

Carbon Binding Blue Black Sea 2025

JULY

1. Overview

Seabeds are important marine habitats with functions such as carbon sequestration, supporting biodiversity, and improving water quality in coastal ecosystems. However, in Turkey, regulations regarding the protection of seabeds are limited, and they are not adequately considered in Environmental Impact Assessment (EIA) processes. The aim of this study is to evaluate the current perceptions and views on the integration of seabeds into EIA processes and to measure public awareness.

2. METHOD

This study is made of two sections:

2.1 Analysis of the Legislation:

- The EIA Regulation which is currently in effect in Turkey, and the national legislations about Coastal Law and Biodiversity have been examined.
- The existence and binding nature of the open references regarding seabeds have been analysed.

2.2 Survey Conduction:

- Participant Profile: 141 Participants (Government officials)
- Method: Online and in-person surveys
- Survey Sections: Awareness, Level of Knowledge, Perception of Legislation, Priority of Protection

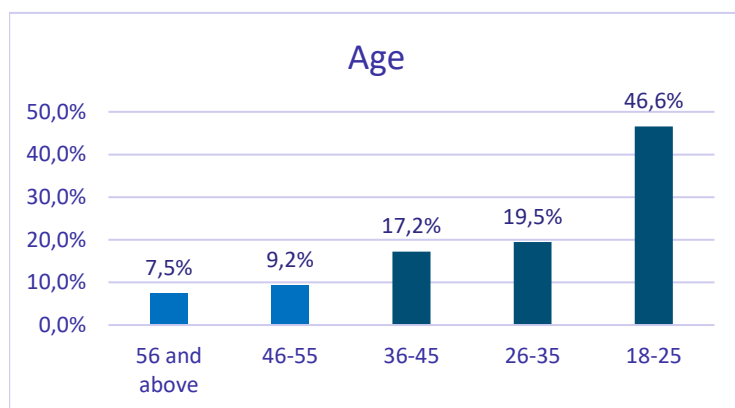
3. FINDINGS

3.1 Legislation Analysis Findings:

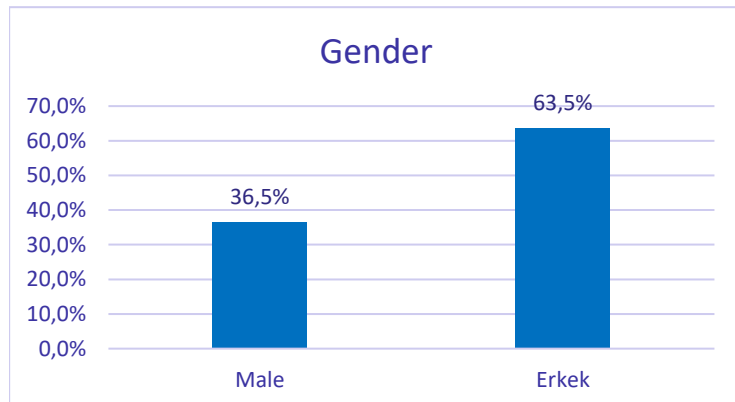
- Seabeds are indirectly regarded as wetlands and sensitive ecosystems in the EIA Regulations, but aren't defined explicitly.
- It has been observed that the awareness regarding seabeds is being overlooked in EIA processes regarding coastal urbanizations.
- Training should be arranged as required to inform the public on this matter.
- The importance of seabeds regarding carbon emissions should be emphasized more.

3.2 Survey Results :

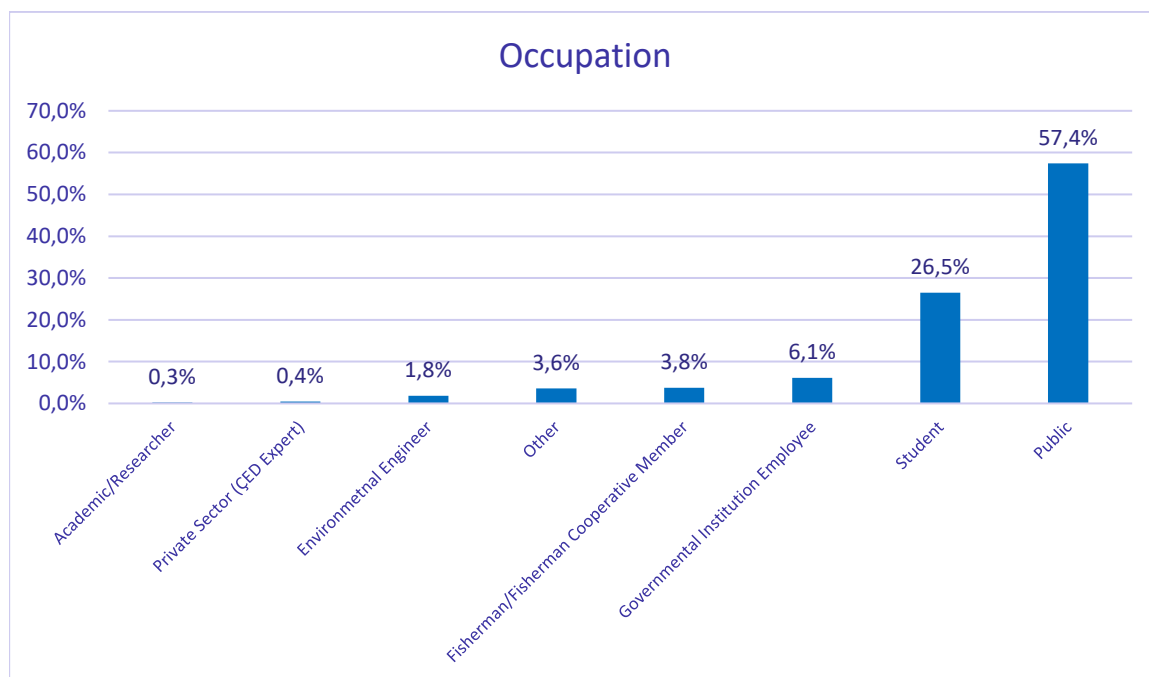
DEMOGRAPHICS



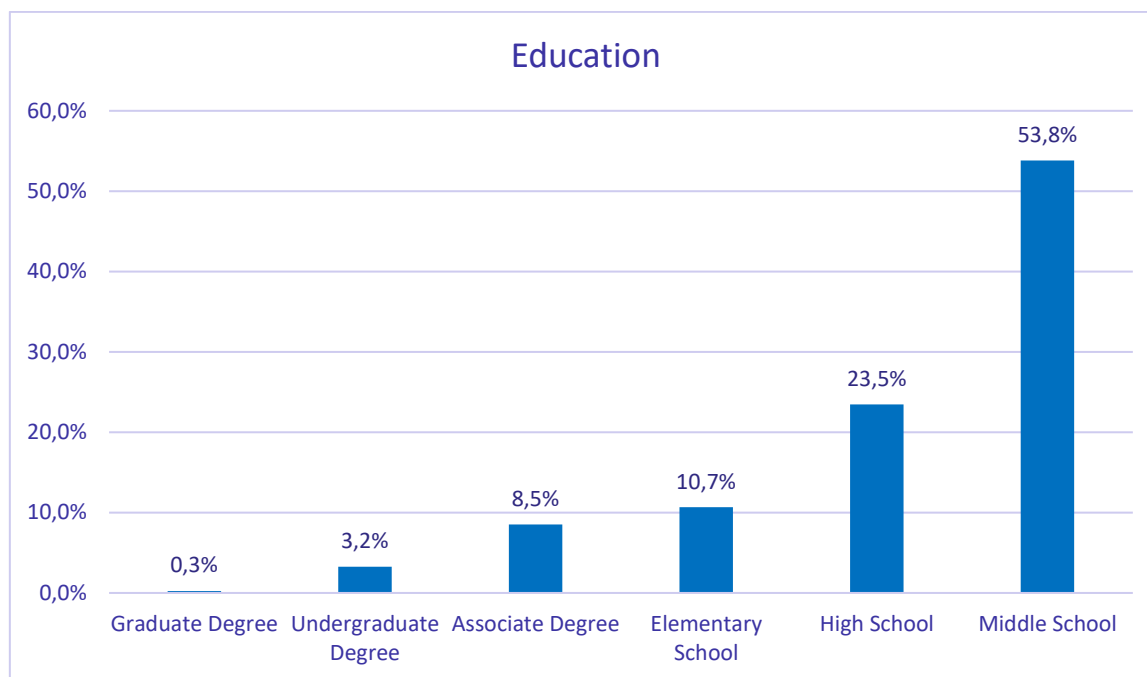
n =1572 Average Age: 31,95



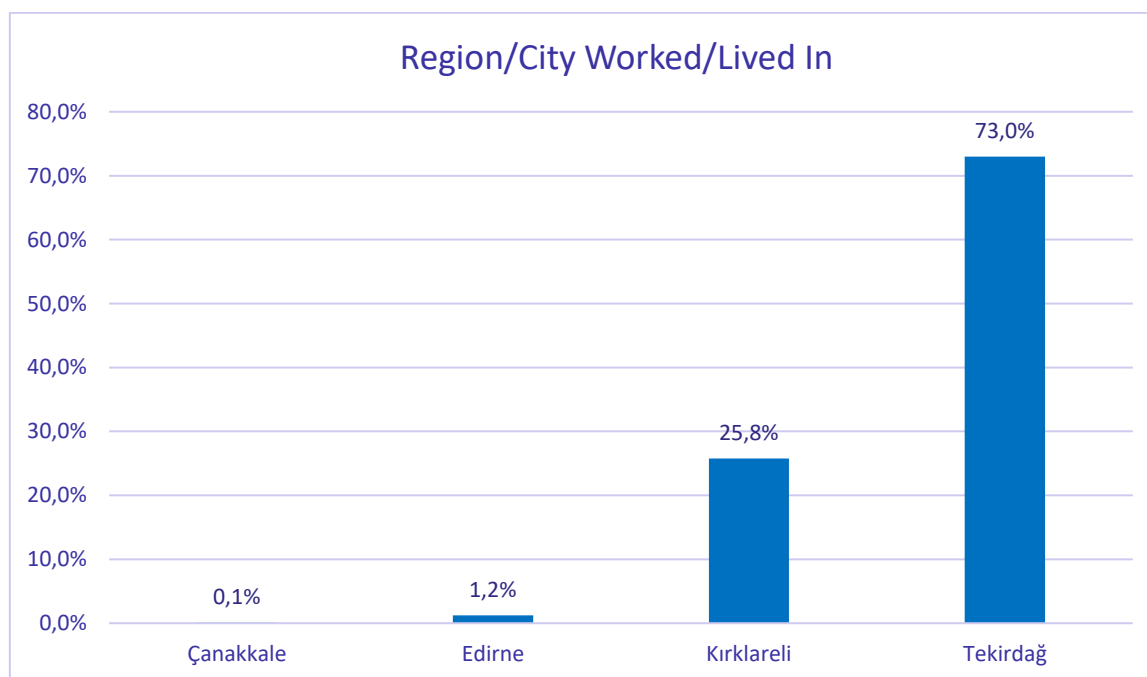
n =1572



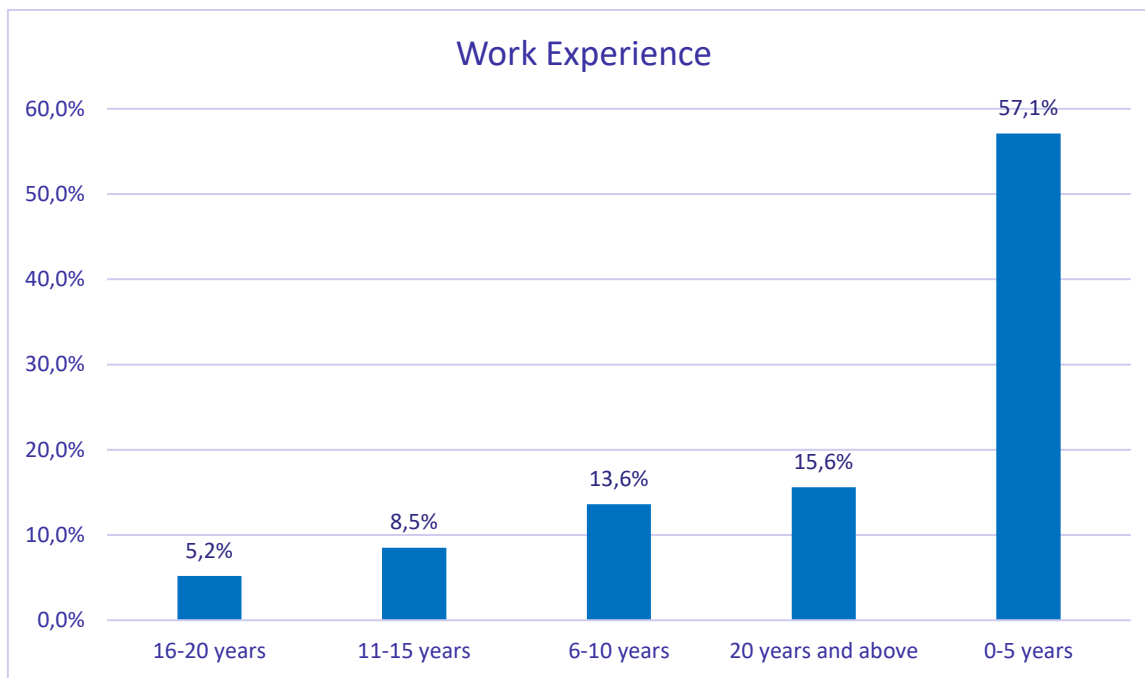
n=1572



n=1572

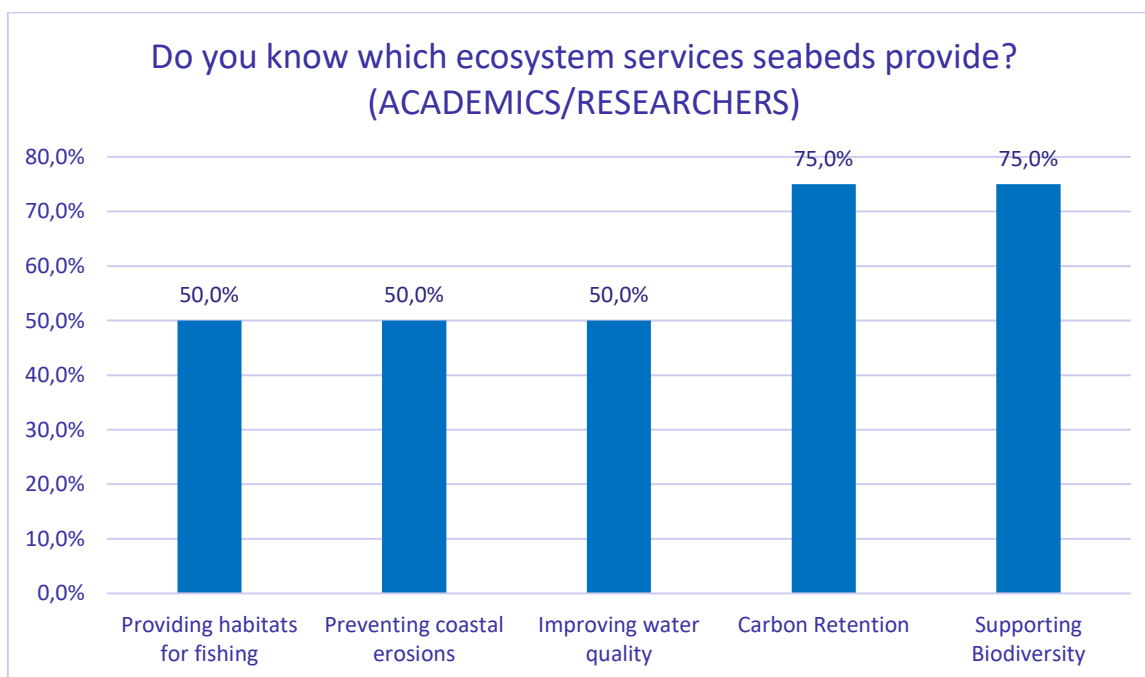


With n=1572 %73, participants from Tekirdağ have been surveyed the most.

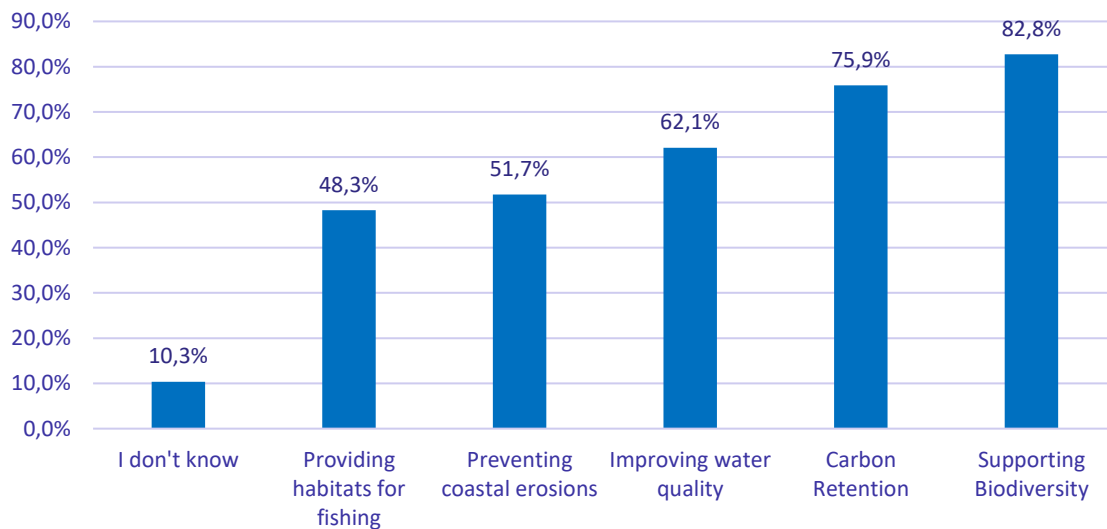


n=1572

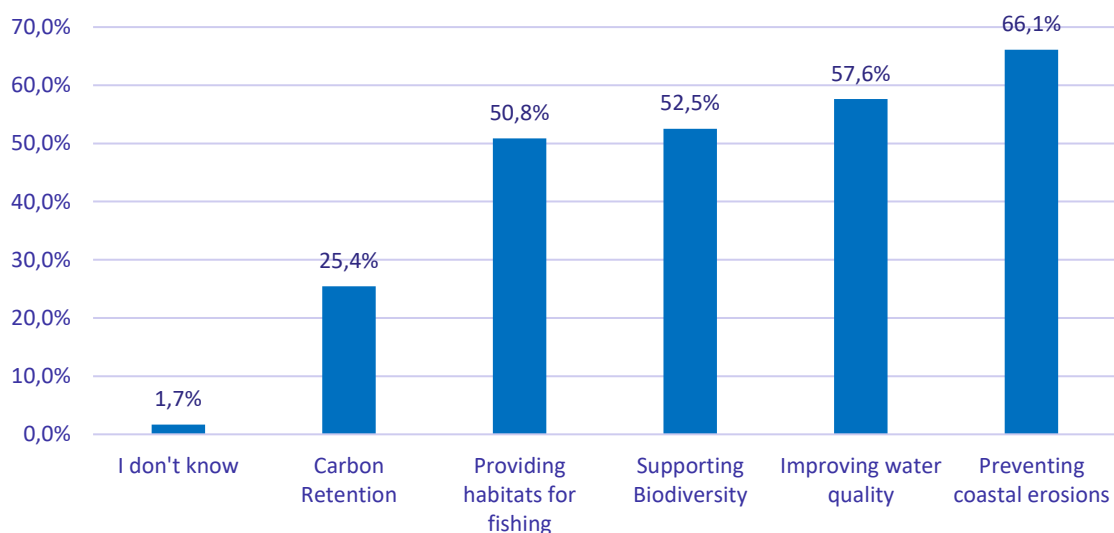
LEVEL OF KNOWLEDGE REGARDING SEABEDS



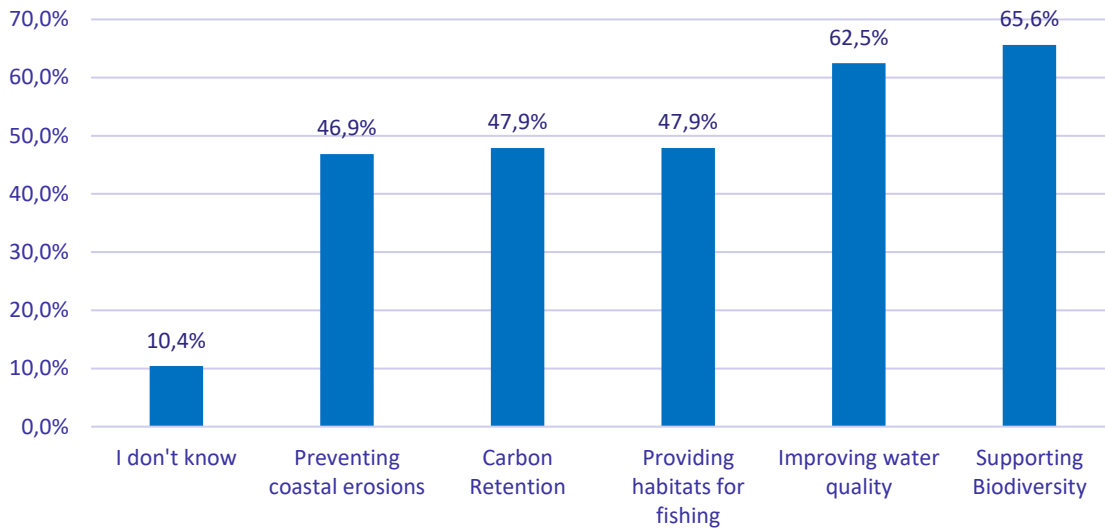
Do you know which ecosystem services seabeds provide? (ENVIRONMENTAL ENGINEERS)



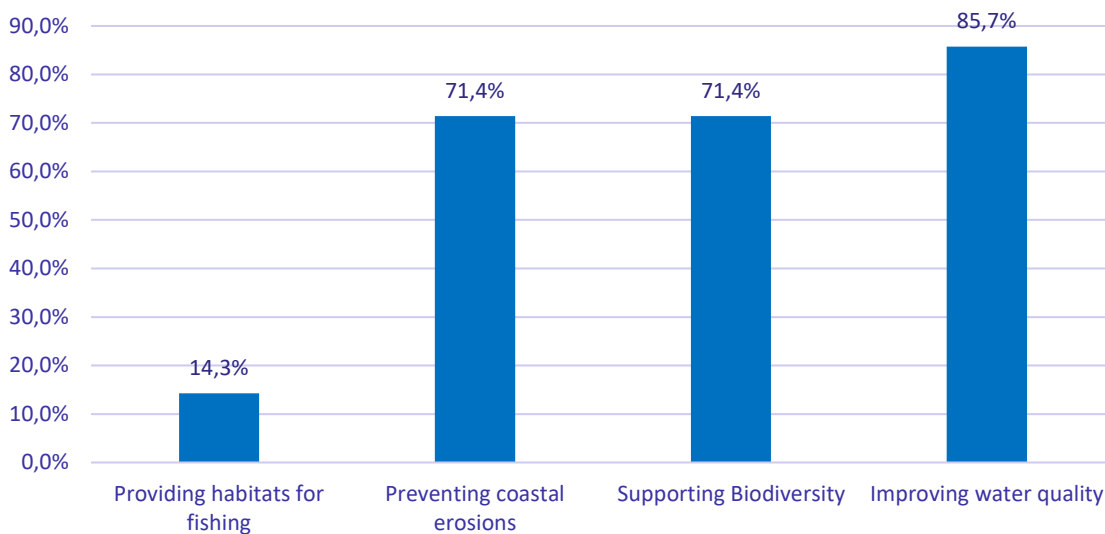
Do you know which ecosystem services seabeds provide? (FISHERMAN/FISHERMAN COOPERATIVE MEMBERS)



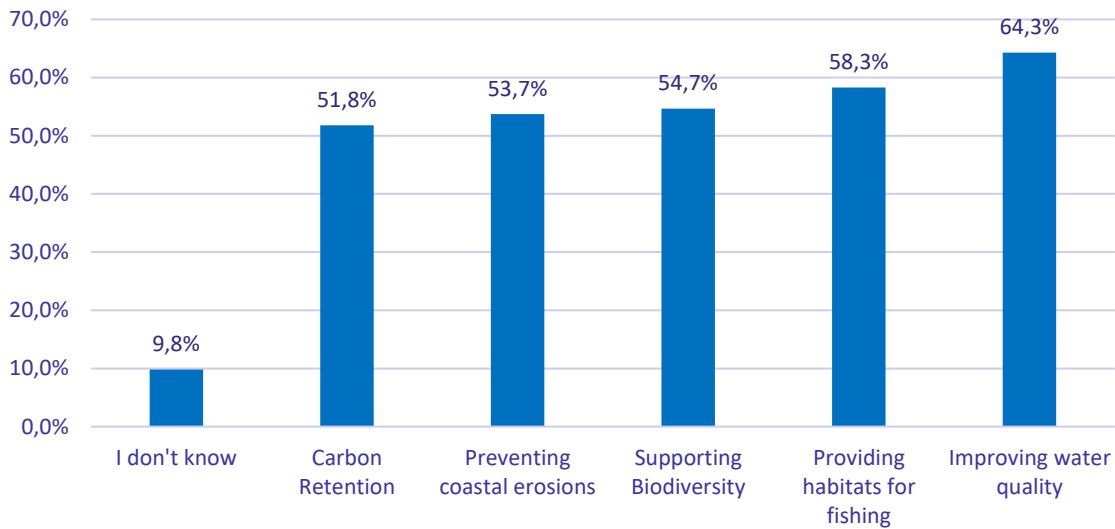
Do you know which ecosystem services seabeds provide? (GOVERNMENTAL INSTITUTION EMPLOYEES)



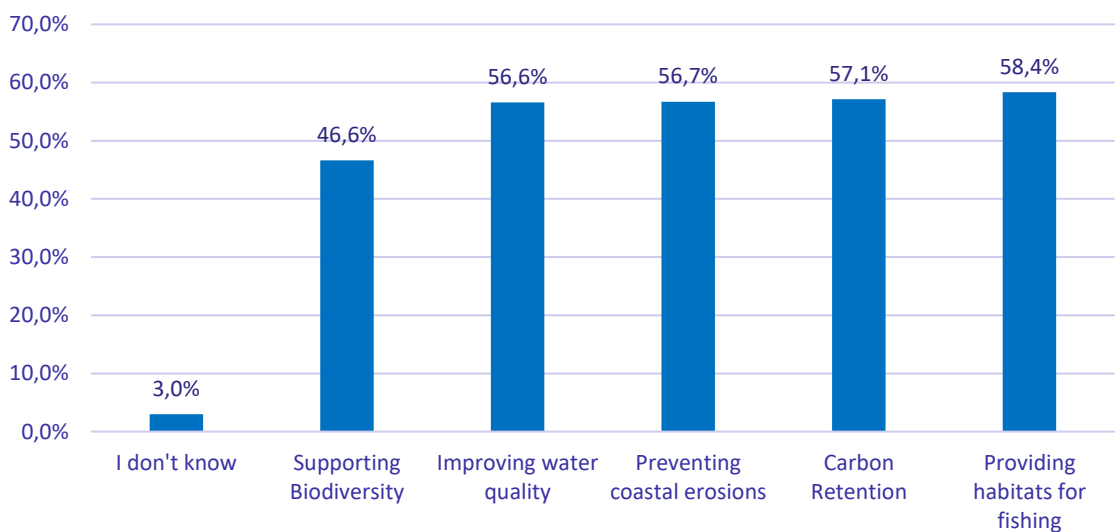
Do you know which ecosystem services seabeds provide? (PRIVATE SECTOR(EIA EXPERT))

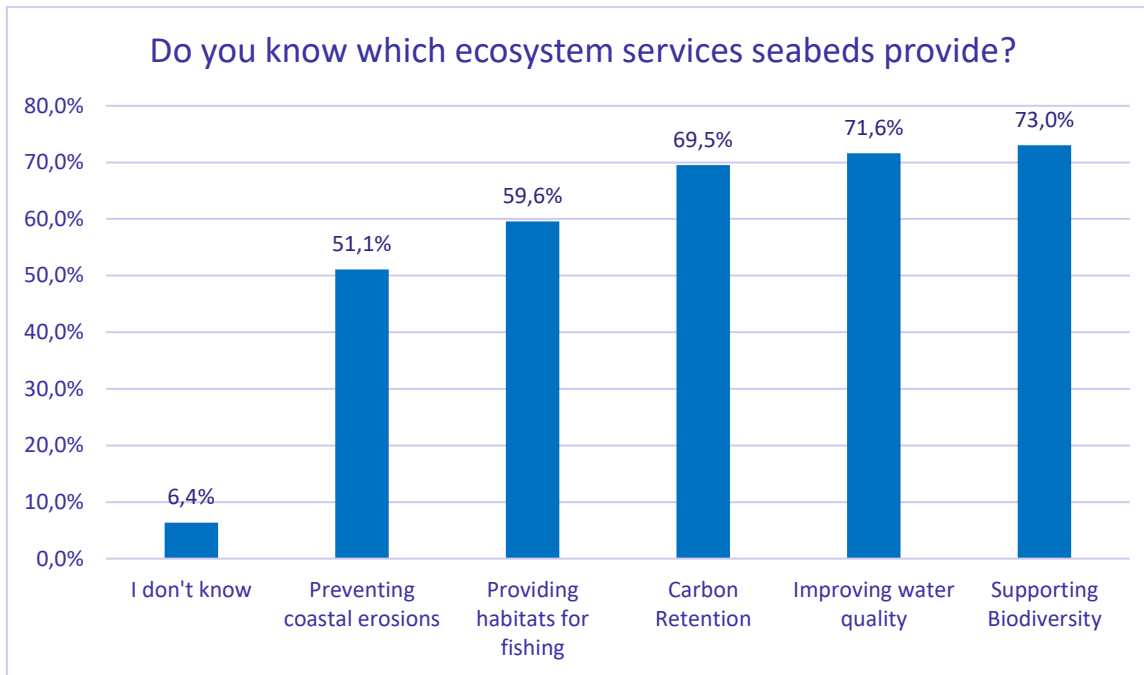


Do you know which ecosystem services seabeds provide? (STUDENT)

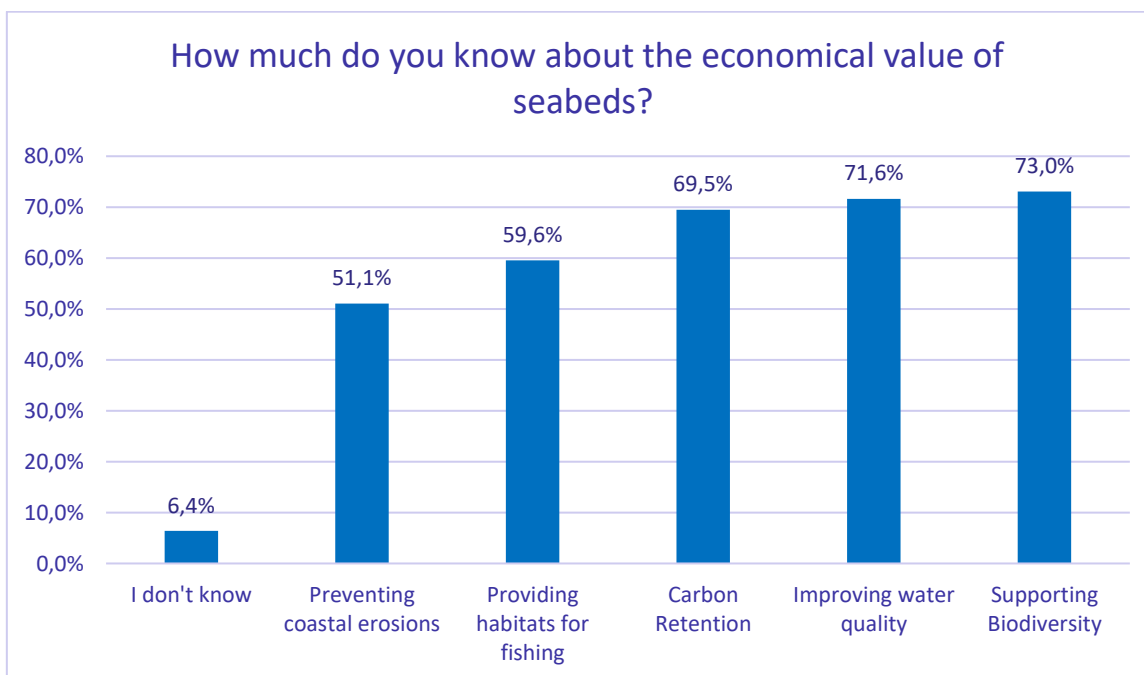


Do you know which ecosystem services seabeds provide? (PUBLIC)

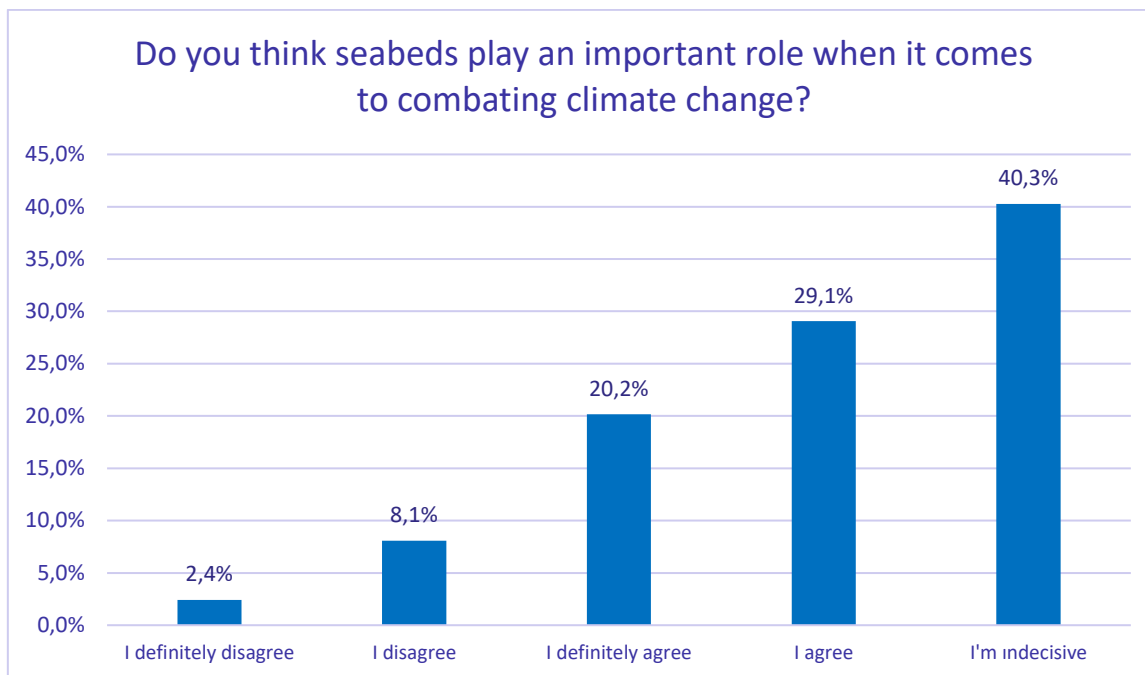




n=1572 The ecosystem service seabeds provide the most is supporting “biodiversity” (%73).



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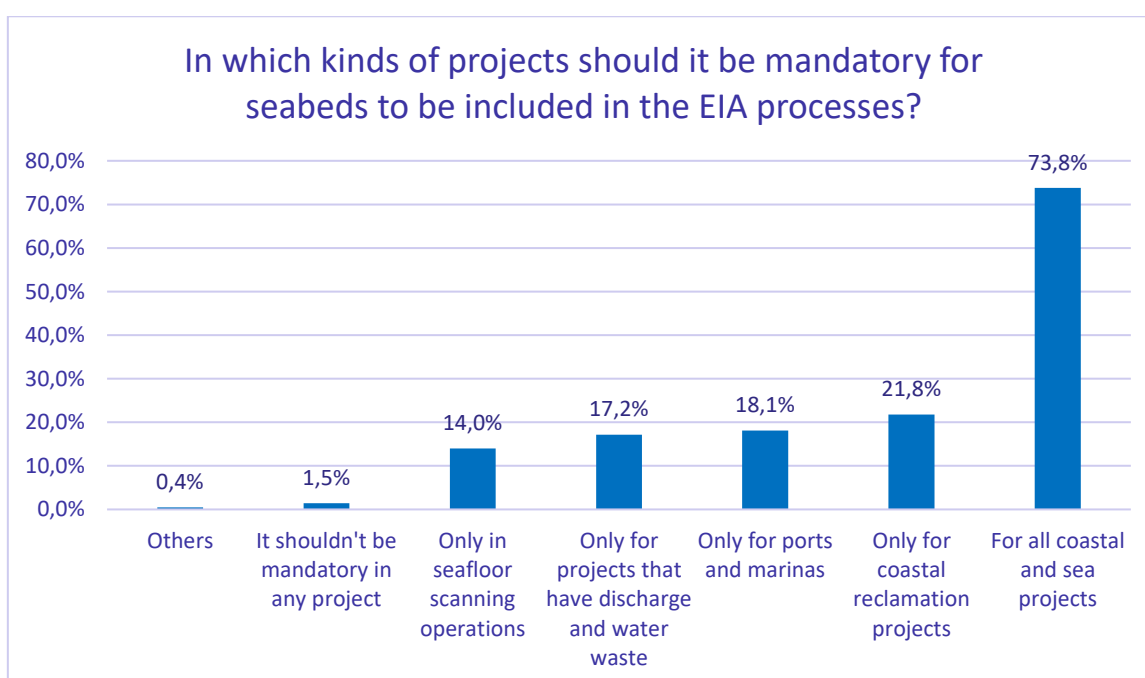
n=1572 Those who answered “I’m indecisive” regarding the effect of seabeds on climate change are (%40,3) the highest percentage.

T2B=49,2%

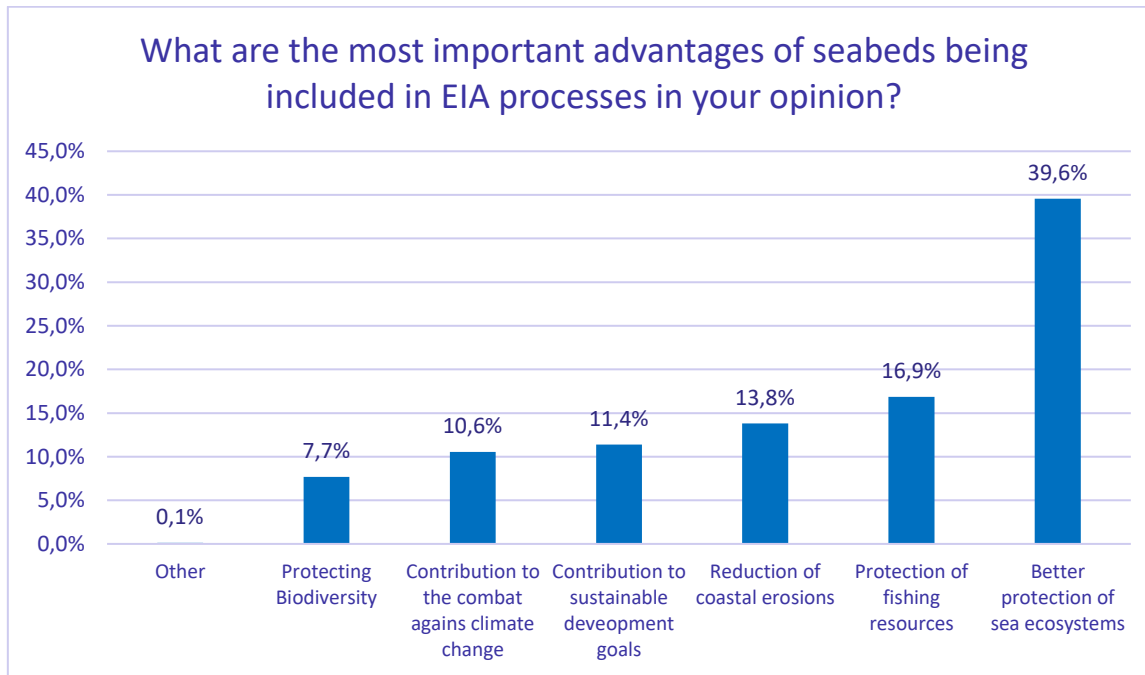
B2B=10,5%

Mean=2,10

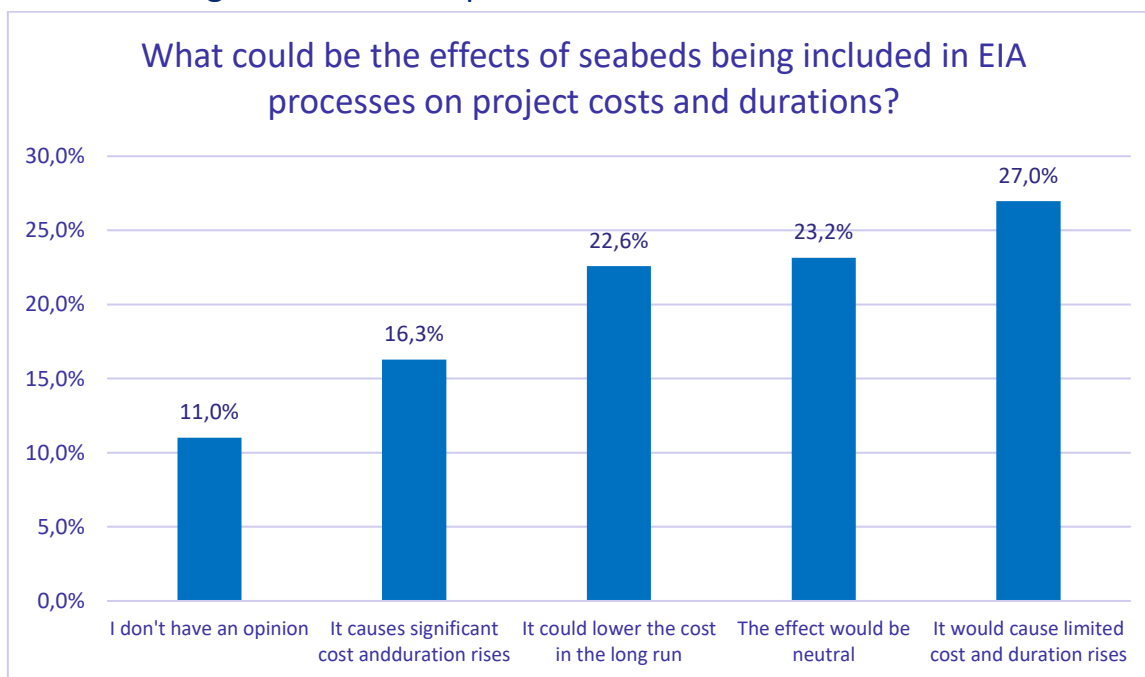
INTEREST AND AWARENESS RATES REGARDING SEABEDS



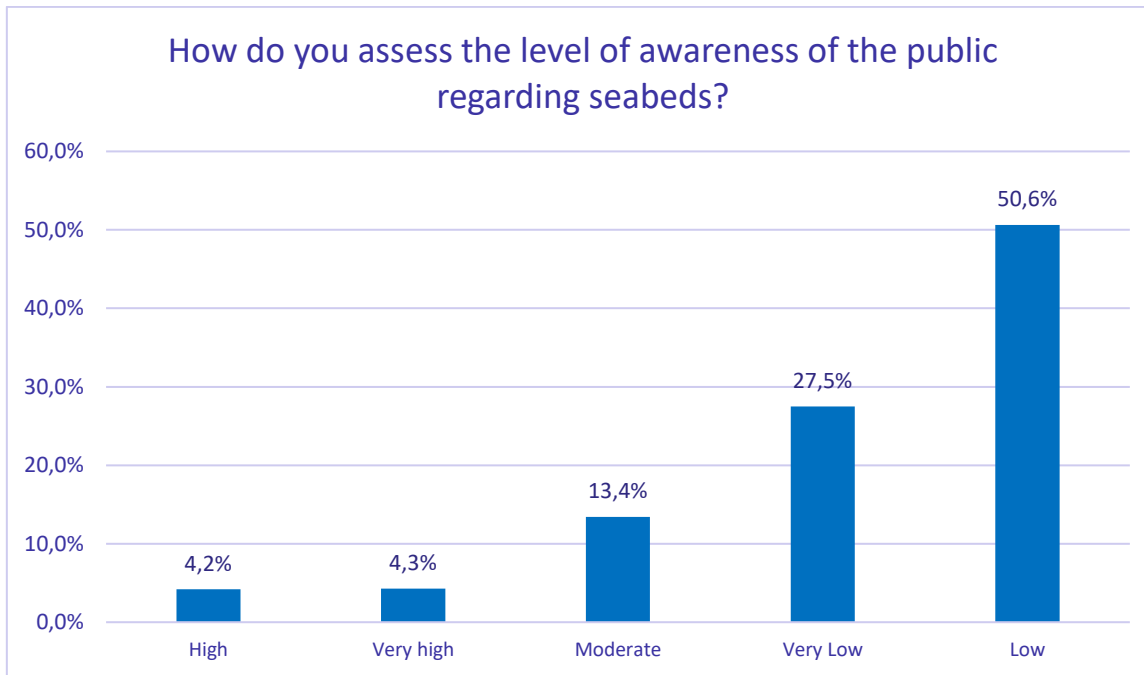
n=1572 It was stated that seabeds should be included in the EIA processes for “all coastal and sea projects” (%73,8).



n=1572 “Better protection of sea ecosystems” is the most important advantage of seabeds being included in EIA processes.



n=1572 The impact of including seabeds in the EIA processes on cost and duration is "It would cause limited cost and duration increase" (27%).

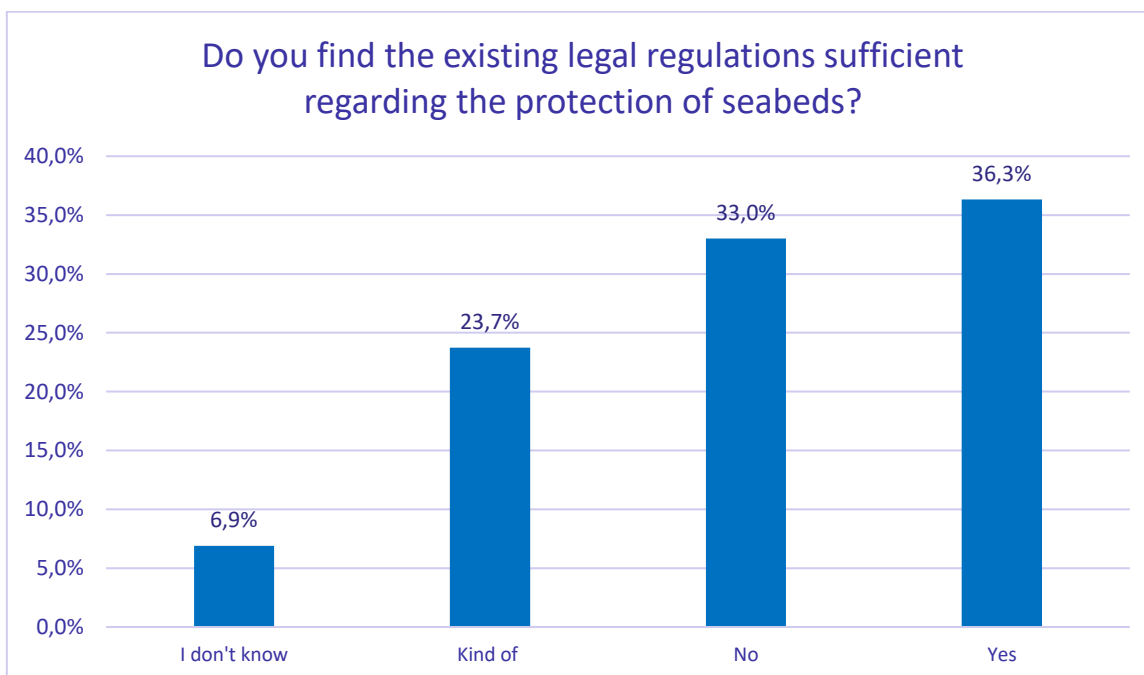


n=1572 The public's awareness of seabeds is 'Low' (51.1%).

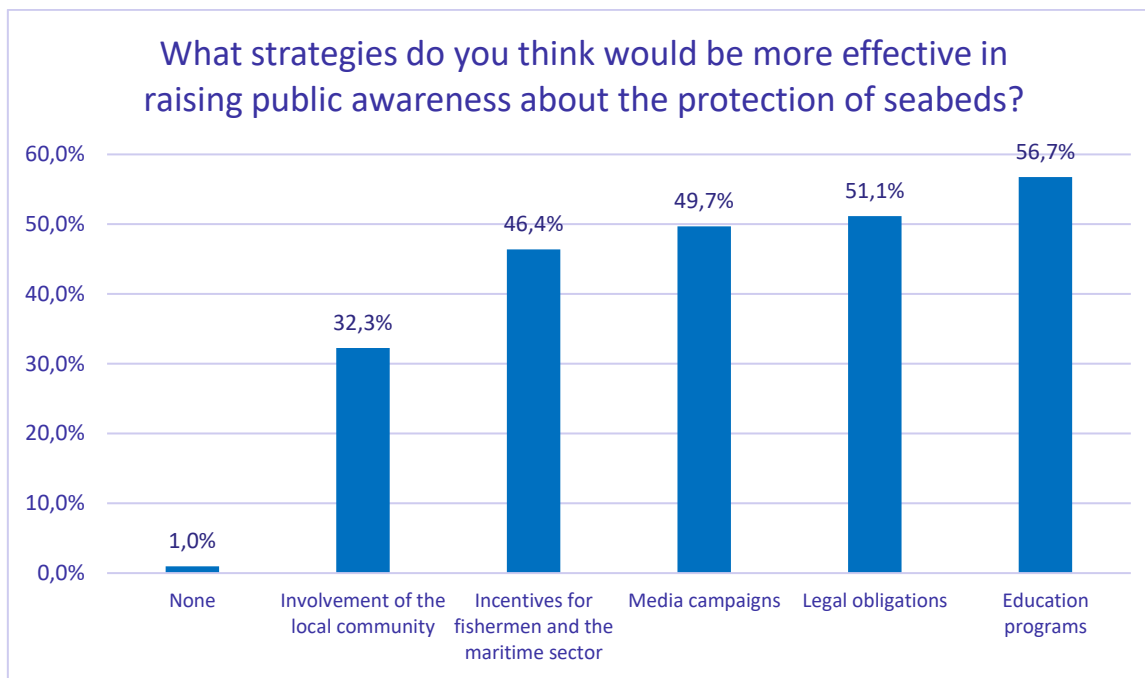
T2B=8,5%

B2B=78,1%

Mean=2,02

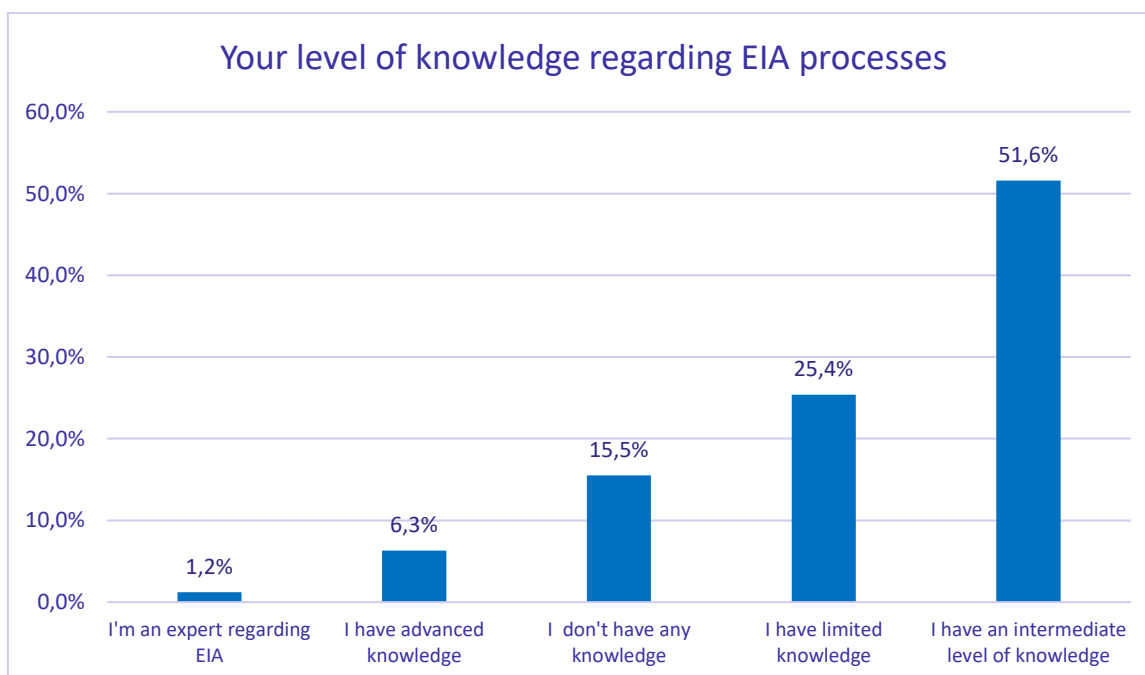


n=1572 There are those who find the existing legal regulations for the protection of seabeds 'Yes' (%36.3) sufficient.

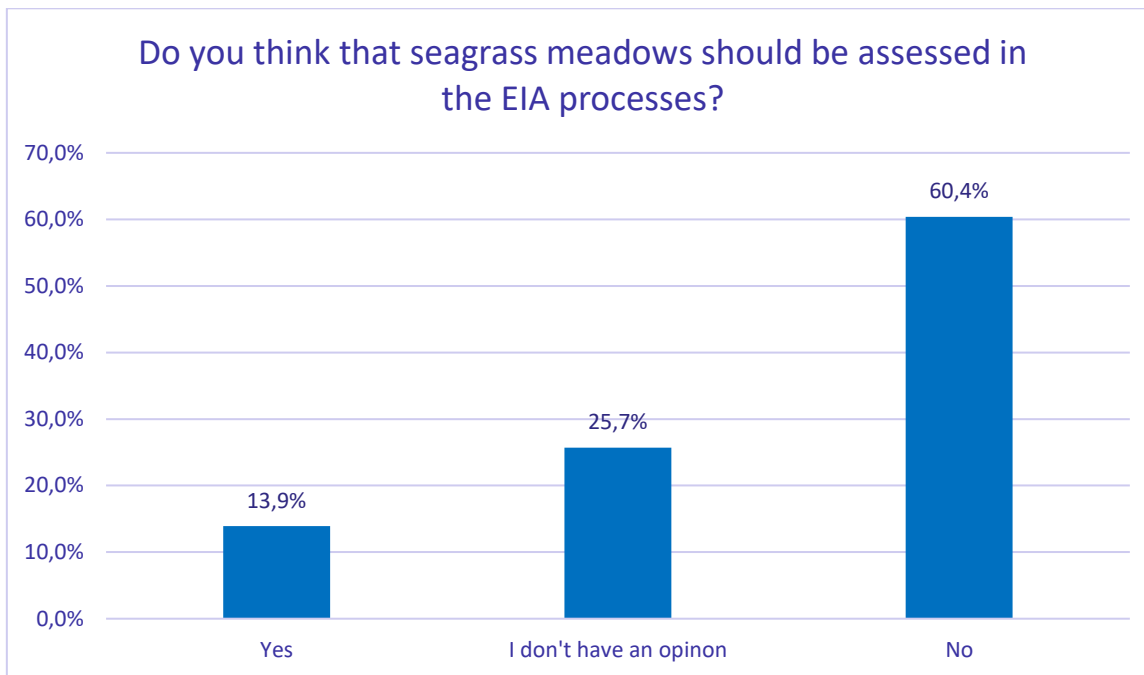


n=1572 Public awareness through 'Education programs' (56.7%) have been highlighted regarding the protection of seabeds.

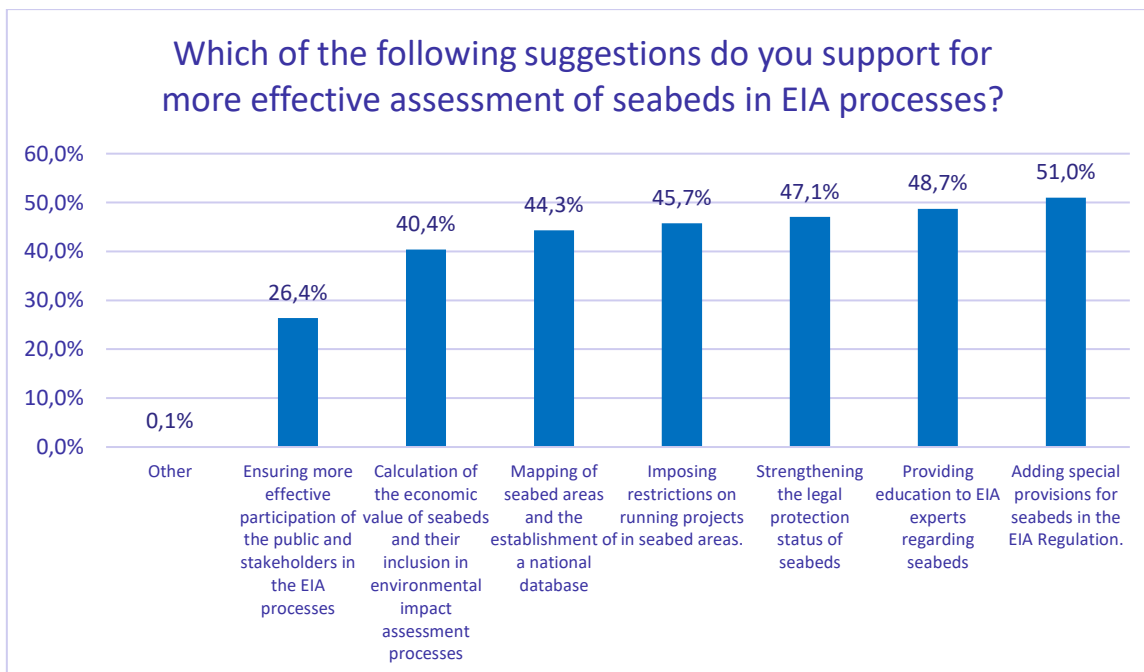
SEABEDS EIA AND LEGISLATION KNOWLEDGE LEVEL



n=1572 "I have an intermediate level of knowledge" (%51,6) regarding EIA processes.

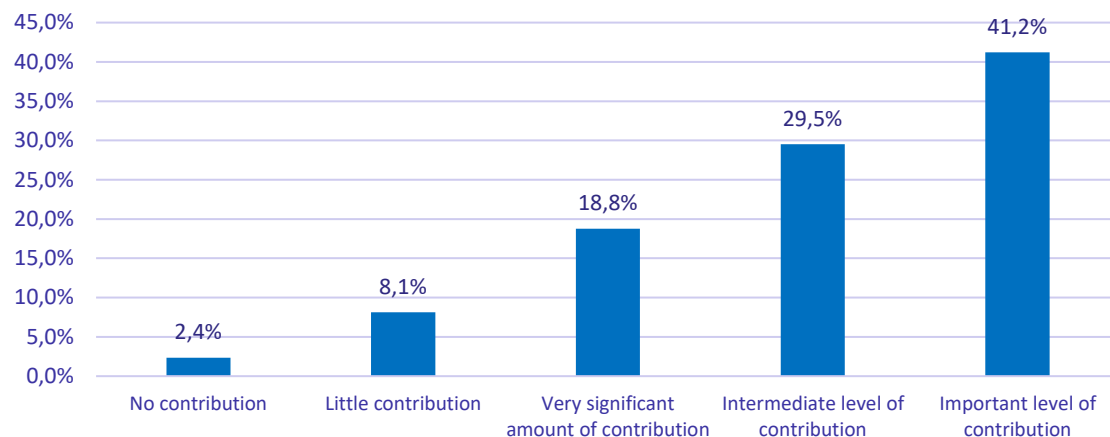


n=1572 60.4% of respondents said No to the evaluation of seabeds in EIA processes.



n=1572 "Addition special provisions for seabeds" (51%) has been highlighted regarding seabeds being assessed more effectively in EIA processes.

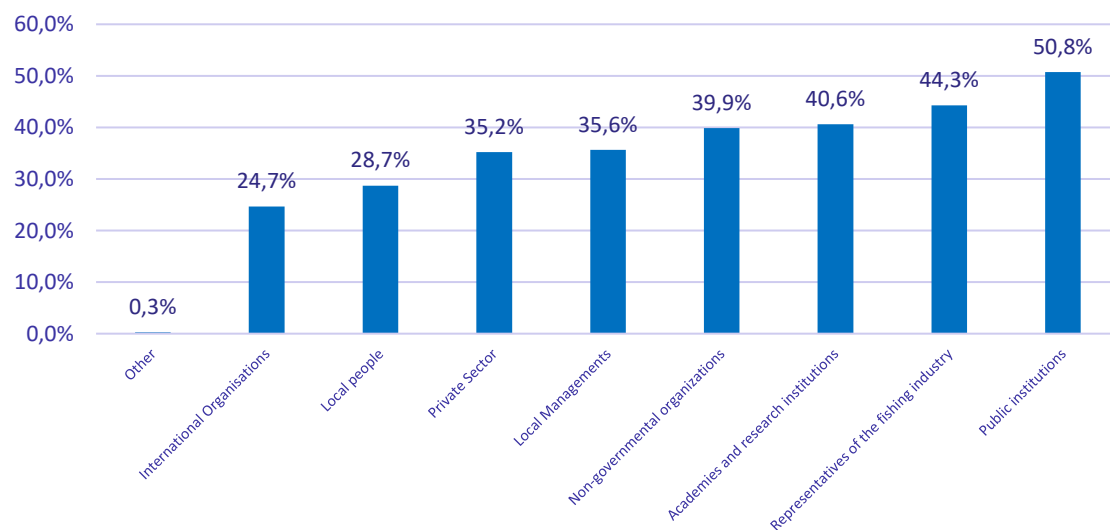
How much do you think including the environmental impact assessment processes of seabeds to EIA processes will contribute to the protection of coastal and marine ecosystems?



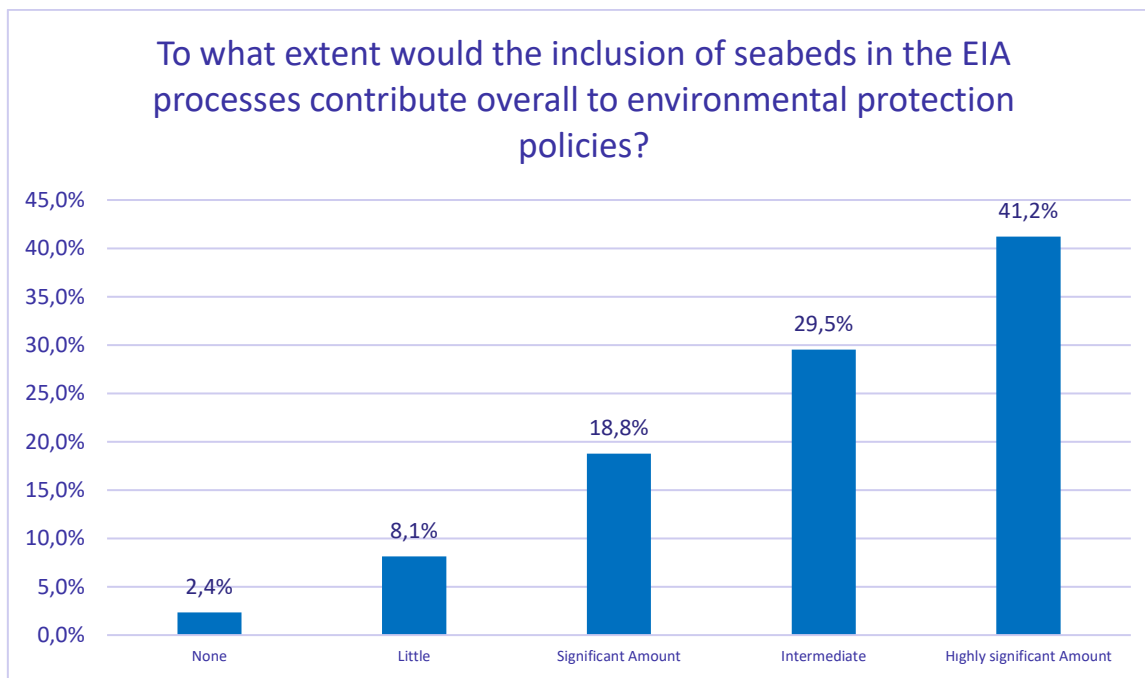
n=1572 The inclusion of seabeds in the EIA processes makes an “important level of contribution” (%41,2) to the protection of coastal and marine ecosystems.

T2B=60% B2B=10,5% Mean=3,66

Who should be the most important stakeholders in the process of including seabeds in the EIA processes?

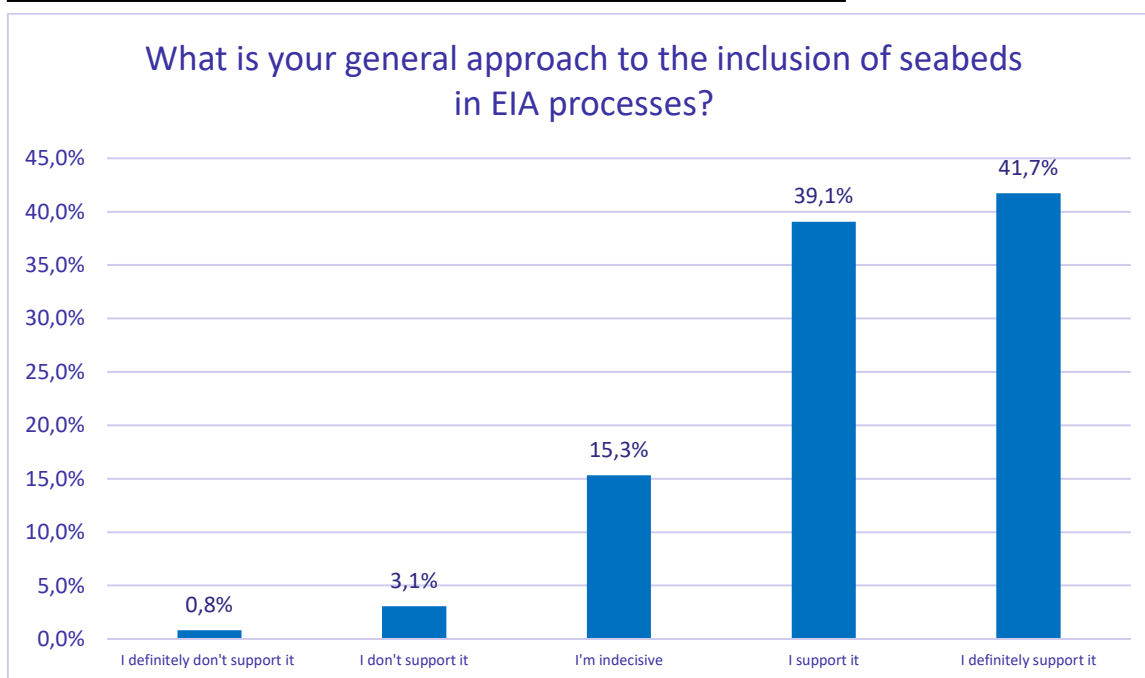


n=1572 In including seabeds in EIA processes, “Public institutions” should constitute 50.8%.



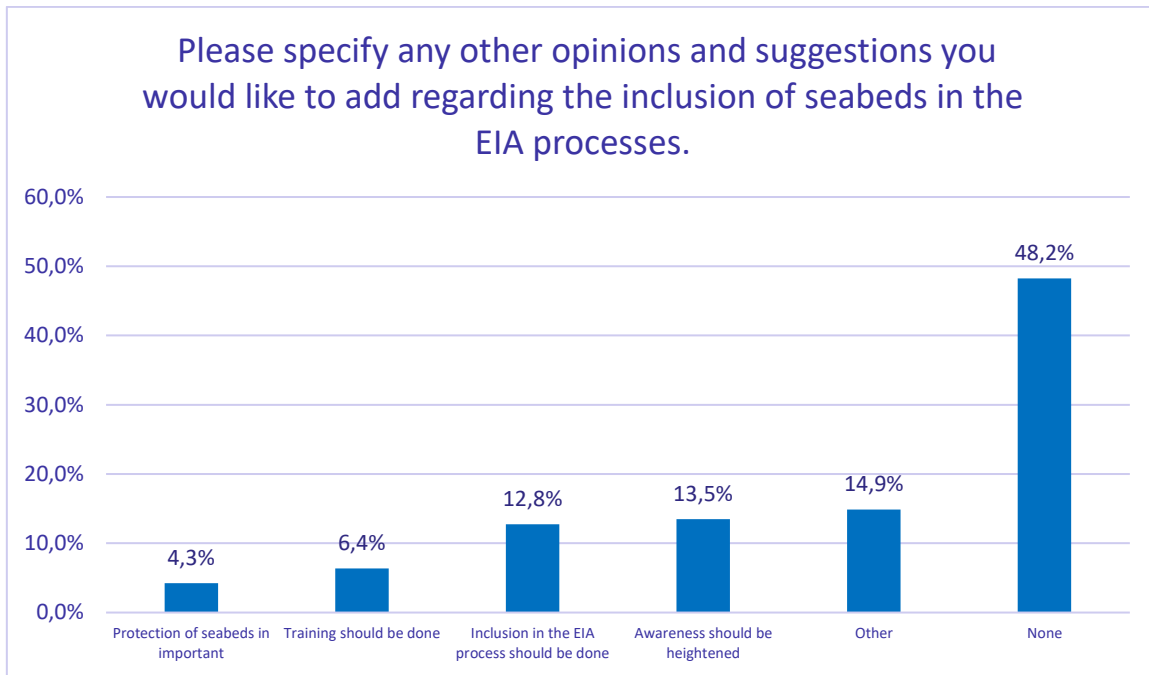
n=1572 The inclusion of seabeds in the EIA processes would have a "Highly significant amount" (41.2%) of contribution to environmental protection policies.

T2B=60% B2B=10,5% Mean=3,68

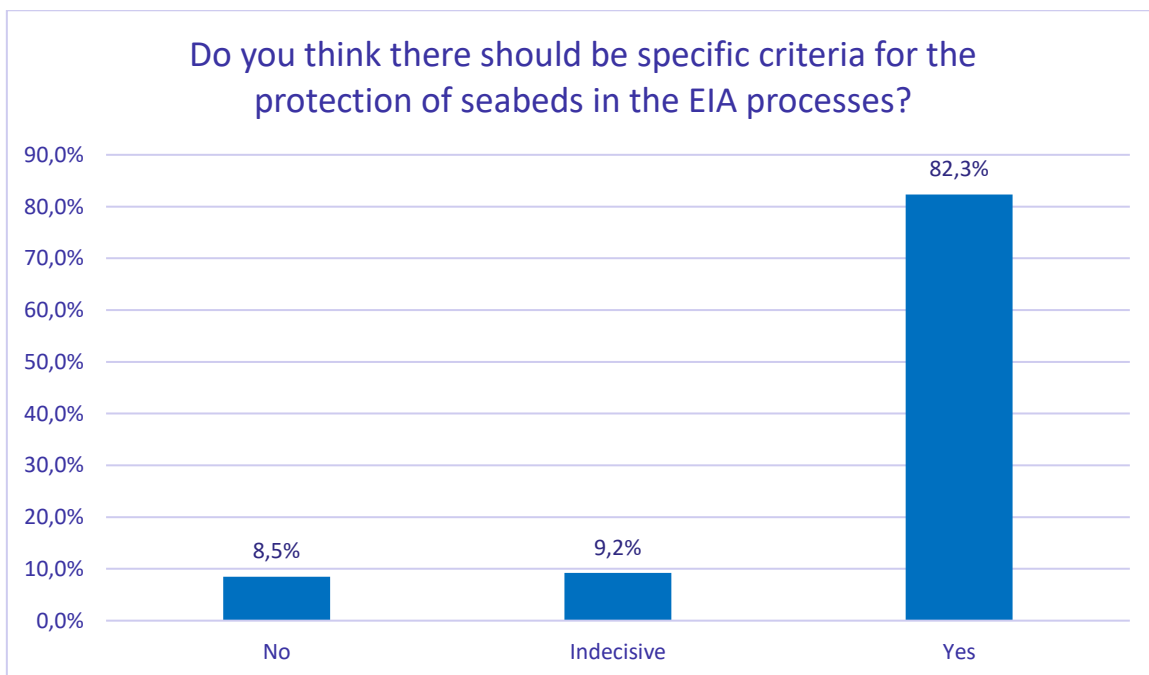


n=1572 "I definitely support" (%41.7) the inclusion of seabeds in the EIA processes.

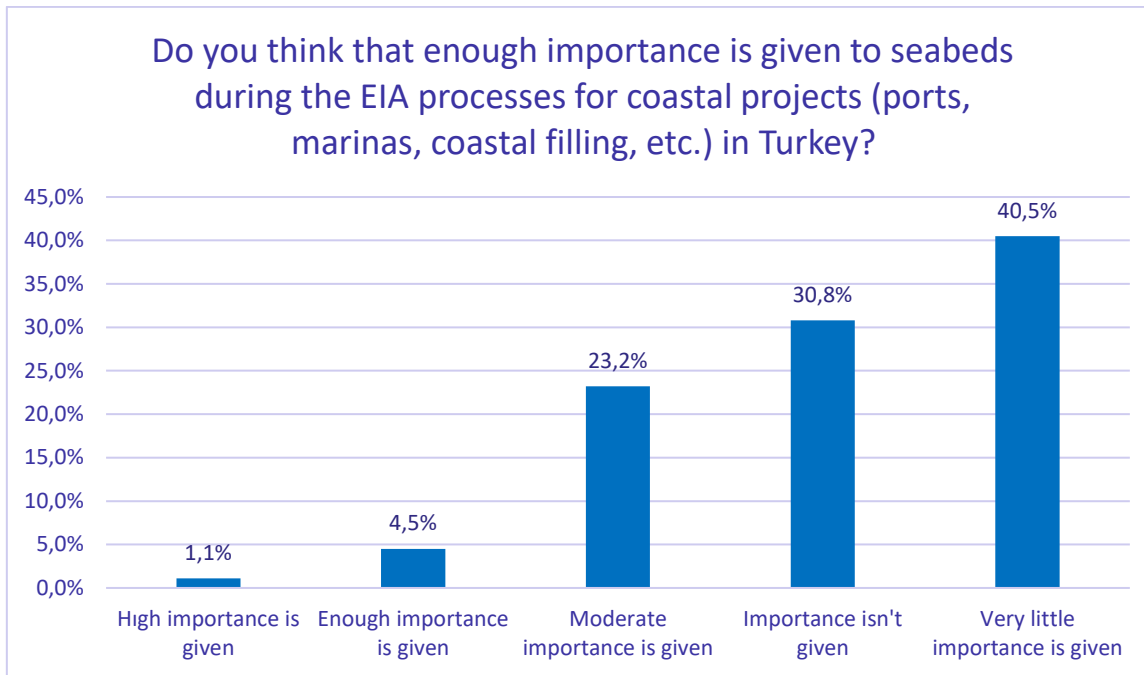
T2B=80,8% B2B=3,9% Mean=3,85



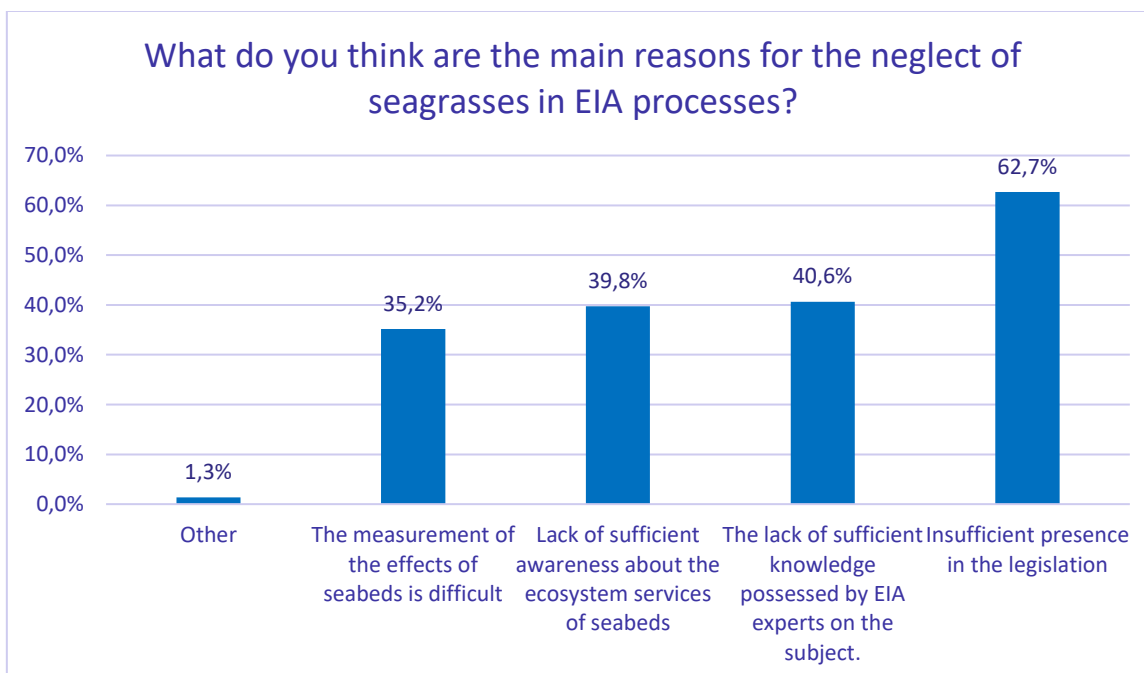
n=1572 The inclusion of seabeds in the EIA process would "Heighten the awareness" (%13,5).



n=1572 Those who wish for the existence of specific criteria for the protection of seabeds in EIA processes constitute 82.3%.



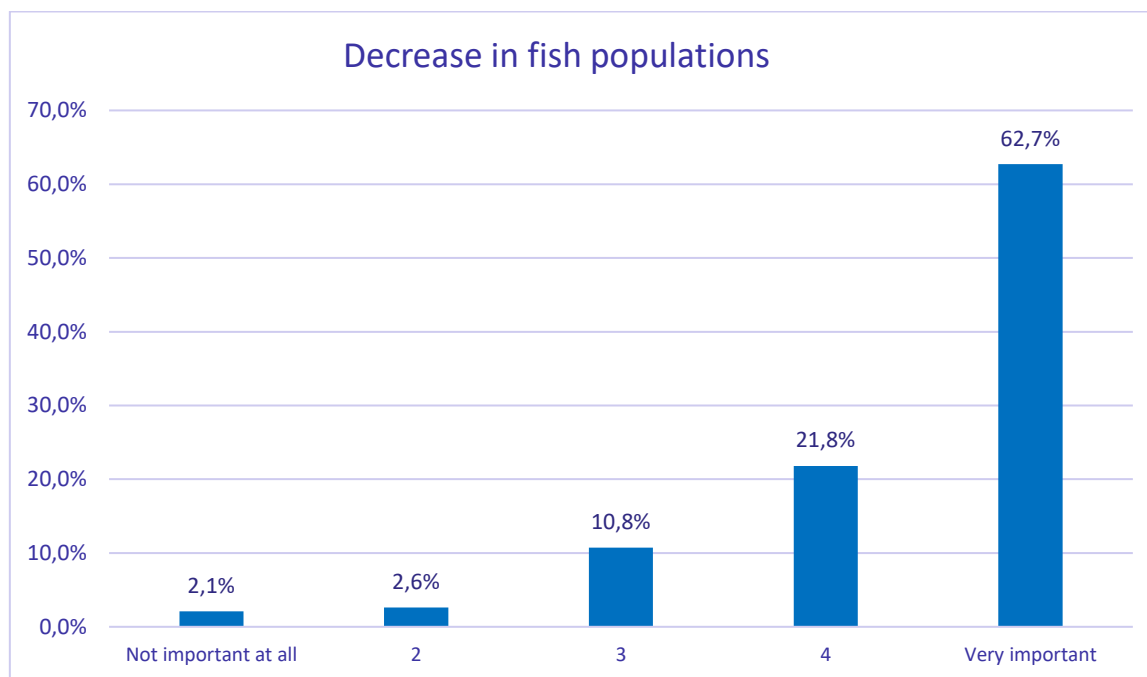
n=1572 In the coastal projects in Turkey, it has been observed that seabeds were regarded with very little importance at a rate of 40.5% in the EIA processes.



n=1572 The main reason for the lack of consideration of seabeds in the EIA processes is their "insufficient presence in the legislation" (62.7%).

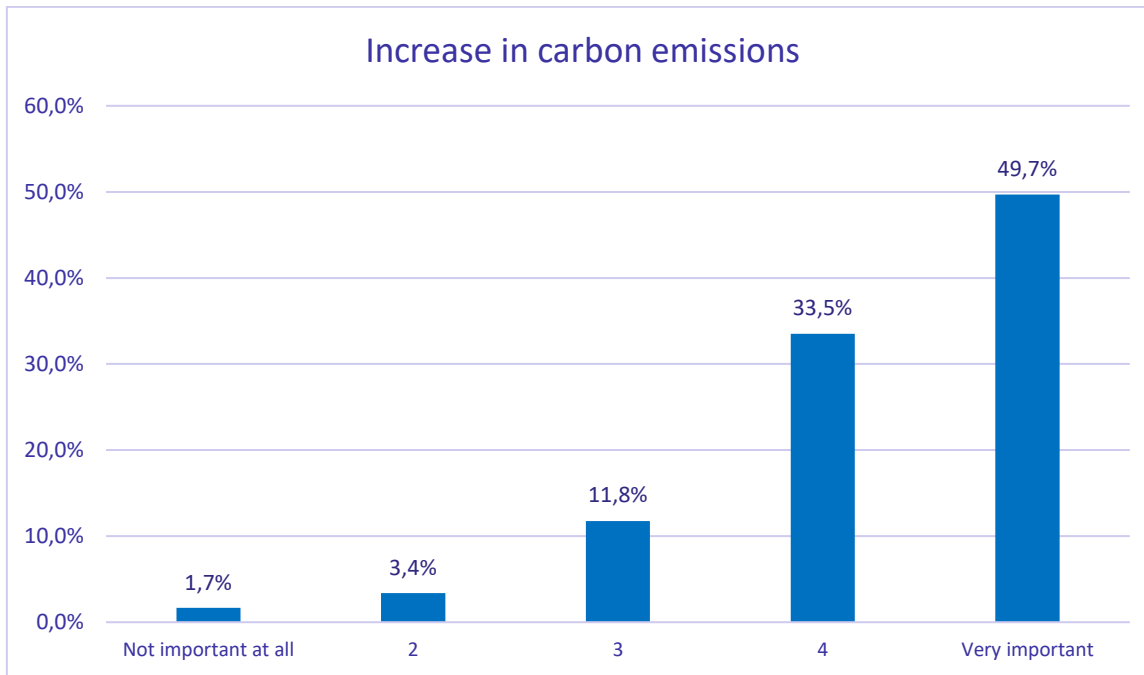
PRIORITY LEVEL REGARDING THE PROTECTION OF SEABEDS

How important do you find the following consequences of the disappearance of seagrass



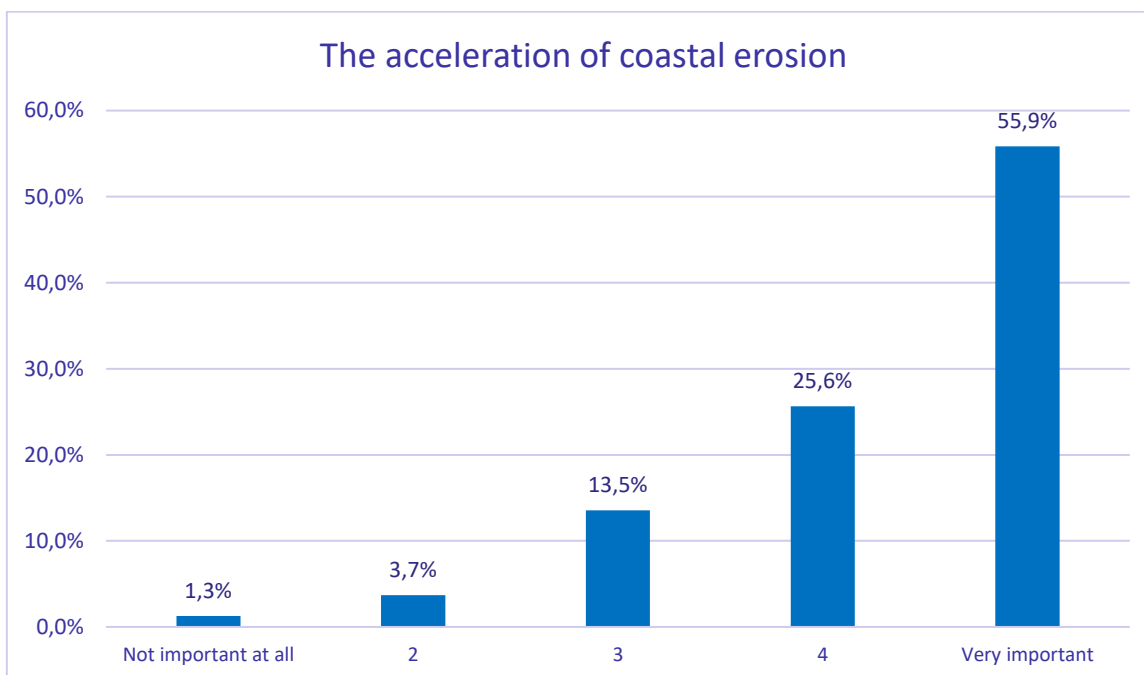
n=1572 The disappearance of seabeds is 'Very important'(%62,7) in regards to 'Decrease in fish populations'.

T2B=84,5% B2B=4,7% Mean=4,40



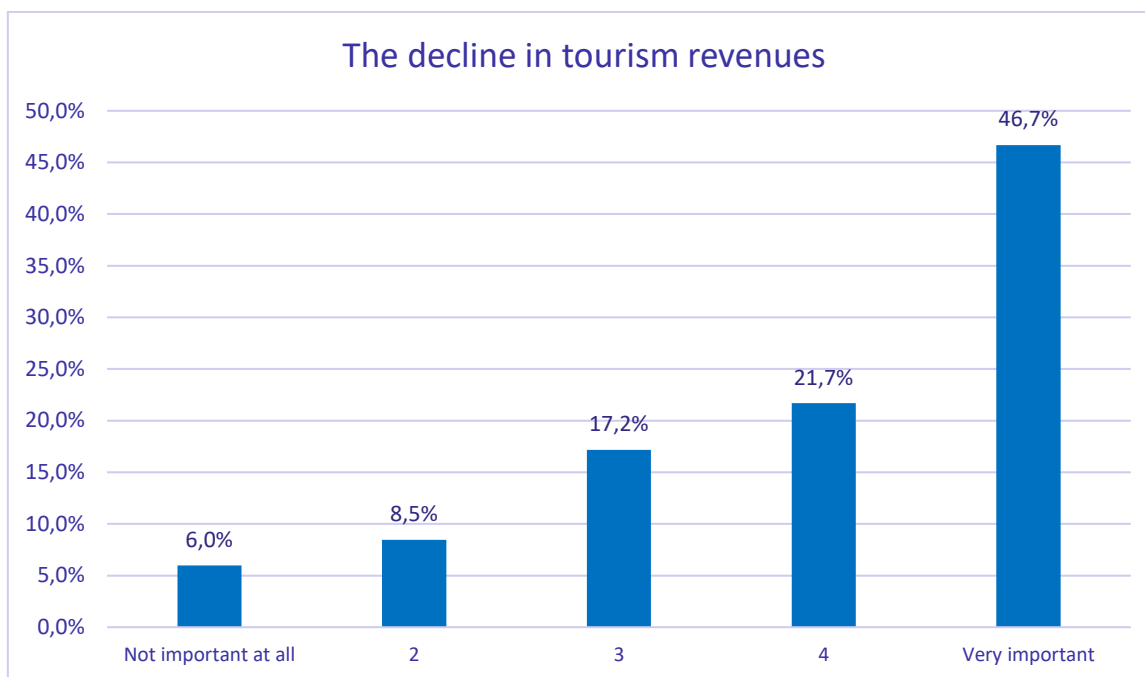
n=1572 The disappearance of sea grasses is 'Very important'(49.7%). in terms of the 'Increase in carbon emissions'.

T2B=83,2% B2B=5% Mean=4,26



n=1572 The disappearance of seabeds is "very important"(%55.9) in the "acceleration of coastal erosion".

T2B=81,5% B2B=5% Mean=4,31

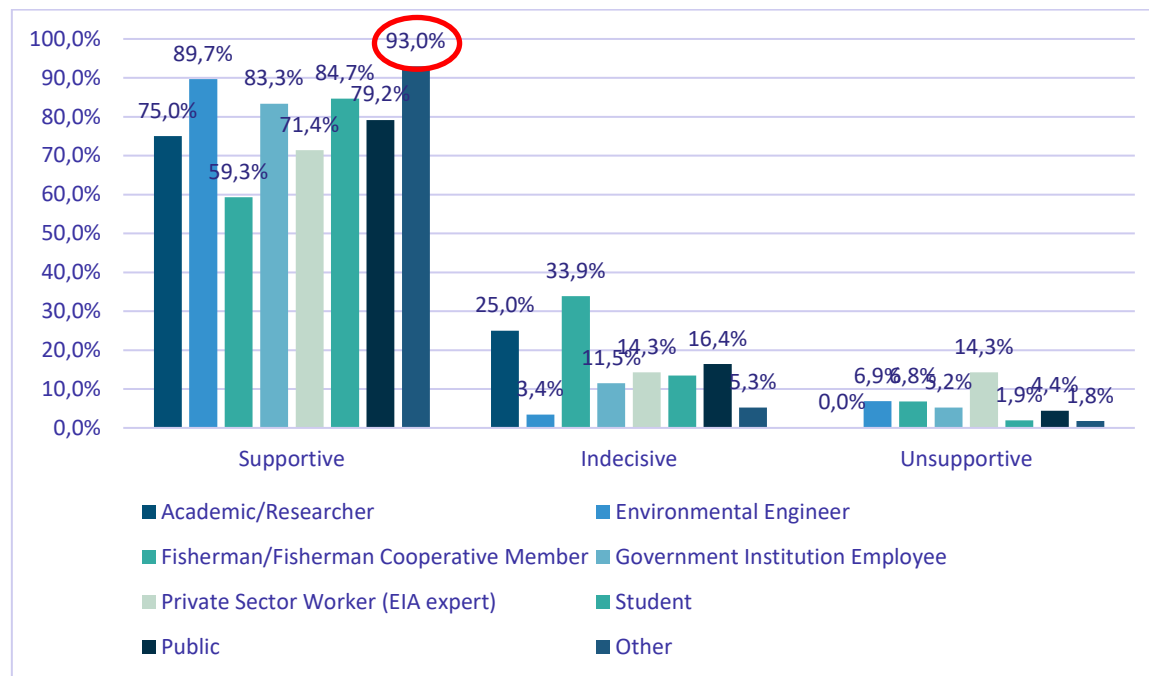


n=1572 The decrease in tourism revenues is "very important" (%46.7) in the disappearance of seabeds.

T2B=68,4% B2B=14,4% Mean=3,95

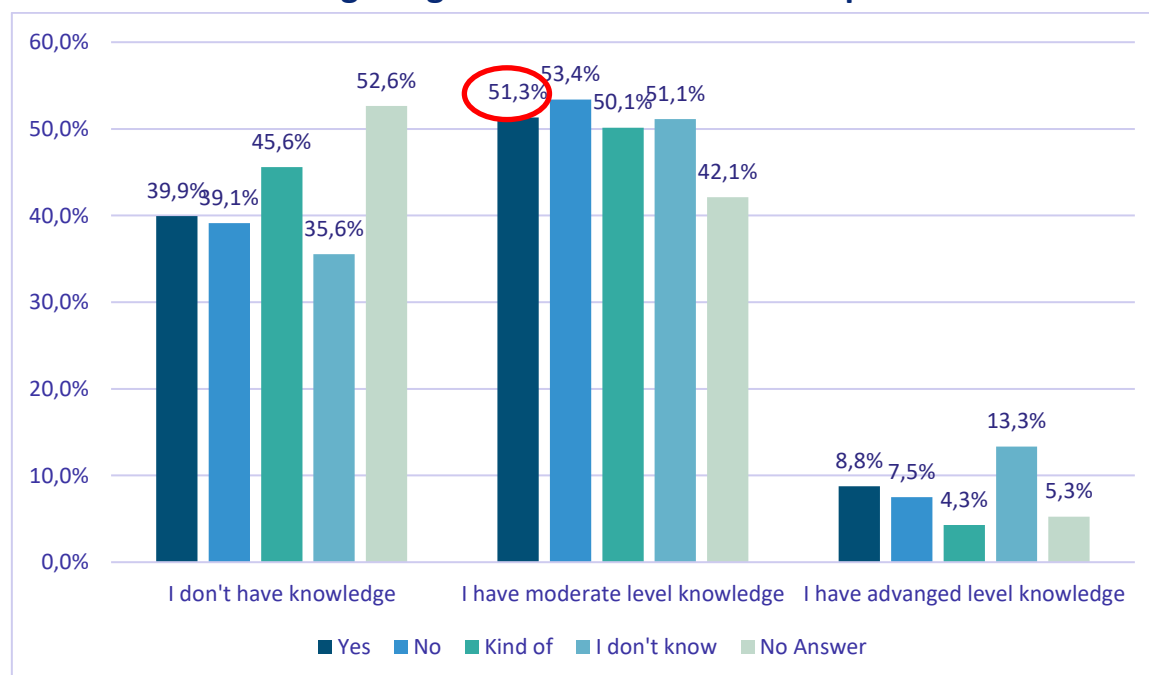
4. Further Analysis :

The relation between Occupation and the inclusion of seabeds in EIA processes



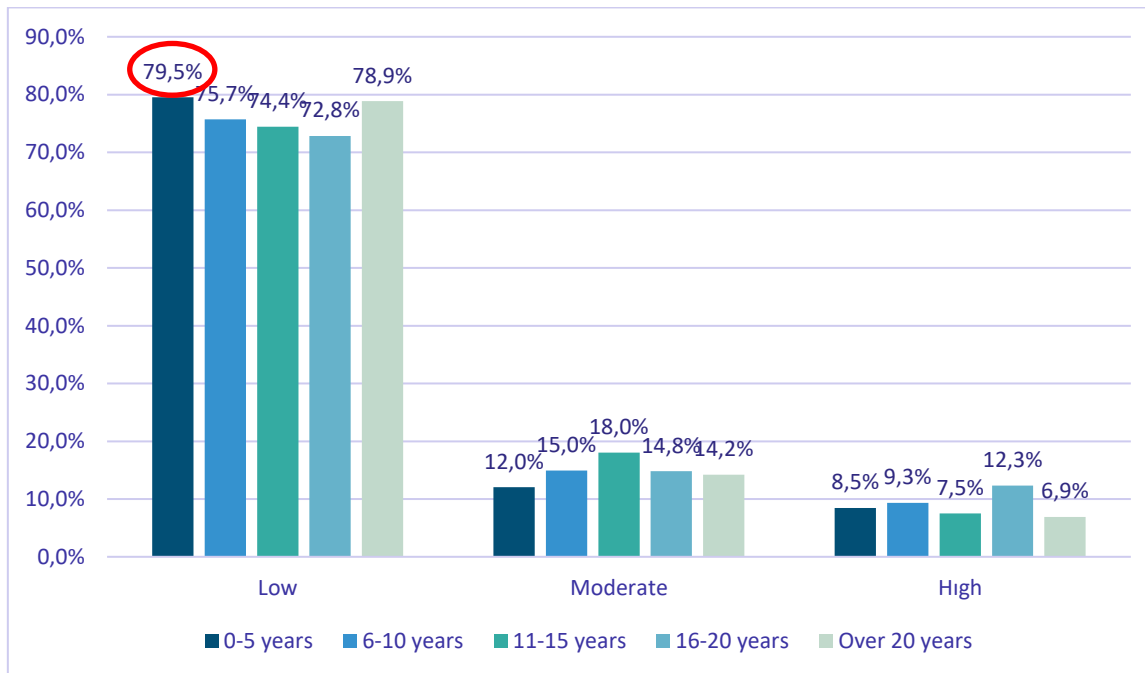
n =1572 The group that supports the inclusion of seabeds in the EIA processes the most is the 'Environmental Engineers' (93%).

The relationship between the level of information regarding the EIA processes and those who find the legal regulations sufficient for the protection of seabeds.



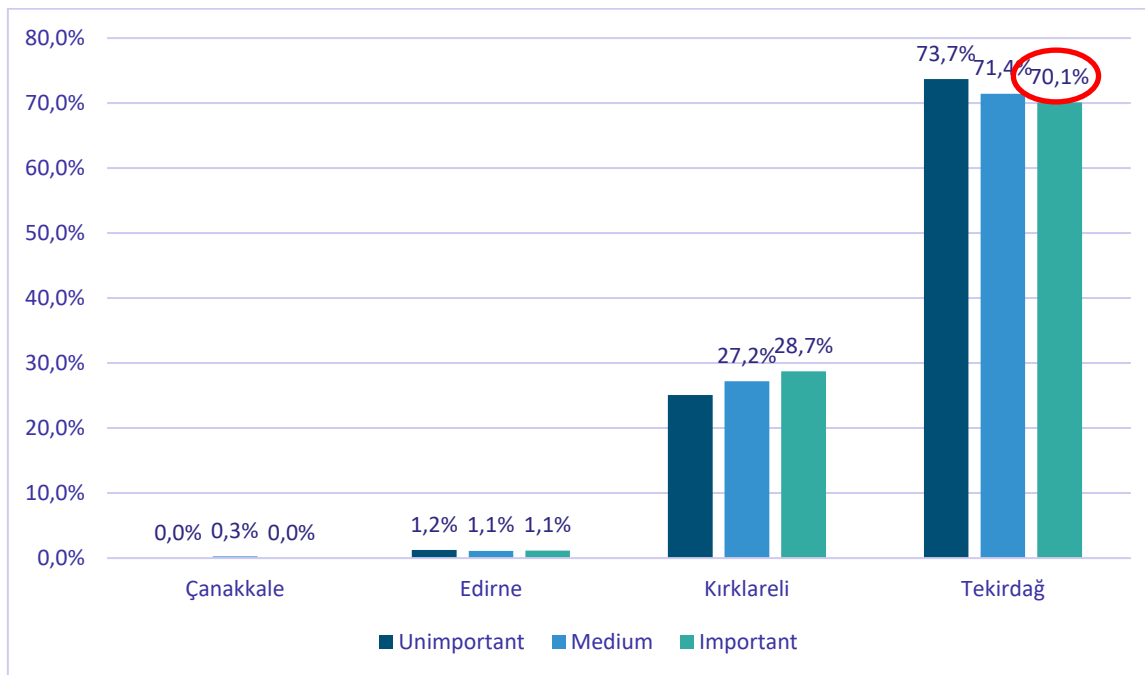
n =1572 Among those who stated "I don't have knowledge" regarding the EIA processes, 51.3% found the legal regulations concerning seabeds to be sufficient by answering "Yes."

The relationship between the level of experience and awareness



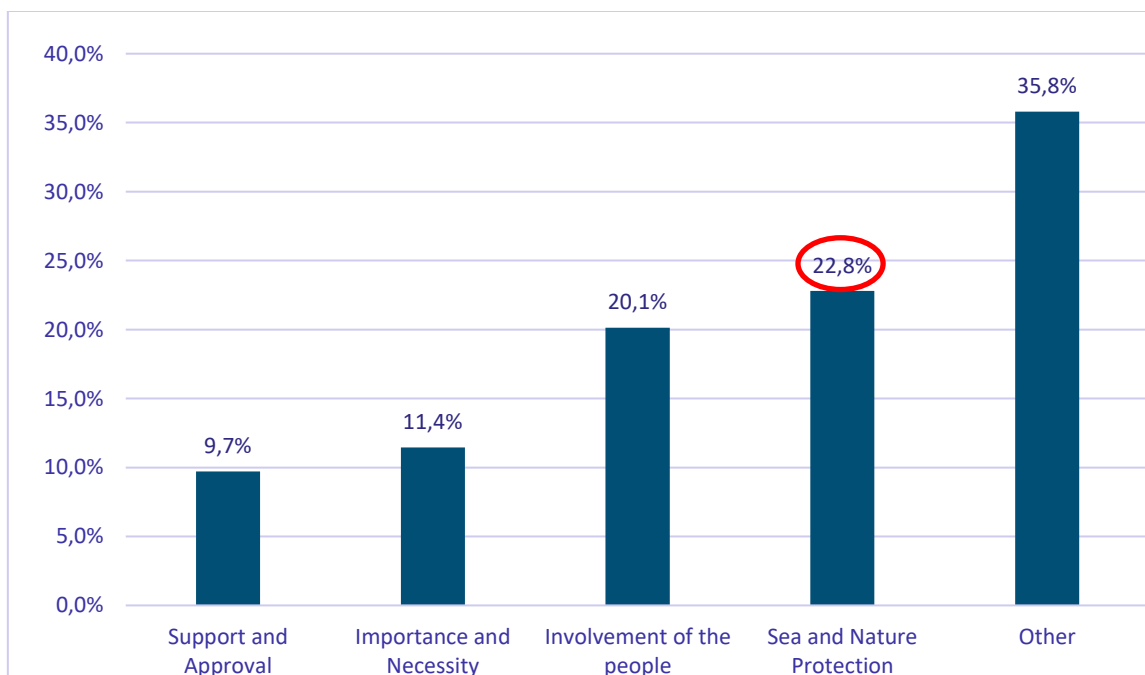
n =1572 Those with '0-5 years' of experience have a clear level of awareness at a rate of 79.5%.

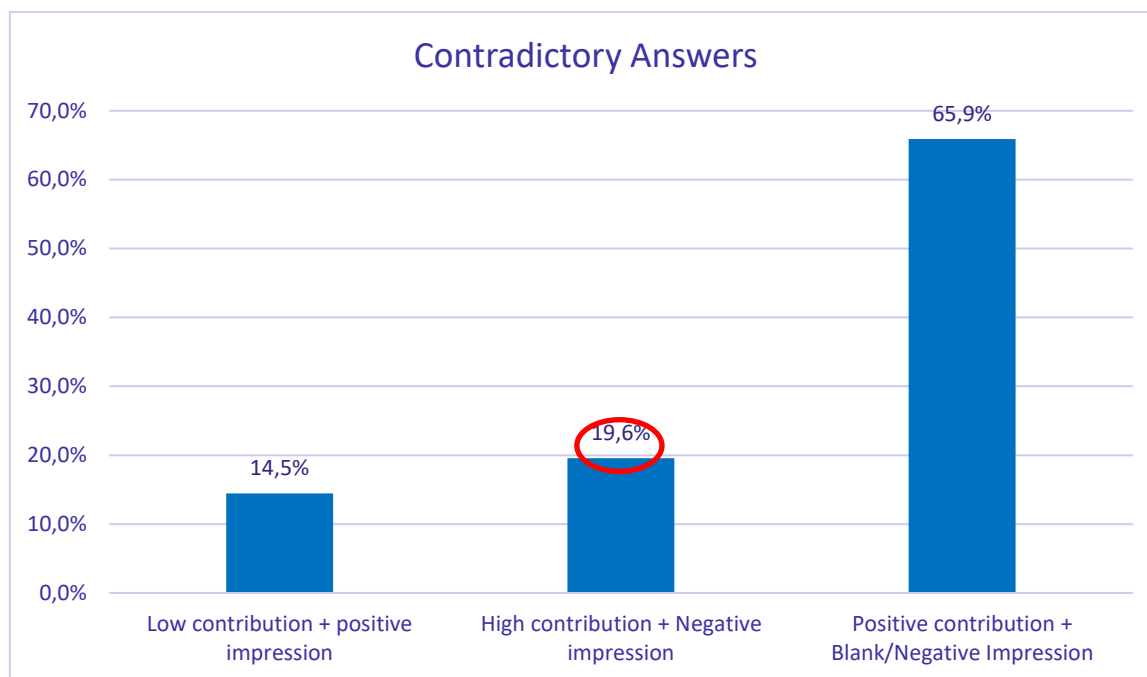
Region and the importance given to seabeds



n =1572 The importance given to seagrass in the region of 'Tekirdağ' stands out with a rate of **70.1%**.

Distribution Percentage of Supportive Answers





4. DISCUSSION

The study revealed that although awareness regarding seabeds is low, there is a strong desire for conservation. This suggests that the lack of knowledge can be addressed through awareness campaigns and education. Additionally, the uncertainty in legislation leads to serious information and policy gaps in practice.

The biological monitoring criteria within the EIA process should be revised to include seabeds.

There is a decline in experience and awareness, as well as a lack of concern. Measures should be taken regarding this.

Solutions should be produced to improve the quality of water.

5. RESULTS AND RECOMMENDATIONS

Seabeds should be explicitly defined in the EIA Regulation and evaluation criteria should be established.

Educational and informational campaigns should be conducted at local and national levels.

The current state of seabeds should be mapped and included in the conservation areas.

disclaimer

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