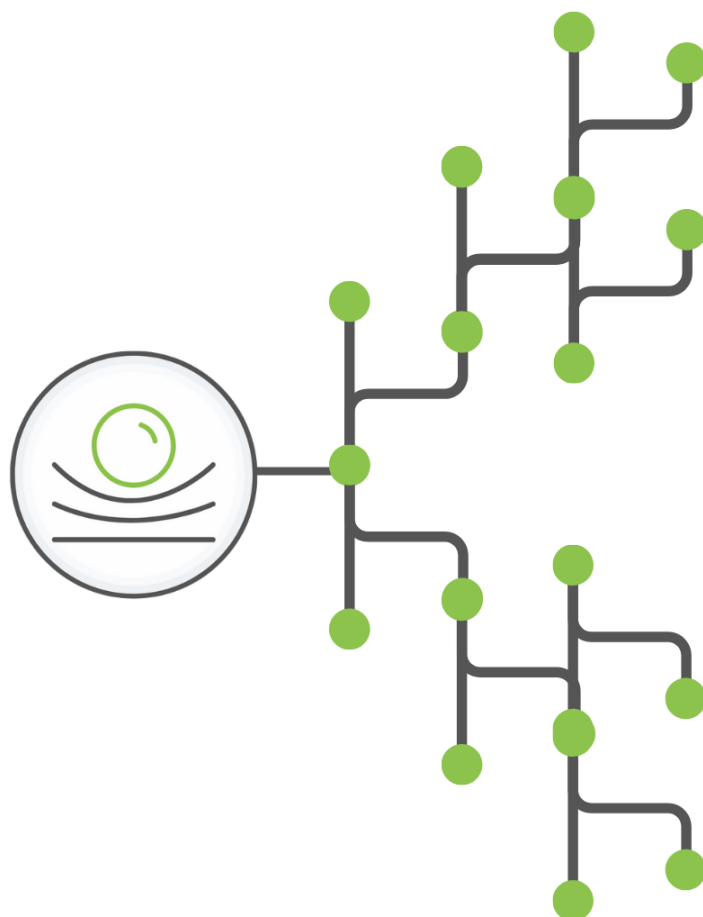




Citizen Survey Report

AUGUST 2025

www.regilience.eu



This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement no. 101036560.



Project Acronym:	REGILIENCE
Programme	Horizon2020
Type of Action	Coordination and Support Action
Grant Agreement number	101036560
Start day	01/11/2021
Duration	48 months
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About

REGILIENCE is committed to supporting the European Green Deal and the EU Mission “Adaptation to Climate Change” by fostering the adoption of regional climate resilience development pathways.

The project develops, compiles, shares, and promotes tools and scientific knowledge to support European regions in identifying and addressing their climate-related risks. REGILIENCE works closely with sister projects, such as ARSINOE, IMPETUS, and TransformAr to enhance the capacity of focus regions to tackle the unavoidable impacts of climate change.

The project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 101036560.

The REGILIENCE project aims:

- i) to foster the adoption and wide dissemination of regional climate resilience pathways, following a demand-driven approach, bearing in mind expertise and knowledge acquired, as well solutions available from Innovation Packages and other sources;
- ii) to support Green Deal targets and communication by implementing Innovation Packages that will address key community systems and comprise adapted solutions and pathways deemed essential for climate and social resilience in specific regional contexts within the set timeline.

These objectives are aligned with Horizon Europe’s proposed Mission “Prepare Europe for climate disruptions and accelerate the transformation to a climate-resilient and just Europe by 2030”.

It will implement the LC-GD-1-3-2020 RIA project results on the Innovation Packages.



Executive Summary

The 2025 REGILIENCE citizen survey in Central Macedonia marks the second consecutive year of data collection, providing valuable insights into public awareness, perceptions, and adaptation behaviours related to climate change. This edition significantly improved upon 2024 by expanding participation from 218 to 945 valid responses, largely due to a deliberate combination of online outreach and targeted in-person engagement in both urban and rural settings. The use of a trained field team, university and workplace visits, and tailored outreach to underrepresented groups ensured a more balanced sample across gender, age, education, and socio-economic background.

These methodological advances allow for deeper and more meaningful demographic comparisons, though year-to-year analysis should be interpreted with care due to changes in question formats, expanded sociodemographic variables, and the different composition of respondents.

Findings from the 2025 survey reveal:

- Hazard Perceptions for extreme weather events are heatwaves, heavy precipitation and changing air temperature dominate citizens' concerns. The timing of the survey (late spring to early summer) may have heightened awareness of heat-related risks, given recent regional experiences. Droughts and coastal floods had a biggest drop in concern regarding last year's auscultation.
- Concept Awareness shows that while most climate related terms retained similar levels of recognition compared to 2024, sustainability awareness dropped considerably. This decline may be linked to the revised question format, where respondents had to match concepts to definitions rather than self-report familiarity. It may also indicate that the public understands "sustainability" in broader socio-economic or lifestyle terms, rather than in a climate-specific sense.
- Adaptation Actions reveal that citizens are engaging in a mix of individual and household measures, particularly those related to water conservation, energy efficiency, and heat protection. However, uptake of more structural or community-scale adaptation measures perceptions remains limited, suggesting a gap between awareness and the implementation of systemic solutions.
- Priority Measures for the Region identified by respondents focus strongly on promotion on renewal energy sources and reducing fossil fuel dependence, implementation of waste management and recycling initiatives, strengthening public health systems for climate-related risks and encouragement of sustainable consumption and production.
- Socio-demographic Analysis suggests that education level, age, gender, economic strain, and residence location shape both awareness and behaviour.

The results underline the importance of sustained public engagement in climate adaptation strategies. The REGILIENCE project plays a pivotal role in this process by ensuring that citizen perspectives inform regional climate policies and resilience planning. These findings provide a stronger empirical base for designing targeted communication, education, and policy interventions that addresses needs and concerns of diverse population groups.



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1 Introduction

The REGILIENCE project develops, compiles, shares, and promotes tools and scientific knowledge to support European regions in identifying and addressing climate-related risks. The impacts of climate change are already being felt globally whether through the increase in extreme weather events such as droughts, floods, and storms, or through gradual shifts in environmental conditions and ecosystems. While several European and national initiatives are underway to develop adaptation and mitigation solutions, there remains a pressing need to meaningfully engage citizens in this process. This is particularly important given the often-limited public awareness, understanding, and adoption of measures to address the consequences of climate change.

Citizen perspectives play a critical role in shaping effective policies and local actions. Understanding their perceptions, concerns, and adaptation behaviours is essential for co-developing and implementing measures that are both socially acceptable and practically effective. In this context, the REGILIENCE project designed a citizen survey as part of Work Package 1 (WP1) “Engagement, Communication, and Dissemination” to assess public awareness of climate risks, including hazards, exposure, and vulnerability, and to evaluate the perceived need for adaptation and resilience measures.

The region of Central Macedonia in Greece, with a population of approximately 1.8 million, has faced persistent flooding, heatwaves and water scarcity over the last five years, alongside significant challenges in transport infrastructure and the energy efficiency of public buildings. This regional context makes it an important case for understanding local climate risk perceptions and adaptation readiness.

The first survey round, conducted in 2024, generated valuable baseline data. Approximately one year later, the second round was carried out to assess potential changes in citizens’ awareness, knowledge and perceptions, also to evaluate any shifts that may have resulted from ongoing communication and engagement activities, recent climate-related events, or new policy measures in the region. While the first survey drew a smaller and highly educated sample, in 2025, a larger and more demographically balanced respondent pool, improved quality and representativeness of findings. This fourfold increase in participation substantially strengthens the ability to analyse climate change perceptions and adaptation behaviours across a diverse range of social groups.

As this is the second consecutive year of the REGILIENCE citizen survey in Central Macedonia, comparisons between 2024 and 2025 are possible, but should be made with caution due to differences in sample composition, the addition of new sociodemographic variables, and refinements in certain question formats.

A key difference between the two rounds is the timing of data collection. In 2024, the survey ran from January to April, whereas in 2025 it took place between May and July. In both survey rounds, strict ethical standards were applied: participants were informed of the survey’s purpose and their rights prior to participation, anonymity was guaranteed, and responses were collected in compliance with data protection regulations.



This report is structured into three main sections: the Methodology section outlines the survey design, question structure, data collection procedures, and analytical approach. The Results section presents the key findings, covering sociodemographic characterisation, awareness and perceptions of climate change, personal adaptation actions, and priority measures for Central Macedonia. The Conclusion summarises the main insights, highlights changes observed between the 2024 and 2025 survey rounds and identifies areas for further engagement and research.

This second survey also benefitted from strategic methodological refinements aimed at improving the robustness of the dataset and strengthening the survey's role as a long-term monitoring tool for adaptation and resilience in the region. The inclusion of new or restructured questions, such as those on concept awareness, socioeconomic characterisation and individual adaptation measures, provided a more detailed and accurate insights into citizens' engagement with climate change. Ultimately, these improvements reinforce REGILIENCE's commitment, generating reliable, comparable, and policy-relevant data to guide regional climate adaptation strategies.



2 Methodology

2.1.1 Survey Design and Development

The Citizens' Survey was developed and implemented online by F6S using EUSurvey under the prerequisites of the REGILIENCE project. The questionnaire was translated into Greek by the same platform and validated by an independent contractor. Its purpose was to assess citizens' awareness, practices, and perceptions about climate change in Central Macedonia, Greece, while also enabling the creation of indicators to track perception changes over time.

The second phase, 2025 survey, included adaptations to some questions and adjustments in structure to place greater emphasis on adaptation. Notably, the concept awareness question changed format, requiring respondents to match terms to definitions. This provided a more precise indication of actual knowledge levels, though it also introduced a methodological shift that should be considered when comparing results across years.

The questionnaire covered four thematic areas: sociodemographic characterisation, knowledge about climate change, perceptions of climate change, and personal actions on climate change focusing on adaptation. The final version, comprised 16 questions, broken into 72 variables, was designed to be completed in under 10 minutes avoiding respondents' fatigue and was available in both English and Greek (see Annex I).

2.1.2 Data Collection Procedures

Data collection took place between 12 May and 3 July 2025 using a non-probabilistic convenience sampling approach. The survey was disseminated online via email, social media, and community networks, and was complemented by in-person collection in four urban areas (Thessaloniki, Veroia, Katerini, Serres) and four rural agricultural areas (Pieria, Imathia, Chalkidiki, Serres). These rural sites represented a mix of coastal, mountainous, forest, and farming zones. This differed from 2024, when data collection began in January and extended until April, with responses gathered exclusively online. That earlier timing coincided with winter and early spring conditions, while the 2025 fieldwork occurred during late spring and early summer, a period marked by rising temperatures, prolonged dry spells, and multiple wildfire incidents. These contrasting seasonal contexts may have influenced hazard perceptions and priorities in each survey year and should be considered when interpreting the results.

A field team of three survey collectors approached over 1,500 people, using two mobile devices and two tablets to facilitate immediate completion. Surveys were either filled in on-site or later at home using emailed instructions. This blended approach significantly boosted participation and improved demographic coverage particularly among older adults, rural residents, and citizens with lower formal education levels, all of whom were underrepresented in 2024.

Targeted outreach was carried out to engage both younger respondents (18 – 34) and older citizens (65+). Visits to four universities and six major business buildings helped reach students and working-age adults.



The survey design was optimised for accessibility across devices, with clear instructions and, when necessary, on-site assistance.

This enhanced outreach strategy and mixed-mode collection was key in producing a more well-adjusted and demographically representative dataset in 2025. The improved balance strengthens the capacity for comparisons across gender, age, education, and socio-economic groups. Alongside these improvements, several new and restructured questions were introduced to more accurately capture behavioural patterns, particularly in relation to adaptation. These refinements reinforce the survey's role as a core monitoring tool within the REGILIENCE framework, enabling the tracking of changes in public awareness, perceptions, and adaptation practices and supporting the co-design of targeted interventions in Central Macedonia.

2.1.3 Data Processing and Recoding

In total, 945 valid responses were collected. While the sampling method does not guarantee statistical representativeness, the educational distribution closely mirrors Eurostat's regional profile for ages 20 – 64, increasing confidence in representativeness. Ethical standards were upheld throughout, ensuring informed consent, anonymity, and compliance with data protection regulations.

Data processing was performed using Excel and SPSS, with descriptive statistics and cross-tabulations as primary analytical tools. Data was disaggregated by gender, age, education, residence, natural surroundings, employment status, and socio-economic status.

Some variables were recoded for analytical clarity:

- Gender: "Prefer not to answer" excluded due to low incidence.
- Age: kept as originally collected but also grouped into three major life-stage categories.
- Education: condensed from seven categories into three broad levels for comparability.
- Residence: simplified into "urban" and "rural" to address low representation in other categories.
- Natural surroundings: consolidated into "Water-related areas", "Flat or lowland terrain", and "Hilly/mountain/forest".
- Occupation: recoded into "working" and "not working" to address low representation in other categories.
- Economic condition: measured through difficulty in paying bills (Eurobarometer 513 method) as an income proxy. Recoded into Financial Strain indicator: "always" and "sometimes" having difficulty paying bills classified as "Yes", and "never" classified as "No".

This methodological approach ensured consistency with the 2024 survey while enhancing the analytical robustness of the 2025 findings.



3 Participation Overview

The 2025 REGILIENCE citizen survey achieved a substantial increase in participation compared to 2024, with 945 valid responses collected, against 218 in the previous round. When asked whether they had participated in the earlier survey, only 2% of respondents said yes, indicating that the 2025 pool was largely composed of new participants.

This growth in participation can be attributed to several factors, including broader outreach through both online and in-person channels and improved engagement with traditionally underrepresented groups. The blended recruitment strategy ensured that participation was more evenly distributed across demographic segments, resulting in a markedly more balanced dataset.

In 2024, the respondent profile was heavily skewed towards highly educated individuals, with most holding a Master's or Doctoral degree. In contrast, the 2025 survey achieved an educational distribution much closer to regional averages, with balanced representation across lower, middle, and higher education levels. This indicates that the second survey round successfully engaged a broader cross-section of the population.

The 2025 survey reached a larger, more diverse and more representative pool of participants. These improvements enhance the reliability of the results, strengthen the basis for demographic comparisons and provide policymakers and regional authorities with a far more comprehensive understanding of public perceptions, awareness and adaptation behaviours to inform inclusive climate resilience strategies.



4 Results and Data Analysis

4.1 Sociodemographic Characterisation

The 2025 survey marks a clear methodological and substantive improvement over its 2024 predecessor, producing results that are both more inclusive and more representative of Central Macedonia's adult population. Key shifts in demographic composition are particularly evident. Age and gender distributions now align more closely with Eurostat benchmarks, correcting the 2024 under-representation of seniors and improving the participation of women, especially in older cohorts. Although young adults (18 – 24) remain over-represented, the enhanced diversity across age groups allows for richer, more balanced age-sensitive analysis.

Educational attainment, which in 2024 was heavily skewed toward respondents with postgraduate qualifications, is now distributed in a way that more closely mirrors the regional profile. The stronger presence of individuals with upper secondary or post-secondary non-tertiary education reduces the bias toward perspectives shaped predominantly by higher education, improving the generalisability of findings. The refinement of occupational categories has also revealed a more accurate employment landscape. Whereas 2024 data was dominated by paid workers, the 2025 survey captures a significantly larger share of retirees, students, and unemployed individuals, providing a truer reflection of the population's varied employment statuses. This broader inclusion is particularly relevant for analyses where economic participation influences attitudes and behaviours.

Economic indicators show a complex picture: while the share of respondents facing persistent difficulty paying bills has decreased since 2024, a larger proportion now reports occasional financial strain. This suggests that while extreme hardship may have eased slightly, economic vulnerability remains widespread, cutting across employment and educational categories.

Taken together, these improvements result in a dataset that is more representative, balanced, and capable of supporting nuanced analysis. A wider demographic, educational, occupational, and economic inclusion strengthens the reliability of cross-variable insights and enhances the survey's policy relevance. By capturing voices that were previously under-represented, the 2025 survey offers a sounder evidence base for regional decision-making, enabling better-targeted social and economic interventions in Central Macedonia.

4.1.1 Gender

Two citizen surveys were conducted under the REGILIENCE project: the first in 2024 and the second in 2025. Both were disseminated primarily online but also included targeted in-person engagement to reach a diverse population base.

In 2024, a total of 218 valid responses were collected. The gender distribution was 63.3% female (138) and 35.8% male (78), indicating a strong overrepresentation of women in the respondent pool.



In contrast, the 2025 survey achieved 945 valid responses, marking a substantial increase in participation. The gender balance shifted notably: 52.2% male (493) and 47.8% female (452). This represents not only a near gender parity but also a reversal of the 2024 trend, with a higher proportion of male respondents.

The increase in male participation may be attributed to broader dissemination strategies, including targeted outreach in workplaces, universities, and public spaces that are frequented by a more gender-diverse population. It may also indicate a growing interest among men in climate-related topics and local adaptation discussions.

The year-on-year comparison highlights two key trends: a dramatic increase in overall public engagement and a significant shift in gender representation. These findings are important for understanding how different demographic groups are engaging with climate change issues in Central Macedonia and will be considered in the final conclusions of this report.

4.1.2 Age Groups

In both surveys, respondents were categorised into six age groups: 18 – 24, 25 – 34, 35 – 44, 45 – 54, 55 – 64, and 65+.

In 2024, the 45 – 54 age group dominated responses (31.7%), while 65+ was under-represented (7.3%). In 2025, responses were more balanced, with 18 – 24 at 23.8%, 65+ at 23.6%, and 45 – 54 at 22.2%. However, 25 – 34 (7.2%) and 55 – 64 (5.8%) categories are under-represented.

When compared with Eurostat population data for Central Macedonia (July 2025), 2025 results show marked improvement, particularly for the 65+ group, which is now almost perfectly aligned with its actual population share (23.6% vs. 23.2%). Nevertheless, 18 – 24 remains significantly over-represented (23.8% vs. 7.5%), suggesting stronger engagement among younger adults, potentially linked to targeted outreach.

Table 1 Age Group Distribution

Age Group:	Survey	Population
0-17	n.a	16,3%
18-24	23,8%	7,5%
25-34	7,2%	10,4%
35-44	17,4%	12,7%
45-54	22,2%	15,2%
55-64	5,8%	14,6%
65+	23,6%	23,2%
Total (N)	945	1 778 896

Source Eurostat

To simplify interpretation, the six age groups were consolidated into four broader categories:

- Young Adults (18 – 24)
- Middle-Aged Adults (25 – 64)
- Senior Adults (65+)
- Under 18 (not surveyed)



The 2025 survey closely reflects the actual population for Middle-Aged Adults (52.6% survey vs. 53.0% Eurostat) and Senior Adults (23.6% vs. 23.2%). However, Young Adults remain substantially over-represented (23.8% vs. 7.5%)¹.

Table 2 Life Stage Distribution

Life Stage	Survey	Population
Under 18yrs (0-17)	n.a	16,3%
Young Adults (18–24)	23,8%	7,5%
Middle-Aged Adults (25–64)	52,6%	53,0%
Senior Adults (65+)	23,6%	23,2%
Total (N)	945	1 778 896

Source Eurostat

The distribution of age groups by gender is illustrated in Figure 1, which shows a generally balanced male-female participation in most age categories, especially 35 – 54. Slight male over-representation was noted in the 18 – 24 and 65+ groups, possibly reflecting differences in accessibility or interest.

Under-represented groups, namely 25 – 34 and 55 – 64, showed low participation for both genders, indicating an outreach gap that could be addressed through targeted strategies such as workplace or community-based dissemination.

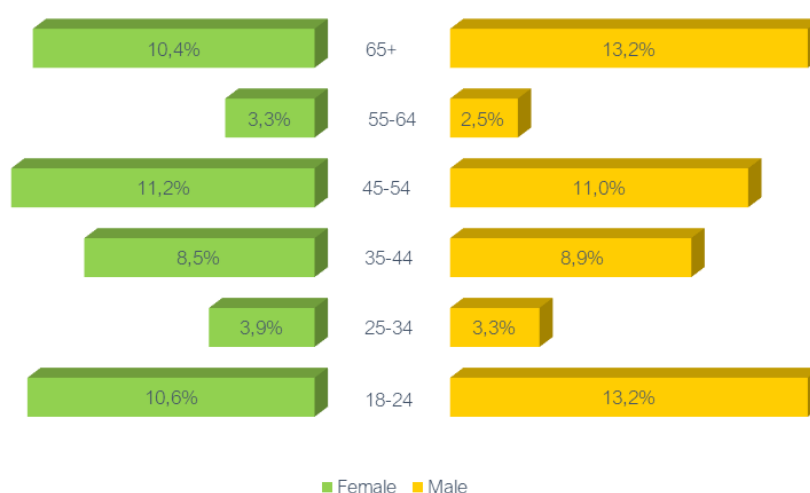


Figure 1 Age Group by Gender

When aggregated into life stages, as shown in Figure 2, gender representation remains balanced in middle-aged and senior categories. The extremes, youngest and oldest, display slightly higher male participation. The over-representation of young adults persists across both genders and should be moderated in future surveys to avoid bias.

¹ Percentages were not normalised like last year considering only the total number of individuals aged 18 and over (1,488,946). Individuals under 18 (289,950) were also taken into consideration for these calculations because of the over-representation of younger adults (18 – 24) in survey results. The data regarding the total number of residents in the region by age was obtained from Eurostat on July 14, 2025, and subsequent estimations were conducted thereafter.

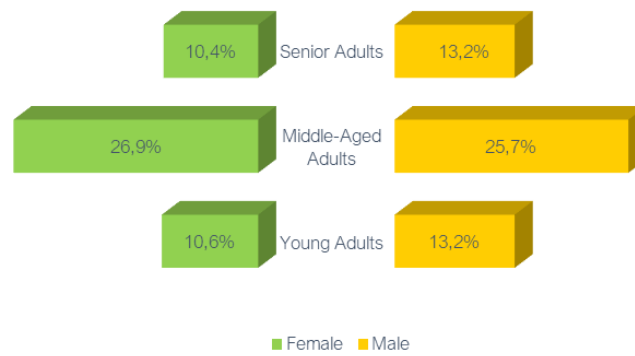


Figure 2 Life Stage by Gender

4.1.3 Levels of Education

The survey asked respondents to indicate their highest completed level of education. The original seven categories (ranging from primary to doctoral degrees) were recoded into three broader ISCED groups for analysis:

- Less than primary, primary and lower secondary education (Levels 0 – 2)
- Upper secondary and post-secondary non-tertiary education (Levels 3 – 4)
- Tertiary education (Levels 5 – 8)

Figure 3 presents the distribution of educational attainment in the 2025 survey sample. Table 3 compares these results with the regional population (20 – 64 years old) based on Eurostat data.

In the 2024 survey, respondents with Master’s or Doctoral degrees were heavily overrepresented (63.3%), limiting representativeness. In 2025, this imbalance has been corrected:

- 52.1% completed upper secondary or post-secondary non-tertiary education
- 34.5% hold tertiary qualifications
- 13.4% have less than primary, primary, or lower secondary education

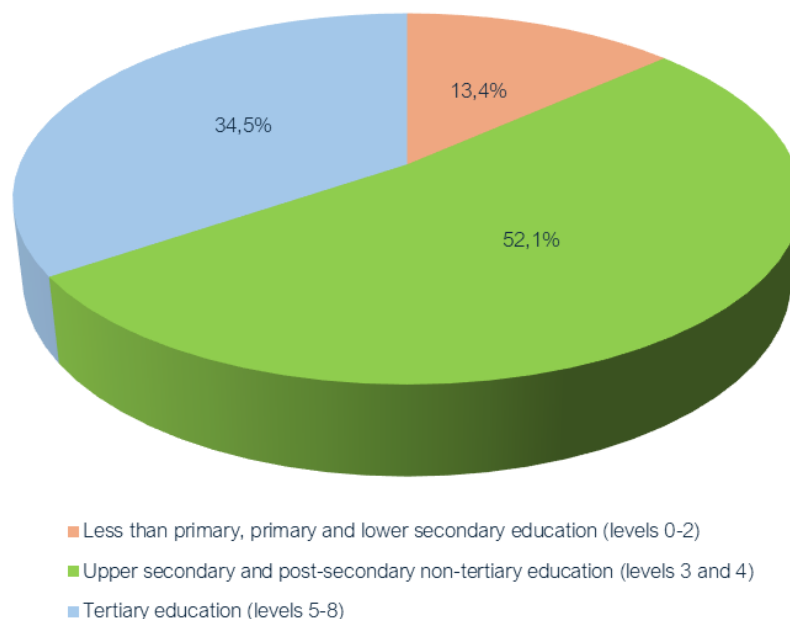


Figure 3 Levels of Education



This distribution is much closer to the regional educational profile, improving the validity and inclusivity of the results. While Eurostat data excludes those outside the 20 – 64 age range, the 2025 recoding ensures greater alignment with actual population trends and a more balanced representation across education levels.

Table 3 ISCED Levels of Education Distribution by Population

ISCED Level	Survey	Population (20-64)
Less than primary, primary and lower secondary education (levels 0-2)	13,4%	15,6%
Upper secondary and post-secondary non-tertiary education (levels 3-4)	52,1%	49,1%
Tertiary education (levels 5-8)	34,5%	35,3%
Total	945	100,0%

Source: Eurostat

4.1.4 Residence

The survey asked respondents to indicate which phrase best describes the area they live in. Five categories were provided: a big city, a country village, a farm or home in the countryside, a town or small city, and the suburbs or outskirts of a big city.²

Table 4 presents the distribution of responses. The majority of participants reported living in a big city (62.8%), followed by a country village (16.5%) and the suburbs or outskirts of a big city (14.2%). A smaller proportion live in a town or small city (6.3%), while only 0.2% reported living on a farm or in a countryside home.

Table 4 Area of Residence

Area of Residence	Responses	Percentage
A big city	593	62,8%
A country village	156	16,5%
A farm or home in the countryside	2	0,2%
A town or small city	60	6,3%
The suburbs or outskirts of a big city	134	14,2%
Total	945	100,0%

For analysis purposes, these categories were subsequently recoded into a simplified binary variable distinguishing between urban (big city, town or small city, suburbs or outskirts) and rural (country village, farm or countryside home) residence. This recoding ensures comparability across subgroups and strengthens the robustness of statistical analysis.

Table 5 Area of Residence Recoded*

Area of Residence	Responses	Percentage
Urban	787	83,3%
Rural	158	16,7%
Total	945	100,0%

² Question adapted from European Social Survey (ESS; www.europeansocialsurvey.org/).



As shown in Table 5, 83.3% of respondents were classified as urban and 16.7% as rural. This recoding allows for more robust comparisons across subgroups and aligns with the methodological refinements introduced in the 2025 survey.

4.1.5 Natural Surroundings

To complement the information on area of residence, respondents were also asked to describe the natural surroundings of where they live. Five options were provided: a coastal area, a flat or lowland area, a forest area, in the hills or near mountains, and near a river or lake.

Table 6 Natural Surroundings

Natural surroundings	Responses	Percentage
A Coastal area	221	23,4%
Flat or lowland area	357	37,8%
Forest area	7	0,7%
In the hills or near mountains	340	36,0%
Near a river or lake	20	2,1%
Total	945	100,0%

Table 6 presents the distribution of responses. The largest shares reported living in flat or lowland areas (37.8%) and in the hills or near mountains (36.0%). A further 23.4% identified a coastal area as their surroundings, while much smaller proportions reported living near a river or lake (2.1%) or in a forest area (0.7%).

For analytical purposes, these categories were later recoded into three broader groups: water-related areas (coastal area and near a river or lake), flat or lowland terrain, and hilly/mountain/forest (in the hills or near mountains and forest area). This recoding addressed low representation in some categories and ensured clearer subgroup comparisons across the dataset.

*Table 7 Natural Surroundings Recoded**

Natural Surroundings	Responses	Percentage
Water-related areas	241	25,5%
Flat or lowland terrain	357	37,8%
Hilly/mountain/forest	347	36,7%
Total	945	100,0%

Table 7 shows the distribution after recoding. Flat or lowland terrain accounts for the largest share of respondents (37.8%), followed by hilly/mountain/forest (36.7%). Water-related areas represent just over a quarter of the sample (25.5%).

This recoding strengthens subgroup analysis, particularly when examining links between natural surroundings, hazard perceptions, and adaptation priorities, by balancing detail with statistical clarity.



4.1.6 Professional Occupation

For analysis purposes, respondents' employment status was grouped into two broad categories: Working and Not Working. The Working category includes individuals actively engaged in paid employment, encompassing both those identified as "Paid Worker" and "Student-Worker," recognising the latter as participants in the labour market alongside their studies. The Not Working category covers respondents not currently in paid employment, such as the unemployed, full-time students, pensioners, those looking for their first job, and individuals without any activity.

In the 2024 survey, the vast majority of respondents (80.3%) fell into the Working category, with only 19.7% classified as Not Working. This strong skew toward the economically active population likely resulted in an under-representation of retirees, full-time students, and others outside the labour market. In contrast, the 2025 survey shows a much more balanced profile. Among the larger sample of 945 respondents, 57.6% reported being Working while 42.4% were Not Working. This shift suggests that the 2025 data captures a broader range of employment situations, including seniors, young adults not yet in the workforce, and other non-working groups, making it more representative of the actual adult population of Central Macedonia.

The methodological refinement and broader reach of the 2025 survey have helped reduce the work-centred bias observed in 2024. Combined with the larger sample size, this improved distribution enhances the reliability of the results and allows for deeper segmentation and cross-analysis by employment status, age, gender, and education.

4.1.7 Economic Condition Assessment

In both the 2024 and 2025 surveys, respondents were asked a question adapted from Special Eurobarometer 513 regarding the frequency with which they had difficulty paying bills. This indirect measure of economic well-being provides valuable insight into respondents' financial stability without requiring disclosure of their actual income.

The 2025 survey results indicate that the majority of respondents (61.9%) report experiencing occasional difficulty in meeting their bill payments, highlighting the prevalence of intermittent financial strain among the population. A smaller proportion (4.8%) stated that they always face such challenges, representing a notable minority struggling with persistent economic hardship. Conversely, 33.3% of respondents reported never encountering difficulty, suggesting a relatively secure financial position for this segment.

Compared to 2024, the percentage of individuals in persistent financial difficulty decreased from 8.3% to 4.8%, possibly reflecting either a modest improvement in severe economic hardship or the broader inclusion of diverse socioeconomic groups in the 2025 sample. However, the share of respondents reporting occasional strain increased from 55.5% to 61.9%, indicating that while severe hardship may be less common, moderate and recurring financial pressure continues to affect the majority. Similarly, the proportion of those who never experience payment difficulties declined slightly from 36.2% to 33.3%, which may point to a modest reduction in overall financial comfort or to the more inclusive nature of the 2025 survey's respondent base.



These findings underline that while economic vulnerability may have eased, financial challenges remain widespread in Central Macedonia. The persistence of moderate but recurrent strain suggests that economic pressures are embedded in everyday life for many households.

Table 8 Difficulty Paying Bills

Difficulty paying bills	Responses	Percentage
Always	45	4,8%
Sometimes	585	61,9%
Never	315	33,3%
Total	945	100%

4.2 Concept Awareness

This section examines respondents' understanding of key environmental and climate change concepts, with analysis across demographic and socio-economic segments. The focus is on recognition of terms such as Climate resilience, Climate change adaptation, Sustainability, Regional development and Green transition.

Responses were translated into percentages to reflect the proportion of individuals familiar with each concept. In this year's survey, instead of a simple "yes or no" format, respondents were asked to match definitions to the appropriate concepts. Answers were then recoded into yes/no categories for comparability.

Despite the methodological shift, the overall awareness trends remain broadly aligned with 2024. However, there is a significant drop in recognition of Sustainability, which fell by ~20 percentage points. Formerly the most widely recognised concept, Sustainability now ranks fourth, indicating that while the term is common in public discourse, understanding becomes less certain when tested through more precise definitions.



4.2.1 Concept Awareness 2025

Q8. Have you ever heard about the following concepts?

Table 9 Concepts on Environment and Climate Change

Concepts:	Climate Resilience	Climate Change Adaptation	Sustainability	Regional Development	Green Transition
Region					
Kentriki Makedonia	63,8%	87,2%	75,0%	92,5%	89,6%
Gender					
Female	61,4%	86,9%	74,0%	93,2%	89,2%
Male	68,2%	90,5%	78,6%	95,1%	93,2%
Life Stage					
Young Adults (18–24)	66,4%	93,3%	80,3%	98,7%	95,5%
Middle-Aged Adults (25–64)	70,0%	88,9%	76,4%	93,0%	87,9%
Senior Adults (65+)	52,3%	83,9%	72,5%	92,2%	94,5%
Education					
Lower Education	48,0%	78,0%	61,0%	89,4%	95,9%
Middle Education	72,5%	95,1%	79,9%	97,5%	95,7%
Higher Education	59,9%	83,3%	77,0%	90,9%	82,6%
Residence					
Urban	65,9%	87,9%	73,7%	94,4%	90,5%
Rural	60,5%	93,0%	89,8%	93,0%	94,9%
Natural Surroundings					
Water-related areas	55,4%	82,7%	70,1%	90,9%	80,1%
Flat or lowland terrain	72,4%	89,0%	72,4%	96,6%	94,9%
Hilly/mountain/forest	63,7%	92,7%	84,8%	93,9%	95,0%
Professional Occupation					
Working	69,0%	89,8%	76,0%	93,5%	89,2%
Not Working	59,5%	87,4%	76,9%	95,1%	94,1%
Financial Strain					
Yes	61,7%	86,9%	74,5%	92,7%	89,3%
No	71,5%	92,6%	80,1%	97,1%	95,2%

Climate Resilience:

- Overall awareness was recorded at 63.8%, which is lower relative to other concepts.
- Lower awareness was notably observed among respondents with lower education levels (48.0%), senior adults aged 65+ (52.3%), individuals living in water-related areas (55.4%), and those not actively working (59.5%).

Climate Change Adaptation:

- Awareness was high and stable at 87.2%.
- Lower recognition rates appeared among those with lower educational attainment (78.0%), individuals from water-related areas (82.7%) and between senior adults aged 65+ (83.9%).

Sustainability:

- Awareness notably decreased from the previous year, dropping to 75.0% and ranking fourth among evaluated concepts.
- Reduced familiarity was particularly evident among respondents with lower education (61.0%), individuals from water-related areas (70.1%) and senior adults aged 65+ (72.5%).



Regional Development:

- High awareness levels persisted at 92.5% across most demographic groups.

Green Transition:

- Recognition was high at 89.6% overall.
- Relatively lower awareness levels were observed among individuals living in water-related areas (80.1%) and those with Higher Education (82.6%).

4.2.2 Concept Awareness Comparison between 2024 and 2025

Awareness of key environmental and climate-related concepts remained generally high between 2024 and 2025, with only minor fluctuations for most terms. In 2025, Regional development (92.5%) and Climate change adaptation (87.2%) continued to be among the most widely recognised concepts, showing stability compared to the previous year. Green transition also maintained a strong presence, increasing slightly to 89.6% from 88.5% in 2025. Climate resilience saw a modest decline, falling from 68.5% to 63.8%, with lower recognition among older adults, individuals with lower educational attainment, those living in water-related areas, and people not currently working. The most notable change occurred in Sustainability, which dropped sharply from 97.2% in 2024 to 75.0% in 2025, moving from being the most acknowledged concept to ranking fourth. This decline may indicate that while the term is familiar in public discourse, recognition depends heavily on context and how it is presented to the public. Across demographic groups, education level, age, and environmental setting appeared to influence awareness levels, with consistently lower familiarity observed among respondents with lower education, those in water-related areas, and senior adults.

These answers suggest that while awareness of most concepts remains strong, targeted communication may be needed to address gaps among specific demographic segments, particularly for concepts like Sustainability and Climate resilience.

Table 10 Comparing Concepts on Environment and Climate Change

Concepts:	2024		2025	
	Responses	Percentage	Responses	Percentage
Climate resilience	145	66,5%	603	63,8%
Climate change adaptation	191	87,6%	824	87,2%
Sustainability	212	97,2%	709	75,0%
Regional development	203	93,1%	874	92,5%
Green transition	193	88,5%	847	89,6%
Total (N)	218	n.a	945	n.a



Table 11 Comparing Concepts on Environment and Climate Change

Concept	2024	2025	Trend
Climate Resilience	Lowest awareness overall; especially low among 65+ (25.0%) and those with financial strain (27.8%)	Improved awareness across groups. Still lowest among lower education (43.6%) and 65+ (59.2%).	Improved but still lowest
Climate Change Adaptation	Broad awareness; lowest among pre-tertiary educated (56.3%)	Strong awareness overall. Slightly lower among lower education (71.0%) and those not working (67.4%).	Slight improvement
Sustainability	Universally high; slightly lower for those with financial strain (77.8%)	Consistently strong recognition (>70%); lower for 65+ (72.5%) and water-surrounded areas (70.1%).	Stable and high
Regional Development	High awareness; slightly lower in Business/Econ/Management (85.7%)	Continues to be widely recognized (mostly >90%); slightly lower for those not working (85.1%) and 65+ (82.4%)	Stable and high
Green Transition	Strong awareness, but lowest among 65+ (43.8%) and pre-tertiary education (50.0%)	Improved across all groups; still lowest among 65+ (64.9%) and lower education (65.9%)	Improved, but gap remains

4.2.3 Cross Interpretation Trends

Cross-group analysis shows three consistent awareness gaps:

- Lower education – consistently less familiar with all concepts.
- Senior adults (65+) – lower recognition of Climate Resilience, Climate Change Adaptation, and Sustainability.
- Water-related area residents – consistently lower awareness across multiple concepts.

From a communication perspective, these findings point to the need for differentiated outreach:

- Use simpler, more concrete language for technical terms like Climate Resilience.
- Provide targeted information for coastal/rural communities
- Develop age-inclusive communication strategies to reach older demographics.

While overall recognition remains high, the depth of understanding is uneven. Sustainability's decline shows that superficial familiarity does not guarantee conceptual understanding. To address this, awareness campaigns should focus on clearer definitions, practical examples, and relevance to everyday life.

4.3 Perceptions about Climate Change

4.3.1 Perception of Climate Change Severity

The initial inquiry aimed to measure respondents' perception about climate change as a current problem, applying a scale from 0 to 10. The analysis involved computing means of said responses. 'I don't know' answers were excluded from the analysis since they cannot bear weight in assessing perceptual numeric values.



Q9. How serious of a problem do you think climate change is at this moment?

Please use a scale from 0 to 10, where '0' means "not a serious problem, and '10' means "an extremely serious problem.

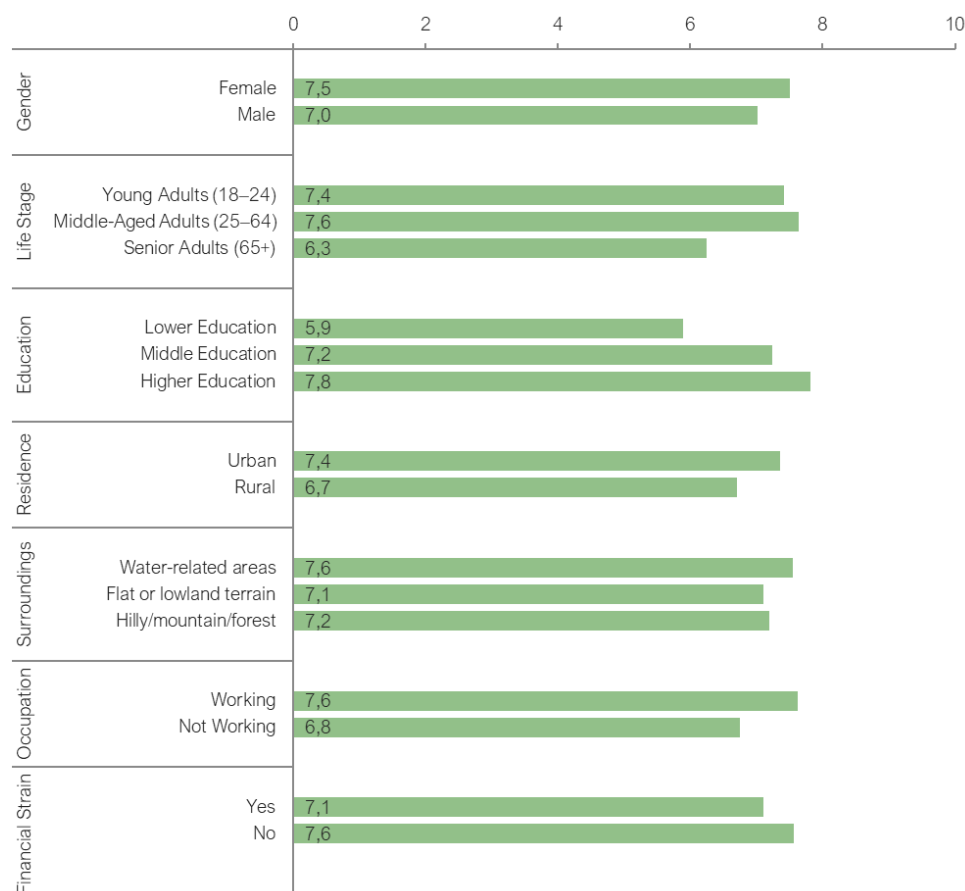


Figure 4 Respondents Perception of Climate Change Severity

In 2025, the overall average score is 7.3, lower than the 8.3 recorded in 2024. This decline may partly reflect changes in the sample composition, as some demographic and socio-economic categories were recoded this year and are therefore not directly comparable with last year's results. Nonetheless, the general trend suggests that climate change continues to be perceived as a serious problem, albeit with a slightly reduced sense of urgency.

The highest levels of concern in 2025 are expressed by middle-aged adults (25 – 64 years) with an average score of 7.6, while the lowest are among older adults aged 65 and above (6.3). Education also plays a clear role: respondents with higher education rate the seriousness of climate change at 7.8, compared to just 5.9 among those with lower education levels.

By place of residence, urban dwellers show higher concern (7.4) than rural residents (6.7). Those living in water-surrounded areas also report above-average concern (7.6), possibly reflecting heightened exposure to environmental risks.

Employment status and financial stability appear to influence perceptions as well. Working individuals score higher (7.6) than those not working (6.8) and respondents without financial strain rate climate change more seriously (7.6) than those experiencing economic difficulties (7.1).

In summary, while concern about climate change remains high, it has moderated compared to 2024. Higher education, middle age, urban residency, and financial stability are associated with stronger perceptions of



climate change as a pressing issue, whereas older age, lower education, rural living, and economic hardship correspond to lower levels of concern.

Comparison between categories from 2024 to 2025 is not feasible, not only due to the difference in sample size proportions but also because of different recoding applied.

4.3.2 Agreement Levels with Climate Change Impact Statements

This field evaluates respondents' agreement with various statements regarding climate change. Responses were converted to a numerical scale from 1 to 5, where '1' signifies 'Strongly disagree'; '2' 'Disagree'; '3' 'Neither agree nor disagree'; '4' 'Agree'; and '5' 'Strongly agree'. Once again, 'I don't know' answers were excluded from the analysis as they do not contribute to the numeric assessment of perception. Additionally, some negatively phrased statements were included to test the coherence of respondents' views on climate change. This question did not suffer any reformulation from last year and is exactly the same.

Q10. Please tell us to what extent you agree or disagree with each of the following statements: Please select from the options: 'Strongly disagree', 'Disagree', 'Neither agree nor disagree', 'Agree', 'Strongly agree' or 'I don't know'.

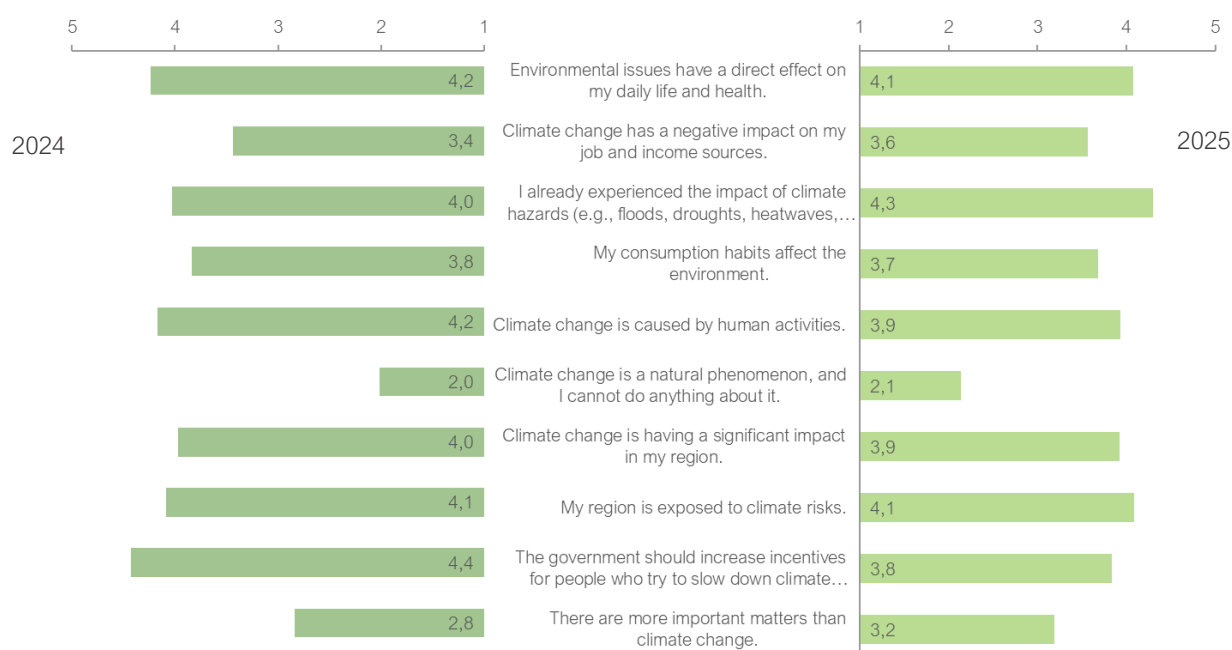


Figure 5 Agreement Levels with Climate Change Impact Statements

In both 2024 and 2025, respondents expressed strong recognition that climate change is real, human-driven, and directly affecting their lives. In 2024, the highest agreement was with the need for increased government incentives to slow climate change (4.4), but by 2025 this priority fell to 3.8, replaced at the top by lived experience statements such as “I already experienced the impact of climate hazards” (4.3), “My region is exposed to climate risks” (4.1) and “Environmental issues have a direct effect on my daily life and health” (4.1). This shift suggests that awareness has moved from policy expectation toward recognition of tangible, personal and regional impacts. Across both years, rejection of climate denial remained strong, with the lowest agreement consistently for “Climate change is a natural phenomenon, and I cannot do anything about it” (around 2.0 – 2.1). On the other hand, there was a slight rise in agreement with “There



are more important matters than climate change” (from 2.8 to 3.2), pointing to growing competition from other concerns, possibly linked with popular contemporary political pressures. While the 2025 results confirm that climate change remains a salient concern, they also suggest a subtle reordering of priorities in the public mindset, which may partly reflect the more demographically diverse sample this year.

This year’s survey disclose a complex landscape of perceptions about climate change, marked by widespread awareness but also by divisions along demographic, socio-economic, and geographic lines.

There is strong recognition of the human role in climate change and its impacts, with most groups acknowledging both its causes and consequences. Women tend to express slightly higher concern and stronger pro-climate attitudes than men, although differences are generally small. Age plays a clearer role: younger and middle-aged adults consistently display greater acceptance of scientific consensus and higher awareness of environmental impacts, while older adults are less likely to attribute climate change to human activity and more inclined to believe that other issues take precedence.

Education emerges as a powerful differentiator. Those with higher levels of education are consistently more likely to understand the human causes of climate change, perceive its regional impacts, and support policy measures to address it. Conversely, individuals with lower educational attainment are more likely to see climate change as a natural and unchangeable process and to deprioritise it in favour of other concerns.

Geographical and environmental context also shape perceptions. Urban residents generally report higher awareness and concern than rural residents, who are more likely to see other issues as more pressing. Living environment influences views only slightly, though those in flat or lowland areas tend to express somewhat higher concern for specific risks than those in water-related or hilly/mountainous settings.

Economic and occupational factors play a subtler role. People in employment often express greater awareness and acceptance of the human influence on climate change, as well as more support for government incentives. Financial strain influences perceptions inconsistently, those saying facing economic hardship, show, most of the time, higher concern about climate change impacts than those not facing any difficulties.

Despite broad recognition of climate change’s reality and its human causes, remains a notable minority who downplay its urgency or view it as less important than other societal issues. While awareness campaigns have been largely successful, they must now shift focus towards deepening understanding, connecting climate risks to everyday life, and fostering a stronger sense of urgency across all segments of the population.

Below, each statement is examined in detail to explore how perceptions differ across groups and what these patterns suggest about the public’s evolving views on climate change.



Q10a. *Environmental issues have a direct effect on my daily life and health.*

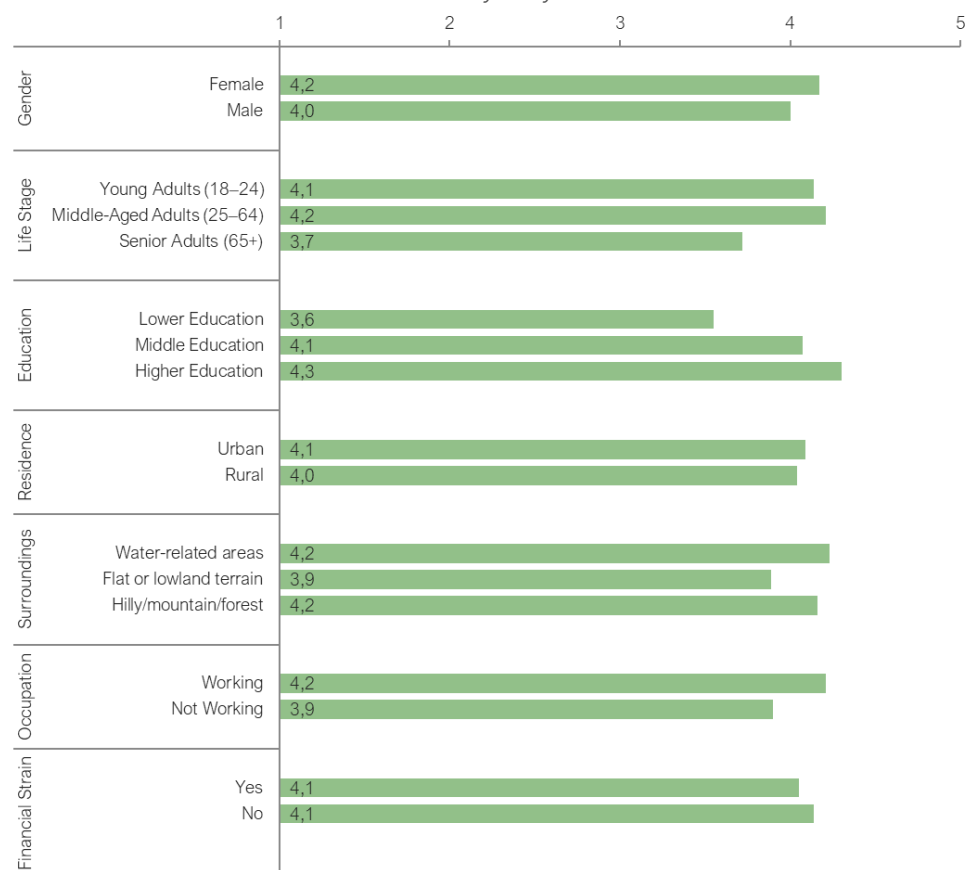


Figure 6 'Environmental issues have a direct effect on my daily life and health'

Agreement that environmental issues directly affect daily life and health remains strong across most groups, indicating that this perception is widely shared. Women tend to show slightly stronger agreement than men. Middle-aged adults record the highest levels of agreement, suggesting that those in active working and family-supporting stages may be more attuned to the link between environmental quality and daily well-being. In contrast, senior adults' express weaker agreement, possibly reflecting lower perceived vulnerability or a greater focus on other priorities.

Education is a clear differentiator. Respondents with higher education express the strongest agreement, underlining the role of education in shaping environmental awareness and greater access to information about environmental impacts.

Employment status also appears influential: those in work express stronger agreement than those not working, which may relate to a more active engagement with environmental conditions in professional and commuting contexts.

Geography further shapes perceptions. Respondents living near water or in hilly, mountainous, or forested areas report stronger agreement than those in flat or lowland regions, potentially due to greater visibility of environmental changes or exposure to specific environmental risks.

Interestingly, financial strain appears to have little effect on this perception, suggesting that awareness of environmental impacts is resilient even in the face of economic challenges.



Q10b. Climate change has a negative impact on my job and income sources.

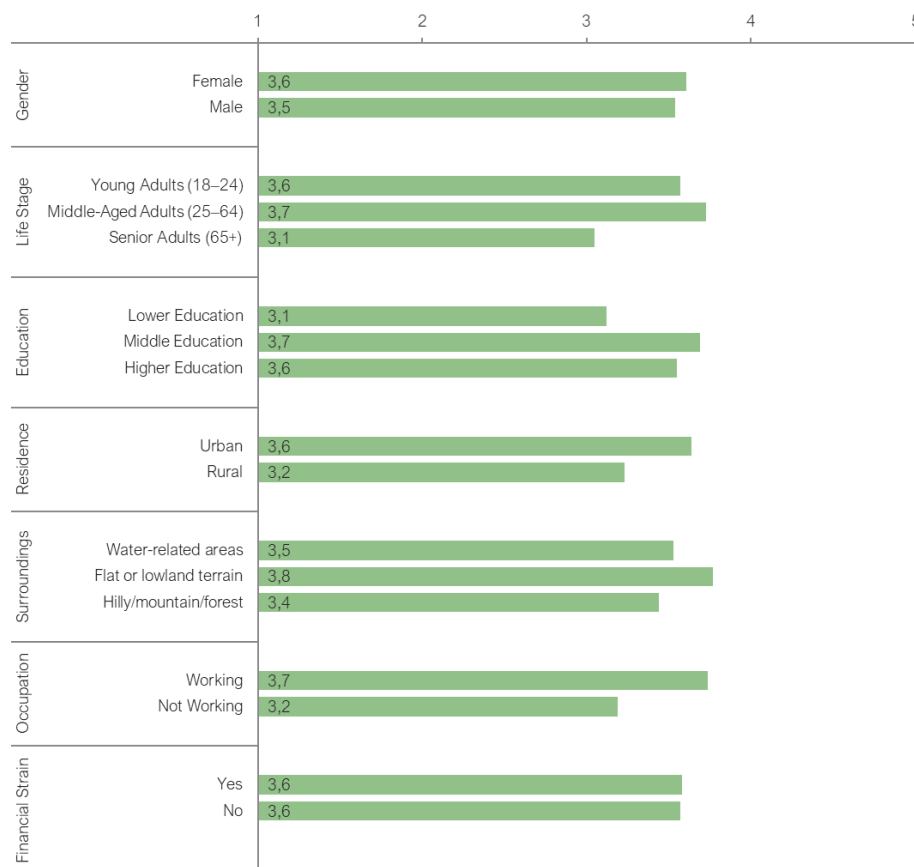


Figure 7 'Climate change has a negative impact on my job and income sources'

Perceptions of climate change as a threat to job security and income are moderate overall, but certain patterns emerge. Middle-aged adults register the highest agreement, possibly reflecting greater exposure to economic impacts within active working years. Senior adults express the lowest agreement, likely due to retirement reducing direct income-related vulnerability.

Education plays a role, with those holding middle-level qualifications expressing stronger concern than those with either lower or higher education, perhaps indicating heightened awareness among mid-skilled workers whose occupations may be more sensitive to climate-related disruption.

Employment status is also influential: those in work perceive greater impact than those not working, which aligns with direct exposure to employment-market fluctuations.

Urban residents tend to express stronger concern than rural, which could be linked to greater visibility of climate-related disruptions in urban economies or services. Perceptions vary modestly by surroundings, with respondents in flat or lowland areas showing the highest agreement.

Financial strain does not appear to alter perceptions significantly, suggesting that climate-related job and income concerns are perceived similarly regardless of current economic security.



Q10c. I already experienced the impact of climate hazards (e.g., floods, droughts, heatwaves, wildfires, etc...)

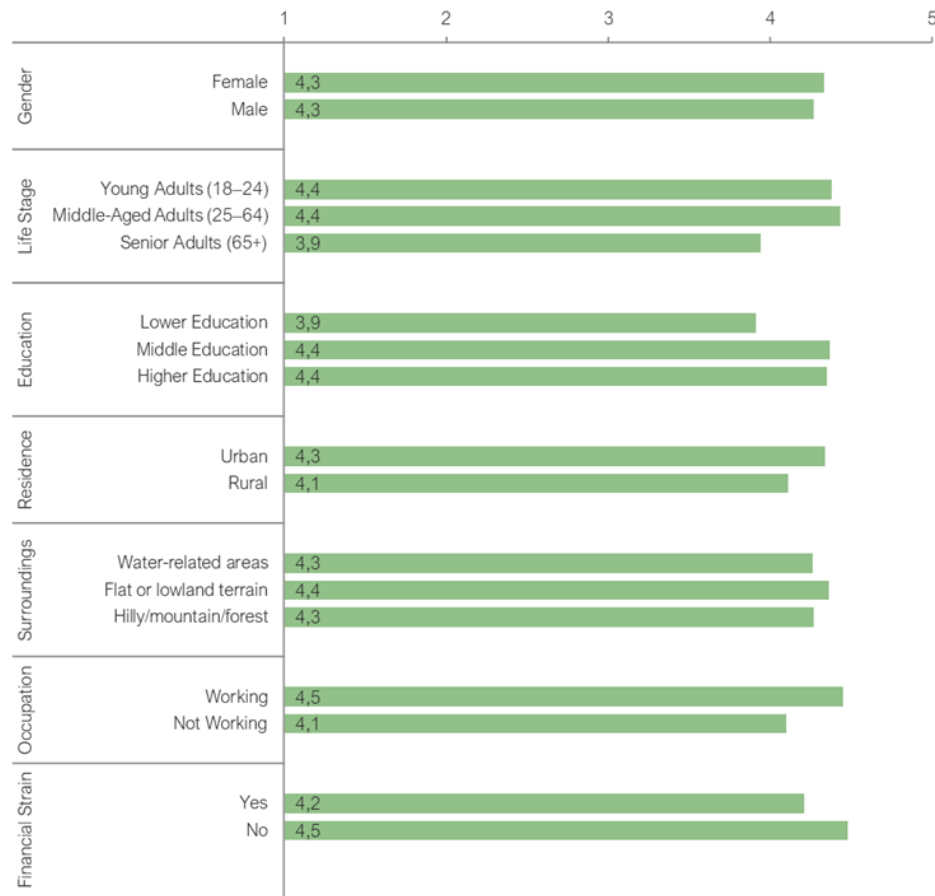


Figure 8 'I already experienced the impact of climate hazards'

There is a strong and widespread agreement across most demographic groups that climate hazards have already been personally experienced. Agreement levels are consistently high across genders, with both men and women reporting similar perceptions.

Age shows a clear divide: young and middle-aged adults express the highest agreement, likely overlapping with higher education levels, which tend to produce more awareness and an open mindset about climate change. On the other hand, senior adults report noticeably lower agreement, possibly due the opposite mentioned.

As shown before, education has a role to play in shaping perception: those with middle or higher education report stronger experience of climate hazards compared with those with lower education, suggesting that awareness and ability to identify such events may increase with educational attainment.

Geographically, urban residents are slightly more likely than rural residents to report having already been affected. Across surroundings, the perception is consistently high.

Employment status shows a marked difference: those in work report greater experience of climate hazards than those not working, perhaps reflecting the role of workplace disruptions, commuting challenges, and work-related exposure to environmental events.

Respondents without financial strain report slightly higher experience than those under economic pressure. This could indicate that those not in immediate economic difficulty may have more capacity to recognise, report, or recall such impacts.



Q10d. *My consumption habits affect the environment.*

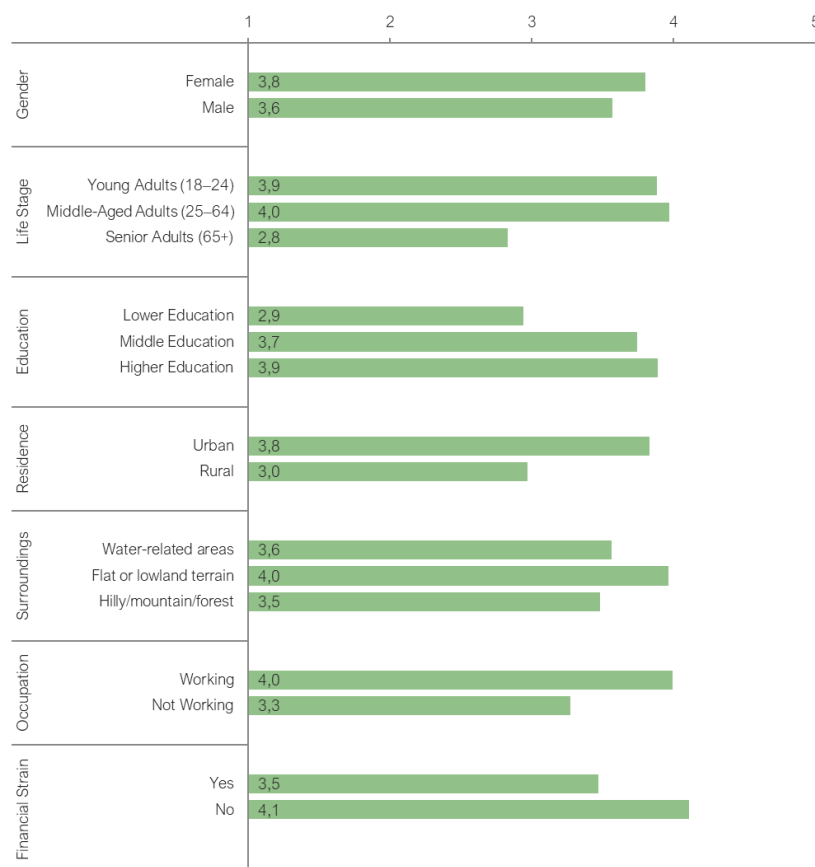


Figure 9 'My consumption habits affect the environment'

Awareness that personal consumption habits impact the environment varies noticeably across demographic groups. Women report slightly higher agreement than men, indicating a marginally greater self-perceived responsibility for environmental impacts.

Age shows a distinct pattern: young and middle-aged adults are the most likely to recognise the environmental consequences of their consumption, while senior adults record significantly lower agreement. This suggests generational differences in environmental awareness and self-reflection on personal habits.

Education plays a substantial role. Agreement increases sharply with educational attainment, from a relatively low perception among those with lower education to much higher levels among those with middle and higher education. This trend suggests that education may enhance understanding of how individual actions contribute to environmental challenges.

Urban residents are more likely than rural residents to acknowledge the environmental effects of their consumption, which may reflect greater exposure to environmental campaigns, sustainability initiatives, or visible pollution in urban settings. Moreover, it also could suggest that people living in rural environments tend to consume more often what they produce.

By geographical surroundings, those in flat or lowland terrain show the highest recognition, possibly linked to greater exposure to environmental degradation.



Employment status also influences perceptions. Working individuals are notably more likely to see their consumption as environmentally impactful compared to those not working, potentially due to exposure to workplace sustainability policies or broader social networks discussing environmental issues.

Financial situation reveals that respondents without financial strain are more likely to acknowledge environmental consequences of their habits compared with those under economic pressure. This may be because financial stress shifts focus to immediate survival needs, reducing attention to longer-term environmental considerations.

Q10e. *Climate change is caused by human activities.*

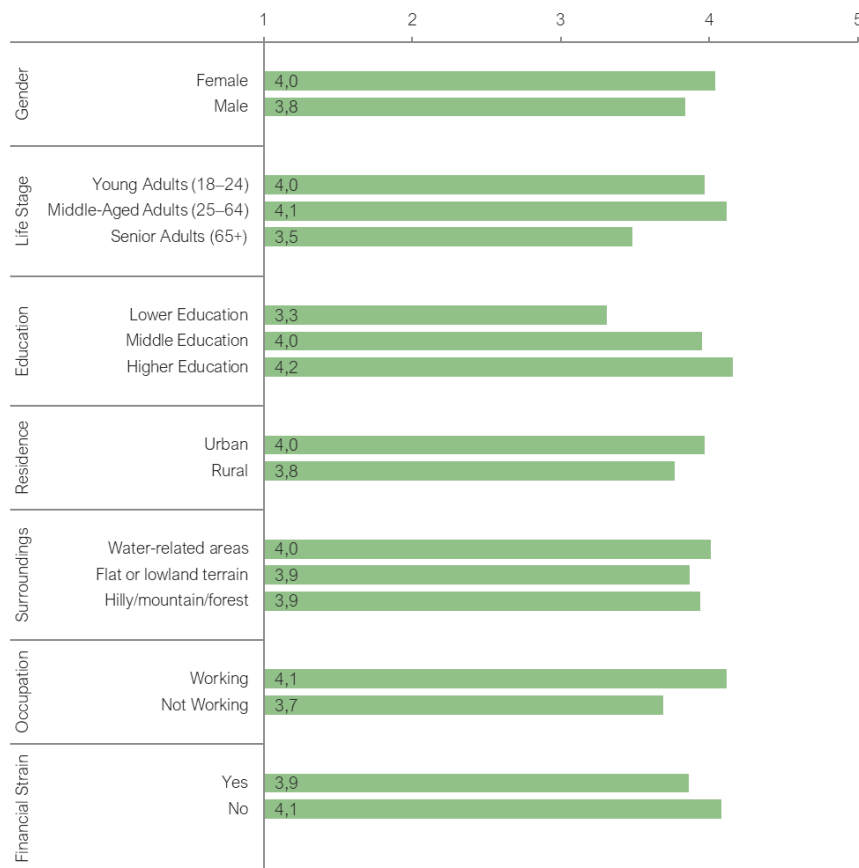


Figure 10 'Climate change is caused by human activities'

The belief that climate change is primarily driven by human activities is widely held, though the degree of agreement varies among different population groups. Women are slightly more likely than men to hold this view, reflecting a marginal gender gap in the attribution of climate change to human causes.

By life stage, middle-aged adults show the highest level of agreement, followed closely by young adults. Senior adults are less convinced, which may suggest generational differences in exposure to scientific discourse and environmental education over the years.

Education emerges as a strong predictor of acceptance. Those with higher education levels are the most likely to attribute climate change to human activities, while those with lower education show the lowest agreement. This reinforces the role of education in shaping understanding of complex environmental processes.

Urban residents report slightly higher agreement than rural residents.



Across different geographical surroundings, those in water-related areas express the highest agreement. However, variations between other types of terrain are minimal.

Employment status shows that working individuals are more likely to identify human activity as the driver of climate change compared to those not working, potentially due to greater engagement with workplace sustainability policies or discussions.

Regarding financial strain, those without economic difficulties place slightly more emphasis on the role of human action in climate change than those experiencing financial difficulties; however, the variation is minimal.

Q10f. Climate change is a natural phenomenon, and I cannot do anything about it.

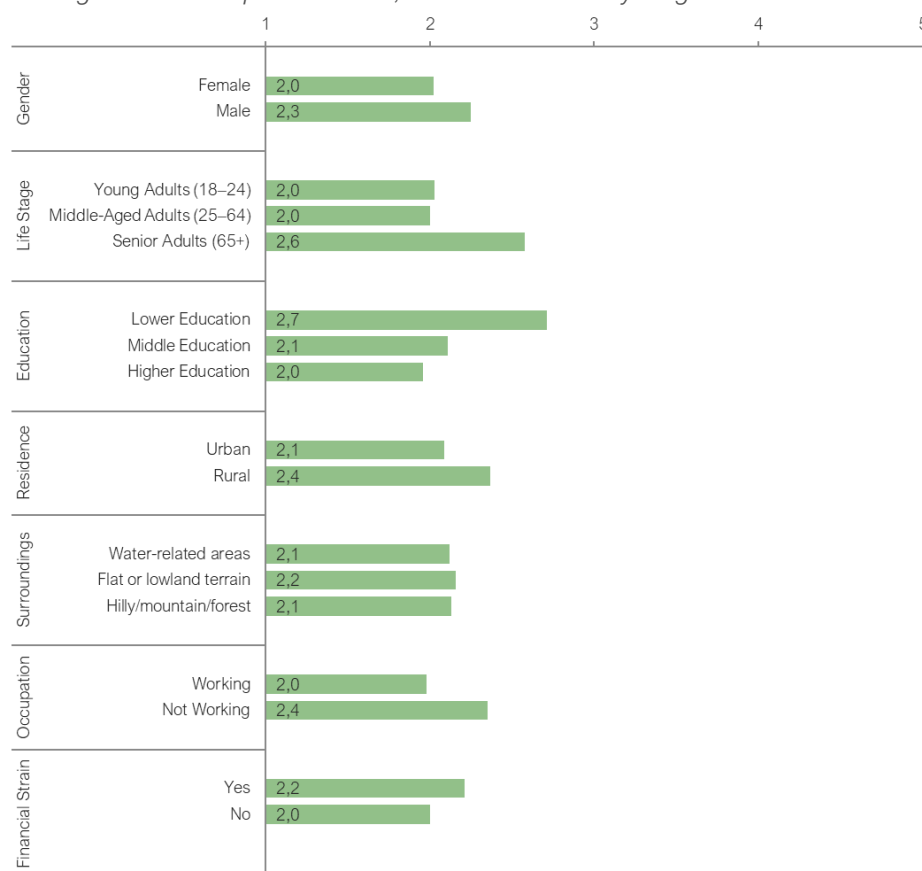


Figure 11 'Climate change is a natural phenomenon, and I cannot do anything about it'

There is generally low agreement with the notion that climate change is purely a natural phenomenon and beyond human influence. Men are slightly more inclined than women to hold this view, but the difference is marginal.

By life stage, senior adults are the most likely to agree, while young and middle-aged adults show notably lower agreement, indicating greater acceptance among younger groups that human activity plays a role in climate change.

Education appears to be a significant factor. Individuals with lower educational attainment are more likely to believe climate change is natural and unchangeable, whereas those with higher education levels are least likely to agree, reflecting a stronger understanding of scientific consensus.

Geographically, rural residents express slightly higher agreement than urban residents.



Across different surroundings, variations are minimal, though people living in flat or lowland terrain report slightly higher agreement compared to those in water-related or hilly areas.

Employment status also shows some influence: those not working are more likely to agree with the statement than those in employment.

Finally, financial strain does not appear to play a major role, with only minimal differences between those with and without economic difficulties.

Q10g. Climate change is having a significant impact in my region.

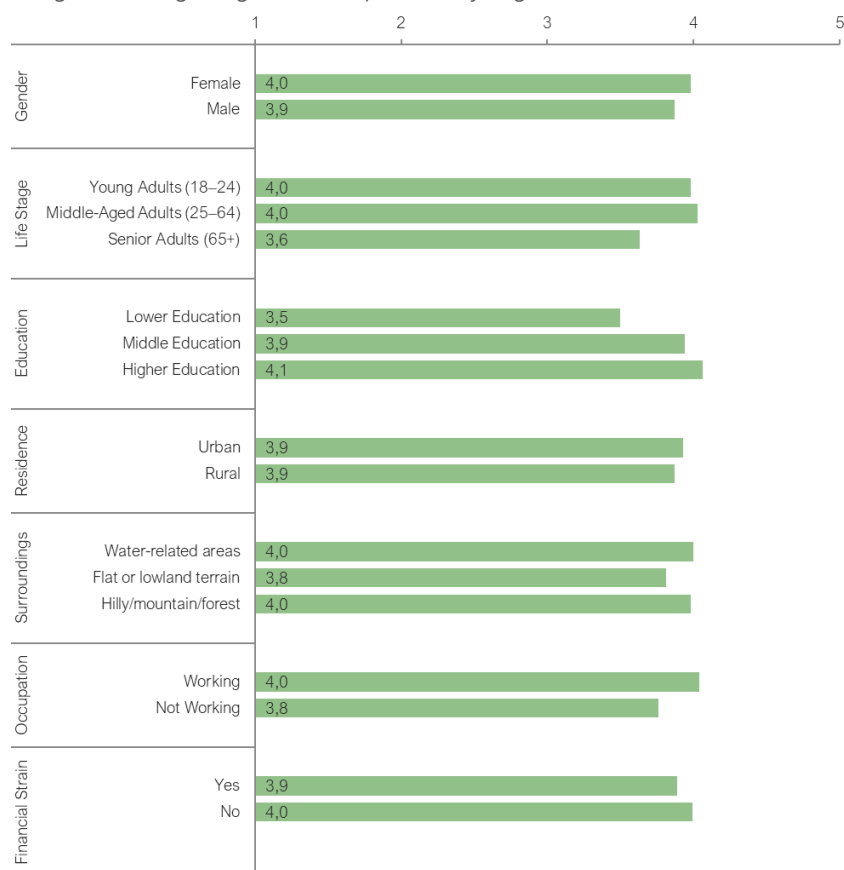


Figure 12 'Climate change is having a significant impact in my region'

Generally, there is a high perception that climate change is having a significant impact at regional level. Women show slightly stronger agreement than men, although the difference is negligible.

By age, both young and middle-aged adults share equally high perceptions, while senior adults express lower concern, which may reflect generational differences in environmental awareness or personal exposure to climate impacts.

Education appears to influence perceptions: higher educational attainment is associated with stronger recognition of climate change's local impacts. This aligns with what is being observed.

Geographical location in terms of residence type shows no difference between urban and rural populations. However, surroundings have a small effect, with water-related and mountainous/forested areas showing slightly higher awareness.

Employment status also correlates modestly with perception levels, as those in work report greater awareness than non-working individuals.



Financial strain plays only a minor role, with non-strained households reporting slightly greater concern.

Q10h. *My region is exposed to climate risks.*

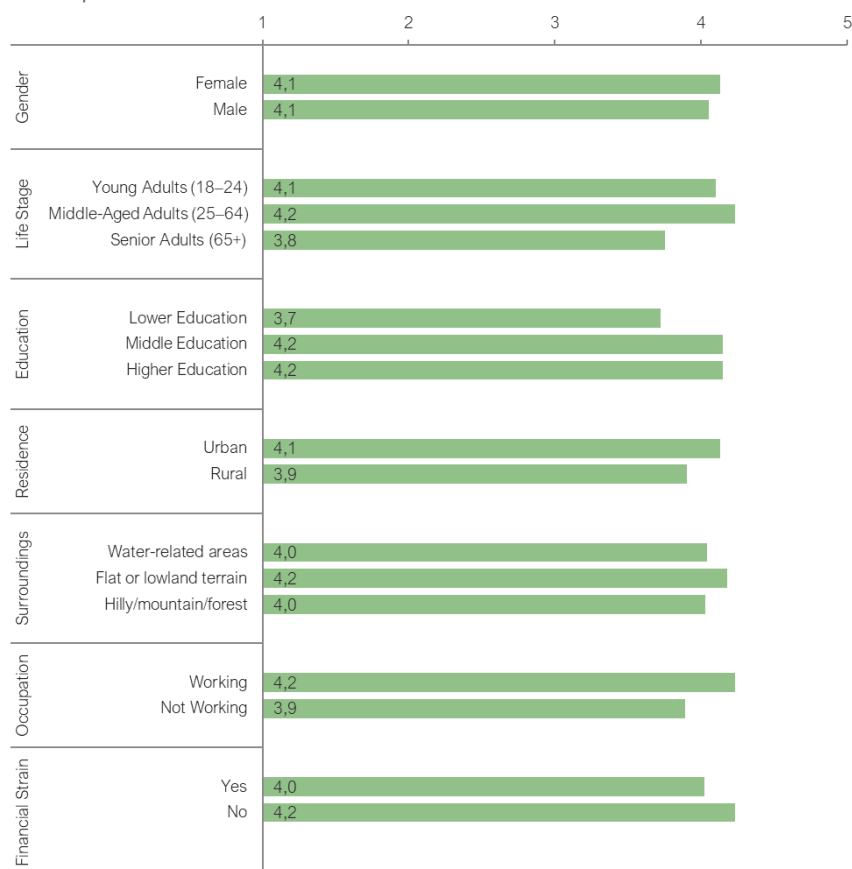


Figure 13 'My region is exposed to climate risks'

There is a consistently high perception that Central Macedonia is exposed to climate risks.

Gender differences are negligible, suggesting a shared awareness of risk across men and women.

By life stage, middle-aged and young adults report the highest recognition, while senior adults express less concern, possibly due to generational perspectives or lower perceived long-term personal impact.

Education plays a noticeable role, with higher and middle education groups showing stronger recognition than those with lower education. This may stem from greater access to information and a stronger understanding of the scientific evidence surrounding climate threats.

Geographically, urban residents rate risk higher than rural residents, although the difference is modest. Surroundings also matter slightly: those in flat or lowland areas report the highest awareness.

Employment status shows some influence, as working individuals report greater awareness than non-working individuals, possibly due to workplace discussions, policies, access to information or greater everyday worries than climate risks from non-working respondents.

Financial stability appears to correlate with slightly higher recognition.



Q10i. The government should increase incentives for people who try to slow down climate change.

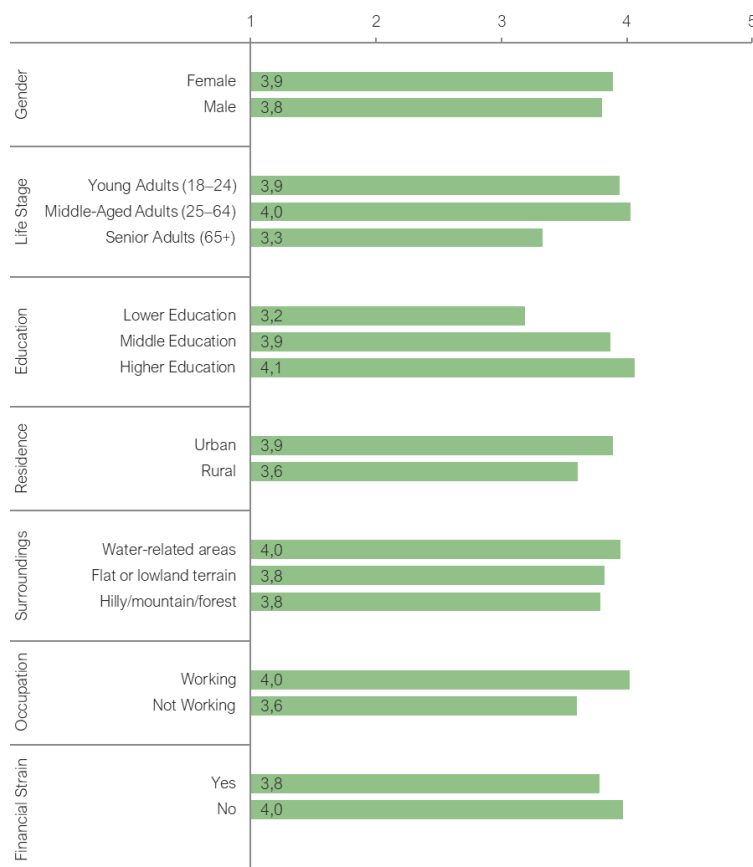


Figure 14 'The government should increase incentives for people who try to slow down climate change'

Broad support for government incentives to encourage climate change mitigation, although the strength of support varies by demographic group.

Gender differences are minimal, with women expressing marginally higher endorsement than men.

By life stage, middle-aged adults are the strongest proponents, perhaps because they are likely to prioritise government policies. Senior adults are less supportive, possibly due to differing policy priorities or perceptions of the urgency of climate change.

Education strongly correlates with support. Those with higher education show the greatest endorsement, suggesting a greater awareness of policy tools and their potential effectiveness, while those with lower education levels are less convinced.

Urban residents are somewhat more supportive than rural residents, potentially reflecting greater exposure to climate initiatives or environmental concerns in urban policy discourse.

Employment status and financial well-being also matter: working individuals and those without financial strain tend to support incentives more strongly, perhaps because they feel better positioned to take advantage of such programs or view them as beneficial for the economy as well as the environment.



Q10j. *There are more important matters than climate change.*

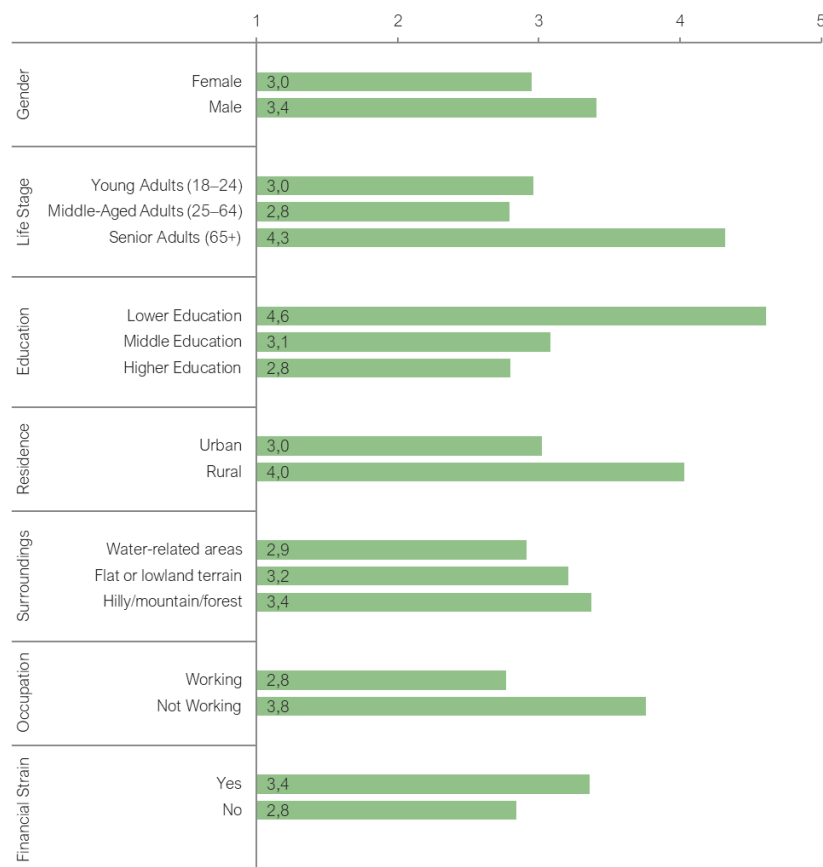


Figure 15 'There are more important matters than climate change'

Notable portion of the population considers other issues to be more pressing than climate change, though the extent of agreement varies significantly across demographic groups. Men are somewhat more inclined than women to deprioritise climate action. Life stage has a strong influence: senior adults express the highest agreement, likely reflecting differing generational priorities or skepticism about the urgency of climate threats compared to immediate economic or social concerns.

Educational attainment is a major factor. Those with lower education are far more likely to believe other issues outweigh climate change, while higher-educated individuals are least likely to agree, aligning with patterns seen in climate awareness.

Geographically, rural residents show substantially higher agreement than urban residents, potentially due to differences in political culture, local economic pressures, or perceptions of environmental policy relevance. People in water-related areas are least likely to downplay climate change.

Employment and economic factors also play a role: not working individuals and those facing financial strain are more likely to prioritise other matters, suggesting that economic insecurity may shift attention away from long-term climate concerns toward immediate personal or community needs.

When comparing these findings with broader European data, a similar pattern emerges. *The Standard Eurobarometer Spring 2025*³ reports that “the environment and risks related to climate change continue to lose attention and are now in ninth place, with 10% mentioning it (-5 pp since autumn 2024 and -16 since

³ Standard Eurobarometer 103 – Spring 2025 – Public opinion in the European Union, pp 35-39;



winter 2021–2022)”. In Greece, the results mirror this trend: 9% of respondents identified the environment and climate risks among the two most important issues facing the European Union, ranking them ninth overall well behind the international situation (27%), Russia’s invasion of Ukraine (25%), and the economic situation (25%). This aligns with findings from the 2025 REGILIENCE survey, where a share of respondents agreed that there are “more important matters than climate change.” Although concern for climate risks appears to have declined relative to other pressing geopolitical and economic challenges, awareness of regional exposure, as reflected in Q10h (“My region is exposed to climate risks”), remains high. This suggests that citizens continue to acknowledge their region’s vulnerability, even as immediate priorities shift.

4.3.3 Regional Perception of Climate Change Hazards

The present section analyses respondents’ perceptions and representations of how various hazards and climate change impacts are affecting their region. In Figure 16, two representations are provided side by side:

- The left-side representation displays the mean assessment for each hazard or climate change impact on a scale of 1 to 3 [“Not affecting the region” (1), “Affecting in some ways” (2), “Strongly affecting the region” (3)]. For this calculation, “I don’t know” answers were excluded, as they do not contribute to the numeric assessment of perception.
- The right-side representation shows the distribution of responses in percentages. Contrary to other questions, this figure has been included with percentages of ‘I don’t know’ responses due to some hazards/climate change impact(s) raising a significant amount of doubt/uncertainty among respondents.

Q11. How the following hazards/climate change impact(s) are affecting your region at this moment: Please select from “Not affecting the region”, “Affecting in some ways”, “Strongly affecting the region” or “I don’t know”.

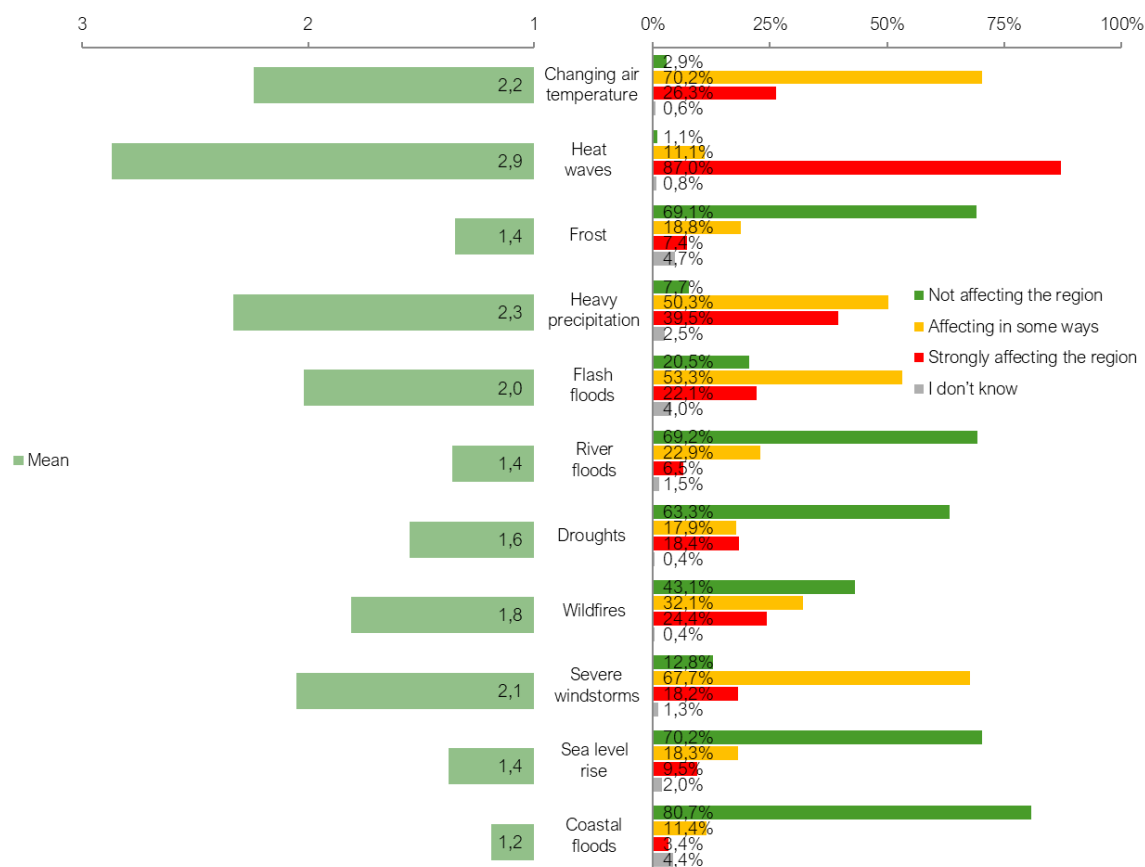


Figure 16 Regional Perception of Climate Change Hazards

The analysis of respondents' perceptions regarding various hazards and climate change impacts in Central Macedonia, Greece, reveals several key findings. Respondents perceive some climate-related hazards as significantly affecting their regions, while others are largely seen as absent or having minimal impact. Heat waves stand out as the most strongly perceived hazard, with 87% of respondents saying they are strongly affecting the region. Changing air temperature (2.2) and heavy precipitation (2.3) are also widely recognised, with the majority reporting at least some impact.

By contrast, hazards such as frost (1.4), river floods (1.4), sea level rise (1.4), and especially coastal floods (1.2) are generally viewed as not affecting the region, with over two-thirds of respondents selecting this option. Flash floods (2.0) and severe windstorms (2.1) occupy a middle ground, with moderate mean scores and more mixed perceptions.

Droughts received a relatively low mean score (1.6), suggesting they were perceived as less immediate or visible than other heat-related hazards despite the hot and dry survey period.

The following subsections analyse each climate change hazard individually, moving from overall public perception to differences across socio-demographic groups. This approach allows us to identify which impacts are most widely recognised, where awareness gaps exist, and how social, economic, and environmental contexts shape perceptions of climate-related risks.



Q11a. Changing air temperature

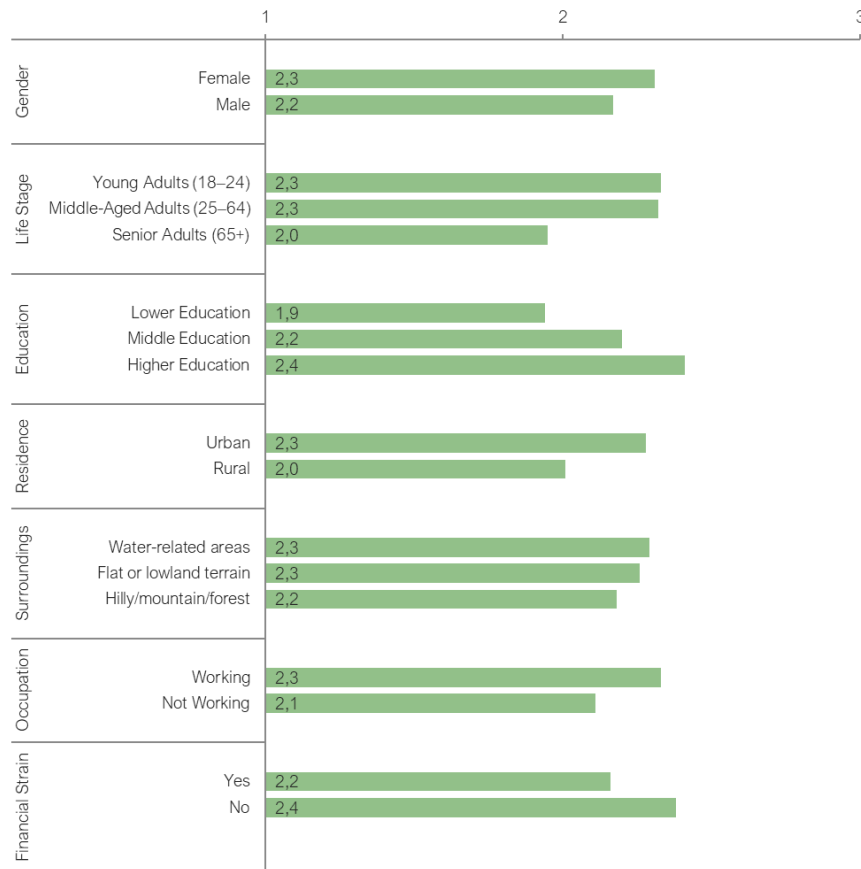


Figure 17 Changing air temperature

Perceptions of changing air temperature are consistently high across most demographic groups, with mean scores ranging between 1.9 and 2.4.

Women, younger adults, and middle-aged adults register slightly higher awareness than men and older adults.

Education appears to play a clear role, as those with higher educational attainment show the highest mean score (2.4), compared to just 1.9 among respondents with lower education.

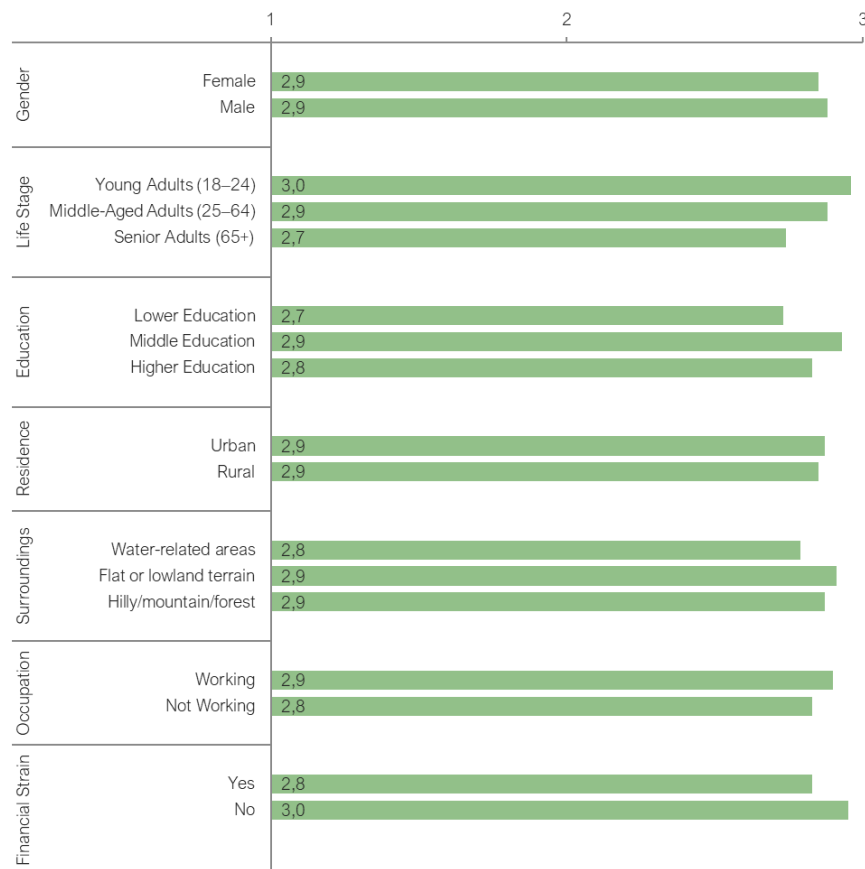
Urban residents are more likely than rural residents to perceive a strong regional impact.

Occupational status also shows a modest difference, with those in employment reporting greater awareness than those not working.

While differences by surroundings and financial strain are relatively small, they indicate that perception of temperature change is widespread and not limited to any one context, reinforcing its position as one of the most broadly recognised climate-related hazards.



Q11b. Heat waves

**Figure 18 Heat waves**

Heat waves as a significant regional hazard are uniformly high, with mean scores close to the maximum (2.7 – 3.0) across all demographic groups.

There is virtually no gender difference, with both women and men reporting equally high awareness (2.9). Age shows a slight gradient, as younger adults (3.0) register the highest perception, while senior adults (2.7) report slightly lower concern.

Education levels reveal minimal variation, with all groups scoring above 2.7, indicating that this hazard is widely acknowledged regardless of educational attainment.

Urban and rural residents perceive heat waves at similar levels, suggesting that this impact is universally experienced across settlement types. Surroundings show negligible differences, although residents of water-related areas score slightly lower (2.8).

Occupational status is not a major differentiator, but those in work rate the impact marginally higher.

Those not under financial strain report slightly higher recognition (3.0) compared to those experiencing strain (2.8).

Heat waves stand out as the most universally recognised and strongly perceived climate-related hazards.



Q11c. Frost

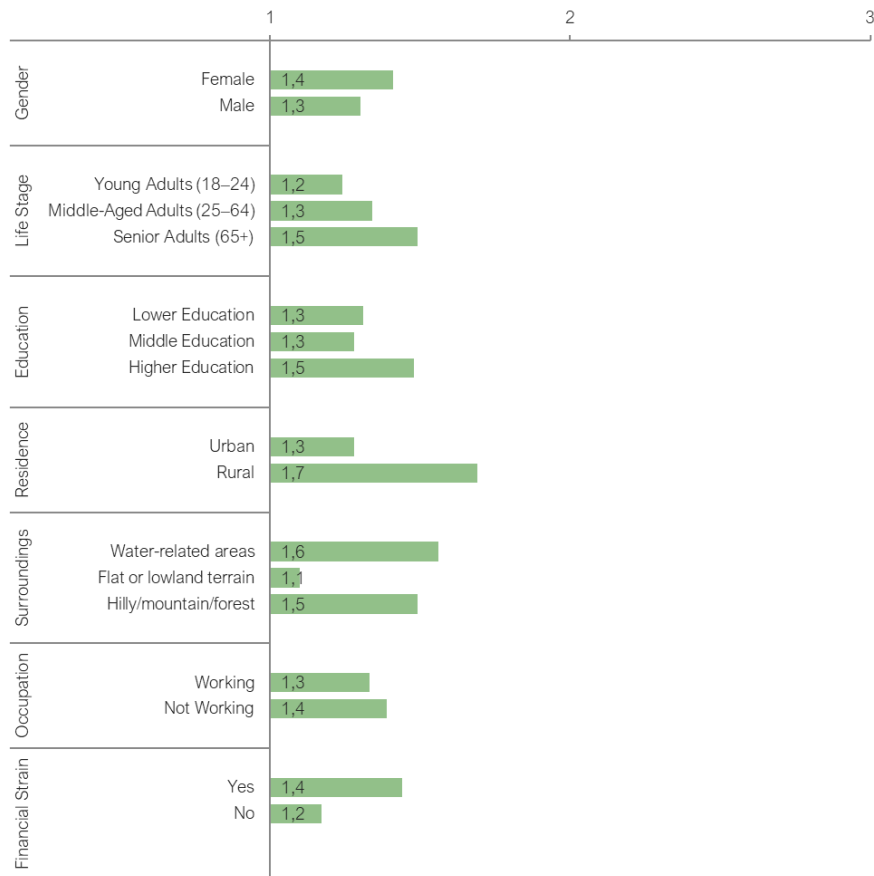


Figure 19 Frost

Current climate-related hazard is generally low across all demographic categories, with mean scores ranging from 1.1 to 1.7.

Gender differences are minimal, with women rating the hazard slightly higher (1.4) than men (1.3).

Age presents a more noticeable pattern: senior adults (1.5) are the most likely to perceive frost as an issue, while younger adults (1.2) are the least likely.

Education has little impact on perceptions, although respondents with higher education report slightly greater awareness (1.5) than those with lower or middle education levels (1.3).

Residence appears to matter, as rural residents (1.7) rate frost more strongly than urban residents (1.3), likely reflecting its greater impact on rural livelihoods and agricultural activities.

Surroundings also influence perception, with those in flat or lowland areas showing the lowest scores (1.1) compared to higher ratings from residents in water-related (1.6) or hilly/mountainous areas (1.5).

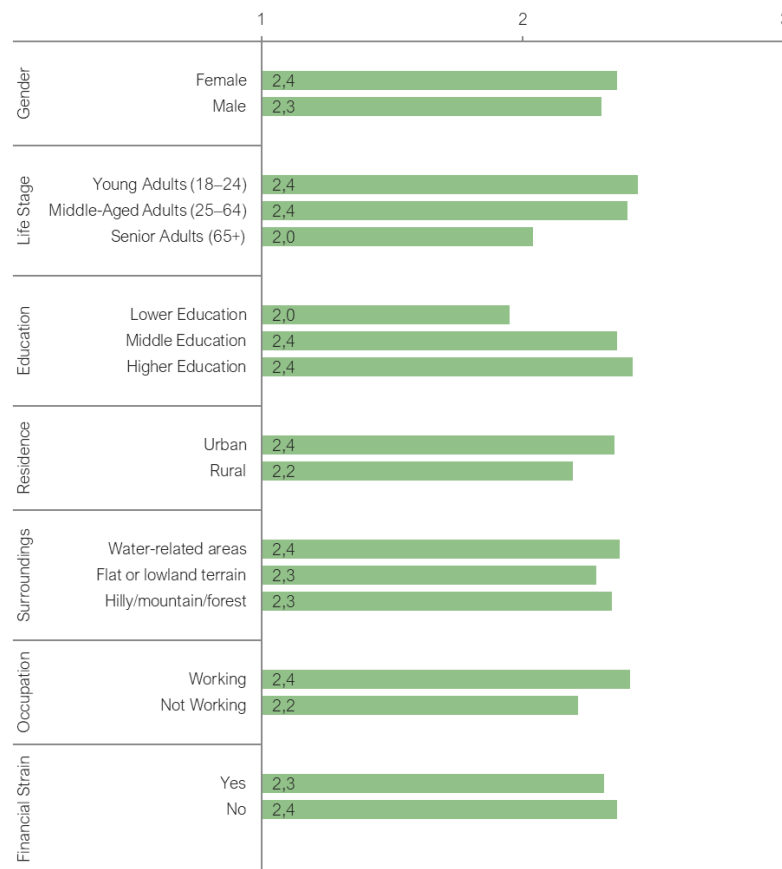
Occupational status has little effect, but those not working perceive frost slightly more (1.4) than working respondents (1.3).

Financial strain shows an unusual inverse pattern: those under strain score higher (1.4) than those without strain (1.2).

Frost is not widely perceived as a major hazard, but its recognition is higher in rural, elevated, or water-adjacent settings.



Q11d. Heavy precipitation

**Figure 20 Heavy precipitation**

Perceptions of heavy precipitation as a climate-related hazard are moderately high across most demographic categories, with mean scores ranging from 2.0 to 2.4.

Gender differences are minimal, though women rate the hazard slightly higher (2.4) than men (2.3).

Age patterns show that younger (2.4) and middle-aged adults (2.4) express stronger concern than senior adults (2.0).

Education correlates with higher awareness: those with middle or higher education (both 2.4) score noticeably above those with lower education (2.0).

Urban residents (2.4) rate the hazard higher than rural residents (2.2).

Surroundings show little variation, though water-related areas have a slightly higher perception (2.4) compared to flat/lowland (2.3) or hilly/mountain areas (2.3).

Working individuals (2.4) express greater concern than those not working (2.2).

Financial strain does not appear to play a major role, with perceptions similar between those experiencing strain (2.3) and those not (2.4).

Heavy precipitation is perceived as a notable hazard, though concern is lower among older adults and those with lower levels of education.

Q11e. Flash floods

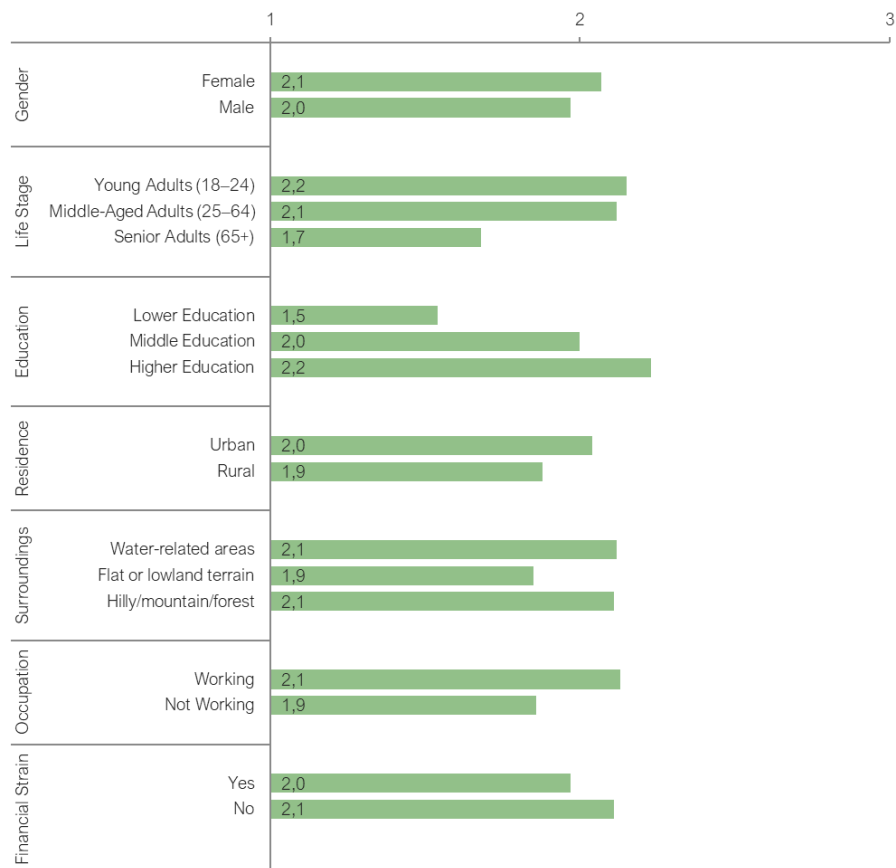


Figure 21 Flash floods

Perceptions of flash floods are somewhat lower than for heavy precipitation, with scores ranging from 1.5 to 2.2.

Gender differences are minimal, with women rating slightly higher (2.1) than men (2.0).

Younger adults (2.2) are the most concerned, followed by middle-aged adults (2.1), while senior adults rate the hazard lowest (1.7).

Education shows a clearer trend: individuals with higher education (2.2) perceive greater risk compared to those with middle (2.0) or lower education (1.5).

Urban residents (2.0) rate flash floods slightly higher than rural residents (1.9).

Those in water-related areas and hilly/mountainous regions both score 2.1, higher than flat/lowland residents (1.9).

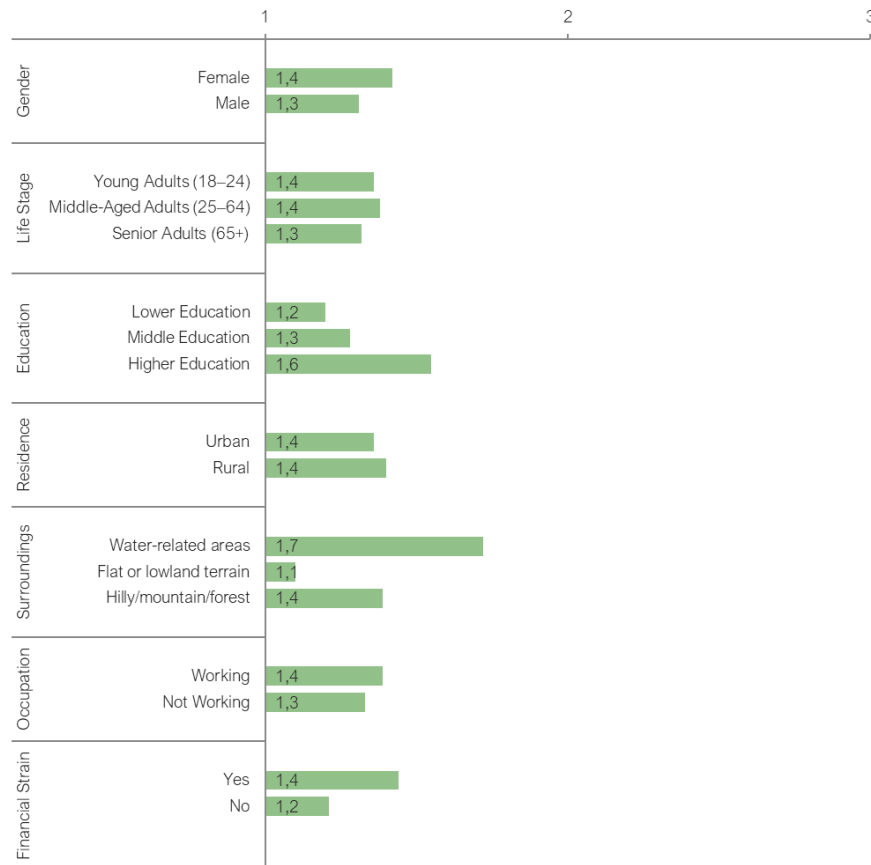
Working individuals (2.1) rate flash floods slightly higher than those not working (1.9).

Financial strain shows little difference between respondents.

While flash floods are recognised as a hazard, they are perceived as less immediate than heavy precipitation, with stronger concern in younger and better-educated.



Q11f. River floods

**Figure 22 River floods**

Perceptions of river floods are moderate, with scores ranging from 1.1 to 1.7.

Gender differences are minimal, with women rating slightly higher (1.4) than men (1.3).

Across life stages, young adults (1.4) and middle-aged adults (1.4) show the same concern level, while senior adults rate the hazard slightly lower (1.3).

Education shows some variation: individuals with higher education (1.6) perceive greater risk compared to those with middle (1.3) or lower education (1.2).

Residence makes no difference between urban and rural residents rating 1.4.

Surroundings are a stronger differentiator: people living in water-related areas rate river floods highest (1.7), compared to hilly/mountain/forest areas (1.4) and flat or lowland terrain (1.1), reflecting the greater perceived exposure in water-proximate locations.

Working individuals (1.4) show marginally higher concern than those not working (1.3).

Financial strain plays a small role, with those under strain rating higher (1.4) than those without (1.2).

River floods are recognisable as a moderate hazard, with slightly higher concern among the educated and those in water-related surroundings.



Q11g. Droughts

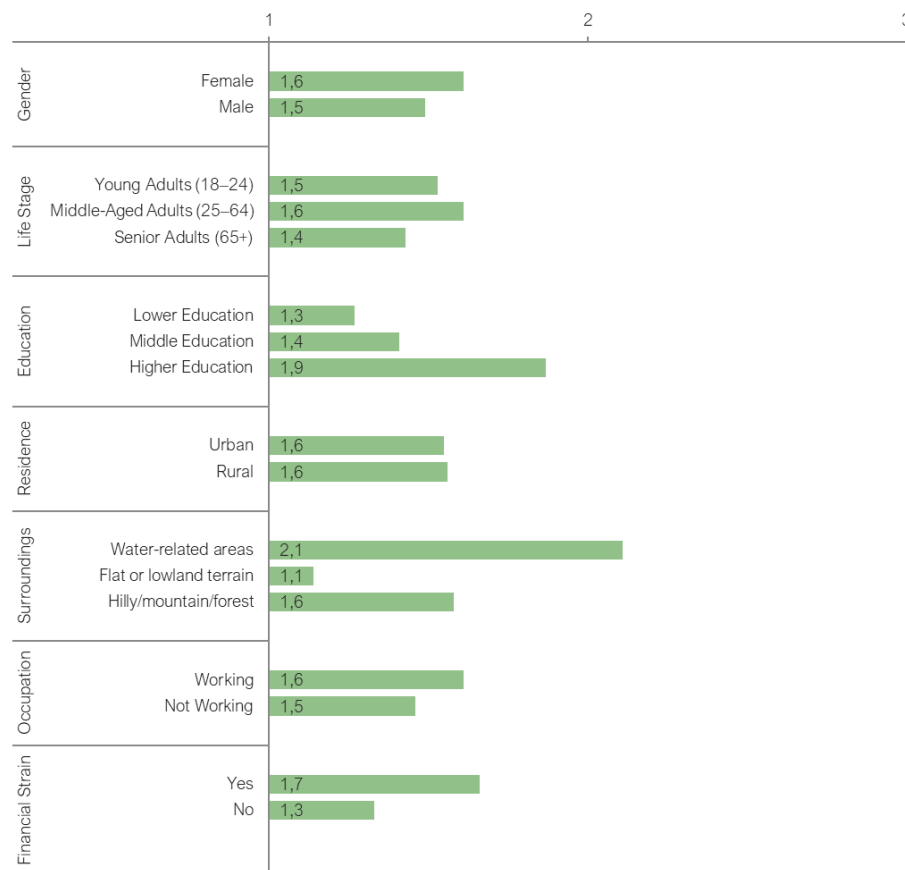


Figure 23 Droughts

Perceptions of droughts are moderate, with scores ranging from 1.1 to 2.1.

Gender differences are small, with women rating slightly higher (1.6) than men (1.5).

Middle-aged adults (1.6) are the most concerned, followed by young adults (1.5), while senior adults rate the hazard lowest (1.4).

Education shows a clear upward trend: those with higher education (1.9) perceive drought risk more strongly than those with middle (1.4) or lower education (1.3).

Residence plays no role, as both urban and rural populations rate equally (1.6).

Surroundings are a major differentiator: individuals in water-related areas rate droughts highest (2.1), far exceeding those in hilly/mountain/forest regions (1.6) and especially flat or lowland areas (1.1).

Working individuals (1.6) show marginally higher concern than those not working (1.5).

Financial strain is a stronger factor, with those under strain rating droughts at 1.7 compared to 1.3 for those without strain.

Droughts are seen as a moderate but significant hazard, with heightened concern among better-educated individuals, those in water-related environments, and those experiencing financial strain.



Q11h. Wildfires

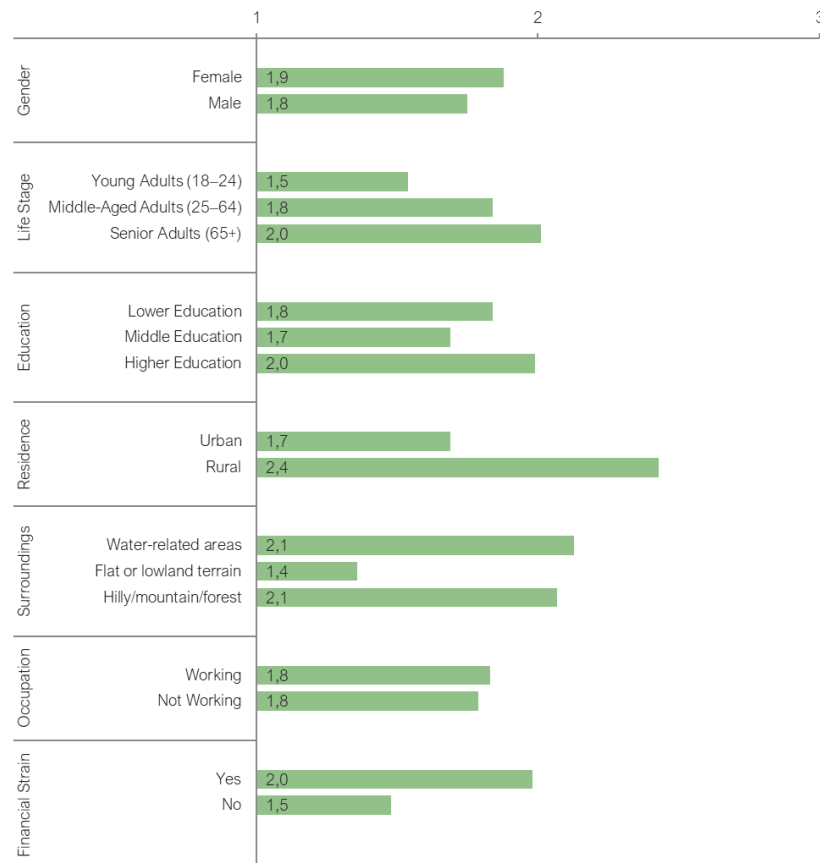


Figure 24 Wildfires

Perceptions of wildfires are relatively high, with scores ranging from 1.4 to 2.4.

Gender differences are minimal, with women rating slightly higher (1.9) than men (1.8).

Across life stages, senior adults (2.0) show the most concern, middle-aged adults rate at 1.8, and young adults remain least concerned (1.5).

Education shows a modest increase with higher attainment: higher education (2.0) exceeds lower (1.8) and middle education (1.7).

Residence plays a significant role as rural residents rate wildfires much higher (2.4) than urban residents (1.7), likely reflecting greater exposure to fire-prone landscapes.

Surroundings matter: those in water-related (2.1) and hilly/mountain/forest areas (2.1) rate risk higher than those in flat or lowland terrain (1.4).

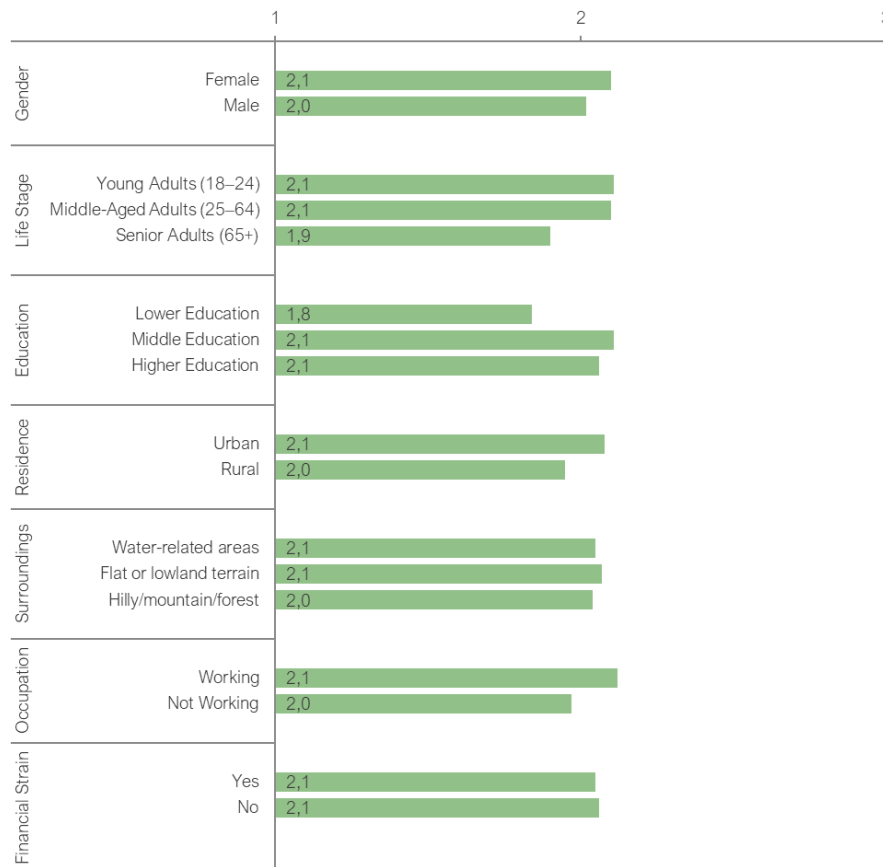
Occupation has no effect, with both working and non-working individuals rating equally (1.8).

Financial strain is associated with higher concern (2.0) compared to those without strain (1.5).

Wildfires are viewed as a relevant hazard, especially by rural residents and those living in high-exposure environments.



Q11i. Severe windstorms

**Figure 25 Severe windstorms**

Perceptions of severe windstorms are relatively high and consistent, with scores ranging from 1.8 to 2.1.

Gender differences are minimal, with women rating slightly higher (2.1) than men (2.0).

Across life stages, young and middle-aged adults share the highest concern (2.1), with senior adults showing lower ratings (1.9).

Education shows a small but noticeable difference: higher (2.1) and middle education (2.1) rate windstorms higher than lower education (1.8).

Urban residents (2.1) rate the hazard slightly higher than rural residents (2.0).

Surroundings appear to have little effect, as ratings are similar across water-related areas (2.1), flat or lowland terrain (2.1), and hilly/mountainous areas (2.0).

Employment status shows minimal variation, with working individuals rating slightly higher (2.1) than non-working individuals (2.0).

Financial strain has no measurable impact, as both groups rate windstorms equally (2.1).

Severe windstorms are perceived as a consistently significant hazard across demographic groups, with only minor differences by age and education.



Q11j. Sea level rise

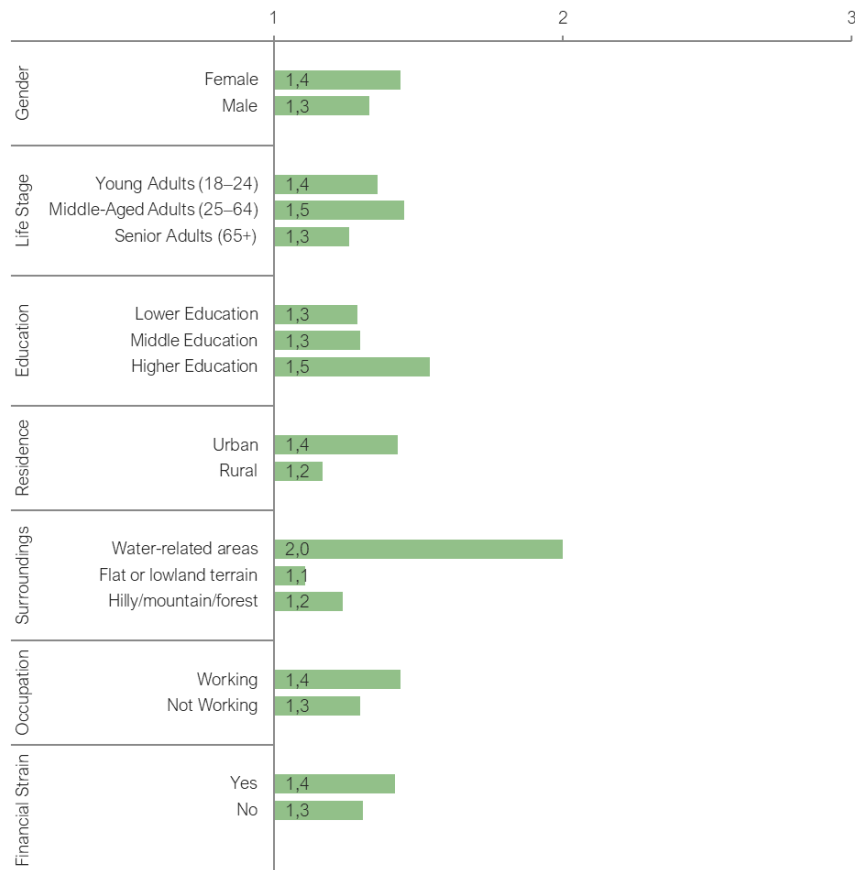


Figure 26 Sea level rise

Perceptions of sea level rise are among the lowest of the hazards assessed, with scores ranging from 1.1 to 2.0.

Gender differences are minimal, with women rating slightly higher (1.4) than men (1.3).

Life stage differences mirror the age trend: middle-aged adults rate highest (1.5), young adults slightly lower (1.4), and senior adults lowest (1.3).

Education shows a slight pattern, with those holding higher education perceiving slightly more risk (1.5) than those with middle (1.3) or lower (1.3) education.

Urban residents (1.4) rate sea level rise marginally higher than rural residents (1.2).

Surroundings have a stronger effect, with residents in water-related areas rating it highest (2.0), far above flat/lowland (1.1) and hilly/mountainous (1.2) regions.

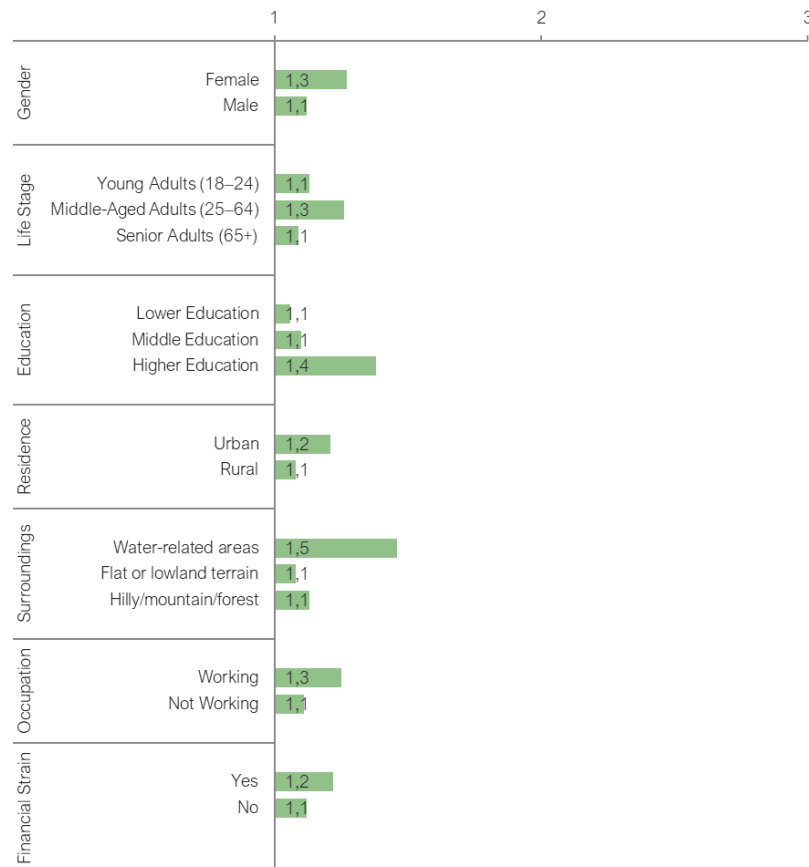
Employment status shows minimal difference, with working individuals (1.4) rating slightly higher than non-working individuals (1.3).

Financial strain is not a major factor, with those experiencing strain (1.4) only marginally higher than those without (1.3).

Sea level rise is perceived as a relatively low-priority hazard, with stronger concern only among those in water-related areas and, to a lesser degree, middle-aged and better-educated individuals.



Q11k. Coastal floods

**Figure 27 Coastal floods**

Perceptions of coastal floods are among the lowest of all hazards, with scores ranging from 1.1 to 1.5.

Women rate the risk slightly higher (1.3) than men (1.1).

Life stage differences follow a similar trend: middle-aged adults (1.3) rate higher than both young (1.1) and senior adults (1.1).

Education shows a slight gradient, with higher-educated individuals (1.4) perceiving greater risk than those with middle or lower education (both 1.1).

Urban residents (1.2) rate slightly higher than rural residents (1.1).

Surroundings have a more noticeable influence: residents in water-related areas rate the hazard at 1.5, compared with just 1.1 for both flat/lowland and hilly/mountainous areas.

Employment status shows some difference, with working individuals (1.3) rating higher than those not working (1.1).

Financial strain also plays a minor role, with those experiencing strain rating slightly higher (1.2) than those without (1.1).

Coastal floods are perceived as a low-priority hazard, with elevated concern mainly among those living near water.



4.3.4 Shifts in Climate Hazard Perceptions: 2025 vs 2024

Figure 28 shows that perceptions of climate-related hazards in 2025 display both continuity and clear changes compared with 2024.

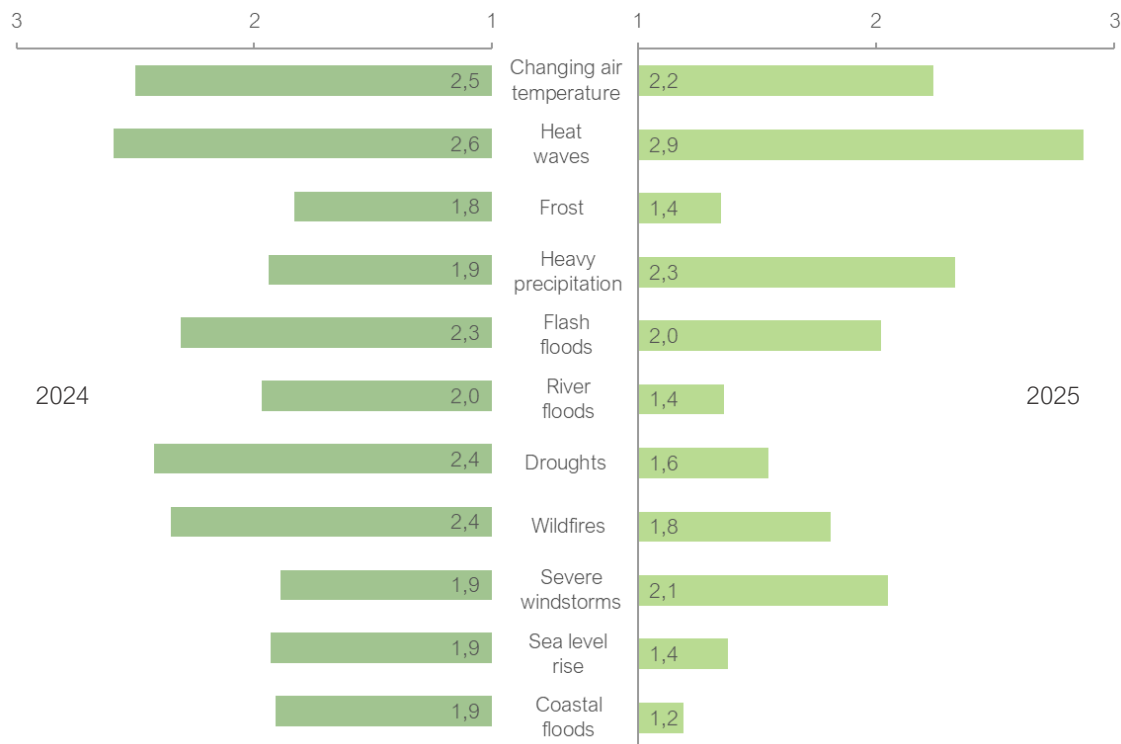


Figure 28 Climate Hazards perception by year

Heavy precipitation records the largest year-on-year increase, rising from a mean score of 1.9 in 2024 to 2.3 in 2025. This shift points to growing concern over intense rainfall events. Heatwaves, increasing from 2.6 to 2.9, remain the highest-rated hazard overall, reflecting the strong and persistent public awareness of extreme heat risks.

Changing air temperatures, although still considered important, declined slightly from 2.5 to 2.2. Severe windstorms increased modestly from 1.9 to 2.1, indicating a small rise in perceived risk.

By contrast, frost (1.8 to 1.4) and sea level rise (1.9 to 1.4) remain among the least pressing hazards, showing little public concern in both years. Perceptions of flash floods declined from 2.3 to 2.0, and river floods fell more sharply from 2.0 to 1.4, suggesting reduced salience of certain flood risks.

Droughts recorded the steepest decline among heat-related hazards, dropping from 2.4 in 2024 to 1.6 in 2025, despite the latter survey coinciding with one of the warmest and driest early summers since 2010. This may partly reflect differences in the survey sample: in 2024, the pool was less balanced, with a disproportionately high share of respondents holding advanced educational qualifications, potentially leading to greater concern for hazards such as drought. In 2025, despite objectively hotter and drier conditions, drought impacts may have been perceived as less immediate or visible than extreme heat events like heatwaves, and their effects may have been felt more strongly in rural than urban areas.

The high ratings for changing air temperatures and heatwaves are likely influenced by the timing of the survey and recent weather conditions. Respondents had direct experience of prolonged heat, making these



hazards highly salient. By contrast, more seasonal or episodic hazards, such as frost, coastal floods, and certain types of flooding, may have been rated lower simply because they were not prominent during the survey period. This “seasonal framing effect” suggests that while the data capture genuine concern, hazard perceptions are shaped by immediate lived experiences, potentially underrepresenting risks that occur outside the data collection window.

4.3.5 Regional Actions for Addressing Climate Change Challenges

As in 2024, this section examines respondents' views on the most important actions required to address the impacts of climate change in their region. The question wording remained unchanged, enabling overall year-to-year comparisons. However, in 2025 the breakdown of results reflects a revised recoding of certain demographic and socio-economic variables. This ensures more consistent classification, but it also means that detailed subgroup comparisons with 2024 should be interpreted with caution.

Respondents were asked to select the most important actions from the following list:

- Improved agricultural practices and technologies
- Effective water management and conservation
- Protection of coastal areas vulnerable to sea-level rise
- Promotion of renewable energy sources and reduction of fossil fuel dependence
- Strengthening public health systems for climate-related risks
- Enhancing transportation infrastructure for extreme weather events
- Conservation and restoration of ecosystems
- Integration of climate considerations into urban planning
- Encouragement of sustainable consumption and production
- Implementation of waste management and recycling initiatives

In 2025, results were disaggregated by region, gender, life stage, education level, residence, natural surroundings, professional occupation, and financial strain. This differs from the 2024 breakdown, and as a result, some variations in the distribution of responses may stem from the updated classification process rather than actual shifts in public opinion.



Q12. Considering the impacts of climate change in our region, which actions do you believe are the most important to address these challenges?

Table 12 Priority Actions for Addressing Regional Climate Change Challenges

Most important actions to address the impacts of climate change	Improved agricultural practices and technologies	Effective water management and conservation	Protection of coastal areas vulnerable to sea-level rise	Promotion of renewable energy sources and reducing fossil fuel dependence	Strengthening public health systems for climate-related risks	Enhancing transportation infrastructure for extreme weather events	Conservation and restoration of ecosystems	Integration of climate considerations into urban planning	Encouragement of sustainable consumption and production	Implementation of waste management and recycling initiatives
Region										
Kentriki Makedonia	34,7%	17,9%	16,8%	78,8%	61,2%	19,2%	17,1%	20,4%	55,3%	71,2%
Gender										
Female	35,6%	21,2%	19,5%	77,7%	62,2%	23,0%	22,1%	23,0%	58,4%	74,1%
Male	33,9%	14,8%	14,4%	79,9%	60,2%	15,6%	12,6%	18,1%	52,5%	68,6%
Age										
18-24	22,7%	7,1%	9,3%	85,3%	73,8%	20,4%	11,6%	8,4%	59,6%	74,2%
25-34	39,7%	20,6%	33,8%	64,7%	45,6%	26,5%	22,1%	22,1%	58,8%	80,9%
35-44	19,5%	15,2%	26,2%	84,8%	66,5%	22,0%	15,2%	23,2%	74,4%	90,9%
45-54	28,1%	29,5%	19,0%	84,3%	67,6%	22,4%	21,0%	35,7%	68,1%	79,0%
55-64	54,5%	65,5%	25,5%	60,0%	50,9%	29,1%	52,7%	50,9%	58,2%	65,5%
65+	57,8%	7,2%	8,1%	71,7%	45,7%	8,1%	10,3%	8,1%	23,3%	44,8%
Life Stage										
Young Adults (18–24)	22,7%	7,1%	9,3%	85,3%	73,8%	20,4%	11,6%	8,4%	59,6%	74,2%
Middle-Aged Adults (25–64)	29,8%	27,6%	24,1%	79,1%	62,4%	23,5%	22,7%	31,4%	67,8%	81,7%
Senior Adults (65+)	57,8%	7,2%	8,1%	71,7%	45,7%	8,1%	10,3%	8,1%	23,3%	44,8%
Education										
Lower Education	45,7%	6,3%	10,2%	77,2%	52,0%	4,7%	6,3%	3,9%	21,3%	42,5%
Middle Education	28,3%	6,9%	14,6%	84,1%	63,4%	17,7%	9,8%	11,0%	53,7%	70,3%
Higher Education	40,2%	39,0%	22,7%	71,5%	61,3%	27,0%	32,5%	41,1%	71,2%	83,7%
Residence										
Urban	24,0%	19,8%	19,6%	80,8%	64,3%	21,0%	17,8%	22,7%	61,5%	78,4%
Rural	88,0%	8,2%	3,2%	69,0%	45,6%	10,1%	13,9%	8,9%	24,7%	35,4%
Natural Surroundings										
Water-related areas	45,2%	41,9%	36,9%	66,4%	46,9%	24,9%	34,4%	30,7%	58,5%	83,4%
Flat or lowland terrain	4,8%	7,8%	11,8%	91,6%	73,7%	17,6%	7,6%	16,2%	59,9%	73,7%
Hilly/mountain/forest	58,2%	11,5%	8,1%	74,4%	58,2%	16,7%	15,0%	17,6%	48,4%	60,2%
Professional Occupation										
Working	30,7%	26,5%	22,4%	80,9%	64,5%	23,2%	22,4%	29,6%	68,8%	83,5%
Not Working	40,1%	6,2%	9,2%	76,1%	56,6%	13,7%	10,0%	8,0%	37,2%	54,6%
Financial Strain										
Yes	43,8%	20,0%	16,7%	75,1%	56,0%	18,7%	20,0%	21,4%	50,8%	67,8%
No	16,5%	13,7%	17,1%	86,3%	71,4%	20,0%	11,4%	18,4%	64,4%	78,1%



Promotion of renewable energy sources and reducing fossil fuel dependence (78.8%) emerged as the top-ranked action, followed closely by *Implementation of waste management and recycling initiatives* (71.2%) and *Strengthening public health systems for climate-related risks* (61.2%). These priorities reflect a strong public emphasis on measures that are both highly visible and broadly relevant across the population, combining mitigation and adaptation benefits.

Compared with 2024, when *Effective water management and conservation* (68.8%), *Encouragement of sustainable consumption and production* (65.9%), *Integration of climate considerations into urban planning* (56.4%) and *Promotion of renewable energy sources and reducing fossil fuel dependence* (66.9%) were the most frequently selected actions, the 2025 results show a marked reshuffling of priorities. The 2025 sample, which differs from the previous year due to updated demographic and socio-economic classification, places greater weight on renewable energy, waste reduction and public health preparedness. At the same time, several actions saw significant declines in selection: *Effective water management and conservation* dropped sharply from 68.8% to 17.9%, *Integration of climate considerations into urban planning* fell from 56.4% to 20.4%, and *Encouragement of sustainable consumption and production* decreased from 65.9% to 55.3%. This shift suggests that while long-term planning and resource management remain relevant, they have lost prominence to actions perceived as more immediate, tangible, and impactful in daily life.

Subgroup analysis reveals strong common ground but notable contrasts. Both men and women prioritised *Promotion of renewable energy sources and reducing fossil fuel dependence* (79.9% and 77.7%), although women gave the least support to *Protection of coastal areas vulnerable to sea-level rise* (19.5%), while men placed *Conservation and restoration of ecosystems* (12.6%) last.

Young adults (18 – 24) leaned most toward *Promotion of renewable energy sources and reducing fossil fuel dependence* (85.3%) and least toward *Effective water management and conservation* (7.1%). Middle-aged adults (25 – 64) favoured *Implementation of waste management and recycling initiatives* (81.7%) and ranked *Conservation and restoration of ecosystems* lowest (22.7%). Senior adults (65+) again put renewable energy first (71.7%) and water management last (7.2%). Nevertheless, they also gave comparatively high importance to *Improved agricultural practices and technologies* (57.8%) relative to other age groups.

Education patterns were clear: higher-educated respondents prioritised *Implementation of waste management and recycling initiatives* (83.7%) and put *Protection of coastal areas vulnerable to sea-level rise* lowest (22.7%). Middle-educated respondents chose renewable energy (84.1%) with low support for water management (6.9%) and lower-educated also backed renewable energy (77.2%) but least supported *Integration of climate considerations into urban planning* (3.9%). Higher-educated individuals were far more likely to emphasise climate integration into urban planning (41.1%), water management (39.0%) and ecosystem restoration (32.5%) compared to those with lower or middle education levels.

Economic conditions also shaped responses. Those under financial strain, while still prioritising renewable energy (75.1%), gave far more emphasis to agricultural improvements (43.8%) than those without any difficulties (16.5%).



Location was another dividing factor. Urban residents chose renewable energy (80.8%) and placed ecosystems last (17.8%), while rural residents overwhelmingly prioritised improved agricultural practices (88.0%) and gave lowest priority to coastal protection (3.2%), reflecting the economic and livelihood significance of farming in these areas.

Among natural surroundings, those living in flat or lowland terrain gave overwhelming support to *Promotion of renewable energy sources and reducing fossil fuel dependence* (91.6%) but very little emphasis to *Improved agricultural practices and technologies* (4.8%). In contrast, respondents in water-related areas showed more balanced priorities, placing relatively high emphasis on *Improved agricultural practices and technologies* (45.2%), *Effective water management and conservation* (41.9%) and *Protection of coastal areas vulnerable to sea-level rise* (36.9%). Those in hilly, mountainous, or forested areas also prioritised renewable energy (83.2%) but gave notably more emphasis agricultural practices (58.2%) than those in flat or lowland terrain.

In terms of employment, working respondents favoured waste management (83.5%) and ranked both coastal protection and ecosystems lowest (22.4%), while non-working respondents prioritised renewable energy (76.1%) and least supported water management (6.2%). The gap in support for *Encouragement of sustainable consumption and production*, 68.8% among working versus 37.2% among non-working respondents, mirrors findings in the climate change impacts section, where working individuals were more likely to agree that their consumption habits affect climate change.

Renewable energy dominates across most groups, waste management has surged in prominence, and coastal protection along with ecosystem restoration often rank lowest. While renewable energy and waste management are consistently viewed as essential, priorities shift markedly depending on economic conditions, local environmental contexts, and life stage. The continued prominence of renewable energy and public health reflects their cross-cutting relevance, while the strong rural emphasis on agriculture underscores the importance of aligning climate action strategies with the specific vulnerabilities and capacities of different communities.

4.4 Personal Actions on Climate Change

4.4.1 Climate Change Adaptation

In contrast to the 2024 survey, where respondents were simply asked whether they had personally taken any action to adapt to climate change and responses were disaggregated across demographic groups, the 2025 questionnaire introduced a significantly revised question. Specifically, it presents a list of concrete, individual-level adaptation measures (e.g., installing cooling systems, planting drought-resistant crops, reinforcing homes), and respondents were invited to select all actions they had undertaken. This change was designed to reduce ambiguity and avoid conflation with mitigation behaviours, thereby providing a clearer picture of genuine adaptation efforts rather than general climate-related activity.



Q13. What changes have you made to deal with climate change?

Table 13 Climate Change Adaptation

Changes have you made to deal with climate change	Responses	Percentage
I improved my home's insulation to stay cooler in summer and warmer in winter.	367	38,8%
I installed cooling or heating systems to handle temperature changes.	530	56,1%
I used natural cooling methods like shading windows or improving ventilation.	455	48,1%
I adjusted my work hours or daily routine to avoid extreme heat.	220	23,3%
I covered my plants or used heaters to protect them from frost.	108	11,4%
I grew crops that can handle the cold better.	127	13,4%
I improved my home's design to prevent pipes from freezing.	167	17,7%
I installed or upgraded drainage systems to prevent flooding.	35	3,7%
I set up or improved rainwater collection systems to manage heavy rain.	34	3,6%
I added surfaces that let rainwater soak into the ground instead of running off.	71	7,5%
I planted crops that can survive dry conditions.	94	9,9%
I started using water-saving methods like better irrigation or reducing waste.	161	17,0%
I cleared space around my home to reduce wildfire risks.	158	16,7%
I used fire-resistant materials in my home since I live in a wildfire-prone area.	129	13,7%
I reinforced my home to withstand strong winds from storms.	32	3,4%
I trimmed or removed trees to prevent wind damage.	180	19,0%
I raised my house to protect it from flooding.	18	1,9%
I moved away from a coastal area at risk of flooding.	28	3,0%
I haven't made any changes yet.	46	4,9%
Total (N)	945	n.a

The results demonstrate patterns consistent with immediate, comfort-oriented adaptation. The most frequently adopted measures were installing cooling or heating systems (56.1%), using natural cooling like shading or ventilation (48.1%), and improving insulation (38.8%). These figures indicate that addressing temperature extremes, particularly comfort in hot or cold seasons, was the predominant concern among participants.

A sizeable proportion also reported adjusting work routines to avoid extreme heat (23.3%) and trimming or removing trees to reduce wind damage (19.0%). Measures related to protection from frost (e.g. covering plants, preventing pipes freezing) appear less common but still notable, at 11 – 17%.

Drought-related adaptations such as planting drought-resistant crops or implementing water-saving methods were undertaken by 9.9% and 17.0% respectively, demonstrating moderate concern about prolonged dry conditions.

By contrast, only a small minority addressed flood or coastal risks directly: less than 4% installed drainage systems or rainwater harvesting, just 1.9% raised their house, and about 3% relocated away from coastal risk zones.

Wildfire-related adaptations (clearing vegetation or using fire-resistant materials) were reported by around 16 – 17%, indicating some awareness of this hazard among those exposed.



Finally, approximately 5% stated they had made no changes so far, suggesting a minority either not perceiving personal threat or lacking resources to act.

These adaptation behaviours align notably with hazard perceptions covered earlier. Heat-related actions correspond directly with high public concern about heatwaves and changing air temperature. In contrast, adaptation for flooding, windstorms, wildfires and drought are far less common, reflecting lower perceived urgency for slow-onset hazards such as sea level rise, coastal flooding, river floods, and windstorms. The correspondence suggests that respondents tend to adjust behaviours in response to the most familiar and immediate risks they perceive, while hazards deemed less pressing see far less adaptation at the individual level.

4.4.2 Climate Change Adaptation Actions

Individual adaptation measures were re-coded into hazard-specific categories to better understand the relationship between perceived risks and the types of adaptive responses adopted. This classification enables a direct link between the specific hazards discussed earlier (heat, cold/frost, flooding, drought, wildfire, windstorms, and coastal flooding) and the reported measures.

Table 14 Types of adaptation actions

Types adaptation actions	Adaptation to heat	Adaptation to cold/frost	Adaptation to flooding/heavy rain	Adaptation to drought	Adaptation to wildfires	Adaptation to windstorms	Adaptation to coastal flooding/sea-level rise	No adaptation changes made
Region								
Kentriki Makedonia	71,9%	36,0%	13,1%	24,7%	28,8%	21,5%	4,2%	4,9%
Gender								
Female	72,3%	32,5%	13,9%	29,9%	30,1%	21,5%	4,6%	3,8%
Male	71,4%	39,1%	12,4%	19,9%	27,6%	21,5%	3,9%	5,9%
Age								
18-24	68,0%	12,4%	1,3%	20,4%	22,7%	20,0%	0,9%	6,2%
25-34	52,9%	23,5%	23,5%	30,9%	29,4%	16,2%	11,8%	7,4%
35-44	89,0%	43,3%	9,8%	20,1%	29,9%	15,9%	4,9%	2,4%
45-54	91,9%	42,4%	12,4%	17,1%	33,3%	23,3%	4,3%	1,0%
55-64	85,5%	43,6%	25,5%	25,5%	27,3%	25,5%	3,6%	7,3%
65+	46,6%	50,2%	22,0%	37,2%	30,0%	26,0%	4,9%	7,6%
Life Stage								
Young Adults (18–24)	68,0%	12,4%	1,3%	20,4%	22,7%	20,0%	0,9%	6,2%
Middle-Aged Adults (25–64)	84,9%	40,2%	14,5%	20,9%	31,0%	20,1%	5,4%	3,0%
Senior Adults (65+)	46,6%	50,2%	22,0%	37,2%	30,0%	26,0%	4,9%	7,6%
Education								
Lower Education	46,6%	50,2%	22,0%	37,2%	30,0%	26,0%	4,9%	7,6%
Middle Education	70,1%	33,3%	11,0%	22,6%	24,6%	18,5%	4,5%	3,5%
Higher Education	79,4%	38,0%	14,7%	28,5%	36,5%	25,5%	4,0%	4,9%
Residence								
Urban	79,9%	28,1%	9,1%	18,9%	24,9%	16,9%	4,3%	5,1%
Rural	31,6%	75,3%	32,9%	53,2%	48,1%	44,3%	3,8%	3,8%
Natural Surroundings								
Water-related areas	57,7%	27,0%	15,8%	35,3%	36,5%	11,2%	10,0%	11,2%
Flat or lowland terrain	96,6%	27,7%	5,0%	6,4%	9,5%	10,6%	2,0%	0,6%
Hilly/mountain/forest	56,2%	50,7%	19,6%	36,0%	43,2%	39,8%	2,6%	4,9%
Professional Occupation								
Working	56,2%	50,7%	19,6%	36,0%	43,2%	39,8%	2,6%	4,9%
Not Working	56,6%	34,4%	13,7%	27,9%	24,9%	23,2%	2,7%	7,7%
Financial Strain								
Yes	62,9%	38,1%	15,4%	31,4%	30,3%	18,7%	5,1%	5,7%
No	89,8%	31,7%	8,6%	11,1%	25,7%	27,0%	2,5%	3,2%

The results show a strong bias towards adaptation to heat-related hazards. Over seven in ten respondents (71.9%) reported taking at least one measure to cope with high temperatures, such as improving insulation, installing cooling systems, or modifying work routines to avoid extreme heat. This is consistent with earlier findings highlighting heatwaves and rising temperatures as highly salient climate risks for respondents.

Adaptation to cold and frost was the second most frequent category (36.0%), including actions such as using plant covers, growing cold-tolerant crops, or preventing pipes from freezing. While less prevalent than



heat adaptations, these responses still represent a substantial proportion, reflecting the continuing relevance of winter extremes in some regions.

Other hazards produced lower response levels. For wildfires, 28.8% reported creating defensible space around their homes, clearing vegetation, or using fire-resistant materials. This level of response suggests that wildfire risk is a recognised concern, but its spatial distribution limits overall uptake.

Adaptation to drought was reported by just under a quarter (24.7%), often through drought-tolerant crops or water-saving irrigation methods. Similarly, windstorm adaptations (21.5%) included structural reinforcements and tree trimming. Both categories indicate moderate concern and targeted preparation where these hazards are locally relevant.

By contrast, flooding and heavy rain adaptations were adopted by only 13.1% of respondents, despite the potential severity of flood damage. Likewise, coastal flooding and sea-level rise actions were rare (4.2%), likely reflecting the lower proportion of respondents directly exposed to such hazards.

A small group (4.9%) reported no adaptation actions at all, which may point to low perceived personal risk, lack of awareness, or constraints on resources.

The re-coding approach is consistent with hazard-based climate adaptation logic:

- Heat and cold/frost dominate due to their universal and immediate impact on daily life.
- Wildfire, drought, and windstorms appear where relevant to geography and exposure.
- Flooding (both inland and coastal) is far less common, likely reflecting lower direct exposure for most respondents.

The small proportion reporting no action or having made no changes yet suggests that most participants have implemented at least one adaptation measure, regardless of the absence of a direct yes/no question. This contrasts with last year's approach, when participants were asked such a binary question and some appeared to confuse adaptation with mitigation when describing measures, they had implemented to address climate change.

The strong engagement in heat and drought related adaptation measures, such as installing cooling systems, using shading, or adopting water saving methods, likely reflects both the increasing frequency of high-temperature events in the region and the particularly hot and dry conditions during the 2025 survey period. Similarly, moderate engagement in wildfire adaptation actions, such as clearing defensible space and using fire-resistant materials, aligns with recent fire incidents in Central Macedonia, implying that lived experience with hazards can be a significant driver of personal adaptation behaviour.

4.4.3 Climate Adaptation Actions implemented in Central Macedonia

In 2025, a new question was introduced to assess public awareness and perceived usefulness of climate adaptation measures implemented in the Region of Central Macedonia over the past year. The regional authorities sought to determine whether residents recognised these initiatives and which, if any, had personally benefited them the most. Respondents could select up to three options from a list of specific adaptation measures, including infrastructure improvements, environmental restoration projects,



monitoring systems, and training initiatives. An exclusive option was also provided for those unfamiliar with any of the listed actions.

Table 15 Climate Adaptation Actions in Central Macedonia

Climate Adaptation actions implemented in the Region of Central Macedonia	Responses	Percentage
Development of the Regional Plan for Climate Change Adaptation in Central Macedonia	44	4,7%
Upgrading and expansion of the National Air Pollution Monitoring Network in the Urban Area of Thessaloniki	37	3,9%
Remediation - Restoration of the subsoil and groundwater in the Municipalities of Thessaloniki, Ampelokipon - Menemeni and Delta	14	1,5%
Development of an integrated observatory system to prevent and manage the risk of coastal erosion under climate change through the use of land observation data	20	2,1%
Maintenance and upgrading of floating measuring stations	17	1,8%
Training Seminars for the Adaptation of the Region of Central Macedonia to Climate Change	42	4,4%
I'm not familiar with any of these actions	845	89,4%
Total (N)	945	n.a

The results reveal a striking trend: an overwhelming 89.4% of respondents reported being unfamiliar with any of the adaptation measures implemented in the region. This high proportion suggests a significant gap between policy implementation and public awareness. Even among the remaining participants, no single action received more than 4.7% of responses, with the Development of the Regional Plan for Climate Change Adaptation in Central Macedonia and Training Seminars for the Adaptation of the Region ranking as the most frequently recognised measures.

These findings point to a possible communication and outreach deficit: despite the existence of structured adaptation projects, the majority of residents either have no awareness of them or do not perceive them as directly beneficial to their daily lives. From a policy perspective, this underlines the importance of not only implementing adaptation strategies but also ensuring that they are clearly communicated, publicly visible, and meaningfully connected to community needs. Without such engagement, even well-designed climate adaptation actions risk going unnoticed by the very population they aim to support. The low public familiarity with regional adaptation initiatives may also be partly explained by the focus of public discourse during the survey period on immediate hazard events, such as the June wildfires and the ongoing heat and drought conditions. In such contexts, awareness of strategic or infrastructural adaptation measures may be overshadowed by attention to emergency response and hazard mitigation efforts in real time.



5 EU Local Perceptions in a European Context: Comparing REGILIENCE and Eurobarometer Findings

The 2025 REGILIENCE citizen survey in Central Macedonia and the Special Eurobarometer 565 Climate Change survey⁴ offer valuable, complementary insights about public attitudes toward climate change. While the Eurobarometer provides a broad European benchmark (n=26,319 across 27 EU Member States), the REGILIENCE survey gives a deep, region-specific look into local perceptions in Central Macedonia (n=945). The comparison reveals a consistent shared awareness across the EU and Central Macedonia, but highlights acute local concerns in the Greek region, particularly related to the personal experience of climate impacts.

Table 16: Comparison between thematic areas

Thematic Area	Special Eurobarometer 565 (EU27 Score)	REGILIENCE Survey (Central Macedonia Score)	Insight
Climate Change is Human-Driven	84% Agree	4.0/5.0 Strong Agreement: Q10e	Strong consensus across both the EU and Central Macedonia on the human cause of climate change.
Climate Change is a Serious Problem	85% Consider it a serious problem	7.3/10.0 Serious Problem - Average Score: Q9	High concern in both contexts, confirming climate change as a major public issue.
Personal Exposure to Risks	38% Feel personally exposed to environmental/climate risks	4.3/5.0 Strong Agreement with "I already experienced the impact of climate hazards": Q10c	High self-reported exposure is a key feature of the Central Macedonia results, suggesting a particularly strong local, lived experience of hazards that exceeds the EU average.
Priority: Public Health & Quality of Life	85% Agree it should be a priority to improve public health/quality of life	61.2% Select "Strengthening public health systems for climate-related risks" as a top priority action (Q12)	The high EU agreement is contextualized by the Central Macedonia response, where public health is explicitly placed as a top three priority action.
Priority: Renewables Action (National Gov.)	89% Say it is important for National Governments to act to increase renewable energy	78.8% Select "Promotion of renewable energy sources and reducing fossil fuel dependence" as the top-ranked regional priority action (Q12)	Strong and consistent support for utilizing renewable energy is evident at both the EU level and as the dominant priority in the Central Macedonia region.

Key Methodological Differences

While some questions correspond thematically, the methodological differences between the two surveys are significant, making direct quantitative comparison challenging. The Eurobarometer provides broad EU-wide averages based on randomized, statistically weighted sampling, contrasting with the REGILIENCE citizen survey focused on deep, localized insight in Central Macedonia using non-random sampling. Additionally, the Eurobarometer relies on simple four-point scales and presents data as binary percentages

⁴ <https://europa.eu/eurobarometer/surveys/detail/3472>



(Total agree vs. total disagree). The REGILIENCE citizen survey uses more detailed five-point scale and mean scores (on a 0-10 scale), which better convey the intensity of opinions. These differences, along with distinct weighting and sampling procedures, limit direct comparability and statistical alignment.

6 Conclusions

In line with the EU's Green Deal and the REGILIENCE project's mission to strengthen the capacity of European regions to adapt to climate change, the 2025 Central Macedonia survey represents a decisive step forward in understanding citizens' perceptions, knowledge, and actions on climate adaptation. REGILIENCE continues to place equal emphasis on generating scientific knowledge and ensuring that citizens' voices are integrated into regional adaptation strategies, recognising that resilience is as much a social process as it is a technical one.

This year's survey marks the second consecutive edition of the study. Lessons learned from the 2024 experience guided substantial methodological improvements. In 2025, 945 valid responses were collected, more than a fourfold increase compared to the 218 responses gathered last year. This dramatic growth was achieved through targeted outreach strategies, the deployment of an in-field data collection team, and deliberate efforts to achieve a balanced sample across gender, age, and educational background. The result is a far more robust and representative dataset, enabling richer and more reliable comparisons between socio-demographic groups and providing a stronger foundation for policy-relevant insights.

While comparisons with 2024 are possible, they must be interpreted cautiously due to differences in sampling balance, question structure, and the addition of new socio-demographic and adaptation-related items. Still, taken together, the two years' results begin to sketch an evolving picture of climate awareness, hazard perception, and adaptation action in Central Macedonia.

In concept awareness, the 2025 survey introduced a methodological shift: rather than asking respondents if they recognised specific terms, they were tasked with matching each concept to its correct definition. This change increases reliability but also raises the level of difficulty, which partly explains differences from 2024. Most concepts retained similar awareness levels, suggesting that the population has a relatively stable core knowledge of climate-related terminology. However, the most notable change was a significant drop in the recognition of "Sustainability". This may reflect the fact that respondents interpret sustainability in a broader and less climate-specific way than the precise definition used in the survey, leading to mismatches despite their general familiarity with the concept. This finding points to the importance of framing public communication in language that aligns with citizens' mental models, without sacrificing scientific accuracy.

Turning to climate hazard perception, the survey confirms a consistent prioritisation of heatwaves, changing air temperatures, and heavy precipitation. However, perceptions of other heat-related hazards, droughts and wildfires, have declined in this year's results, despite their prominence in Greece's recent climate reality. The timing of the survey may have reinforced the dominance of certain risks: fieldwork took place outside the period of recent extreme floods, which may help explain why flood-related hazards ranked lower



in salience. Nonetheless, awareness of river floods, flash floods, and storm damage remains evident, though secondary, suggesting a hierarchy of perceived threats that shifts according to recent events, lived experiences, and seasonal context.

A deeper demographic analysis shows that women consistently express higher levels of concern about most hazards compared to men, mirroring the pattern seen in 2024. Education correlates positively with hazard awareness, with university graduates tending to rate climate hazards as more severe than those with lower levels of formal education. These socio-demographic variations indicate that risk communication strategies may benefit from targeted tailoring to different population segments to address the unique concerns and information needs of each group.

In terms of priority actions for addressing regional climate change challenges, the 2025 results reveal a clear reshaping of public preferences compared to 2024. This year, *Promotion of renewable energy sources and reducing fossil fuel dependence* (78.8%), *Implementation of waste management and recycling initiatives* (71.2%), and *Strengthening public health systems for climate-related risks* (61.2%) emerged as the most frequently selected measures. This represents a marked shift from the previous year, when *Effective water management and conservation* (68.8%), *Encouragement of sustainable consumption and production* (61.9%), and *Integration of climate considerations into urban planning* (57.8%) ranked highest. Several actions saw sharp declines, most notably *Effective water management and conservation* (down to 17.9%), *Integration of climate considerations into urban planning* (down to 20.4%), and *Encouragement of sustainable consumption and production* (down to 55.3%).

Subgroup analysis shows that while renewable energy is the top choice for most demographic segments, rural residents overwhelmingly prioritise *Improved agricultural practices and technologies* (88.0%), reflecting the economic significance of farming. Higher-educated respondents are more likely to support *Integration of climate considerations into urban planning* and *Conservation and restoration of ecosystems*, while those experiencing financial strain lean more heavily toward agricultural improvements. Across all groups, *Protection of coastal areas vulnerable to sea-level rise* and *Conservation and restoration of ecosystems* frequently appear among the least prioritised actions, suggesting that location-specific or longer-term measures struggle to compete with highly visible, cross-cutting interventions.

This reshaping of priorities suggests that public support is strongest for measures that are both tangible and broadly relevant, offering immediate co-benefits for mitigation and adaptation. For policymakers, the implication is clear: while long-term planning, ecosystem restoration, and water management remain critical, their visibility and public resonance need to be strengthened if they are to secure sustained support. The findings on personal adaptation actions stand out as a major improvement in clarity over last year. In 2024, open-ended responses revealed confusion between adaptation and mitigation; in 2025, a structured list of adaptation types was provided, covering heat, cold/frost, floodings, drought, wildfire and/or windstorm. This approach not only eliminated ambiguity but also revealed the breadth of adaptation behaviours already in practice. The overwhelming majority of respondents, over 95%, reported adopting at least one adaptation measure. The most common were heat adaptations (71.9%), followed by cold/frost adaptations (36%), drought adaptations (24.7%), wildfire risk measures (28.8%), and windstorm-related reinforcements (21.5%). More context-specific measures such as coastal flooding adaptation (4.2%) were



rare, likely reflecting both low exposure and low perceived need in inland parts of the region. The small share reporting “no adaptation changes made” (4.9%) confirms that climate adaptation is not a theoretical concept for most households in Central Macedonia, it is already part of daily life.

However, when shifting from personal actions to awareness of institutional adaptation efforts, the gap is striking. For the first time, the 2025 survey asked residents whether they recognised specific adaptation measures implemented by the Region of Central Macedonia in the past year. A remarkable 89.4% reported being unfamiliar with any of the listed actions, including the development of the Regional Plan for Climate Change Adaptation, monitoring infrastructure upgrades, and adaptation training seminars. This suggests that while regional authorities have invested in adaptation planning and technical capacity, these efforts are not reaching the public consciousness. Without improved visibility and communication, citizens may underestimate the scope of institutional work underway, which in turn could weaken public engagement and support for future policies.

The data points to several recommendations. First, targeted awareness campaigns are needed to close the communication gap between regional adaptation policies and public understanding. Second, hazard-specific engagement strategies should reflect the seasonal and experiential nature of hazard salience, ensuring that risks which are not top-of-mind, such as flooding and coastal erosion, remain part of the public agenda. Third, capacity-building and co-creation processes can help citizens feel not only informed but actively involved in shaping adaptation priorities, which can improve both the uptake of protective measures and trust in policy institutions.

From the perspective of the REGILIENCE project, these findings reaffirm that effective adaptation is as much about social engagement as it is about infrastructure and planning. Central Macedonia is already home to a wide range of individual-level adaptations, but scaling up resilience requires bridging the gap between citizens’ lived experience and the often less-visible institutional work of regional authorities. The stronger methodology and broader participation achieved in 2025 provide a reliable foundation for tracking changes over time, identifying demographic gaps, and shaping communication strategies that resonate across the community.

In conclusion, the 2025 REGILIENCE citizen survey provides a more representative and robust understanding of climate change awareness, perceptions, and adaptation behaviours in Central Macedonia, thanks to a larger and more demographically balanced sample. While caution is warranted in comparing results with 2024 due to methodological refinements and differences in sample composition, the findings reveal clear trends in adaptation engagement and hazard perception that can inform regional resilience planning. The timing of the survey, coinciding with an unusually hot and dry early summer, the second warmest June since 2010, and punctuated by multiple wildfire incidents and localised flooding, likely heightened public concern for hazards such as heatwaves. This context highlights the importance of aligning climate communication and adaptation campaigns with seasonal realities, capitalising on periods when hazards are most visible and personally relevant to increase both awareness and the likelihood of sustained adaptive action.



Annex

Annex I Questionnaire

[Section] CITIZEN SURVEY

The European project REGILIENCE, funded by the European Union's Horizon 2020 program with the support of the Regional Development Fund of Central Macedonia, is studying regional resilience to climate change. To learn more about the REGILIENCE project click [here](#).

We kindly ask you to take 10 minutes to complete this survey.

Your participation is voluntary, and you may withdraw at any time. The responses will be used solely for research and awareness-raising on climate resilience.

Your input is important for understanding and improving how communities adapt to climate change. By sharing your perspective, you help shape better strategies for resilience and a more sustainable future.

[Section] Personal information

1.1 Please select your region:

- Greece: Central Macedonia
- Other

1.2 Which phrase best describes the area you live in?

- A big city
- The suburbs or outskirts of a big city
- A town or small city
- A country village
- A farm or home in the countryside

1.3 Which of the following best describes the natural surroundings of your area?

- Coastal area (near the sea)
- In the hills or near mountains
- Near a river or lake
- Flat or lowland area
- In a forest area
- Island
- Other (please specify)

1.4 Gender:

- Male
- Female
- Other
- Prefer not to answer



1.5 Age:

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65+

1.6 Highest level of education you have completed:

- I have not completed any formal education
- Primary education
- Lower secondary education
- Upper secondary education
- Post-secondary non-tertiary education
- Short-cycle tertiary education
- Bachelor's degree or equivalent tertiary education level
- Master's degree or equivalent tertiary education level
- Doctoral degree or equivalent tertiary education level

1.7 Main occupation:

- Paid worker
- Unemployed
- Looking for a first job
- Retired or a pensioner
- Studying
- Student worker
- Without any activity
- Other situation

1.8 Do you have any difficulties paying bills:

- Always
- Sometimes
- Never

1.9 Have you participated in the REGILIENCE citizen survey in 2024?

- Yes
- No

[Section 2] Me and Climate Change

2.1 Have you ever heard about the following concepts:

Choose the concept that you think best fits each description

- If unsure, select I don't know.

Descriptions	Climate resilience	Climate change adaptation	Sustainability	Regional development	Green transition	I Don't Know
<i>Being ready to deal with problems caused by climate, like heat or floods.</i>	●	●	●	●	●	●
<i>Making changes to live better with the effects of climate change.</i>	●	●	●	●	●	●
<i>Using things in a way that doesn't harm the future.</i>	●	●	●	●	●	●
<i>Helping towns or areas grow and improve.</i>	●	●	●	●	●	●
<i>Changing to cleaner energy and using fewer natural resources.</i>	●	●	●	●	●	●

2.2 How serious of a problem do you think climate change is at this moment? Please use a scale from 0 to 10, where '0' means "not a serious problem, and '10' means "an extremely serious problem"

0	1	2	3	4	5	6	7	8	9	10	I don't know
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2.3 Please tell us to what extent you agree or disagree with each of the following statements. Please select from the options: «Strongly disagree», «Disagree», «Neither agree nor disagree», «Agree», «Strongly agree» or «I don't know».

Statements	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	I don't know
Environmental issues have a direct effect on my daily life and health.						
Climate change has a negative impact on my job and income sources.						
I already experienced the impact of climate hazards (e.g., floods, droughts, heatwaves, wildfires, etc...)						
My consumption habits affect the environment.						
Climate change is caused by human activities.						



Climate change is a natural phenomenon, and I cannot do anything about it.						
Climate change is having a significant impact in my region.						
My region is exposed to climate risks.						
The government should increase incentives for people who try to slow down climate change.						
There are more important matters than climate change.						

2.4 How the following hazards/climate change impact(s) are affecting your region at this moment? Please select from “Not affecting the region”, “Affecting in some ways”, “Strongly affecting the region” or “I don’t know”.

Hazard/Climate change impact	Not affecting the region	Affecting in some ways	Strongly affecting the region	I don’t know
Changing air temperature				
Heat waves				
Frost				
Heavy precipitation				
Flash floods				
River floods				
Droughts				
Wildfires				
Severe windstorms				
Sea level rise				
Coastal floods				

2.5 Considering the impacts of climate change in our region, which actions do you believe are the most important to address these challenges?

Instructions: Please select actions that you consider crucial for adapting to climate change in our region. You may choose multiple options.

- Improved agricultural practices and technologies.
- Effective water management and conservation.
- Protection of coastal areas vulnerable to sea-level rise.
- Promotion of renewable energy sources and reducing fossil fuel dependence.
- Strengthening public health systems for climate-related risks.
- Enhancing transportation infrastructure for extreme weather events.
- Conservation and restoration of ecosystems.
- Integration of climate considerations into urban planning.
- Encouragement of sustainable consumption and production.
- Implementation of waste management and recycling initiatives.
- Other adaptation measure(s)



2.6 From the following list, what changes have you made to deal with climate change?

Instructions: Please select actions that you made. You may choose multiple options.

- I improved my home's insulation to stay cooler in summer and warmer in winter.
- I installed cooling or heating systems to handle temperature changes.
- I used natural cooling methods like shading windows or improving ventilation.
- I adjusted my work hours or daily routine to avoid extreme heat.
- I covered my plants or used heaters to protect them from frost.
- I grew crops that can handle the cold better.
- I improved my home's design to prevent pipes from freezing.
- I installed or upgraded drainage systems to prevent flooding.
- I set up or improved rainwater collection systems to manage heavy rain.
- I added surfaces that let rainwater soak into the ground instead of running off.
- I planted crops that can survive dry conditions.
- I started using water-saving methods like better irrigation or reducing waste.
- I cleared space around my home to reduce wildfire risks.
- I used fire-resistant materials in my home since I live in a wildfire-prone area.
- I reinforced my home to withstand strong winds from storms.
- I trimmed or removed trees to prevent wind damage.
- I raised my house to protect it from flooding.
- I moved away from a coastal area at risk of flooding.
- I haven't made any changes yet.
- Other action you have made(s)

2.7 Which of the following climate adaptation actions implemented in the Region of Central Macedonia in the past year has helped you the most?

You may choose up to 3 options/multiple.

- Development of the Regional Plan for Climate Change Adaptation in Central Macedonia
- Upgrading and expansion of the National Air Pollution Monitoring Network in the Urban Area of Thessaloniki
- Remediation - Restoration of the subsoil and groundwater in the Municipalities of Thessaloniki, Ampelokipon - Menemeni and Delta
- Development of an integrated observatory system to prevent and manage the risk of coastal erosion under climate change through the use of land observation data
- Maintenance and upgrading of floating measuring stations
- Training Seminars for the Adaptation of the Region of Central Macedonia to Climate Change
- I'm not familiar with any of these actions (*select this option only if none of the above apply*)



[Section] Consent to data use

By ticking the box below, I confirm that:

- I have been informed about the project and have read the [F6S Privacy Policy](#). My participation is voluntary.

☐ I consent

[Section] Final considerations

Thank you for your answer.

Please share the survey with your family and/or colleagues living in Central Macedonia.

If you have any questions, please contact us at info@regilience.eu.