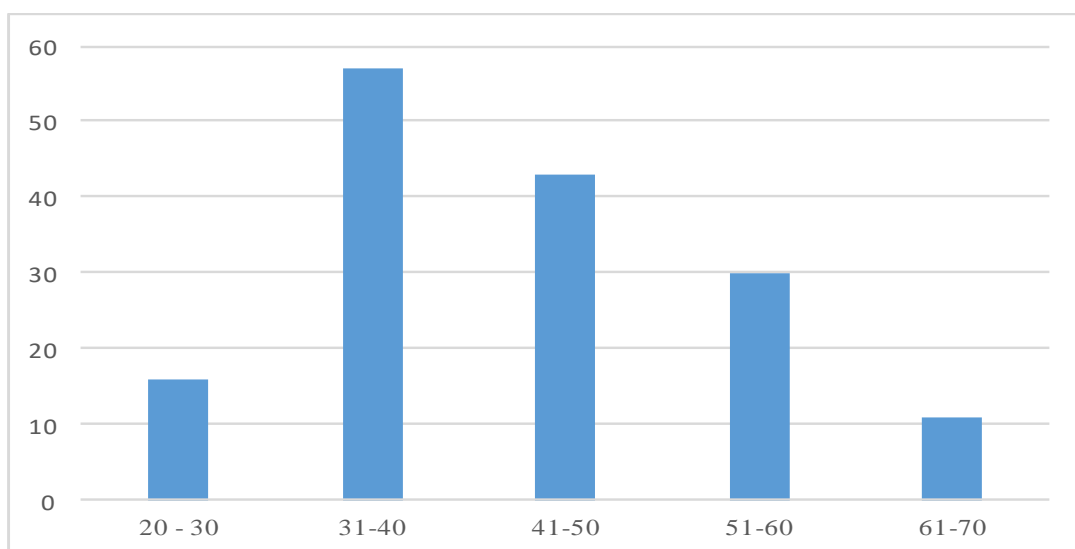
#### 4. GENERAL INFORMATION (QUESTIONS 1 >>> 6)

##### Q.1 - Country

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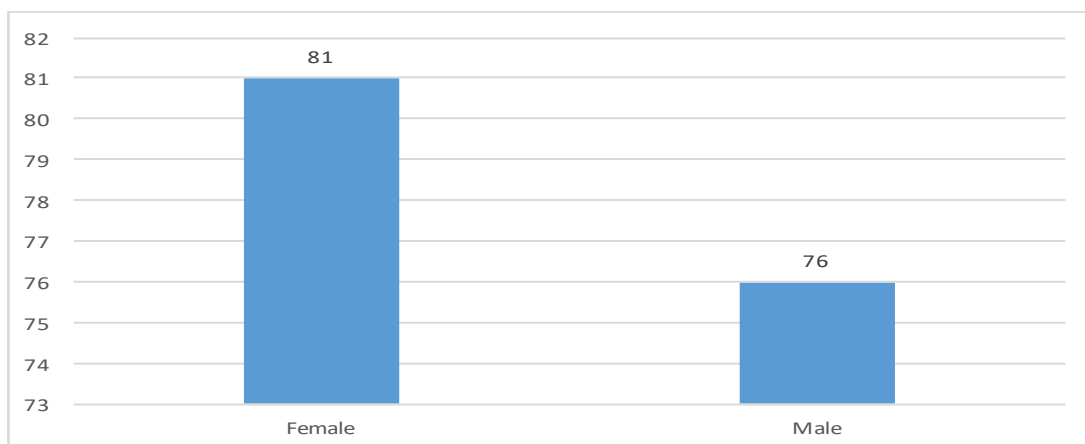
##### Q.2 – Age



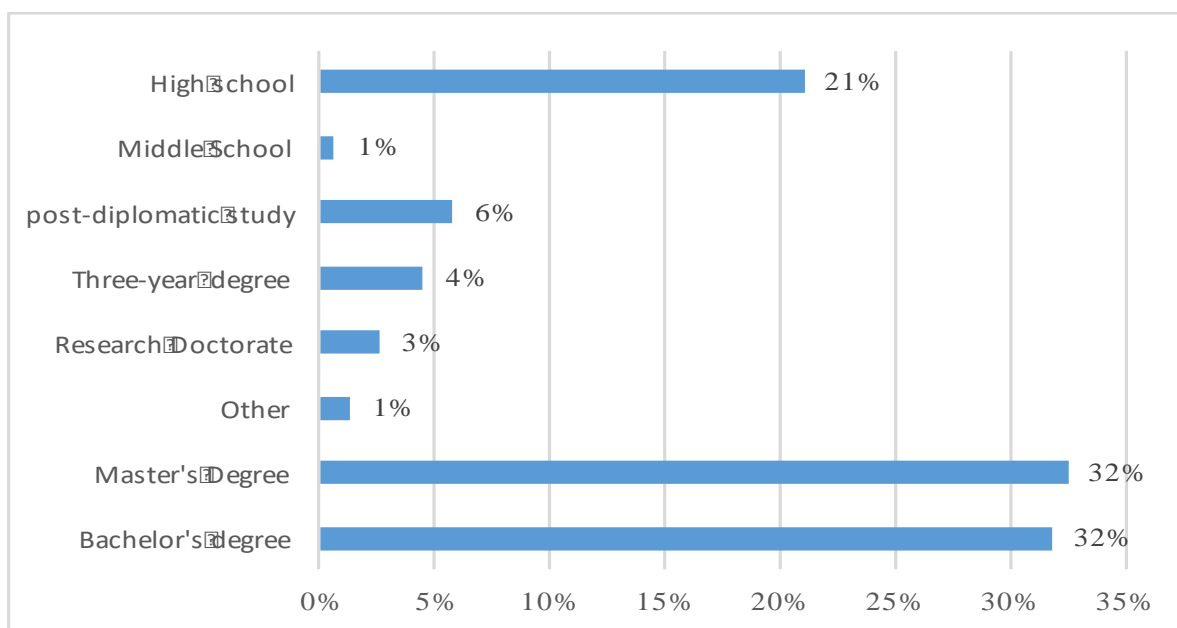


### Q.3 – Gender

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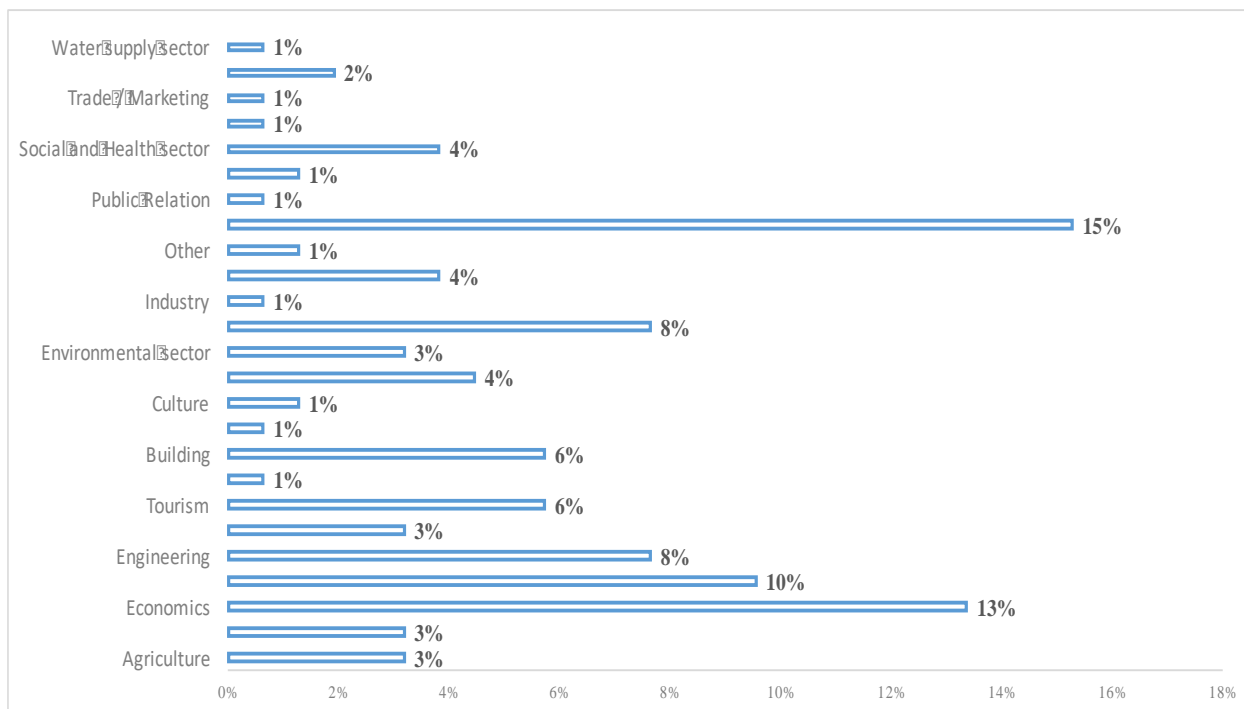


### Q.4 – Education



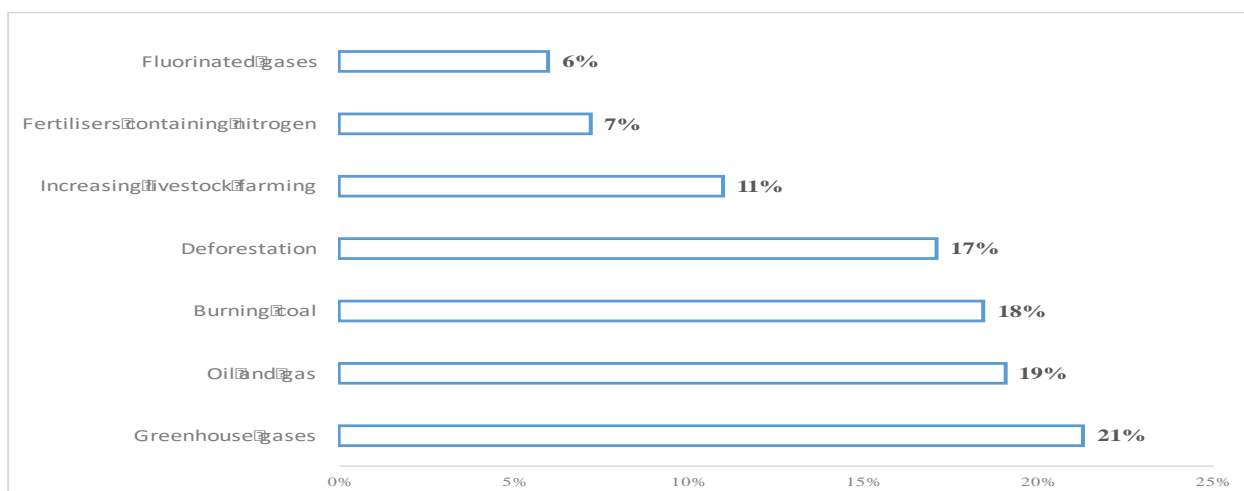
## Q.6 - Occupational Sector/Industry

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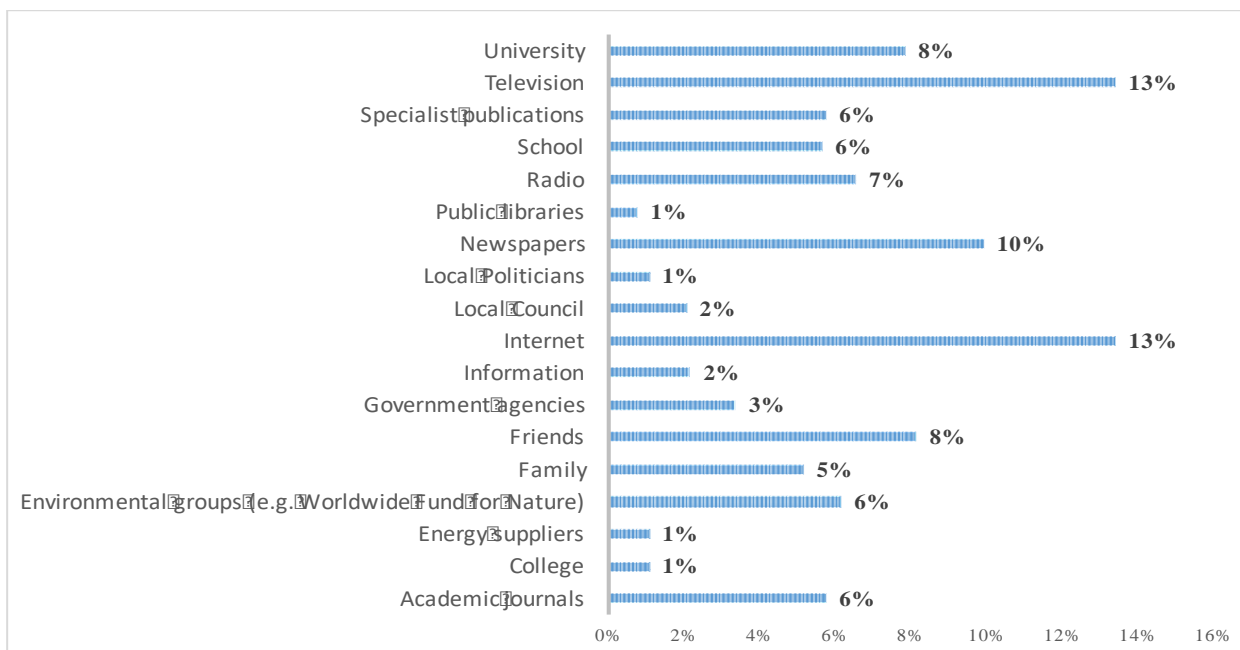


## 5. PERCEPTION AND KNOWLEDGE ABOUT CLIMATE CHANGE (QUESTIONS 7 >>> 18)

### Q.7 - Do you know what climate change is due to? (You can choose more than one option)



Q.8 - Where have you heard about climate change? (Tick as many as you feel apply)



11

Q.9 - Indicate how important are the following ways of obtaining information on climate change, its causes and possible adaptive measures

A [A family member or a friend]	N	%
A little	50	32%
A lot	47	30%
Can't choose	3	2%
Not at all	10	6%
Not very much	47	30%
<b>TOTAL</b>	<b>157</b>	<b>100%</b>

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B [A scientist / Expert]	N	%
A little	3	2%

A lot	134	85%
Can't choose	2	1%
Not at all	4	3%
Not very much	14	9%
<b>TOTAL</b>	<b>157</b>	<b>100%</b>

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<b>C [The Government (even at local level)]</b>	<b>N</b>	<b>%</b>
A little	20	13%
A lot	100	64%
Can't choose	2	1%
Not at all	7	4%
Not very much	28	28
<b>TOTAL</b>	<b>157</b>	<b>157</b>

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<b>D [An Energy supplier]</b>	<b>N</b>	<b>%</b>
A little	30	19%
A lot	68	43%
Can't choose	4	3%
Not at all	18	11%
Not very much	37	24%
<b>TOTAL</b>	<b>157</b>	<b>100%</b>

<b>E (e.g. Worldwide Fund for Nature)]</b>	<b>N</b>	<b>%</b>
A little	19	12%
A lot	111	71%
Can't choose	6	4%
Not at all	3	2%
Not very much	18	11%
<b>TOTAL</b>	<b>157</b>	<b>100%</b>

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<b>F (e.g. television, radio, Newspapers)]</b>	<b>N</b>	<b>%</b>
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A little	17	11%
A lot	106	68%
Can't choose	3	2%
Not at all	2	1%
Not very much	29	18%
<b>TOTAL</b>	<b>157</b>	<b>100%</b>

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<b>G (e.g. Facebook, Twitter, etc.)]</b>	<b>N</b>	<b>%</b>
A little	29	18%
A lot	86	55%
Can't choose	5	3%
Not at all	7	4%
Not very much	30	19%
<b>TOTAL</b>	<b>157</b>	<b>100%</b>

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<b>H [Academia (Specialist publications, academic journals, etc.)]</b>	<b>N</b>	<b>%</b>
A little	20	13%
A lot	103	66%
Can't choose	7	4%
Not at all	6	4%
Not very much	21	13%
<b>TOTAL</b>	<b>157</b>	<b>100%</b>

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<b>I [Internet]</b>	<b>N</b>	<b>%</b>
A little	24	15%
A lot	102	65%
Can't choose	3	2%
Not at all	2	1%
Not very much	26	17%
<b>TOTAL</b>	<b>157</b>	<b>100%</b>

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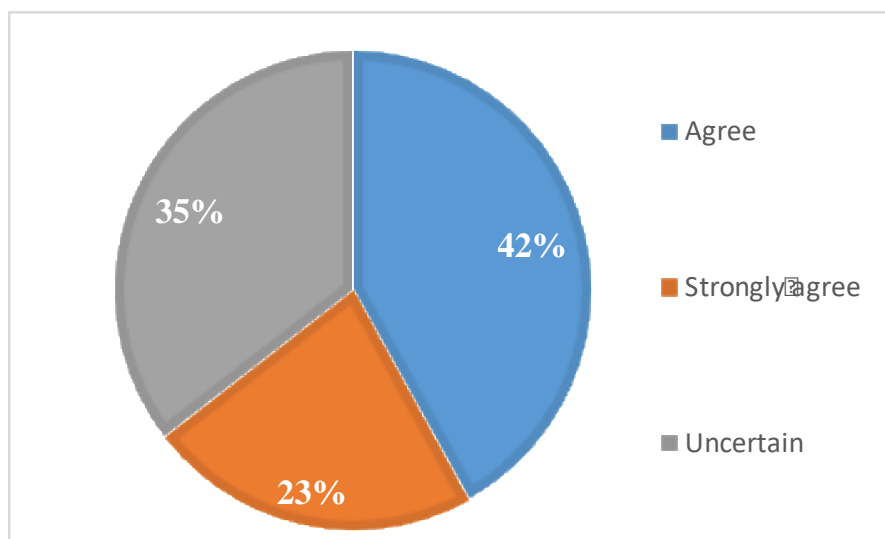
<b>J [Civil Protection]</b>	<b>N</b>	<b>%</b>
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A little	25	16%
A lot	82	52%
Can't choose	9	6%
Not at all	14	9%
Not very much	27	17%
<b>TOTAL</b>	<b>157</b>	<b>100%</b>

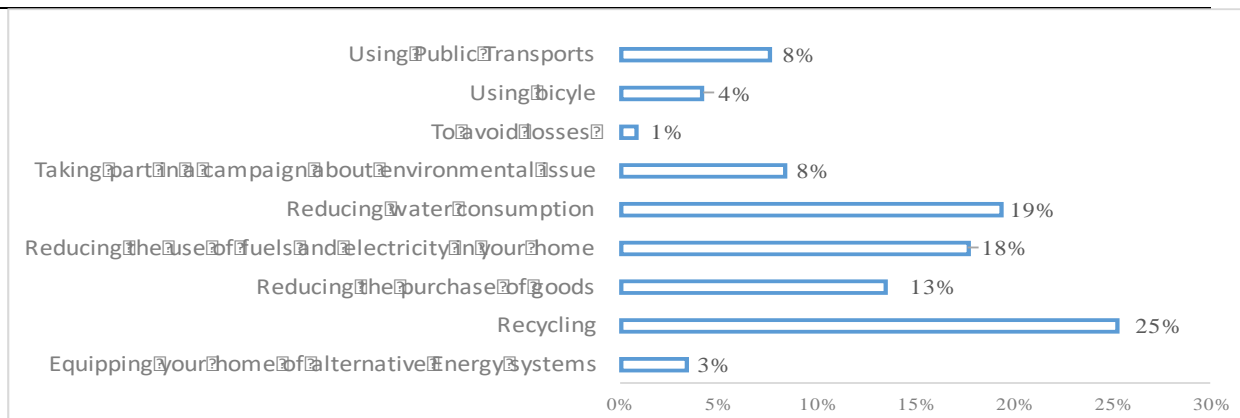
## 6. CAPACITY AND LEVEL OF RESILIENCE OF THE TARGET GROUPS (QUESTIONS 19 >>> 71)

### CITIZENS AND CONSUMERS ASSOCIATIONS

Q20 - Are you willing to attend training courses or informative events related to climate change impacts?

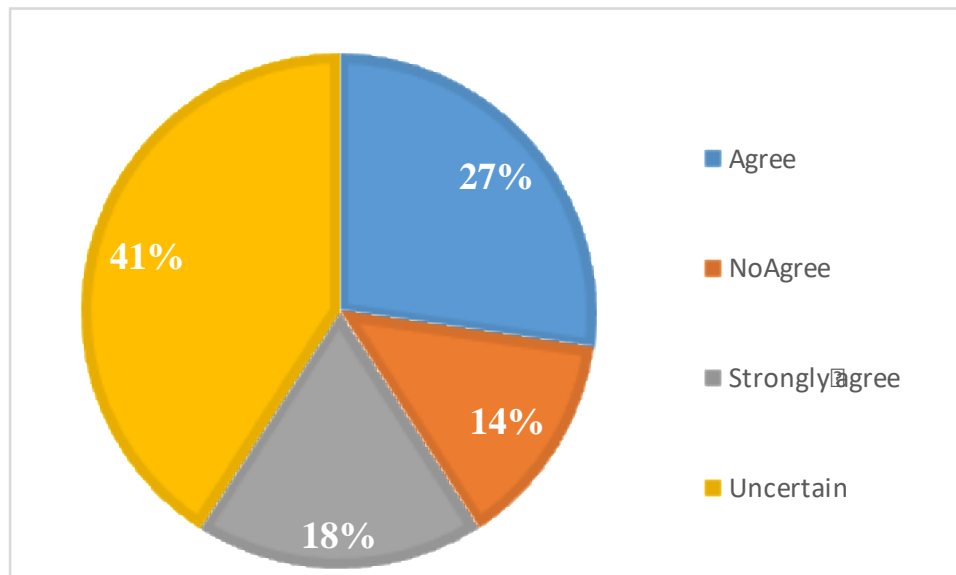


Q23 – Of the habits listed below, which do you actually put into practice (you can choose more than one option):



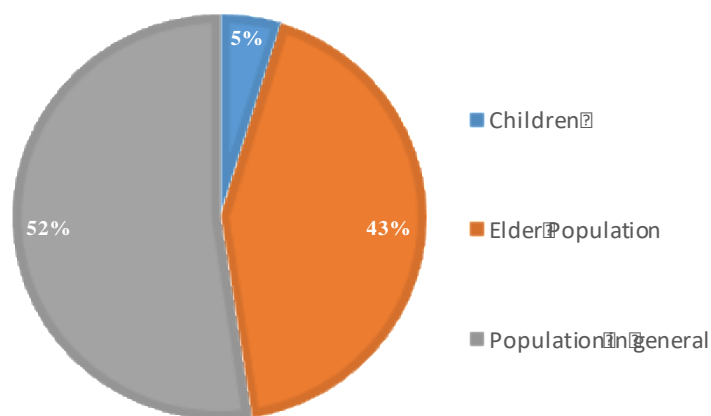
## AGRICULTURAL ACTIVITIES

Q33 - According to your opinion is climate change already influencing design criteria and management policies in your territory/area?



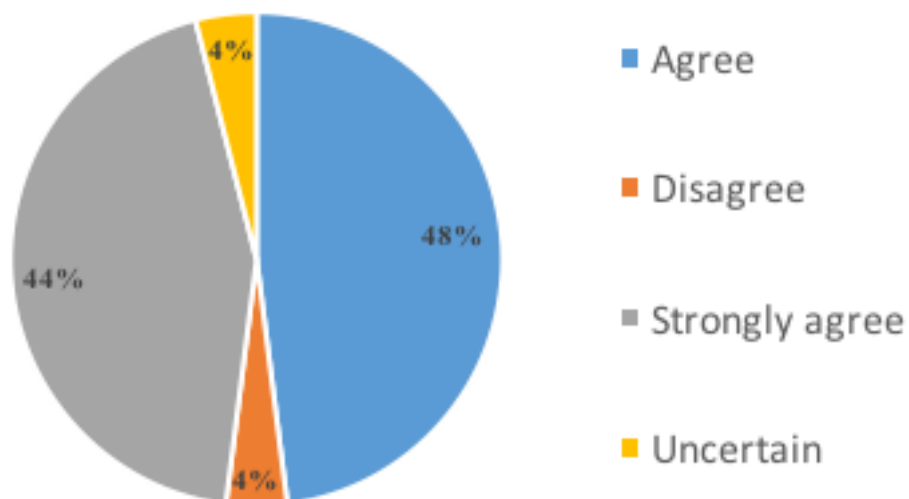
## HEALTH AND SOCIAL SERVICES

Q.48 - According to your experience which of the following groups is more vulnerable to the impacts of climate change on health?



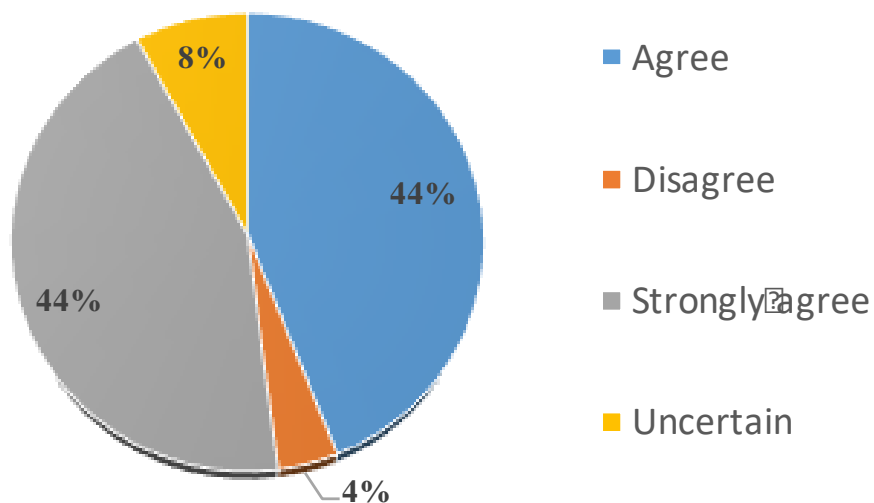
### COMMERCIAL AND HANDICRAFT ACTIVITIES

Q.48 - Extreme weather events such as floods, landslides, typhoons, heat or cold waves are a growing threat to your territory/activity?

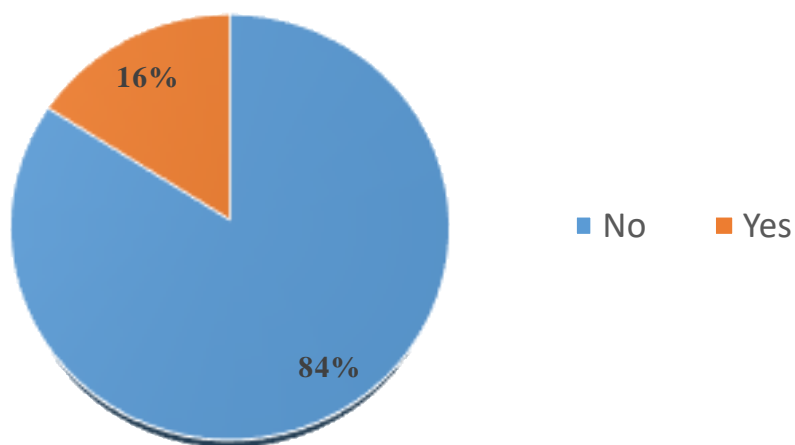


Q.49 - The damages caused by these climatic hazard have serious repercussions on the economic stability and growth of the affected areas.

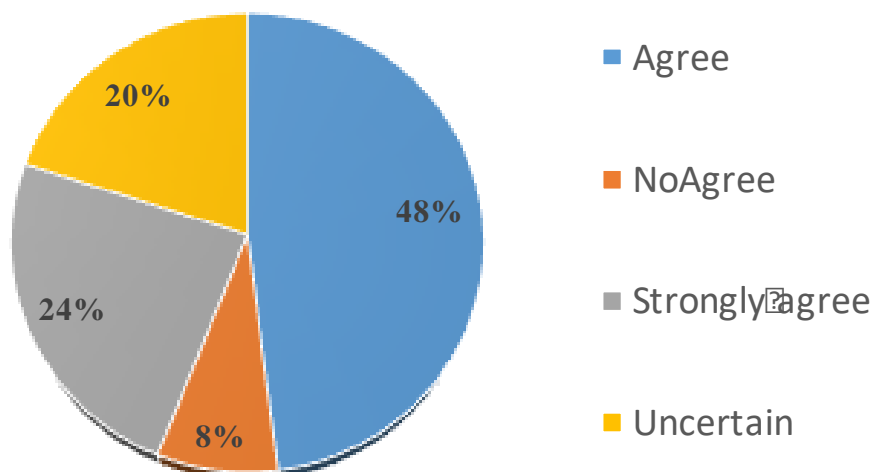




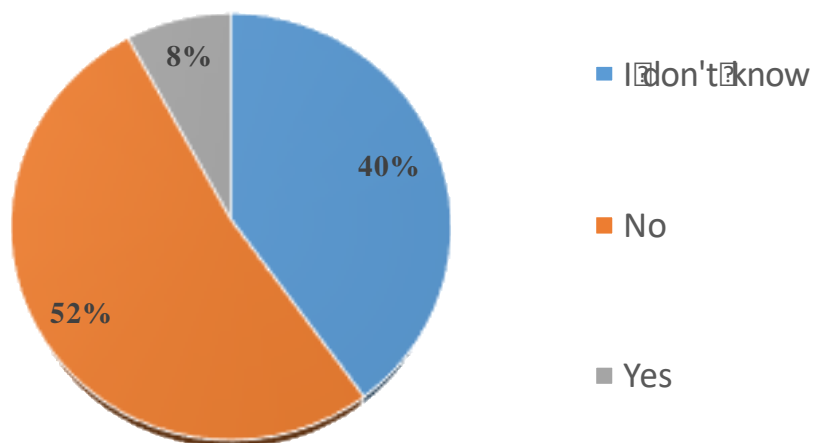
Q.50 - Have you suffered damages from extreme weather events in the last 5 years?



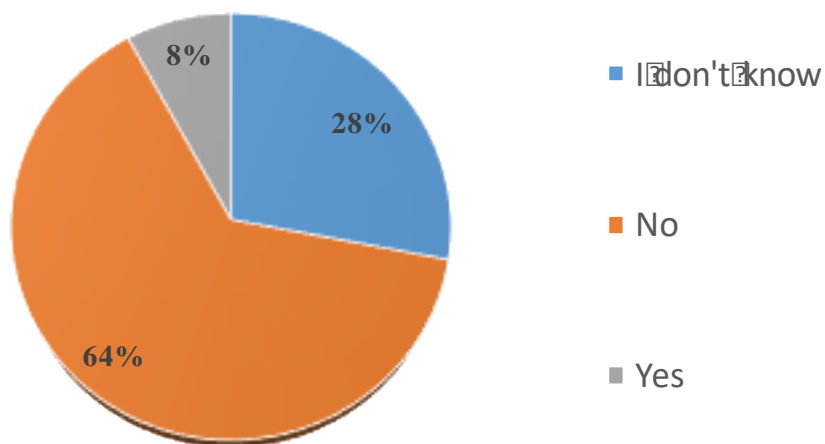
Q.52 - Small and Medium Enterprises do not have adequate risk assessment and risk management tools.



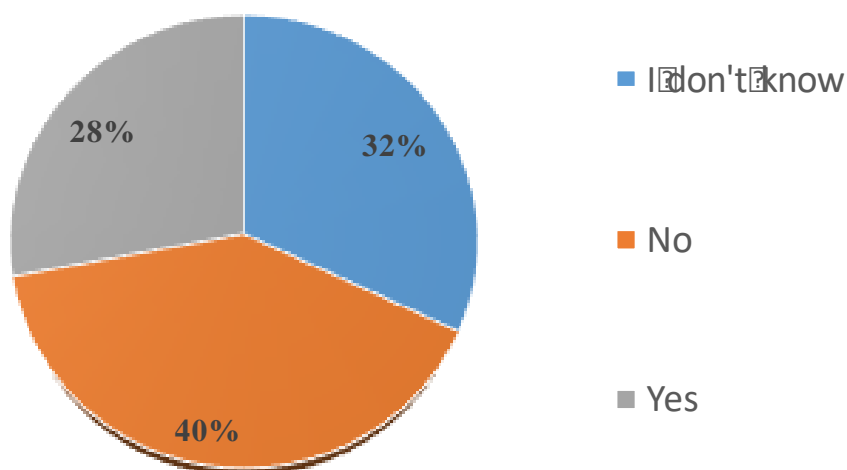
Q.53 - Does the company's budget envisage allocating resources for the implementation of climate risk mitigation actions?



Q.54 - Have the necessary resources been assessed to manage a climate emergency and ensure the continuity of the company's activities?

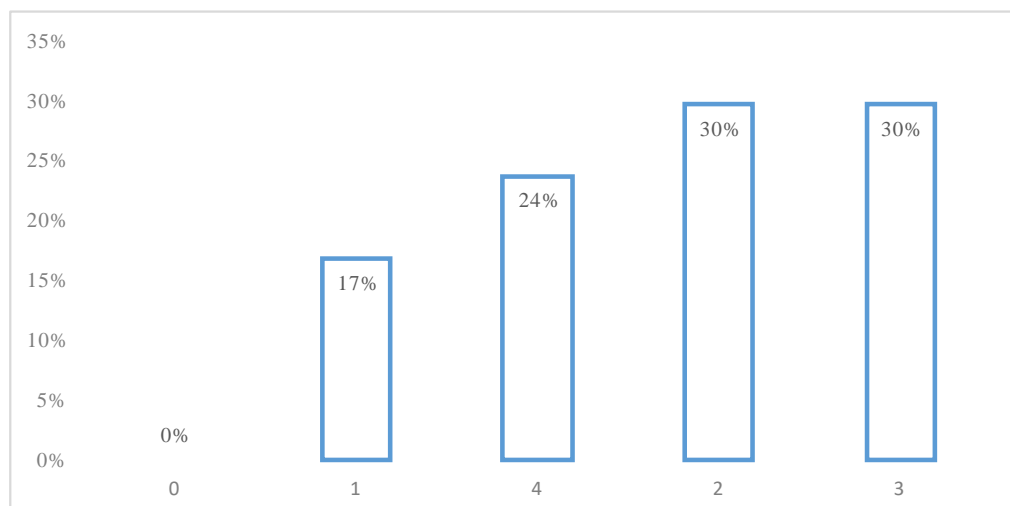


Q.55 - Has it been verified whether you can obtain funding from third parties (public, private) for climate risk reduction interventions?

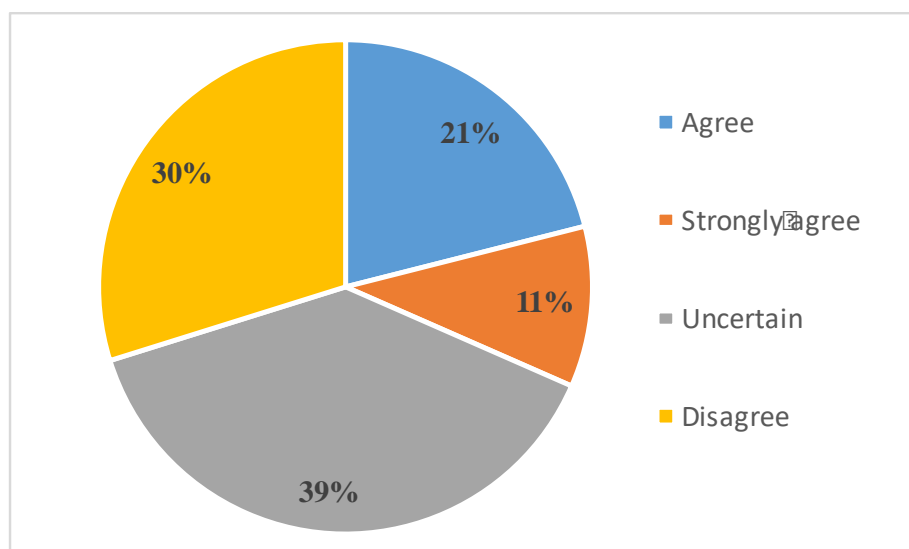


## ENVIRONMENTAL ASSOCIATIONS

Q.64 - Rate from 0-4 activities and local initiatives in your municipality connected to awareness raising about adaptation to climate change



Q.65 - I believe that the responsible authorities are efficient in managing climate change impacts and related problems.



Q.66 – Considering the experience you developed through the years, which of the following adaptation measures do you think should be primarily implemented in your territory? (3 choices)

