

## ANTHROPOGENIC THREATS TO FORESTS AND THE IMPORTANCE OF RESPONSIBLE MANAGEMENT

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**Abstract:** Forested areas are among the most complex ecosystems and play an essential role in maintaining ecological balance and conserving biodiversity. This study highlights the main threats to forests, including illegal logging, fires, and environmental pollution. There are numerous measures that need to be implemented to protect forests, namely the use of modern technologies that can prevent fires, reforestation and restoration of destroyed ecosystems, environmental education, and continuous monitoring to prevent illegal logging. The implementation of responsible management practices is essential to mitigate the impact of climate change.

**Key words:** responsible management, forested areas, ecological education.

### INTRODUCTION

EU forests absorb the equivalent of 7% of the EU's total greenhouse gas emissions each year, being true carbon sinks, but they also provide ecosystem services such as protecting soil from erosion, cycling water in nature, protecting biodiversity as a habitat for numerous species and regulating the local climate [1].

There are numerous studies on the role and importance of forests [2,3] in climate change [4,10,11,12], but also on deforestation [6,7], on the state of forests [8], on the fact that people need forest conservation [9,13]

Forests are the most important ecosystems in the world when it comes to reducing the impact of climate change, cooling the air and preventing drought, floods and other extreme weather phenomena [14,15].



Figure 1. The forest as an ecosystem

Source: own photo

### MATERIALS AND METHODS

In this paper, we used the questionnaire as a research tool, including both questions regarding sociodemographic data (age, gender, environment of origin), as well as questions regarding respondents' perceptions of threats to forests and their level of awareness regarding the importance of protecting them.

**RESEARCH RESULTS**

From this table it can be seen that in 2024 in the western region the forest area is 1051 thousand hectares compared to the S-V Oltenia region which is only 796 thousand hectares.

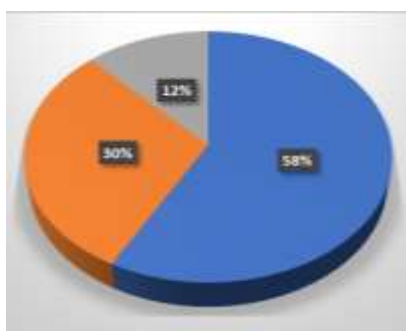
**Table 1.**

**Forested areas in the western and southwestern Oltenia region**

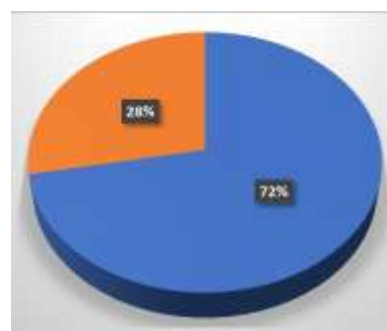
Years		2005	2010	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Forest land area	TOTAL												
	Thousands hectares	6233	6353.7	6398	6404.4	6405.8	6418.2	6427.3	6449.4	6449.4	6456.8	6459.9	6462.2
	SOUTH - WEST OLTENIA	783.5	784.5	791.9	791	788.3	784.5	784.4	790.1	793	795.8	796.1	796
	WEST	983.9	1018.8	1034	1035.8	1036.9	1043.3	1047.1	1049.3	1048.8	1050.1	1050.8	1051

Source: [5]

The questionnaire included a question regarding the age of the respondents, and from Figure 1 it can be seen that 58% of the respondents are between 18-25 years old, 30% are between 26-40 years old and 12% are between 41-60 years old.



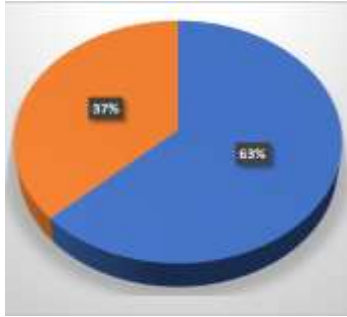
**Figure 2. Age of respondents**



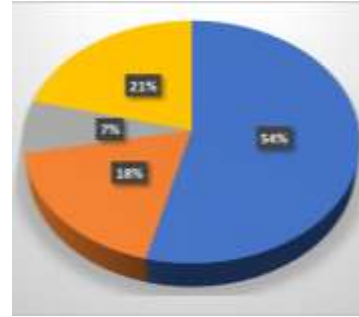
**Figure 3. Gender of respondents**

The majority of respondents were female (72%) and 28% were male.

From Figure 4 we note that 63% of respondents come from urban areas and 37% from rural areas.



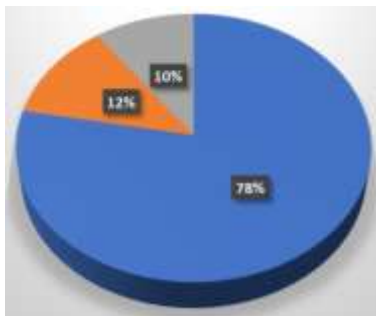
**Figure 4. The environment of origin**



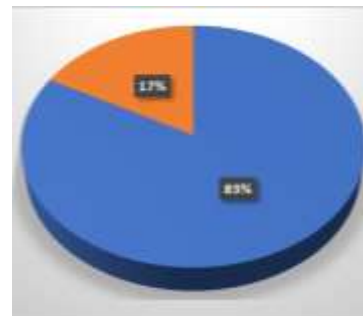
**Figure 5. Respondents' Educational Level**

54% of respondents have completed a bachelor's degree, 18% hold a master's degree, and 7% have completed post-secondary vocational studies, 21% have only a high school diploma.

From the figure below we can see the respondents' answers regarding their perception of the main threat to forests, 78% considered deforestation, 12% chose pollution and a percentage of 10% answered climate change.



**Figure 6. The Main Threat to the Forest**

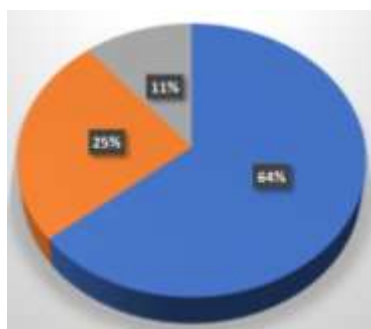


**Figure 7. Respondents' perception of the impact of anthropogenic activities**

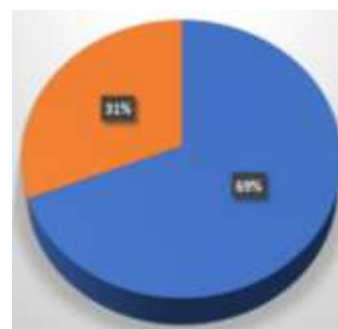
The figure 7 shows that the majority of respondents believe that human activities impact forests, with 83% answering affirmatively and 17% negatively.

With the aim of understanding respondents' awareness and involvement in forest protection, the questionnaire also included a question asking whether they consider responsible management of forests to be important.

Figure 8 shows that 64% of respondents consider responsible forest management very important, 25% consider it important, and 11% believe it is not very important.



**Figure 8. Percentage distribution regarding the importance of forest management**

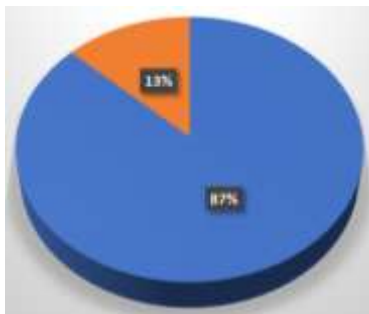


**Figure 9. Percentage distribution of responses regarding afforestation activities**

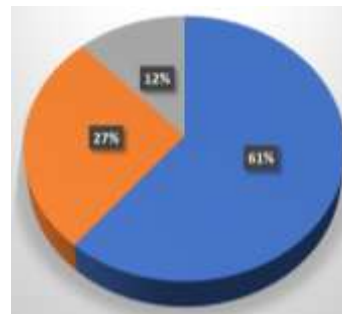
When asked to what extent you are willing to participate in afforestation activities in figure 9, we observed that 69% answered yes they would participate in such activities if they had the opportunity, and the remaining 31% answered they don't know/don't answer. It is observed that more than half of the respondents are aware of the importance of afforestation for health and for protecting the environment.

People need to understand the importance of their participation in afforestation campaigns, as their involvement contributes to restoring the natural balance. By working together for a common goal, they develop respect for nature, protecting the environment.

When asked, do you consider information campaigns necessary regarding the importance of forests and the consequences of deforestation? Respondents answered in a fairly high percentage, 87%, that such information campaigns are needed, and 13% answered that they don't know/don't answer (figure 10).



**Figure 10. The importance of information campaigns**



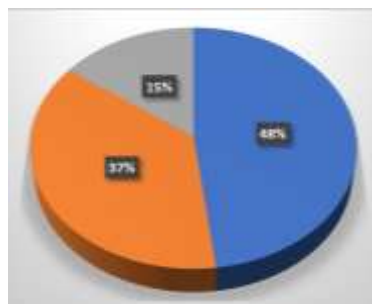
**Figure 11. Respondents' opinion on the use of recycled wood**

The survey question was: “Are you willing to use alternatives such as recycled wood and eco-friendly materials?” The responses were: 61% yes, I don’t know 27% and 12% no. The majority are willing to use recycled wood, showing a positive attitude toward sustainable materials. A significant portion is uncertain or lacks enough information about recycled wood.

Wood recycling is very important for protecting nature, so if fewer trees are cut down, we will breathe cleaner, more oxygenated air, the amount of waste that ends up in landfills will be reduced, pollution will be reduced, and the energy needed to produce other furniture or other wood products will be saved.

When asked who do you think should protect forests, 48% of respondents said the state, 37% local communities, and 15% believe that citizens have an important role in protecting forests.

Protecting forests is a shared responsibility in which there must be collaboration between the state, local authorities and control institutions, non-governmental organizations and the population, which must participate in protection and afforestation campaigns.



**Figure 12. Percentage distribution regarding forest protection**

## CONCLUSIONS

Forested areas are among the most complex ecosystems and play an essential role in maintaining ecological balance and conserving biodiversity.

The research shows that 64% of respondents consider responsible forest management very important.

It is observed that more than half of the respondents are aware of the importance of afforestation for health and for protecting the environment.

87% of respondents believe that information campaigns are necessary regarding the importance of forests and the consequences of deforestation.

The majority of respondents are willing to use recycled wood, showing a positive attitude toward sustainable materials.

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