



ENVIRONMENTAL LITERACY AND KNOWLEDGE SURVEY (FOR STUDENTS)



2024

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Introduction

This report represents the second consecutive year of AGU's initiative to assess and report on the environmental literacy of our internal stakeholders. As environmental challenges grow increasingly urgent and societal awareness continues to rise, the need for robust environmental literacy has never been more critical. Educational institutions, in particular, play a crucial role in nurturing an in-depth understanding of environmental issues, ensuring that stakeholders not only recognize but also grasp the complex interactions between human activities and the environment, and the far-reaching consequences for both current and future generations.

In response to this need, AGU launched a comprehensive survey aimed at evaluating the knowledge, attitudes, and concerns of our internal stakeholders regarding environmental matters. Our stakeholders include students, faculty members, and administrative staff, each bringing distinct perspectives from their roles within the university. This year, we went a step further by assessing the environmental literacy levels of our stakeholders separately, enabling us to address their specific needs and make targeted improvements. This more detailed approach allows us to better understand the existing gaps in knowledge and identify opportunities to enhance sustainability awareness and engagement across the university.

This report outlines the findings of the survey conducted with students, offering a detailed analysis of the prevailing attitudes, knowledge, and concerns about environmental issues among AGU students. Through this analysis, we aim to identify key areas that require further attention, provide guidance for future educational programs, and inform policy development, all while reinforcing the university's commitment to fostering a culture of sustainability and environmental responsibility.

In addition, this initiative is closely aligned with AGU's goal of becoming a carbon-neutral university by 2029. The results of this survey underline the critical importance of environmental literacy in achieving this ambitious target. The active participation and involvement of all stakeholders will be essential in reaching this goal. Therefore, this report emphasizes the significance of collective action and highlights how every individual's engagement contributes to the success of our sustainability efforts.

By continuing this initiative, AGU reaffirms its dedication to sustainability and environmental stewardship, while also empowering our community to address the pressing environmental challenges of today. We aim to cultivate a university culture where understanding

environmental issues is just the beginning, and where students, faculty, and staff actively contribute to resolving them, ensuring a healthier and more sustainable planet for future generations.

Environmental Literacy and Knowledge Survey

An Environmental Literacy and Knowledge survey was conducted at AGU (refer to the Appendix). The purpose of this survey was to assess the environmental literacy and knowledge levels of AGU's students. The survey consisted of 24 questions covering participants' demographics, attitudes, concerns, and knowledge regarding environmental issues. Conducted on a voluntary basis, the survey was completed by 69 participants. Below are the main findings and recommended actions to be considered:

Demographics

Please see the table below for the demographic characteristics of the participants (n=69).

Table 1. Demographics

Status within the institution	Gender			
	Female	Male	Other	Prefer not to say
Student	36	32	1	-

Knowledge-related questions

The survey covered critical environmental topics, including the greenhouse effect, renewable energy sources, global warming, water resources, waste management, international climate agreements, and hazardous waste. These questions aimed to assess stakeholders' knowledge levels regarding key environmental issues, providing valuable insights for informed decision-making and targeted interventions within the AGU community. (Please see the survey questions in Appendix.)

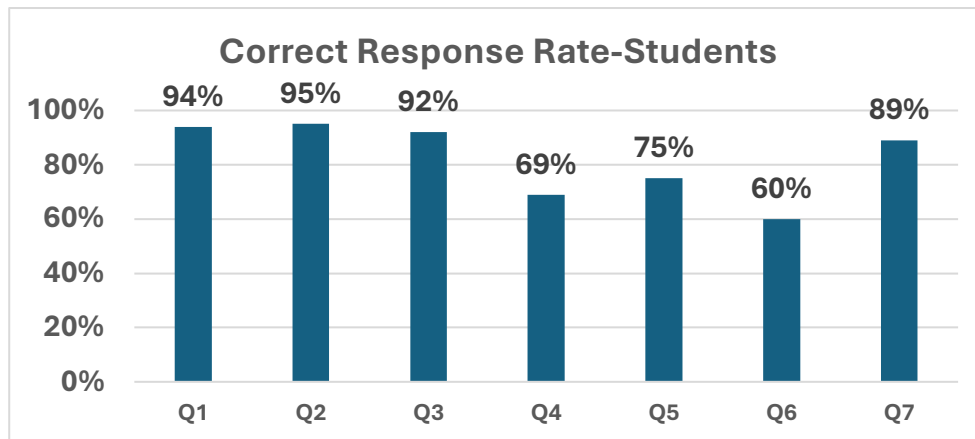


Fig. 1. Correct response Rate (Students)

Concern-related questions

The survey explored a range of environmental concerns, encompassing smoke pollution, noise pollution, vehicle emissions, industrial pollution, hazardous waste, poor-quality drinking water, indoor air pollution, ozone layer depletion, and global warming. By examining these topics, the survey sought to elucidate AGU students' concern levels regarding various environmental challenges, offering valuable insights to guide decision-making and interventions aimed at promoting environmental literacy within the AGU community.

Table 1. Environmental concern level of all participants

Status	Smoke pollution	Noise pollution	Vehicle emission	Industrial pollution	Hazardous waste	Poor-quality drinking water	Indoor air pollution	Ozone layer depletion	Global warming
All ¹	4.21	3.75	4.23	4.63	4.53	4.55	4.14	4.27	4.48
Stud	4.14	3.55	4.00	4.49	4.36	4.50	3.89	4.20	4.47

1 = Not worried at all; 2 = Little worried; 3 = Undecided; 4 = Somewhat worried; 5 = Very worried

Attitude-related questions

The survey included six questions probing participants' attitudes towards environmental issues. These questions examined their level of involvement, standpoint on environment, self-perceived knowledge about environmental problems, preferred sources of information on

¹ This report represents the student-specific section of a broader report that originally encompassed all participant groups. Following the completion of data analysis, the comprehensive report was divided into two parts: one for students and one for staff. The rows labeled 'All' in the analysis tables reflect the results for all participants (academic staff, administrative staff, and students) and are included to allow comparison between the overall findings and those specific to staff.

environmental issues, and opinions on environmental education. These insights provide valuable guidance for developing strategies to enhance environmental awareness and engagement within the AGU community.

Table 2. How involved are you with environmental issues? (Q1)

	Status	None	Very little	Enough	A little	Very much
How involved are you with environmental issues?	All	4	9	92	42	29
	Student	2	2	32	22	11

All (n)= 176; Student (n)= 69

Table 3. Which of the following is closest to your opinion? (Q2)

	Status	The environment is not a problem.	The environment is one of the two or three most important problems facing humanity today.	The environment is a significant problem, but there are other more important problems.
Which of the following is closest to your opinion?	All	3	135	38
	Student	1	50	18

All (n)= 176; Student (n)= 69

Table 4. How much knowledge do you generally think you have about environmental issues and problems ? (Q3)

	Status	I have no idea	None	A little	Enough	A lot
How involved are you with environmental issues?	All	-	1	43	78	12
	Student	1	1	23	38	6

All (n)= 176; Student (n)= 69

Table 5. What is the most commonly used tool you use to access information about environmental issues? (Q4)

What is the most commonly used tool you use to access information about environmental issues?	Status	Internet and social media	Magazine, newspaper, etc.	Non-governmental organizations (NGOs) working on environmental issues	Radio and television programs	Social environment and friends
	All	138	10	20	5	3
	Student	53	2	9	4	1

All (n)= 176; Student (n)= 69

Table 6. What is your opinion on environmental education? (Q5)

What is your opinion on environmental education?	Status	The environment is very important and education on it should definitely be provided.	The environment is very important but providing education on it is not necessary.	Environmental education is unnecessary.	I am undecided.
	All	148	15	7	6
	Student	51	9	5	4

All (n)= 176; Student (n)= 69

Table 7. Have you received any education or training on environmental issues? (Q6)

Have you received any education or training on environmental issues	Status	Yes	No
	All	82	94
	Student	41	28

All (n)= 176; Student (n)= 69

Conclusion

The 2024 Environmental Literacy and Knowledge Survey at AGU has provided valuable insights into the environmental awareness, concerns, and knowledge levels of our internal stakeholders—students, academic staff, and administrative staff. The results show that all stakeholder groups share a high level of concern regarding various environmental issues, though there are some differences in their specific concerns. Students expressed strong concern about industrial pollution, poor-quality drinking water, and global warming, with concern levels averaging 4.49, 4.50, and 4.47, respectively.

When it comes to knowledge, students demonstrated high awareness of greenhouse gases and global warming, with over 94% and 95% of students correctly answering these questions. However, their knowledge of freshwater, waste management, and international agreement to combat with Climate Change were lower, indicating a need for further education in this area.

Attitudinally, the results indicated a clear support for environmental education across all groups. A significant portion of students agreed that environmental education is an important issue and should be provided. Supporting this general agreement, the fact that more than half of the students have received actual training on environmental issues demonstrates their interest and commitment to these matters. Moreover, the results revealed that the internet and social media are the most commonly used tools to access information about environmental issues, highlighting the role of new media in delivering the information about environmental issue and inspring AGU to adopt digital tools for this purpose.

Overall, the survey findings demonstrate that AGU's students are deeply invested in environmental issues, with a strong desire for more education and involvement in sustainability initiatives. These findings also show that AGU strongly reflects its commitment in this area to all its internal stakeholders. To sum up, these findings provide a solid foundation for AGU to continue fostering a culture of environmental stewardship, addressing knowledge gaps, and further engaging all stakeholders in the university's sustainability goals, particularly in achieving carbon neutrality by 2029.

Primary Precautions and Recommendations

The findings from the 2024 Environmental Literacy and Knowledge Survey provide valuable insights into the current environmental literacy, concerns, and knowledge levels of AGU

students. Based on these findings, several key precautions and recommendations are proposed to further enhance environmental awareness, promote sustainable practices, and contribute to AGU's goal of becoming a carbon-neutral university by 2029.

1. **Increase awareness of freshwater resources:** Students demonstrated lower levels of knowledge about the world's freshwater resources, which are critical for sustainability. By enhancing awareness and knowledge about water conservation and management, AGU can foster a more water-conscious community. This initiative will lead to more sustainable water use practices, both on and off-campus, reducing the university's overall environmental footprint. Improved knowledge in this area will directly contribute to sustainability efforts, as responsible water use is essential to achieving sustainability objectives.
2. **Enhance knowledge of international climate agreements:** The survey highlighted a knowledge gap regarding international climate agreements like the Paris Agreement. By providing targeted training on these agreements, AGU will equip its students with the knowledge necessary to engage in meaningful discussions on climate action. This understanding will be crucial in supporting AGU's carbon neutrality goal. By aligning the university's efforts with global climate agreements, students will be better equipped to contribute to actions that reduce greenhouse gas emissions, a central component of achieving carbon neutrality.
3. **Increasing awareness of industrial pollution, poor-quality drinking water, and global warming:** Students expressed strong concern about industrial pollution, poor-quality drinking water, and global warming. To address concerns about industrial pollution, the university can organize expert-led seminars, arrange field trips to industrial zones, and involve students in hands-on monitoring projects. Promoting green campus practices, facilitating dialogue with local industries, and supporting student-led awareness campaigns can further empower students to understand and act on this issue. The university should promote transparency about water quality, which means openly sharing information such as drinking water test results, treatment processes, and source details on campus. This helps reduce student anxiety and encourages informed engagement with environmental issues. To address global warming, the university can integrate climate topics into courses, engage students in carbon reduction projects, support climate action groups, and host awareness events. Regularly sharing the

university's carbon footprint and progress toward sustainability goals also fosters trust and involvement.

4. **Regular environmental education activities:** The survey showed strong support for environmental education among students. By increasing the frequency of environmental education programs, AGU can reinforce sustainability principles and foster a culture of responsibility. Regular educational activities can create long-lasting behavioral changes, motivating students to actively participate in sustainability initiatives. This continuous engagement will contribute to the university's carbon neutrality goal by encouraging energy-saving practices, waste reduction, and, overall, more sustainable behaviors among the AGU community.
5. **Foster more involvement in sustainability initiatives:** With a high level of concern about environmental issues, particularly among students, there is an opportunity to channel this concern into practical action. AGU can encourage further involvement in sustainability initiatives, such as green campus programs, sustainability challenges, and campus-wide environmental events. Increased participation in such initiatives will create a sense of ownership and collective responsibility toward achieving carbon neutrality. This community-driven approach will help AGU build momentum towards its goal of becoming a carbon-neutral university by 2029.
6. **Implement sustainability-driven curriculum integration:** Although students show strong concern and knowledge, and AGU already offers relevant courses (e.g., GLB courses, SUS courses, and sustainability-related departmental courses), developing interdisciplinary programs on sustainability and climate will better prepare graduates to address global environmental challenges. This will not only help AGU meet its sustainability goals but also shape the next generation of environmental leaders, making them advocates for the university's carbon neutrality objectives.
7. **Improve sustainability communication and transparency:** Students have shown strong support for environmental education. Therefore, AGU should invest in improving communication on sustainability efforts, such as the progress of its carbon neutrality goal, by using multiple platforms—websites, newsletters, and social media—to keep stakeholders informed. Transparent communication will increase engagement, build trust, and ensure that everyone is aligned with AGU's sustainability goals. Clear communication about sustainability efforts, particularly the path to carbon neutrality, will further enhance students' commitment and active participation.

Appendix

Environmental Literacy and Knowledge Questionnaire (Çevre Okuryazarlığı ve Bilgisi Anketi)

This questionnaire aims to measure the environmental literacy and knowledge levels of AGU's students and academic/administrative staff. The questionnaire consists of 24 questions. The first seven questions have true answers, while the remaining questions do not. For the study to yield accurate results, it is imperative that participants provide sincere responses to the questions. Responses will be evaluated collectively and strictly used for the intended research purposes. *(Bu anket, AGÜ öğrencileri ile akademik/idari personelin çevre okur yazarlığı ve bilgi düzeylerini ölçmeyi amaçlamaktadır. Anket, 24 sorudan oluşmaktadır. İlk yedi sorunun doğru cevapları vardır; geri kalan soruların ise doğru bir cevabı yoktur. Çalışmanın doğru sonuçlar vermesi için katılımcıların sorulara samimi cevaplar vermesi önemlidir. Yanıtlar toplu olarak değerlendirilecek ve sadece araştırma amaçları doğrultusunda kullanılacaktır.)*

Abdullah Gül University
Sustainability Coordination Office (Sürdürülebilirlik Koordinatörlüğü)

Please indicate your status within the institution (Lütfen kurum içindeki statünüzü belirtiniz.)

- Student (Öğrenci)
- Academic staff (Akademik personel)
- Administrative staff (İdari personel)

What is your gender? (Cinsiyetiniz nedir?)

- Female (Kadın)
- Male (Erkek)
- Other (Diğer)
- Prefer not to say (Belirtmek istemiyorum.)

1. Which of the following gases is primarily responsible for the greenhouse effect? *(Aşağıdaki gazlardan hangisi sera etkisinin başlıca sorumlusudur?)*

- a) Oxygen (Oksijen)
- b) Nitrogen (Nitrojen)
- c) Carbon dioxide (Karbondioksit)
- d) Hydrogen (Hidrojen)

2. Which of the following is a renewable energy source? *(Aşağıdakilerden hangisi yenilenebilir bir enerji kaynağıdır?)*

- a) Coal (Kömür)
- b) Natural gas (Doğal gaz)
- c) Solar power (Güneş enerjisi)
- d) Nuclear power (Nükleer enerji)

3. What is the term for the phenomenon where Earth's average temperature gradually increases over time? (*Dünya'nın ortalama sıcaklığının zamanla kademeli olarak artması olayına ne ad verilir?*)

- a) Global warming (*Küresel ısınma*)
- b) Biodiversity (*Bioçeşitlilik*)
- c) Greenhouse effect (*Sera gazı etkisi*)
- d) Ozone depletion (*Ozon tabakasının delinmesi*)

4. What percentage of Earth's water is freshwater available for human use? (*Dünya'daki suyun yüzde kaç insan kullanımına uygun tatlı sudur?*)

- a) 2.5%
- b) 5%
- c) 7.5%
- d) 12.5%

5. Which of the following is NOT a component of the waste management hierarchy? (*Aşağıdakilerden hangisi atık yönetimi hiyerarşisinin bir bileşeni değildir?*)

- a) Reuse (*Yeniden kullanım*)
- b) Replant (*Yeniden dikim*)
- c) Reduce (*Azaltım*)
- d) Recycle (*Geri dönüşüm*)

6. Which international agreement aims to combat climate change by reducing greenhouse gas emissions? (*Hangi uluslararası anlaşma sera gazı emisyonlarını azaltarak iklim değişikliğiyle mücadele etmeyi amaçlamaktadır?*)

- a) Paris Agreement (*Paris Anlaşması*)
- b) Kyoto Protocol (*Kyoto Protokolü*)
- c) Montreal Protocol (*Montreal Protokolü*)
- d) Copenhagen Accord (*Kopenhag Mutabakatı*)

7. Which of the following household wastes can be classified as hazardous waste? (*Aşağıdaki evsel atıklardan hangisi tehlikeli atık olarak sınıflandırılabilir?*)

- a) Plastic packaging (*Plastik ambalaj*)
- b) Glass (*Cam*)
- c) Battery (*Pil*)
- d) Leftover foods (*Atık yemek*)

8. The following questions were prepared to measure how concerned you are regarding environmental problems. (Aşağıdaki sorular çevre problemleri ile ilgili olarak ne kadar endişeli olduğunuzu ölçmek için hazırlanmıştır.)

	Not worried at all (Hiç endişelenmiyorum)	Little worried (Az endişeleniyorum)	Undecided (Kararsızım)	Somewhat worried (Biraz endişeleniyorum)	Very worried (Çok endişeleniyorum)
Smoke pollution: Duman kirliliği					
Noise pollution: Ses kirliliği					
Vehicle emissions: Otomobil emisyonları					
Industrial pollution: Endüstriyel kirlilik					
Hazardous waste: Zararlı atıklar					
Poor-quality drinking water: Kalitesiz içme suyu					
Indoor air pollution: Kapalı alanlarda oluşan hava kirliliği					
Ozone layer depletion: Ozon tabakasının delinmesi					
Global warming: Küresel ısınma					

9. How involved are you with environmental issues? (Çevre sorunları ile ne kadar ilgilisiniz?)

- a) Hiç (None)
- b) Very little (Pek az)
- c) A little (Biraz)
- d) Enough (Yeteri kadar)
- e) Very much (Çok fazla)

10. Which of the following is closest to your opinion? (Aşağıdakilerden hangisi sizin düşüncenize en yakındır?)

- a) The environment is not a problem. (Çevre bir problem değildir.)
- b) The environment is not a significant problem. (Çevre önemli bir problem değildir.)
- c) The environment is a significant problem, but there are other more important problems. (Çevre önemli bir problemdir, ama daha önemli başka problemler de vardır.)
- d) The environment is one of the two or three most important problems facing humanity today. (Çevre günümüzde insanların karşı karşıya kaldığı en önemli iki ya da üç problemten biridir.)

11. How much knowledge do you generally think you have about environmental issues and problems? (Çevre konuları ve problemleri ile ilgili genel olarak ne kadar bilginiz olduğunu düşünüyorsunuz?)

- a) I have no idea. (Fikrim yok.)
- b) None. (Hiç)
- c) A little. (Biraz)
- d) Enough. (Yeteri kadar)
- e) A lot. (Çok)

12. What is the most commonly used tool you use to access information about environmental issues? (*Çevre konuları ile ilgili bilgiye ulaşırken en sık kullandığınız araç hangisidir?*)

- a) Internet and social media** (*İnternet ve sosyal media*)
- b) Radio and television programs** (*Radyo ve TV Programları*)
- c) Magazines, newspapers, etc.** (*Dergi, gazete vb.*)
- d) Social environment and friends** (*Sosyal çevre ve arkadaşlar*)
- e) Non-governmental organizations (NGOs) working on environmental issues** (*Çevre konuları üzerinde çalışan STK'lar*)
- f) Other** (*Diğer*)

13. What is your opinion on environmental education? (*Çevre eğitimi konusundaki düşünceniz nedir?*)

- a) The environment is very important and education on it should definitely be provided.** (*Çevre konusu çok önemlidir ve eğitimi mutlaka verilmelidir.*)
- b) The environment is very important but providing education on it is not necessary.** (*Çevre konusu çok önemlidir ama eğitiminin verilmesi şart değildir.*)
- c) Environmental education is unnecessary.** (*Çevre eğitiminin verilmesi gereksizdir.*)
- d) I'm undecided.** (*Kararsızım.*)

14. Have you received any education or training on environmental issues? (*Çevre konusunda herhangi bir eğitim/ders aldınız mı?*)

- a) Yes** (*Evet*)
- b) No** (*Hayır*)