

Research Portfolio

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Module 1: Cyber Scanning

Course Assignment: Cyberscanning Summary & Analysis

Organization

The organization I chose is a German gourmet food company, HelloFresh. As an avid user of HelloFresh, I know it has launched multiple social media and direct mail campaigns that have come across my personal feed.

Cyberscanning Research

To fully understand HelloFresh, one must determine the organization's mission and develop a profile around who they are as a company. Hello Fresh aims to “provide every household with wholesome, homemade meals,” and the mission is to “change the way people eat forever” (Shastri, 2022). The company is the largest meal-kit provider in the world, delivering to three continents and 14 countries (Shastri, 2022).

One of the significant issues HelloFresh faces is its deceptive and false advertising tactics to lure people to buy boxes. The National Advertising Division has investigated Hello Fresh multiple times in the past for claims against the company's promotion (*Hellofraud*, 2023). In 2022, [TINA.org](https://www.tina.org) filed a complaint with the FTC, calling their advertising a trick to sign up for an auto-renewal subscription (*Hellofraud*, 2023). Consumers are promised “17 free meals,” but that is after they sign up for an auto-renewal system and get discounts every week to lead to the price of 17 free meals (*Hellofraud*, 2023). It blindsided and confused customers when they received their weekly bill back from Hello Fresh.

Another issue this brand faces is that its influencers must adequately disclose all the information needed to promote the meal service ethically. Their influencers put all the logistics of the deal in the click “more” section, which many users pass as they are enamored by “17 free meals” (*Hellofraud*, 2023). With more brands using influencer marketing to reach new audiences, more restrictions are put on the influencers to disclose what posts are an “ad” or “sponsored” and what information they can promote (*Hellofraud*, 2023).

Strategic Management of Public Relations:

Hello Fresh has an aggressive advertising strategy that spends millions on traditional methods like online ads, direct mail, digital and social media campaigns, etc. However, to fix the issues that Hello Fresh faces, there is a four-step process: develop formal objectives, create communication programs to accomplish those objectives, implement the program, and evaluate its effectiveness.

The issue with false advertising is the most critical issue HelloFresh needs to pay attention to now because they are losing retention of stakeholders and potential new stakeholders. Not being fully transparent with the fine print of the free meals does not just the stakeholders in the company vying for those deals but those who want access to them. For example, 38 million people in the United States battle food insecurity, and with food prices continuing to rise, “free meals” are precisely what many people in this country need (*Hellofraud*, 2023). By incentivizing the public to enter their credit card to pay for shipping, they do not know the continual plan they signed up for. The formal objective is to create different labeling that makes it easier to differentiate the terms of the coupons online and in print (*Hellofraud*, 2023). HelloFresh should also consider using those same discounts promised on two-person-sized families and fewer meals. The communication and advertising teams will unite to boldly promote the new material and clarify the terms to potential stakeholders. This could involve a series of

social media campaigns and updates to direct mail services. Implementation of this program will be over the course of six months so HelloFresh can pull customer retention data and review the successes and complaints (*Hellofraud, 2023*). The first wave of implementation on social media should include partnering with a household of two and another household of four to explain the difference in discounts and how potential customers can access them more transparently. After looking at the campaign's effectiveness, one can take further action on what else needs to be done.

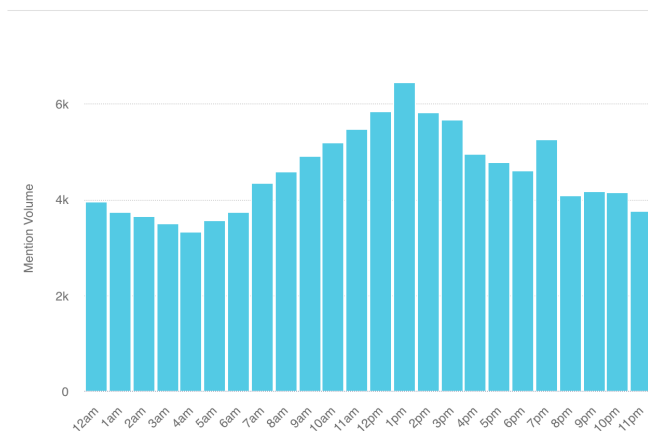
Original Analysis:

The two big-picture things HelloFresh needs to focus on are transparency and consistency. Transparency in how they operate their deals and discounts for new/returning consumers and the consistency of their posts and target audiences.

HelloFresh has a very distinct target audience, with 80% of its consumers being women between the ages of 30-50 (*Whiteside, 2022*). They target busy moms and young professionals who all care about health and nutrition without the hassle of planning weekly meals. That is why the majority of their influencers are middle-aged women (*Whiteside, 2022*). However, they are missing out on a significant market by not focusing on other specialty groups who would benefit from HelloFresh’s convenience and easy-to-make meals. The college and elderly stages of life are times when going to the grocery store can be a last thought or so much forgotten food goes to waste. By launching direct mail campaigns to elderly couples and social media ads focused on university life for college students, they can tap into a previously neglected market.

The constancy and timing of posts are also vital to ensure the brand stays fresh on everyone's mind. HelloFresh does not post regularly on their social media. Sometimes, it takes up to four days for them to produce new content. By posting regularly daily or every other day, HelloFresh will stay relevant to its consumers. Targeted social media campaigns trying to enrapture their target and secondary audiences can help drive traffic to their website and prompt people to take action on their new orders. HelloFresh’s main competitor, Blue Apron, has half the amount of followers and posts daily on Instagram to drive traffic to their other pages and websites. Also, when posting about food, HelloFresh needs to post around mealtimes. A chart from Brandwatch shows that the most trafficked time on HelloFresh’s website is at 1 p.m. That is lunchtime for most Americans around the country.

Chart From: Brandwatch, https://app.brandwatch.com/project/1998358958/search/people/onlinebehaviors?q=hello_fresh



Transparency is an issue HelloFresh deals with regularly. Some of their advertising tactics are known as misleading or false. By launching different campaigns targeting different demographics, HelloFresh can build credibility between themselves and their stakeholders to not only help the damage that has been done in the past but also show rectifying behavior to ensure nothing like this ever happens.

References

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- Shastri, A. (2022, October 21). *Outstanding Swot Analysis of Hellofresh - 2022 study*. IIDE. <https://iide.co/case-studies/swot-analysis-of-hellofresh/>
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Module 2: Focus Group Analysis

What is Deforestation?

Deforestation is the widespread removal of trees and vegetation from forests, resulting in the depletion of forest cover. This is primarily caused by human activities, including logging, agriculture expansion, and urbanization. Deforestation contributes significantly to global warming due to its impact on carbon dioxide levels and the greenhouse effect. As trees are cut down and forests are cleared, a substantial amount of carbon dioxide is released into the atmosphere, intensifying the greenhouse effect and leading to increased global warming. The consequences of deforestation are far-reaching and directly contribute to climate change. The loss of forests disrupts ecosystems, reduces biodiversity, and alters weather patterns, further increasing the problem of global warming.

Specifically, deforestation refers to permanently destroying forests or woodland areas, resulting in the loss of trees, vegetation, and biodiversity. It is a global environmental issue with significant ecological, economic, and social consequences. One prominent cause of deforestation is land conversion for agricultural purposes. As stated by Allen and Barnes (1985), the expansion of commercial agriculture, particularly for producing commodities like soybeans, palm oil, and beef, has been a primary driver of deforestation. In many developing countries, forests are cleared to make way for large-scale agricultural plantations, resulting in the loss of valuable forest ecosystems. The demand for timber and wood products also contributes to deforestation, as logging often involves clear-cutting forests. Furthermore, population growth and urbanization lead to increased demand for land, which further drives deforestation as forests are cleared to accommodate development and housing.

Deforestation also significantly impacts carbon dioxide (CO₂) levels and the greenhouse effect, contributing to global climate change. According to Fearnside and Laurance (2004), deforestation directly affects the carbon cycle by releasing large amounts of CO₂ into the atmosphere. Forests act as carbon sinks, absorbing CO₂ from the atmosphere through photosynthesis and storing it in their biomass. When forests are cleared, either through logging or conversion to agriculture, or urban development, this stored carbon is released back into the atmosphere as CO₂. The released CO₂ acts as a greenhouse gas, trapping heat in the atmosphere and increasing global temperatures. These findings highlight the urgent need for effective forest conservation and sustainable land-use practices to mitigate deforestation's impact on CO₂ levels and the greenhouse effect.

Mining and Farming Relationship to Deforestation

Mining and farming activities have a significant impact on deforestation, leading to both ecological and environmental consequences. The extraction of minerals and ores through mining often requires the clearing of vast forested areas, causing widespread deforestation. This destruction of forests disrupts the delicate balance of ecosystems, leading to the loss of biodiversity and the displacement of numerous plant and animal species. Also, mining operations can result in soil erosion and the contamination of nearby water bodies due to the release of toxic chemicals and heavy metals. This causes long-term damage to the surrounding environment from pollutants seeping into the surrounding soil and water. Similarly, farming practices, especially large-scale commercial agriculture, contribute to deforestation as forests are often cleared to make way for crop plantations and livestock grazing areas. The expansion of agricultural land

involves the removal of trees, which not only reduces the carbon sequestration capacity of forests but also disrupts the water cycle and exacerbates soil erosion. Additionally, using chemical fertilizers and pesticides in farming can lead to water pollution, further damaging the ecosystem. The cumulative impact of mining and farming on deforestation is alarming, as it not only leads to the loss of vital forest cover but also has far-reaching consequences on climate change, soil degradation, and biodiversity loss.

How do mining and farming play a role in Oklahoma?

Mining and farming have a significant impact on the state of Oklahoma. These industries play a crucial role in the state's economy and have shaped its landscape and culture over the years. Known for its vast oil and natural gas reserves, Oklahoma is one of the leading oil and natural gas producers in the United States, making it a significant driver in the state's economy. The mining industry has brought immense wealth and job opportunities to Oklahoma, attracting both domestic and international investments. The revenue generated from mining has helped fund various infrastructure projects, education, and public services in the state. However, mining activities also come with environmental concerns. The extraction of oil and natural gas can have detrimental effects on the environment, such as water pollution and habitat destruction.

On the other hand, farming has been a longstanding tradition in Oklahoma and continues to be a vital industry. The state's fertile soil and favorable climate make it ideal for agriculture. Oklahoma is known for producing wheat, cotton, corn, soybeans, and livestock. The agricultural sector provides employment opportunities for many Oklahomans directly and indirectly through supporting industries such as food processing and distribution.

Moreover, farming plays a crucial role in providing food security and contributing to the nation's food supply. Oklahoma's agricultural sector faces various risks, including droughts, floods, pests, and fluctuating market prices. Farmers must adapt to changing conditions and employ sustainable practices to ensure long-term productivity and environmental stewardship.

Advantages of Mining and Farming

Mining and farming are two fundamental activities that have played pivotal roles in shaping human civilizations throughout history. Mining, the process of extracting valuable minerals or other geological materials from the earth, has numerous advantages. One of the key benefits of mining is its contribution to economic development. Minerals extracted from mines are used in various industries such as construction, manufacturing, technology, and energy production. These resources serve as the foundation for modern infrastructure, supporting the growth of economies and creating job opportunities for millions of people worldwide.

Additionally, mining can also lead to technological advancements. Pursuing more efficient and sustainable mining techniques has driven innovation in machinery, automation, and environmental conservation. As a result, mining companies are increasingly adopting eco-friendly practices, minimizing their environmental impact, ensuring the responsible use of natural resources, and helping with climate change as much as possible. Mining activities can stimulate local economies by providing revenue for governments.

Farming, or agriculture, is the primary food source for the global population and has its own set of advantages. Agriculture is essential for food security, ensuring that people have access to various nutritious foods. It also supports rural livelihoods by providing farmers and agricultural workers employment opportunities. Moreover, farming can promote sustainable land use and conservation efforts. Practices such as crop rotation, agroforestry, and soil conservation help maintain soil fertility and prevent erosion, preserving the quality of arable land for future generations.

Additionally, agriculture has the potential to boost economic growth by fostering agribusiness and trade. Many countries rely on agricultural exports, generating revenue and strengthening economies, especially in the US. Farming practices have evolved over the years, leading to the development of genetically modified crops and precision agriculture, increasing crop yields and minimizing pesticide and fertilizer use, promoting environmental sustainability.

Overall, mining and farming are integral components of the global economy, providing essential resources, supporting technological progress, ensuring food security, and fostering economic development. When conducted responsibly and sustainably, these activities contribute significantly to the well-being of societies worldwide.

Disadvantages of Mining and Farming

While mining and farming are crucial for sustaining human societies around the world, they also come with significant disadvantages that impact the environment, communities, and overall well-being. Mining, in particular, poses numerous environmental challenges. The excavation of minerals often leads to habitat destruction, deforestation, and soil erosion, disrupting ecosystems and endangering plant and animal species and the overall food chain. Mining operations can contaminate nearby water sources with chemicals and heavy metals, polluting rivers and lakes and posing serious health risks to aquatic life and humans who depend on these water bodies.

Mining activities also contribute to greenhouse gas emissions and climate change. The extraction, transportation, and processing of minerals require substantial energy, often derived

from fossil fuels, which release carbon dioxide into the atmosphere. Additionally, abandoned mines can create environmental hazards, such as open pits filled with toxic water or unstable landscapes prone to landslides, posing ongoing risks to nearby communities and wildlife.

Similarly, farming has its own set of disadvantages. Agricultural practices can lead to soil degradation, loss of biodiversity, and depletion of essential nutrients in the soil. Large-scale monoculture, where a single crop is cultivated over extensive areas, can make crops vulnerable to diseases and pests, risking food security. The excessive use of chemical fertilizers and pesticides can contaminate water sources, harm non-target species, and contribute to the emergence of resistant pests and weeds.

Furthermore, both mining and farming can have social consequences. Communities residing near mining sites often face displacement, loss of traditional livelihoods, and disruption of cultural practices. Farmers, especially smallholders, might struggle with market access, fluctuating commodity prices, and a lack of resources to adopt sustainable agricultural practices. Additionally, both industries can exploit labor, leading to poor working conditions and social injustices. The disadvantages associated with mining and farming underscore the importance of adopting sustainable practices and responsible policies.

Latent Focus Group: Participant A

Name: Payton | Major: Aviation Management | Age: 22 | Hometown: Oak Harbor, Washington

First, I would like you to consider how often you stop to think about each of the three problems. After I name each of these problems, please tell me whether you stop to think about the situation often, sometimes, rarely, or never. Please assign a 4 for often, a 3 for sometimes, a 2 for rarely, and 1 for never.

Global Climate Changes ____ 2 ____

Pollution (Air, Water, Soil) ____ 2 ____

Deforestation ____ 2 ____

Now, could you do anything personally that would make a difference in how these problems are handled? If you wanted to do something, would your efforts make a great deal of difference (4), some difference (3), very little difference (2), or no difference (1)?

Global Climate Changes ____ 2 ____

Pollution (Air, Water, Soil) ____ 2 ____

Deforestation ____ 2 ____

Now, I have a third question about the same issues. For each problem, tell me to what extent you see a connection between yourself, personally, and each of these situations. There would be a connection if you believe the problem has affected or would affect you. Tell me if the connection is strong (4), moderate (3), weak (2), or if you see no connection (1).

Global Climate Changes ____ 3 ____

Pollution (Air, Water, Soil) ____ 3 ____

Deforestation ____ 3 ____

Do you believe “global warming” as:

Scientifically Fact _____

Scientifically Controversial _____

No Opinion ____ 1 ____

Latent Focus Group: Participant B

Name: Katie | Major: Public relations | Age: 21 | Hometown: Orange County, California

First, I would like you to consider how often you stop to think about each of the three problems. After I name each of these problems, please tell me whether you stop to think about the situation often, sometimes, rarely, or never. Please assign a 4 for often, a 3 for sometimes, a 2 for rarely, and 1 for never.

Global Climate Changes _____ 1 _____

Pollution (Air, Water, Soil) _____ 2 _____

Deforestation _____ 1 _____

Now, could you do anything personally that would make a difference in how these problems are handled? If you wanted to do something, would your efforts make a great deal of difference (4), some difference (3), very little difference (2), or no difference (1)?

Global Climate Changes _____ 3 _____

Pollution (Air, Water, Soil) _____ 2 _____

Deforestation _____ 2 _____

Now, I have a third question about the same issues. For each problem, tell me to what extent you see a connection between yourself, personally, and each of these situations. There would be a connection if you believe the problem has affected or would affect you. Tell me if the connection is strong (4), moderate (3), weak (2), or if you see no connection (1).

Global Climate Changes _____ 3 _____

Pollution (Air, Water, Soil) _____ 3 _____

Deforestation _____ 1 _____

Do you believe “global warming” as:

Scientifically Fact _____ 1 _____

Scientifically Controversial _____

No Opinion _____

Latent Focus Group: Participant C

Name: Jackson | Major: Public relations | Age: 21 | Hometown: Kansas City, Missouri

First, I would like you to consider how often you stop to think about each of the three problems. After I name each of these problems, please tell me whether you stop to think about the situation often, sometimes, rarely, or never. Please assign a 4 for often, a 3 for sometimes, a 2 for rarely, and 1 for never.

Global Climate Changes _____ 2 _____
Pollution (Air, Water, Soil) _____ 2 _____
Deforestation _____ 2 _____

Now, could you do anything personally that would make a difference in how these problems are handled? If you wanted to do something, would your efforts make a great deal of difference (4), some difference (3), very little difference (2), or no difference (1)?

Global Climate Changes _____ 3 _____
Pollution (Air, Water, Soil) _____ 2 _____
Deforestation _____ 1 _____

Now, I have a third question about the same issues. For each problem, tell me to what extent you see a connection between yourself, personally, and each of these situations. There would be a connection if you believe the problem has affected or would affect you. Tell me if the connection is strong (4), moderate (3), weak (2), or if you see no connection (1).

Global Climate Changes _____ 2 _____
Pollution (Air, Water, Soil) _____ 2 _____
Deforestation _____ 1 _____

Do you believe “global warming” as:

Scientifically Fact _____
Scientifically Controversial _____
No Opinion _____ 1 _____

Latent Focus Group: Participant D

Name: Hadley | Major: Public Relations | Age: 21 | Hometown: Oklahoma City

First, I would like you to consider how often you stop to think about each of the three problems. After I name each of these problems, please tell me whether you stop to think about the situation often, sometimes, rarely, or never. Please assign a 4 for often, a 3 for sometimes, a 2 for rarely, and 1 for never.

Global Climate Changes ____ 2 ____
Pollution (Air, Water, Soil) ____ 2 ____
Deforestation ____ 2 ____

Now, could you do anything personally that would make a difference in how these problems are handled? If you wanted to do something, would your efforts make a great deal of difference (4), some difference (3), very little difference (2), or no difference (1)?

Global Climate Changes ____ 2 ____
Pollution (Air, Water, Soil) ____ 2 ____
Deforestation ____ 2 ____

Now, I have a third question about the same issues. For each problem, tell me to what extent you see a connection between yourself, personally, and each of these situations. There would be a connection if you believe the problem has affected or would affect you. Tell me if the connection is strong (4), moderate (3), weak (2), or if you see no connection (1).

Global Climate Changes ____ 3 ____
Pollution (Air, Water, Soil) ____ 3 ____
Deforestation ____ 3 ____

Do you believe “global warming” as:

Scientifically Fact _____
Scientifically Controversial _____
No Opinion ____ I _____

Latent Focus Group: Participant E

Name: Mary Jane | Major: Political Science | Age: 19 | Hometown: Dallas, Texas

First, I would like you to consider how often you stop to think about each of the three problems. After I name each of these problems, please tell me whether you stop to think about the situation often, sometimes, rarely, or never. Please assign a 4 for often, a 3 for sometimes, a 2 for rarely, and 1 for never.

Global Climate Changes _____ 1 _____
Pollution (Air, Water, Soil) _____ 2 _____
Deforestation _____ 1 _____

Now, could you do anything personally that would make a difference in how these problems are handled? If you wanted to do something, would your efforts make a great deal of difference (4), some difference (3), very little difference (2), or no difference (1)?

Global Climate Changes _____ 2 _____
Pollution (Air, Water, Soil) _____ 3 _____
Deforestation _____ 1 _____

Now, I have a third question about the same issues. For each problem, tell me to what extent you see a connection between yourself, personally, and each of these situations. There would be a connection if you believe the problem has affected or would affect you. Tell me if the connection is strong (4), moderate (3), weak (2), or if you see no connection (1).

Global Climate Changes _____ 3 _____
Pollution (Air, Water, Soil) _____ 1 _____
Deforestation _____ 2 _____

Do you believe “global warming” as:

Scientifically Fact _____
Scientifically Controversial _____
No Opinion _____ 1 _____

Latent Focus Group Analysis

For this focus group, we gathered a group of the latent and unaware public of like-minded individuals. All of these people were reasonably unaware and not very knowledgeable on the topics of deforestation and global warming. The discussion began with lettering each person off to ensure their identities stayed confidential. The discussion had the common and consistent theme of deforestation while also touching on mining and farming.

Before the key questions, we started with some opening, introduction, any transition questions to ensure the participants felt like they were in a safe environment. From those questions, we gathered that everybody appreciated nature and knew the importance of protecting the environment. They do not do much to actively try and save the environment in their daily lives, but they do as much as they can, like recycling and using reusable water bottles. They were not too aware of the topics we were discussing but had good insight from an unbiased perspective.

Key Question 1: How do you see deforestation affecting your current generation and the time you will spend on Earth?

The topic of deforestation has been trending over time and has become more and more known and prevalent to people in today's generation. People are more aware of what it is and how it is an issue, resulting in more people wanting to make changes to it. It is still a somewhat complicated topic that a lot of this generation does not know a lot about, so the generations to have a significant role in saving the environment from the effects of deforestation.

The more education and knowledge that comes to the surface on this topic, the more regulations may go into place and the more people will do to help. The next generation has a big role in this topic because they are the future, but we can also have an impact.

Key Question 2: How do you think mining affects your local community and the regions around you?

Mining is something that many people are very unfamiliar with due to the fact that they do not personally feel or see the effects of it. Many people are not even aware it is happening around them, making it hard to see or know of the effects of it.

Especially in places like Oklahoma, oil and gas are primary contributors to the economy in a lot of places. Those primary contributors affect people's lives in those places daily. These people see the positive effects of oil and gas on their lives and their communities, so they are not sure of the other adverse effects that could be happening in other places around the world.

When oil and gas are not booming or are not doing well in a lot of cities or communities that people live in, those people see the adverse effects of that, but not of mining because they do not see it firsthand.

It is difficult to see or think of the effects of mining not only on one's local community but especially on the regions around somebody because many people are unaware that it is even going on. It does not mean those effects do not exist or are not detrimental, but when people have

been growing up only seeing the positive effects of things like oil and gas, it is hard to open people's eyes to other possible detrimental effects.

In conclusion, most of the participants in this focus group were unaware of deforestation, mining, and farming issues. Due to how they lived and what they had seen/experienced growing up, they were not very familiar with the effects of these things on the environment. Not only in their communities, but all over the world as well. The participants all agreed and concluded that even if they are unaware of these topics, it does not mean the adverse effects are not there, and these topics are not critical to be familiar with. The focus group concluded with a summary before the participants dispersed for the night.

Active Focus Group: Participant A

Name: Trinity | Major: Nursing | Age: 20 | Hometown: Austin, Texas

First, I would like you to consider how often you stop to think about each of the three problems. After I name each of these problems, please tell me whether you stop to think about the situation often, sometimes, rarely, or never. Please assign a 4 for often, a 3 for sometimes, a 2 for rarely, and 1 for never.

Global Climate Changes ____3____
Pollution (Air, Water, Soil) ____3____
Deforestation ____2____

Now, could you do anything personally that would make a difference in how these problems are handled? If you wanted to do something, would your efforts make a great deal of difference (4), some difference (3), very little difference (2), or no difference (1)?

Global Climate Changes ____3____
Pollution (Air, Water, Soil) ____2____
Deforestation ____1____

Now, I have a third question about the same issues. For each problem, tell me to what extent you see a connection between yourself, personally, and each of these situations. There would be a connection if you believe the problem has affected or would affect you. Tell me if the connection is strong (4), moderate (3), weak (2), or if you see no connection (1).

Global Climate Changes ____3____
Pollution (Air, Water, Soil) ____2____
Deforestation ____2____

Do you believe “global warming” as:

Scientifically Fact ____1____
Scientifically Controversial _____
No Opinion _____

Active Focus Group: Participant B

Name: Saylor | Major: Biology and Spanish | Age: 20 | Hometown: Katy, Texas

First, I would like you to consider how often you stop to think about each of the three problems. After I name each of these problems, please tell me whether you stop to think about the situation often, sometimes, rarely, or never. Please assign a 4 for often, a 3 for sometimes, a 2 for rarely, and 1 for never.

Global Climate Changes ____3____
Pollution (Air, Water, Soil) ____3____
Deforestation ____2____

Now, could you do anything personally that would make a difference in how these problems are handled? If you wanted to do something, would your efforts make a great deal of difference (4), some difference (3), very little difference (2), or no difference (1)?

Global Climate Changes ____3____
Pollution (Air, Water, Soil) ____3____
Deforestation ____1____

Now, I have a third question about the same issues. For each problem, tell me to what extent you see a connection between yourself, personally, and each of these situations. There would be a connection if you believe the problem has affected or would affect you. Tell me if the connection is strong (4), moderate (3), weak (2), or if you see no connection (1).

Global Climate Changes ____4____
Pollution (Air, Water, Soil) ____3____
Deforestation ____2____

Do you believe “global warming” as:

Scientifically Fact ____1____
Scientifically Controversial _____
No Opinion _____

Active Focus Group: Participant C

Name: Hannah | Major: Pubic Relations | Age: 20 | Hometown: Kansas, Oklahoma

First, I would like you to consider how often you stop to think about each of the three problems. After I name each of these problems, please tell me whether you stop to think about the situation often, sometimes, rarely, or never. Please assign a 4 for often, a 3 for sometimes, a 2 for rarely, and 1 for never.

Global Climate Changes ____4____
Pollution (Air, Water, Soil) ____4____
Deforestation ____3____

Now, could you do anything personally that would make a difference in how these problems are handled? If you wanted to do something, would your efforts make a great deal of difference (4), some difference (3), very little difference (2), or no difference (1)?

Global Climate Changes ____4____
Pollution (Air, Water, Soil) ____2____
Deforestation ____3____

Now, I have a third question about the same issues. For each problem, tell me to what extent you see a connection between yourself, personally, and each of these situations. There would be a connection if you believe the problem has affected or would affect you. Tell me if the connection is strong (4), moderate (3), weak (2), or if you see no connection (1).

Global Climate Changes ____4____
Pollution (Air, Water, Soil) ____4____
Deforestation ____3____

Do you believe “global warming” as:

Scientifically Fact ____1____
Scientifically Controversial _____
No Opinion _____

Active Focus Group: Participant D

Name: Brooklyn | Age: 20 | Major: Nursing | Hometown: Tuttle, OK

First, I would like you to consider how often you stop to think about each of the three problems. After I name each of these problems, please tell me whether you stop to think about the situation often, sometimes, rarely, or never. Please assign a 4 for often, a 3 for sometimes, a 2 for rarely, and 1 for never.

Global Climate Changes ____ 1 ____

Pollution (Air, Water, Soil) ____ 2 ____

Deforestation ____ 1 ____

Now, could you do anything personally that would make a difference in how these problems are handled? If you wanted to do something, would your efforts make a great deal of difference (4), some difference (3), very little difference (2), or no difference (1)?

Global Climate Changes ____ 2 ____

Pollution (Air, Water, Soil) ____ 3 ____

Deforestation ____ 2 ____

Now, I have a third question about the same issues. For each problem, tell me to what extent you see a connection between yourself, personally, and each of these situations. There would be a connection if you believe the problem has affected or would affect you. Tell me if the connection is strong (4), moderate (3), weak (2), or if you see no connection (1).

Global Climate Changes ____ 3 ____

Pollution (Air, Water, Soil) ____ 3 ____

Deforestation ____ 2 ____

Do you believe “global warming” as:

Scientifically Fact _____

Scientifically Controversial _____

No Opinion ____ I ____

Active Focus Group: Participant E

Name: Lindey | Major: Economics | Age: 21 | Hometown: Westlake, Texas

First, I would like you to consider how often you stop to think about each of the three problems. After I name each of these problems, please tell me whether you stop to think about the situation often, sometimes, rarely, or never. Please assign a 4 for often, a 3 for sometimes, a 2 for rarely, and 1 for never.

Global Climate Changes ____3____

Pollution (Air, Water, Soil) ____3____

Deforestation ____3____

Now, could you do anything personally that would make a difference in how these problems are handled? If you wanted to do something, would your efforts make a great deal of difference (4), some difference (3), very little difference (2), or no difference (1)?

Global Climate Changes ____3____

Pollution (Air, Water, Soil) ____2____

Deforestation ____4____

Now, I have a third question about the same issues. For each problem, tell me to what extent you see a connection between yourself, personally, and each of these situations. There would be a connection if you believe the problem has affected or would affect you. Tell me if the connection is strong (4), moderate (3), weak (2), or if you see no connection (1).

Global Climate Changes ____4____

Pollution (Air, Water, Soil) ____2____

Deforestation ____3____

Do you believe “global warming” as:

Scientifically Fact ____1____

Scientifically Controversial _____

No Opinion _____

Aware/Active Focus Group Analysis

For this focus group, we gathered a group of aware and active public of like-minded individuals. All of these individuals showed interest in deforestation and global warming. The discussion began by lettering off people to keep their identities confidential. The discussion centered around the key theme of deforestation with an emphasis on the effects of mining and farming.

All participants were comfortable and were asked multiple warm-up questions before we transitioned to the key questions. From those opening questions, the participants all recycled and tried to stay as educated as possible. This education came from doing their research, watching the news, and staying current on policies enacted worldwide. They each had insightful suggestions on how deforestation is happening and how it affects the environment.

Key Question 1: What are your main concerns regarding deforestation, and how do you see it affecting biodiversity and climate change?

The loss of ecosystems can disrupt food chains and the planet's overall biological resilience. Deforestation poses many grave concerns for our planet, primarily impacting biodiversity and climate change. The loss of forests, often due to agricultural expansion, logging, and urban development, threatens the rich and intricate web of life that depends on these ecosystems. Deforestation destroys habitat, pushing numerous species towards extinction as they lose their homes and food sources.

Simultaneously, deforestation has significant implications for climate change. Forests act as vital carbon sinks, absorbing and storing large amounts of carbon dioxide from the atmosphere. This not only intensifies climate change but also triggers a feedback loop where rising temperatures further stress forests, making them more susceptible to diseases and wildfires, ultimately accelerating deforestation and carbon emissions.

It threatens biodiversity by destroying habitats and exacerbates climate change by releasing stored carbon into the atmosphere. The Amazon has been going under scrutiny because of the high amounts of deforestation. With a single life needing two trees and the growing population, we need significant forests in order to sustain life.

Key Question 2: What are your thoughts on the environmental and social impacts of mining in your region or globally?

Although one does not see the effects of mining as widely as one sees the effects of farming, it does not mean it does not exist. On the environmental front, mining can lead to deforestation, habitat destruction, soil erosion, and water pollution as chemicals used in mining processes can contaminate nearby water sources. Mining can also result in the release of greenhouse gases and toxic pollutants, contributing to air pollution and climate change.

Mining can have serious social consequences as well. One of the participants brought up the mining of blood diamonds. The term "blood diamonds" refers to diamonds mined in war zones and sold to finance armed conflict against governments. Even after the conflict subsides,

the environmental damage from blood diamond mining can persist, affecting the long-term health of ecosystems and communities.

Key Question 3: Regarding farming practices, how do you view the balance between agriculture and environmental sustainability, and what changes do you believe are necessary?

A key change that was noted from the focus group was that farming needs to be done proactively and safely. Agriculture is the backbone of our food production systems, providing sustenance for billions of people and driving economies. However, it can also have significant negative impacts on the environment, including deforestation, soil degradation, water pollution, and greenhouse gas emissions.

Water management is a central concern for sustainable farming. Soil health is equally vital, and practices like no-till farming, using cover crops, and reducing soil erosion are essential for maintaining the long-term productivity of farmland. To further promote environmental sustainability, reducing the use of synthetic pesticides and fertilizers is crucial

It requires a multifaceted approach that integrates sustainable farming practices, biodiversity conservation, responsible water and soil management, reduced chemical use, and the promotion of sustainable livestock farming. Now, only 2% of the world's are farmers, and the use of deadly pesticides harms the environment. Farmers need to stop using these pesticides in order to keep the environment healthy.

In conclusion, the participants could easily communicate their concerns and their general issues with deforestation and the effects of mining and farming. Many consequences include habitat destruction, soil erosion, and water pollution. Not only to mention the social issues that are included with deforestation. They stressed how essential it is to address these social impacts and ensure that mining operations are conducted responsibly, with fair compensation, community engagement, and a focus on long-term sustainable development, both at the regional and global levels. During the focus group, we concluded that this group was more educated of the effects mining and farming has on the environment, but also how the environment affects mining and farming. Climate change has affected areas where crops can and cannot grow. These participants had personal connections to the farming industry, specifically, and wanted to learn and advocate how to protect the industry.

Appendix A

Latent/Unaware Speaker Transcript

Introduction:

“Thank all of you for taking time out of your day to come and give us insight. Today, we are hosting this focus group to gain more insight into your thoughts about deforestation. Deforestation is caused by many things, but let’s hone in on how mining and farming play into cutting down trees, affecting global warming. This is a safe space to air all concerns in a safe, non-judgmental environment. We know none of you are expected, and we do not expect you to be. This is to better understand what all should go into our decision and conservation efforts from all experiences in life.”

“We’ve brought you together so that we can learn from you and promote an open discussion on deforestation. This is a learning experience for both of us, and we are open to all insights. We want to know what you are truly seeing, even if it sounds or looks bad. That is the only way we can all truly learn and grow. We also want to hear from you about the good you have to share and the conservation movements you want to see more of. The good, bad, and the ugly are all encouraged in this conversation.”

“Please air your experiences and emotions on climate change due to deforestation during your lifetime, but focus on the past five years. However, if you have comments or concerns that have happened outside of the past five years, please don’t hesitate to share them.”

“We are recording this session so we can study, ponder, and analyze what you have said and the reactions you will feel today. Confidentiality is extremely important to us, and we assure you what is said will not leave this room or affect you in a positive or negative way. When you have something to say, please be respectful if someone is speaking, and do not talk over others. Also, before answering, please state your name so we are able to better recall your statements...”

Opening Question

Opening Question 1: “How much time would you all say you spend on average outside?”

Opening Answer (Participant A): “I would say about an hour a day.”

Opening Answer (Participant B): “Around 4 hours a day if I had to guess.”

Opening Answer (Participant C): “About 2 hours a day.”

Opening Answer (Participant D): “Probably an hour a day.”

Opening Answer (Participant E): “Hmmm... maybe around 3 hours a day.”

Opening Question 2: “Do you appreciate nature and the world around you? If so, how?”

Opening Answer (Participant A): “I have lots of appreciation for nature. It makes me feel good to spend time outside.”

Opening Answer (Participant B): “I enjoy spending time outside I would say. Especially in different places. I love seeing nature in places like Colorado and California because it’s different everywhere.”

Opening Answer (Participant C): “I would say I appreciate nature enough to care about it.”

Opening Answer (Participant D): “I appreciate nature enough to care about it. I don’t spend a lot of time outside, but I ski in the winter and go to the lake in the summer. Those are the times I appreciate it the most I would say.”

Opening Answer (Participant E): “I agree with everyone else. I appreciate it enough to care about it, but I could spend more time outside to appreciate it more.”

Introduction Questions

Introduction Question 1: “How important would you say protecting the environment is to you personally?”

Introduction Answer (Participant A): “I would say it is pretty important to me personally. I don’t do a whole lot to save it, but I think it is important.”

Introduction Answer (Participant B): “I know it’s important, but I don’t do it as much as I should.”

Introduction Answer (Participant C): “I always have had the thought process that we’re here for a finite amount of time and that this isn’t forever. We are going to be gone soon and leave the world to other people before we can ruin it too much in my opinion.”

Introduction Answer (Participant D): “It honestly stresses me out to think about the fact that we don’t care about the environment a lot, but I don’t contribute to fixing that.”

Introduction Answer (Participant E): “I know it is super important and I wish I did more to protect it personally. I don’t think about it a lot, but when I do, it makes me want to make a change.”

Introduction Question 2: “If you do, how do you currently engage with these environmental issues in your daily life and how engaged would you say you are?”

Introduction Answer (Participant A): “I don’t really engage a whole lot. I recycle when I can and that is how engaged I would say I am.”

Introduction Answer (Participant B): “The thing I do the most is recycle I would say. I also would say that is the thing that I think about the most. I think about engaging with environmental issues in my daily life when it is forced, like when Starbucks hands out paper straws over plastic.”

Introduction Answer (Participant C): “If there is a recycling bin, I will recycle. But, I won’t go out of my way to do it or do anything in particular to engage with environmental issues.”

Introduction Answer (Participant D): “I try to use a reusable water bottle when I can, rather than disposable ones. I also try to recycle as much as I can, but I would say that is about it.”

Introduction Answer (Participant E): “I recycle as much as I can and I always think about why I am recycling, as well as the importance of it. But that really is all I do to engage.”

Transition Questions

Transition Question 1: “What do you know about deforestation, mining, and farming when it comes to how those things affect the environment?”

Transition Answer (Participant A): “I don’t know a lot, but I know that in relation to farming, some farm animals can cause a lot of global warming. I remember reading something that cows can cause global warming.”

Transition Answer (Participant B): “I don’t know much about it. I know that it causes an issue, but I haven’t ever done my own research on it.”

Transition Answer (Participant C): “I am aware of deforestation in the Amazon and that they’re not doing anything to replenish the trees over there. The ecosystem is so solidified over there, so anything you do is screwing it over basically. Other than that, I don’t know much.”

Transition Answer (Participant D): “I know how important trees are, especially to us and to life. But I am very unfamiliar with deforestation.”

Transition Answer (Participant E): “I had heard of deforestation, mining, and farming when it comes to affecting the environment, but I never learned the direct effects of it or why/how those things can be bad.”

Transition Question 2: “How do you personally think deforestation, mining, and farming affects your community?”

Transition Answer (Participant A): “I don’t see it affecting my community, so I honestly can’t feel the effects of it.”

Transition Answer (Participant B): “I don’t feel the effects of it because I don’t even really know what the effects of it are. If I knew more about the effects, I maybe would feel them more.”

Transition Answer (Participant C): “It is hard to see the effects of deforestation in North America. Mining and fracking helps the economy a lot here and my family are all cattle farmers, so I honestly can’t say I want cattle farming to go away. That certain lifestyle and action helps my family get a paycheck, so I don’t see the negative effects of it for my family personally.”

Transition Answer (Participant D): “I personally haven’t experienced any effects.”

Transition Answer (Participant E): “I also haven’t experienced any of the effects those things have on my community, which I feel very fortunate about. I know it affects the environment, especially in other places, but I just haven’t seen it firsthand.”

Key Questions

Facilitator: Explore the core issues in-depth.

Key Question 1: “How do you see deforestation affecting your current generation and the time you will spend on Earth?”

Key Question Answer (Participant A): “It has been trending over time, so I personally think it will continue to grow in how many people know about it and make changes over it.”

Key Question Answer (Participant B): “I personally think it won’t affect our generation the most. Our generation is the middle generation, so these issues will get picked up by the next generation where everyone will be conscious about it. I think either that or more people will be

unaware and it will slowly go downhill more and more. No matter what, I think it is up to the next generation.”

Key Question Answer (Participant C): “I consider myself an optimist. I think that we are going to be able to adjust and nature will grow more and more.”

Key Question Answer (Participant D): “I don’t think it will affect our generation a lot, but I do think as time goes on, more regulations will go into place.”

Key Question Answer (Participant E): “I agree that it will affect the next generation the most, but I do think in order for them to be able to possibly save the environment, that starts with us.”

Key Question 2: “Let’s shift to mining. How do you think mining affects your local community and the regions around you?”

Key Question Answer (Participant A): “Honestly, I’m not sure what mining really is or how it affects any place around me.”

Key Question Answer (Participant B): “I honestly have never thought about it if I am being honest.”

Key Question Answer (Participant C): “Oil and gas are the primary contributors to the economy here in Oklahoma, so it affects our lives here daily. Right now, it helps us in this region, but I can see why and how it can be detrimental to the rest of the world.”

Key Question Answer (Participant D): “I grew up in Oklahoma City, where oil and gas are huge there. So, when oil and gas aren’t going well, I have seen how that negatively affects the economy I see firsthand. I just have seen how important oil and gas are here, so I haven’t seen the negative effects of mining in regions around me.”

Key Question Answer (Participant E): “I also can’t say that I have seen the negative or positive effects of it on the regions around me. I am very unfamiliar with it.”

Closing Statements:

“Thank you for all spending your time today and giving us your perspectives. We really appreciate you. We are going to summarize now the main points of our discussion.”

We have gathered the two main ideas from this session. The first is education and mining are extremely important to make decisions in your everyday life. Second, mining is bad for the environment and good for the economy.

Ending Question: "Is there anything else you would like to add or any suggestions on how we can collectively address these issues more effectively?"

Ending Answer (Participant A): “I think it is so important to really think about mining, what it is, and how it affects our community personally, as well as worldwide. That was my biggest takeaway from today for sure.”

Ending Answer (Participant B): “I think you guys did a great job with the questions you asked. They were effective enough to really make me think about the topics, which sparks conversation and education.”

Ending Answer (Participant C): “I think we are all biased because we don’t personally see the effects of any of these issues. We are the biggest consumers, yet we hurt the world the most.”

Ending Answer (Participant D): “I think the most important thing people should do to help the environment is talk about these topics more both locally and worldwide.”

Ending Answer (Participant E): “Sparking conversation on these topics is so important, which I think you guys did a great job doing with these questions. It all starts with a conversation and with educating others on the issues at hand.”

“Thank you again for sharing your opinions with us. Again, this is all confidential, and we appreciate your time and energy spent here. Have a great rest of your day!”

Appendix B

Aware/Active Focus Group Transcript

Introduction

“Thank all of you for taking time out of your day to come and give us insight. Today, we are hosting this focus group to gain more insight into your thoughts about deforestation.

Deforestation is caused by many things, but let’s hone in on how mining and farming play into cutting down trees, affecting global warming. This is a safe space to air all concerns in a safe, non-judgmental environment.”

“We’ve brought you together so that we can learn from her and promote an open discussion on deforestation. We want to know what you are truly seeing, even if it sounds or looks bad. That is the only way we can all truly learn and grow. We also want to hear from you about the good you have to share and the conservation movements you want to see more of. The good, bad, and the ugly are all encouraged in this conversation.”

“Please air your experiences and emotions on climate change due to deforestation during your lifetime, but focus on the past five years. However, if you have comments or concerns that have happened outside of the past five years, please don’t hesitate to share them.”

“We are recording this session so we can study, ponder, and analyze what you have said and the reactions you will feel today. Confidentiality is extremely important to us, and we assure you what is said will not leave this room or affect you in a positive or negative way. When you have something to say, please be respectful if someone is speaking, and do not talk over others. Also, before answering, please state your letter so we are able to better recall your statements...”

Opening Question

Opening Question 1: "To get started, let's hear from each of you briefly. We will start with participant A. Do you enjoy going outside and appreciating nature?"

Opening Answer (Participant A): “Yes, I do enjoy going outside. It really helps me to get outside and get fresh air. It relaxes me when I have a tough day. I really see it as a source of comfort for me. “

Opening Answer (Participant B): “I do appreciate nature, but I don’t go outside often. Life kinda gets in the way when I am busy.”

Opening Answer (Participant C): “I really enjoy going outside. I am a big hiker and reader. Nature has always calmed me, and I just love the Earth. “

Opening Answer (Participant D): “I do. I grew up living in the woods and visiting various places that have to do with nature. I feel like I really appreciate nature because I grew up around it, and my parents instilled that value in me.”

Opening Answer (Participant E): “I am in an environmental club. I got involved in activism when I was in high school. The Earth is our home forever, and we only get one home, so we cannot kill our home.”

Opening Question 2: “What inspired you to become interested in environmental issues like deforestation, mining, and farming?”

Opening Answer (Participant A): “Honestly, I am not sure. There are a lot of things that have been happening with the environment recently. There have been a lot of bad things and bad policies. I want to do everything I can to help our planet while we still can.”

Opening Answer (Participant B): “I am a biology major, and we talk a lot about science related to climate change. That is what immediately sparked my interest. I don’t necessarily agree with everything that has been happening, but I know we can create change.”

Opening Answer (Participant C): “I don’t have an interest other than I grew up on a farm in a small town in Kansas, Oklahoma. The environment was all around us. I knew about farming issues and environmental problems whenever I was old enough to help out around the farm.”

Opening Answer (Participant D): “The interests that I have are the classes that I have taken at the University of Oklahoma and the things that my professors have shared with me. It is important to learn and be educated.”

Opening Answer (Participant E): “I have become passionate through the classes I have taken and the research I have conducted over the years. I am currently studying Brazil and the effects of the government on environmental abuses and issues.”

Introduction Questions

Introduction Question 1: "Now that we know why you're interested in these issues, let's discuss what specific aspects of deforestation, mining, and farming concern you the most?"

Introduction Answer (Participant A): “The most concerning part is indigenous people who live in the Amazon and those people are displaced with nowhere to go and that is all they know. Indigenous people being kicked off or forced to relocate does not sit right with me nor is fair to anyone involved. These people have only known this place all of their lives and now have nowhere to go.”

Introduction Answer (Participant B): “What concerns me the most is the combination of deforestation, mining, and farming. They all play a major role in this crucial period in time to decide whether or not we are going to act or wait for someone else to act for us. We need to make a change to ensure that our future is better.”

Introduction Answer (Participant C): “My biggest concern is how it is ethically done. If it is done with people and land mining or if it is done with other resources that could potentially be harmed during the process. We have rules in place for a reason, and we need to follow those rules in order to succeed.”

Introduction Answer (Participant D): “I feel like my biggest concern is how it affects climate change and global warming. These are becoming really hot topics that people have been noticing and we need to handle it now before there is a bigger problem.”

Introduction Answer (Participant E): “

Introduction Question 2: "How do you currently engage with these issues in your daily life, and what actions have you taken or would like to take to address them?"

Introduction Answer (Participant A): I recycle when I can. I have not taken any actions other than educating myself. I would like to maybe join an activist group or something like that.”

Introduction Answer (Participant B): “In my daily life, I try to recycle and shop responsibly. I do not shop for fast fashion because most of the clothes end up in landfills. I really need to educate myself because the more you are educated, the more you can do and help.”

Introduction Answer (Participant C): “I keep up to date on ethics and do what I can ethically to check on these issues and on others. There is not much you can do other than know what is going wrong in the world.”

Introduction Answer (Participant D): “Just recycling. I would like to be educated more but I do what I can to stay educated and on top of things. You can always be more educated.”

Introduction Answer (Participant E): “Everyone here has good points. However, I like to use my voice to address something I have a problem with. I write to lawmakers and rally difference-makers to see a positive change in our community. Besides staying educated, I also recycle.”

Transition Questions

Transition Question 1: "Building on what you've just shared, let's delve deeper. How do you think these issues impact your local community and the world at large?"

Transition Answer (Participant A): “I think in a good way, it provides land to build on, and in a bad way, there is air pollution and contamination in water sources and where we get our water from. There are issues on a local level with pollution, but we can also see it on a worldwide stage.”

Transition Answer (Participant B): “Locally, we don’t feel an impact, but worldwide we have seen disruptions in habitats. The oxygen has also become contaminated, and there are not enough trees to stay up to date with carbon emissions.”

Transition Answer (Participant C): “I completely agree with both of your statements. We don’t see it as often locally, but we do see it rurally and out in the country. Trees get taken out at a mass rate, and then we cannot expect to see the same environment. It changes the ecosystems.”

Transition Answer (Participant D): “The impacts here, especially in Norman, are extremely limited.”

Transition Answer (Participant E): “Locally, we have issues like littering and finding clear and clean water sources. But, on a global level, there are major impacts. The Amazon Rainforest has really fallen victim to deforestation, and now the Amazon does not collect enough CO₂, which releases carbon emissions into the world.”

Transition Question 2: "Before we move on to the key questions, can you identify any specific challenges or obstacles you face in your efforts to address these issues?"

Transition Answer (Participant A): “I recycle, but other than that, I don’t partake. Sometimes I just get really busy and throw it on the back burner. I try to educate myself as much as I can so I can be prepared for any conversation. I watch the news and read articles, but it is hard to create change as one person and not a cooperation.”

Transition Answer (Participant B): “I agree. The best thing you can do is be educated and stay educated on all fronts. Obstacles-wise, deforestation, and pollution come from major corporations and are hard to monitor on an individual level. There is not much one person can do.”

Transition Answer (Participant C): “The best thing one can do is educate oneself but also rally behind people to create change. On an individual level, you need to continue to contribute what you can and pursue a life of sustainability.”

Transition Answer (Participant D): “As one person, you can try and educate yourself and recycling is important for households. A lot of us do try and try to use our limited resources to make a change. But at the end of the day, we just are one person.”

Transition Answer (Participant E): “On an individual level there are multiple things we can do. We can recycle, use refillable water bottles, be conscious of our plastic use, etc. We can also use our voices to rally together to make change. It comes with electing local and state lawmakers who are environment proactive.”

Key Questions

Facilitator: Explore the core issues in-depth.

Key Question 1: “What are your main concerns regarding deforestation, and how do you see it affecting biodiversity and climate change?”

Key Question Answer (Participant A): “Cutting down trees and stuff like that ruin animals homes and ecosystems all over the world. Animals are forced to relocate to a new location, and that ruins the animal hierarchy. Also, carbon emissions are a big thing with deforestation. It releases carbon back into the atmosphere.”

Key Question Answer (Participant B): “Going off what they said, mass extinction is a major issue we are now dealing with worldwide. Biodiversity and climate change-wise, the Amazon is the biggest oxygen contributor to the world. CO₂ is going up, and oxygen being reproduced is going down.

Key Question Answer (Participant C): “Our population is growing at a rapid rate. There are supposed to be two trees for every single life. With more people coming into the world, CO₂ levels will continue to rise. We are taking out trees at a massive rate. We do not seem to care as a population about biodiversity.”

Key Question Answer (Participant D): “Deforestation is a cause of global warming because trees are now not able to capture as many carbon emissions. This also means damage to farmlands from a topsoil standpoint. Without trees, topsoil can be carried off by the wind, and we can see history repeat itself like the American Dustbowl.”

Key Question Answer (Participant E): “Ecosystems are being destroyed and not properly relocated. Biodiversity will continue to decrease as the years progress. We are overpopulating and not giving enough room for nature to step in and rejuvenate because we drain the Earth of natural resources. “

Key Question 2: "Let's shift our focus to mining. What are your thoughts on the environmental and social impacts of mining in your region or globally?"

Key Question Answer (Participant A): “I haven’t seen the impacts of mining anywhere due to where I live. We don’t necessarily have mines, and I have not gone into one. But, I can assume a lot of contamination in the air is from mining. But, you are also going into the ground and disrupting habitats and making settlements unstable by blowing up rock under the earth.”

Key Question Answer (Participant B): “Mining environmentally I would say, depletes the land, and that is detrimental to the environment, obviously. Socially the mining of blood diamonds in Africa is extremely dangerous and stuff like that. That is a major social problem.”

Key Question Answer (Participant C): “You don’t see the effects of mining around here specifically, but the amount of mining accidents that happen is atrocious. The social impacts of them are not great. There are resources people can obtain from mining but at what cost?”

Key Question Answer (Participant D): “I don’t really know a lot about mining because I do not see it around here, and I did not grow up in a mining community.”

Key Question Answer (Participant E): “Mining was something I have never grown up around but it is extremely dangerous. A couple of years ago, we had a scare with a group of Chilen miners who were trapped in a series of caves. But mining deprives the Earth of its natural resources and creates unstable tunnels.”

Key Question 3: "Regarding farming practices, how do you view the balance between agriculture and environmental sustainability, and what changes do you believe are necessary?"

Key Question Answer (Participant A): “I think making sure that farming happening is in a safe way to the environment. Obviously, we need to get the necessities to survive, but we can’t take more than we need.”

Key Question Answer (Participant B): “We have seen a major shift in farming. Now, only 2% of the world are farmers, which is crazy compared to the past. The biggest challenge is the use of pesticides in agrictilure. That kills a lot of biodiversity.”

Key Question Answer (Participant C): “There is a difference between personal and industrial farming. Industrial farming is way less sustainable than personal farming. Anyone can start their own personal farm if they want and this would be a great way to help the environment. Personal farming also cares more about the land. Caring about biodiversity happens more often at a smaller, local level than a national level”

Key Question Answer (Participant D): “I agree because my grandparents own a farm. It is very small compared to others here in Oklahoma. Small farms allow one to shift crops over and keep the soil fertilized while industrial farms try and crank out one crop as fast as possible.

Key Question Answer (Participant E): “Farming is extremely important to the Oklahoman economy. We as humans cannot survive without farming. However, we have seen a steady decline in the number of farmers and farm land. We need to start protecting our natural resources.”

Closing Statements:

“Thank you for all spending your time today and giving us your perspectives. We really appreciate you. We are going to summarize now the main points of our discussion.”

The three key themes that we heard during this discussion are the following. We are seeing a loss of ecosystems that disrupt food chains and the planet’s overall biological resilience from deforestation. Mining can lead to deforestation, habitat destruction, soil erosion, and water

pollution, as chemicals used in mining processes can contaminate nearby water sources. Lastly, farming is done safely and not taking more than you need from a specific area.

Ending Question 2: "Is there anything else you would like to add or any suggestions on how we can collectively address these issues more effectively?"

Ending Answer (Participant A): "No."

Ending Answer (Participant B): "No, thanks."

Ending Answer (Participant C): : "No."

Ending Answer (Participant D): "No."

Ending Answer (Participant E): "No, thanks.."

"Thank you again for sharing your opinions with us. Again this is all confidential and we appreciate your time and energy spent here. Have a great rest of your day!"

Citations

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Module 3: Utilizing SPSS Software for Analyzing Environmental Data and on Global Climate Change and Campaign Strategies

Executive Summary: Utilizing SPSS Software for Analyzing Environmental Data and on Global Climate Change and Campaign Strategies

In response to the pressing concerns related to climate change, waste pollution, and general environmental degradation, our organization conducted a Public survey. The study aimed to understand the interconnections between climate change, waste pollution, and pollution, focusing on the pivotal roles played by mining and farming activities. To achieve this, extensive data analysis was carried out using the Statistical Package for the Social Sciences (SPSS) software, enabling us to draw meaningful insights and develop informed strategies for mitigating environmental challenges.

Data and SPSS with Climate Change, Pollution, Waste Disposal

Our research team collected datasets encompassing various environmental parameters, including climate change indicators, waste pollution statistics, and pollution levels from diverse sources. These datasets were meticulously organized, cleaned, and processed to ensure accuracy and reliability. Utilizing SPSS, we employed advanced statistical techniques to uncover patterns, correlations, and trends within the collected data. SPSS software was instrumental in managing this large and complex data, allowing for efficient handling and preparation for in-depth analysis. Descriptive statistics were utilized to understand the central tendencies and variabilities in the datasets, while inferential statistics, such as regression analysis and correlation coefficients, were employed to establish relationships between climate change, waste pollution, and pollution levels. This analytical approach provided valuable insights into the intricate web of environmental factors. Overall, common attitudes within the all-issue public emphasize the importance of global environmental preservation. This group sees the necessity for individual responsibility and the involvement of government entities and large corporations in the fight against climate change.

Connections to Mining and Farming

Our analysis revealed significant connections between environmental issues and mining and farming activities. Mining operations were found to contribute substantially to pollution through the release of harmful chemicals and greenhouse gases. Similarly, farming practices, including intensive pesticide and fertilizer usage, were linked to both pollution and waste pollution. Additionally, deforestation resulting from these activities exacerbated climate change, leading to a vicious cycle of environmental degradation.

The study underscored the global implications of climate change, waste pollution, and pollution originating from mining and farming. Rising pollution levels and environmental damage have far-reaching consequences, including adverse impacts on biodiversity, human health, and socio-economic stability. Furthermore, the study highlighted the urgent need for international collaboration and comprehensive policies to address these challenges on a global scale. Based on the findings, it is imperative to implement sustainable practices in mining and farming industries, emphasizing responsible resource extraction and environmentally friendly agricultural techniques. Policymakers and stakeholders must work collaboratively to develop and enforce stringent regulations that promote eco-friendly practices and reduce the environmental

footprint of these sectors. Additionally, fostering awareness and education about the interconnectedness of these issues is crucial.

In Conclusion, The utilization of SPSS software played a pivotal role in unraveling the complex relationships between climate change, waste dispel, and pollution, and their connections to mining, farming, and global climate change. Armed with these insights, our organization is well-equipped to advocate for evidence-based policies, drive sustainable practices, and contribute meaningfully to the global efforts aimed at preserving our planet for future generations.

Campaigns

We will be using campaign initiatives to shift Active Publics to All-Issue Publics. By Highlighting the Environmental Consequences of Current Behaviors and Emphasizing the Global Impact and Urgency for Change. Tailoring messages to emphasize the broader consequences of current behaviors on a global scale will resonate with the active public. Communicating the direct impact of individual actions on the environment can shift perceptions and foster a sense of responsibility and communicating the urgency for change by highlighting the interconnected global impact of environmental issues will engage the active public. Connecting local behaviors to global consequences will underscore the need for collective action. Using Education and Awareness Campaigns to enhance understanding of the intricate connections between mining, farming, and broader environmental challenges will address the knowledge gaps within the active public. This will promote informed decision-making and a holistic approach to environmental issues. Overall, communicating the Role of Sustainable Practices in Mitigating Environmental Issues and promoting awareness of the positive impact of sustainable practices in mitigating environmental challenges will resonate with both active and all-issue public. Illustrating the tangible benefits of sustainable behaviors will encourage widespread adoption.

What is Public Segmentation?

Public segmentation in public relations refers to the strategic practice of dividing a target audience into distinct groups based on shared characteristics, behaviors, or demographics. By understanding these segmented groups' unique needs, interests, and preferences, public relations professionals can adhere to their communication strategies to reach and engage specific audiences effectively. This approach allows for more personalized and targeted messaging, ultimately enhancing the likelihood of resonating with different segments of the public. Public segmentation is a crucial aspect of successful public relations campaigns as it enables public relations professionals to craft relevant messages and are more likely to foster positive relationships and connections with diverse stakeholders.

Many benefits of public segmentation have led to its success when conducting research. Public segmentation allows targeted Communications, which, in turn, will enable organizations to tailor their message strategies to specific segments of the population. The characteristics and needs of different segments of people to better understand resource allocation. This allows resources to be spread more efficiently and accurately according to need. This can affect and enhance stakeholder engagement and enable organizations to engage effectively with diverse stakeholders and communities. Public segmentation can foster trust and collaboration between individuals and the company at hand.

Although public segmentation brings multiple benefits, it can also lead to disadvantages. It can lead to the oversimplification of a complex society that needs to be represented to encapture a full range of needs, beliefs, and preferences. During public segmentation, researchers run the risk of stereotyping or reinforcing stereotypes that can be harmful and lead to bias and decision-making. When applied in segmentation, this can lead to inaccurate and incomplete representations of target audiences. Relying on stereotypes may result in communication strategies that are overly broad, insensitive, or even offensive, as they fail to acknowledge the nuances within each segmented group. In an era where inclusivity and diversity are highly stressed and represented, relying on stereotypes in public segmentation causes the risk of alienating specific audience segments and undermining the credibility and effectiveness of public relations efforts.

Data privacy is another concern among critics, pushing all researchers to use proper safeguards to protect individual people's information. As organizations gather and utilize personal data to segment their target audiences, there is a heightened risk of breaching individuals' privacy. Inappropriately handling or misusing personal information can lead to severe consequences that can cause distrust between organizations and their audiences. Privacy concerns may arise if data is collected without explicit consent or shared or sold to third parties without individuals' knowledge. The individual must always be notified. In the context of public segmentation, the misuse of sensitive information can result in targeted communication strategies that could come off as intrusive to the public. This can lead to reputational damage for organizations, legal implications, and a broader erosion of trust in public relations practices' responsible use of data. Balancing the need for segmentation with respect for individuals' privacy rights is crucial to maintaining ethical and effective public relations strategies.

What are the Goals of Public Segmentation?

The goals of public segmentation and the context of public policy, government, In public administration use segmentation strategies to achieve specific objectives. these objectives could be related to understanding, engaging and servicing the public more effectively. goals can vary depending on the specific need and the specific topic being discussed.

The primary goal of public segmentation is to target communications to specific audiences. when discussing an organization or a product, it is best to use resources to Target the group that will be most affected. By understanding the characteristics and preferences of different segments, communication strategies can be tailored to resonate more with specific groups. This can also help researchers know which medium to use to reach these groups. However, equity and inclusion must be addressed among different population segments, organizations, and governments when targeting communications to create a fairer outcome. This will help with resource allegations and help know where resources are most needed.

Public segmentation helps build communities and recognize diverse identities to foster a sense of belonging among different groups and individuals. This can, in turn, help with conflict resolution when addressing specific concerns of various groups and finding common ground to tailor solutions. Public segmentation allows organizations to measure the impact of their communication strategies on different segments of the population for continuous improvement and accountability in the communication process.

In order for public segmentation to be effective, one must develop profiles on all different segments of the market and work up a detailed profile. This can help them survey all markets in order to make their best decision on what needs to be done in the future with marketing strategies. This will consider demographics, socioeconomic status, gender, race, etc.

Understanding the Various Segments of the Public Concerning Environmental Issues

When it comes to understanding various groups, one needs to fully embrace that group with open arms and an open mind. When conducting focus groups, researchers should survey the public before they have a discussion. From there, the researcher will be able to split them into groups based on knowledge and have the same conversation, just various forms of each, in order to reach an educated conclusion on how the public feels about the issues at hand.

When choosing a focus group, one needs to consider pulling in a diverse group of individuals in order to encompass all feelings of society. However, six to 12 people cannot fully represent the seven billion people in the world. That is why breaking the groups up into nonpublic/latent public and active/aware public is so important, not just to help the flow of conversation but to have everyone engage in their own way over specific issues. If someone placed a latent group member and an active group member together, then the latent member might feel intimidated to speak against the active group member. Keeping these groups separate and confined allows the researcher to gain the data needed to succeed in this field.

In another research study conducted that is similar was the environmental effects of global climate change based on mining and farming. The company wanted to target college-age students to see what their communications plan needed to be moving forward. The latent group spoke about different effects than the active/aware groups. The latent group found that most of the participants in this focus group were unaware of deforestation, mining, and farming issues.

Due to how they lived and what they had seen/experienced growing up, they weren't very familiar with the effects of these things on the environment, not only in their own personal communities but all over the world as well. The participants all agreed and concluded that even if they are unaware of these topics, it doesn't mean the adverse effects aren't there. These topics aren't critical to be familiar with. The focus group concluded with a summary before the participants dispersed for the night.

In the active group that met to talk about deforestation as a force of mining and farming. The active/aware public found the participants could easily communicate their concerns and their general issues with deforestation and the effects by mining and farming. Many consequences include habitat destruction, soil erosion, and water pollution. Not only to mention the social issues that are included with deforestation. They stressed how essential it is to address these social impacts and ensure that mining operations are conducted responsibly, with fair compensation, community engagement, and a focus on long-term sustainable development, both at the regional and global levels. The focus group concluded with a summary and pleasantries before the participants dispersed for the night.

In this study, there are multiple publics, from waste disposal public to climate public, pollution public, and all issues public. All of these groups represent a segment of the population that is represented. Then, the researcher can start to subgroup these main public groups through pro-environment behavior, pro-environment knowledge, and pro-environment attitude. That can then be studied to find out how people feel about the different environmental issues and see how they act on them or even if they act on them. These segments help researchers understand where they need to run their campaigns and to what audiences to succeed. One wouldn't run an all-issues campaign for someone who cares nothing about the pollution problem and only cares about the waste disposal issues.

Explain how We Did the Public Survey Methodology for Environmental Communication

For this survey into environmental communications, focus groups were conducted to receive the information needed to describe the problem accurately. A focus group is a qualitative research method where a small group of people, typically 6 to 12 participants, are brought together to discuss and provide feedback on a specific topic, product, service, or concept. The purpose of a focus group is to gather in-depth insights, opinions, and perceptions from participants in a facilitated group discussion. In Appendix B and Appendix C, there was a similar study done on mining and farming that involved conducting two focus groups.

Multiple roles go into a focus group. The Mediator is the most essential job in a focus group. The job is to move the conversation along and facilitate new ideas. If a group member begins to take control of the group, it is up to the mediator to put the group back on track and make sure every voice is heard on the topic. They ask open-ended questions in order to encourage thoughts and feelings to be shared and expressed. At the end of the focus group, the mediator summarizes everything to ensure all opinions are heard, understood and will be considered.

There is a note-taker/observer who also plays a vital job. Without them, it would be hard to reflect on the group. Their primary responsibility is to record key points, participant

reactions, and any noteworthy comments made during the session. This is important for the analysis and the transcript of a focus group.

The last primary role of focus group personnel is the collaborator. They are here to coordinate with everyone and make them feel comfortable. Their responsibilities could be creating an invitation, coordinating between focus group members, communicating with the moderator and note-takers, etc. They will also be the people coordinating snacks and making sure people have refreshments.

Focus groups are commonly used in various fields, including marketing, product development, social research, and political analysis. They are valuable for exploring participants' attitudes, beliefs, and behaviors in a more interactive and dynamic setting than traditional survey methods. However, focus groups do not necessarily consider resource disparities or the thoughts of specific populations or groups. It is just an information-gathering tactic rather than hard statistical evidence.

Statistics

		ClimatePublic	PollutionPublic	WastePublic	Allissuepublic	EnvAllIssuePublic
N	Valid	289	290	290	287	287
	Missing	16	15	15	18	18
Skewness		-.739	-.890	-.604	-.612	1.092
Std. Error of Skewness		.143	.143	.143	.144	.144
Kurtosis		-.526	.456	-.467	-.226	-.813
Std. Error of Kurtosis		.286	.285	.285	.287	.287

When looking into the publics explored during this experiment - all-issues public, waste public, pollution public, climate public, and no issue public- they all were conducted with similar groups of people. All of the publics were divided into groups around 289-290, with 15-16 people missing from each group. There was a low level of skew that occurred so the results were very accurate and tangible.

Explain our Conducted Survey Addressing Three Environmental Problems/Issues.

The survey used three different issues but were split into five different publics: all-issues public, no-issue public, waste public, climate change public, and pollution public. All of these publics come with their own subcategories: pro-environment, pro-environment behavior, pro-environment attitude, etc.

		95% Confidence Interval for Mean			
		Lower Bound	Upper Bound	Minimum	Maximum
EnvKnowledge	Nonpublic	45.1844	56.2110	10.00	80.00
	Latent public	64.3257	74.9846	40.00	100.00
	Aware public	75.2699	79.6019	40.00	100.00
	Active Public (climate change)	75.6789	80.0354	40.00	100.00
	Total	70.9316	74.6433	10.00	100.00
ProEnvAttitude	Nonpublic	61.2213	72.5462	20.00	100.00
	Latent public	68.4694	79.6686	44.00	100.00
	Aware public	81.5753	86.1512	36.00	100.00
	Active Public (climate change)	89.7819	93.2385	64.00	100.00
	Total	81.1722	84.7093	20.00	100.00
ProEnvBehavior	Nonpublic	36.6857	46.4771	20.00	80.00
	Latent public	37.0063	48.5109	20.00	72.00
	Aware public	55.7396	62.3459	20.00	100.00
	Active Public (climate change)	65.7940	72.8998	20.00	100.00
	Total	55.9568	60.6425	20.00	100.00

		Point Estimate	95% Confidence Interval	
			Lower	Upper
EnvKnowledge	Eta-squared	.361	.271	.432
	Epsilon-squared	.354	.263	.426
	Omega-squared Fixed-effect	.353	.262	.425
	Omega-squared Random-effect	.154	.106	.198
ProEnvAttitude	Eta-squared	.312	.222	.385
	Epsilon-squared	.305	.214	.379
	Omega-squared Fixed-effect	.304	.213	.378
	Omega-squared Random-effect	.127	.083	.168
ProEnvBehavior	Eta-squared	.267	.179	.341
	Epsilon-squared	.259	.170	.334
	Omega-squared Fixed-effect	.259	.169	.333
	Omega-squared Random-effect	.104	.064	.143

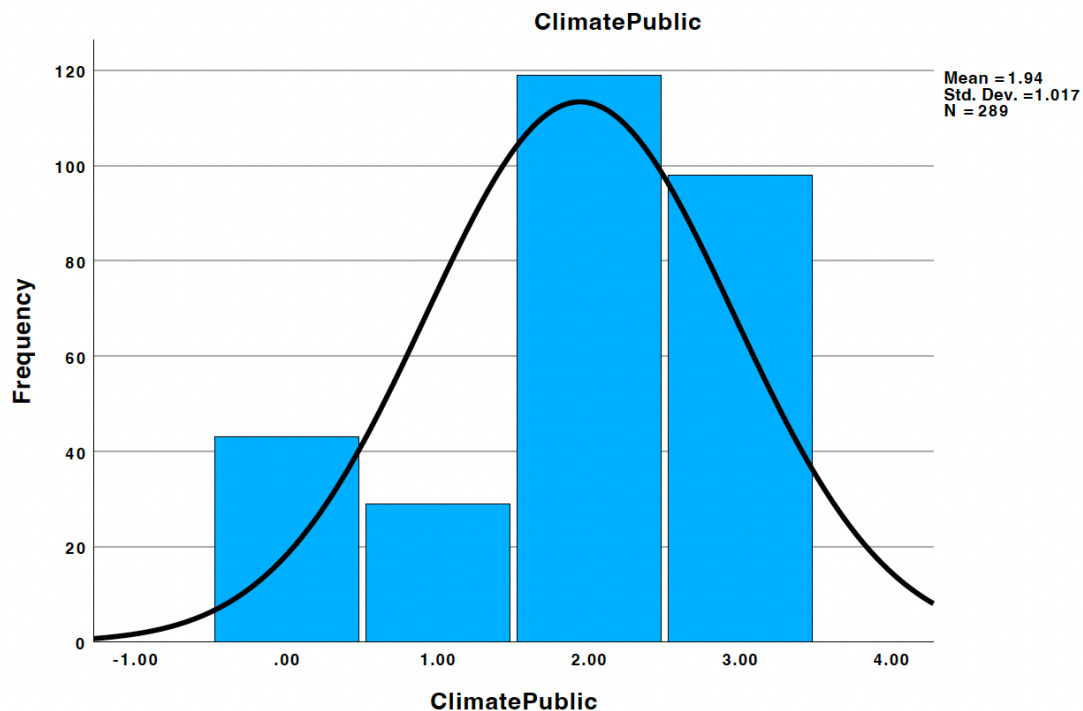
a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.

		N	Mean	Std. Deviation	Std. Error
EnvKnowledge	Nonpublic	43	50.6977	17.91453	2.73194
	Latent public	29	69.6552	14.01090	2.60176
	Aware public	117	77.4359	11.82880	1.09357
	Active Public (climate change)	98	77.8571	10.86468	1.09750
	Total	287	72.7875	15.97310	.94286
ProEnvAttitude	Nonpublic	43	66.8837	18.39929	2.80587
	Latent public	29	74.0690	14.72105	2.73363
	Aware public	117	83.8632	12.49476	1.15514
	Active Public (climate change)	98	91.5102	8.62058	.87081
	Total	287	82.9408	15.22213	.89853
ProEnvBehavior	Nonpublic	43	41.5814	15.90782	2.42592
	Latent public	29	42.7586	15.12249	2.80818
	Aware public	117	59.0427	18.03942	1.66774
	Active Public (climate change)	98	69.3469	17.72127	1.79012
	Total	287	58.2997	20.16455	1.19028

The first issue discussed is climate change. Climate change is the long-term changes in weather patterns that define the Earth’s climate and affect ecosystems. This can include changes in temperature, precipitation, extreme weather patterns, and atmospheric conditions. Because of climate change, the Earth faces many serious problems. The Earth’s temperature is continuing to rise at an alarming rate. Humans can blame fossil fuels, deforestation, and other harmful effects as the reasons why the surface temperature is changing. This effect is called global warming. Greenhouse gases are also becoming trapped in our ozone, causing gasses to change the climate of the Earth. With things continuously heating up, ice caps are melting and contributing to sea levels rising. This can cause coastal erosion, surges, and low-lying coastal areas. One of the most harmful effects is the impact on ecosystems and biodiversity that is continuously affected. This leaves those to find for themselves and relocate when things are challenging. International efforts like the Paris Agreement aim to address climate change. The scientific consensus is that climate change is occurring, and human activities contribute significantly. If something isn’t done now, humans can be in serious trouble.

ClimatePublic

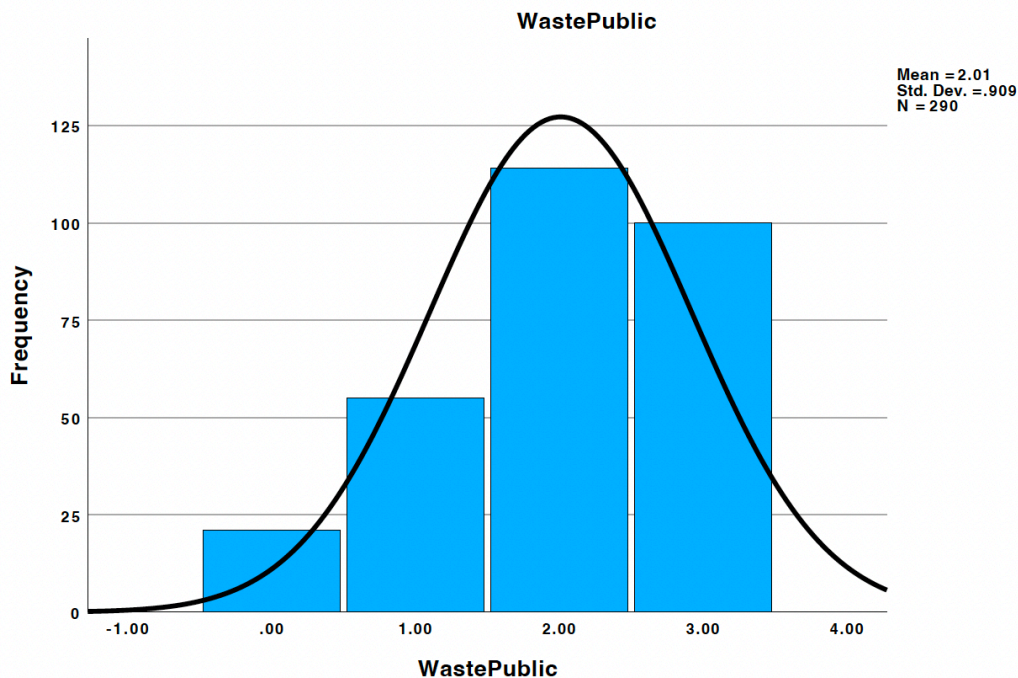
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nonpublic	43	14.1	14.9	14.9
	Latent public	29	9.5	10.0	24.9
	Aware public	119	39.0	41.2	66.1
	Active Public (climate change)	98	32.1	33.9	100.0
	Total	289	94.8	100.0	
Missing	System	16	5.2		
Total		305	100.0		



Waste disposal, if not managed responsibly, can have profound and detrimental environmental effects. Improper disposal methods, such as indiscriminate dumping or inadequate recycling, contribute to air, soil, and water pollution. Landfills, where a significant portion of waste is deposited, produce harmful greenhouse gases like methane, contributing to climate change. The leaching of toxic substances from improperly disposed waste can contaminate groundwater, posing risks to both human health and ecosystems. Incineration of waste releases pollutants into the air, further compromising air quality. Plastic waste, in particular, has become a pervasive environmental issue, as it persists in ecosystems for extended periods, harming wildlife and marine life through ingestion or entanglement. The United States and China are the two biggest contributors to plastic waste worldwide—effective waste management practices, including composting, recycling, and waste-to-energy initiatives.

WastePublic

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nonpublic	21	6.9	7.2	7.2
	Latent public	55	18.0	19.0	26.2
	Aware public	114	37.4	39.3	65.5
	Active Public (waste)	100	32.8	34.5	100.0
	Total	290	95.1	100.0	
Missing	System	15	4.9		
Total		305	100.0		

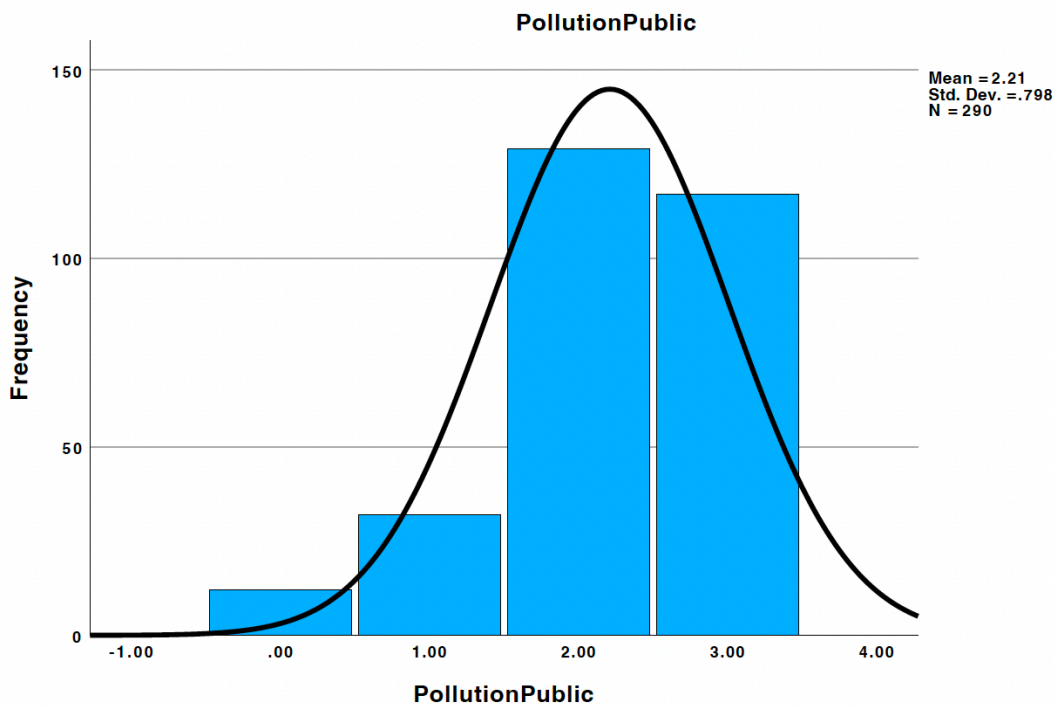


Air pollution, a consequence of releasing pollutants into the atmosphere from various human activities, poses severe and far-reaching effects on the environment. Combustion of fossil fuels, industrial processes, and vehicle emissions contribute to releasing pollutants. These pollutants can harm air quality, leading to smog formation and respiratory issues in humans. That can eventually lead to death. Additionally, airborne pollutants can deposit onto soil and water bodies, causing harm to ecosystems and wildlife. The release of greenhouse gases like carbon dioxide contributes to climate change, impacting weather patterns and global temperatures. Acid rain, a result of sulfur dioxide and nitrogen oxides combined with atmospheric moisture, can damage forests, aquatic systems, and soil quality. Addressing air pollution is crucial for safeguarding human health, protecting ecosystems, and mitigating the broader impacts of climate

change on the environment. Implementing stringent regulations, promoting cleaner technologies, and fostering sustainable practices are essential steps in combatting the adverse effects of air pollution.

PollutionPublic

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nonpublic	12	3.9	4.1	4.1
	Latent public	32	10.5	11.0	15.2
	Aware public	129	42.3	44.5	59.7
	Active Public (pollution)	117	38.4	40.3	100.0
	Total	290	95.1	100.0	
Missing	System	15	4.9		
Total		305	100.0		

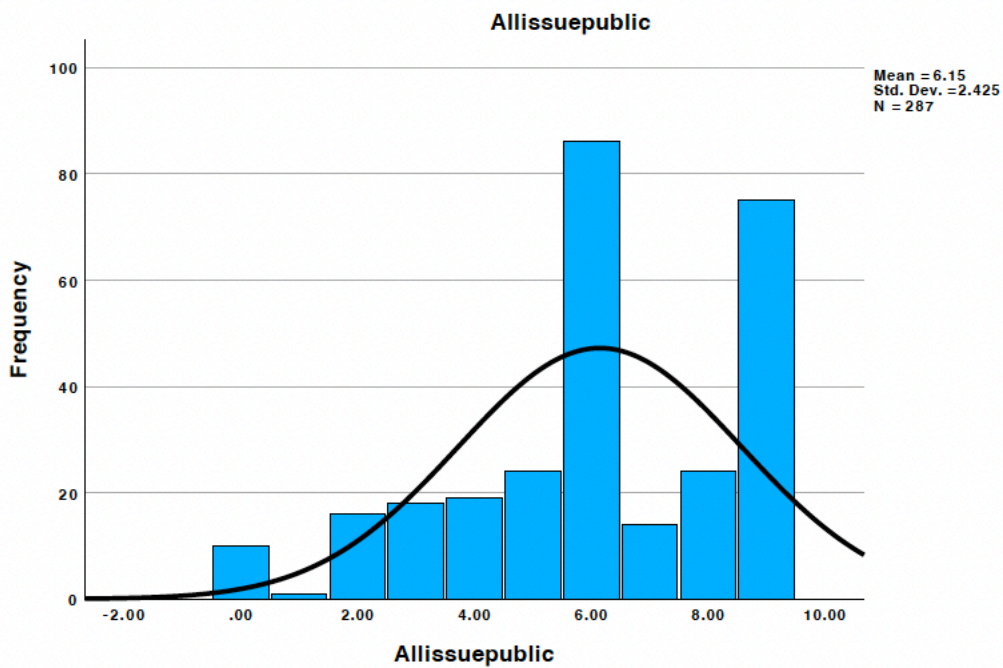


The public cares about all three of the issues: pollution, waste disposal, climate, and change. They are actively thinking about these issues and how they affect individuals in everyday life. The term "all issues public" refers to a communication strategy in public relations that involves addressing and engaging with a wide range of topics, concerns, and interests

relevant to the public or a specific audience. Instead of narrowing in on a set of issues, organizations and people put their energy into a combined effort to comprehensively combat and learn about the issue.

Allissuepublic

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	10	3.3	3.5	3.5
	1.00	1	.3	.3	3.8
	2.00	16	5.2	5.6	9.4
	3.00	18	5.9	6.3	15.7
	4.00	19	6.2	6.6	22.3
	5.00	24	7.9	8.4	30.7
	6.00	86	28.2	30.0	60.6
	7.00	14	4.6	4.9	65.5
	8.00	24	7.9	8.4	73.9
	9.00	75	24.6	26.1	100.0
	Total	287	94.1	100.0	
Missing	System	18	5.9		
Total		305	100.0		

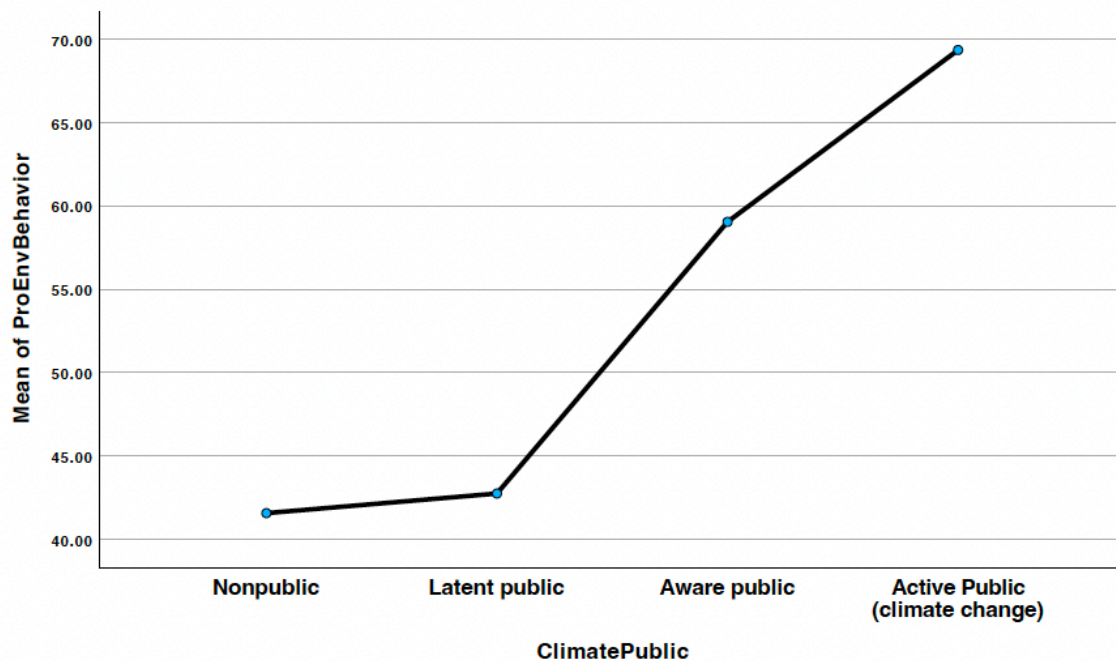


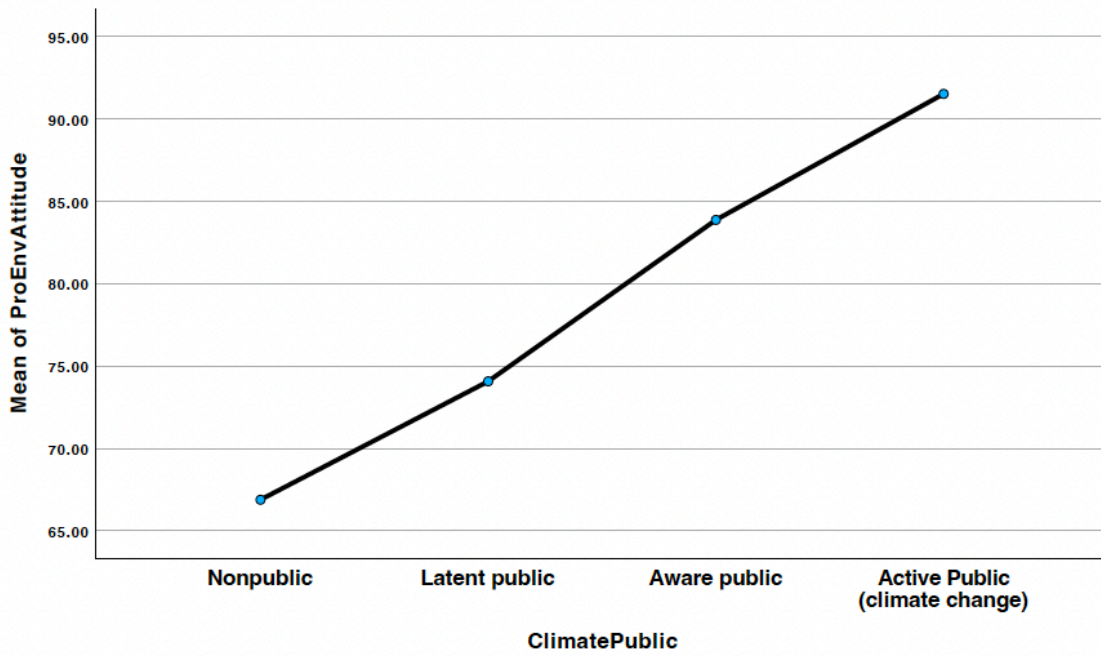
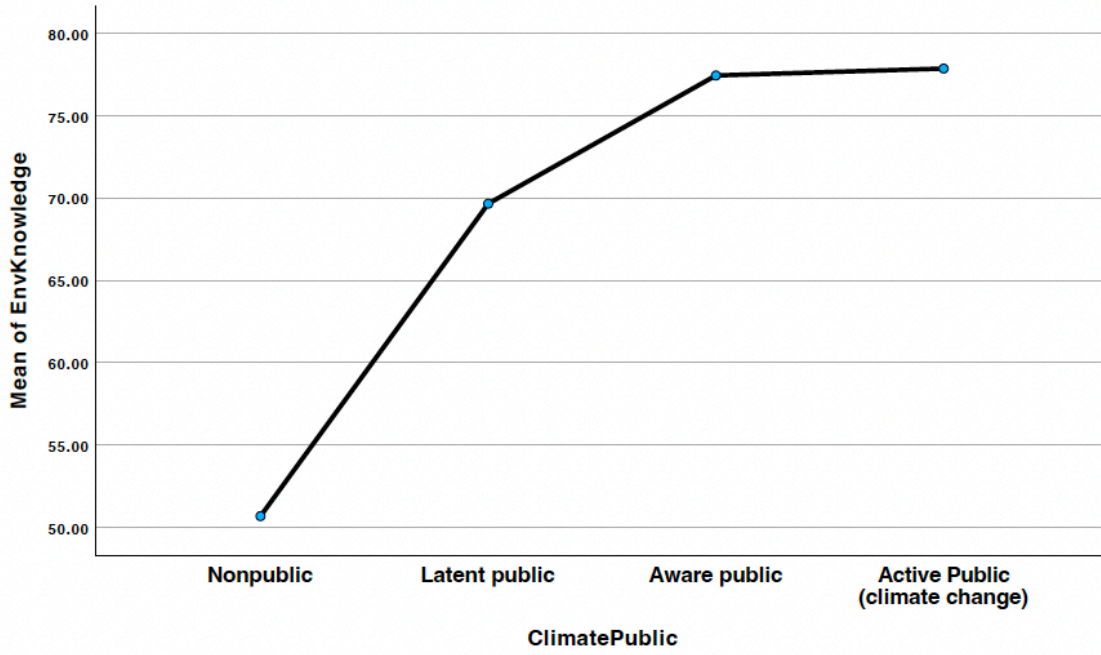
Now, researchers must consider how those individuals believe, their attitudes, and their knowledge of the three topics being discussed.

Pro-environmental attitudes and values are those that put the health of the environment first and support environmentally friendly behaviors. People with pro-environmental behaviors are typically conscious about the impact they are leaving on the Earth and are more likely to reduce, reuse, recycle, cut down on fossil fuels, etc. The connection between human activity and the overall planet’s health is often a proponent of environmental belief. This places stress on the obligations of world citizens, communities, businesses, governments, etc, to help the environment survive in the future.

Pro-environmental knowledge refers to the understanding and awareness of environmental issues that are all over the world. People who have pro-environment knowledge encompass an awareness of climate change, air pollution, waste disposal, etc. They are usually well-informed and educated on environmental topics and can make a difference in campaigns. Education and awareness help foster that knowledge that empowers individuals to make cautious environmental choices. The impacts begin with one person and work their way up. A good campaign makes someone act on the knowledge that they are given.

The pro-environment belief stems from the belief that environmental issues exist. These beliefs prioritize the environment’s well-being and endorse environmental protection agencies’ actions. This is a key aspect of environmental campaigns because the people have to believe there is an environmental problem in the first place to act on to make a difference. These beliefs lead to the commitment in individuals to be environmentally responsible. It is in place to move the person to be passionate about climate change, pollution, and waste disposal and promote a lifestyle of sustainability.





Findings

Brief Recap of the Study's Objectives

This study aimed to delve into the intricate web of connections between climate change, waste pollution, and environmental degradation, focusing specifically on the roles played by mining and farming activities. The goal was to understand these relationships and their implications for strategic communication comprehensively.

Importance of Public Segmentation in Environmental Research

Recognizing the significance of public segmentation, this study underscores the necessity for tailoring communication strategies to address the diverse perspectives within the broader public. Such segmentation allows for targeted and effective communication that considers individual knowledge, behaviors, and intentions.

Knowledge and Awareness

Active Publics:

Awareness of Climate Change, Waste Pollution, and Environmental Degradation

Various levels of awareness exist within the active public regarding climate change, waste pollution, and environmental degradation. While many acknowledge these issues as areas requiring attention, a prevailing sentiment is that individual efforts may not suffice. Instead, a common belief is that larger industrial companies should be responsible for combating climate change.

Explanation: This perception relies on systemic changes rather than individual actions, showcasing the need to address this mindset in communication efforts.

Understanding of Mining and Farming Activities' Impact on the Environment

Divergent perceptions exist within the active public concerning the environmental impact of mining and farming activities. While some perceive minimal local effects, a prevalent understanding is that these issues extend globally, particularly in developing countries.

Explanation: This points to the importance of bridging the gap in understanding the global implications of local activities, emphasizing the interconnectedness of environmental challenges.

Perception of the Global Implications of Environmental Issues

Views on the global consequences of environmental issues vary, with a recognition that individual actions alone may not lead to significant change. Instead, there is a desire for more substantial changes from large-scale companies to address environmental concerns effectively.

Explanation: This insight highlights the need to communicate the collective impact of both individual and corporate actions on a global scale.

General Knowledge of Climate Change and Environmental Challenges

The all-issue public exhibits a broader understanding of climate change and environmental challenges, recognizing the interconnectedness of various issues. This awareness motivates increased participation in activist groups, driven by the belief that individual actions can contribute to addressing larger climate issues.

Explanation: This underscores the potential for fostering a sense of personal responsibility and engagement within the broader public.

Awareness of the Connections Between Mining, Farming, and Environmental Issues

Recognition of the interconnectedness between mining, farming, and broader environmental concerns is prevalent within the all-issue public. This group acknowledges the global scope of these issues and their impact both locally and worldwide.

Explanation: This understanding emphasizes the need for communication strategies that reinforce the global implications of local actions, encouraging a sense of collective responsibility.

Recognition of the Global Consequences of Environmental Degradation

The all-issue public demonstrates a more comprehensive awareness of the global consequences of environmental degradation. Participants emphasize that individual actions are more significant than commonly perceived, calling for increased recognition and awareness.

Explanation: This insight supports the development of communication strategies that highlight the impactful role of individual actions in addressing global environmental challenges.

Behavioral Patterns

Active Publics:

Current Behaviors Contributing to Environmental Issues

Support for or participation in mining and farming practices varies within the active public, with limited awareness of the consequences of these activities on a global scale. Engagement in sustainable practices is similarly diverse, with some viewing it as a personal responsibility and others advocating for corporate responsibility.

Explanation: This diversity calls for communication strategies that address the nuanced perspectives within the active public, emphasizing the global consequences of local behaviors.

Specific Attitudes Toward Environmental Conservation Efforts

Divergent attitudes toward environmental conservation efforts exist within the active public, reflecting a spectrum of views on how to address climate change. While the awareness of the issue is widespread, the approaches to resolving it vary.

Explanation: Communication efforts should acknowledge and address the range of attitudes within the active public, fostering a more unified approach to environmental conservation.

All-Issue Publics:

General Environmental Behaviors

The all-issue public demonstrates increased involvement in sustainable practices, emphasizing personal involvement in conservation efforts and recognizing the importance of responsible resource extraction and farming techniques.

Explanation: This highlights the potential for communication strategies to build upon the existing commitment within the all-issue public, encouraging further individual and collective actions.

Overall Attitudes Toward Global Environmental Preservation

Common attitudes within the all-issue public emphasize the importance of global environmental preservation. This group sees the necessity for both individual responsibility and the involvement of government entities and large corporations in the fight against climate change. Based on the research findings, political parties have tended to group people who are more passionate about global climate issues than those who are not. For example, Democratic/Liberal-leaning citizens are more likely to care about environmental issues.

Explanation: Communication strategies should reinforce and amplify these attitudes, promoting collaborative efforts between individuals, governments, and corporations.

ClimatePublic * Please indicate your political orientation on the following scale: Crosstabulation

		Please indicate your political orientation on the following scale:					Total
		Very conservative	Conservative	Neither	Liberal	Very liberal	
Public	Count	8	21	10	3	1	43
	% within ClimatePublic	18.6%	48.8%	23.3%	7.0%	2.3%	100.0%
Nonpublic	Count	1	3	16	6	3	29
	% within ClimatePublic	3.4%	10.3%	55.2%	20.7%	10.3%	100.0%
Aware public	Count	0	15	26	43	33	117
	% within ClimatePublic	0.0%	12.8%	22.2%	36.8%	28.2%	100.0%
Active Public (climate change)	Count	2	10	17	42	27	98
	% within ClimatePublic	2.0%	10.2%	17.3%	42.9%	27.6%	100.0%
Total	Count	11	49	69	94	64	287
	% within ClimatePublic	3.8%	17.1%	24.0%	32.8%	22.3%	100.0%

PollutionPublic * Please indicate your political orientation on the following scale: Crosstabulation

		Please indicate your political orientation on the following scale:					Total	
		Very conservative	Conservative	Neither	Liberal	Very liberal		
PollutionPublic	Nonpublic	Count	2	5	1	3	1	12
	% within PollutionPublic		16.7%	41.7%	8.3%	25.0%	8.3%	100.0%
Latent public	Count	2	6	15	6	2	31	
	% within PollutionPublic		6.5%	19.4%	48.4%	19.4%	6.5%	100.0%
Aware public	Count	4	20	32	36	37	129	
	% within PollutionPublic		3.1%	15.5%	24.8%	27.9%	28.7%	100.0%
Active Public (pollution)	Count	3	18	22	50	23	116	
	% within PollutionPublic		2.6%	15.5%	19.0%	43.1%	19.8%	100.0%
Total	Count	11	49	70	95	63	288	
	% within PollutionPublic		3.8%	17.0%	24.3%	33.0%	21.9%	100.0%

WastePublic * Please indicate your political orientation on the following scale: Crosstabulation

		Please indicate your political orientation on the following scale:					Total	
		Very conservative	Conservative	Neither	Liberal	Very liberal		
WastePublic	Nonpublic	Count	4	8	3	5	1	21
	% within WastePublic		19.0%	38.1%	14.3%	23.8%	4.8%	100.0%
Latent public	Count	2	9	21	16	7	55	
	% within WastePublic		3.6%	16.4%	38.2%	29.1%	12.7%	100.0%
Aware public	Count	2	20	25	32	33	112	
	% within WastePublic		1.8%	17.9%	22.3%	28.6%	29.5%	100.0%
Active Public (waste)	Count	3	12	21	41	23	100	
	% within WastePublic		3.0%	12.0%	21.0%	41.0%	23.0%	100.0%
Total	Count	11	49	70	94	64	288	
	% within WastePublic		3.8%	17.0%	24.3%	32.6%	22.2%	100.0%

Intentions and Motivations

Active Publics:

Motivations Behind Supporting Mining and Farming Practices

Motivations driving support for mining and farming practices vary within the active public. While some downplay the impact of mining, there is a greater awareness of the environmental consequences of improper farming practices.

Explanation: Addressing these varying motivations requires communication strategies that provide clear information on the environmental consequences of different practices, fostering informed decision-making.

Willingness to Change Behaviors Based on Environmental Awareness

Levels of willingness to change behaviors based on environmental awareness differ among the active public, with a common belief that individual efforts may not be sufficient to enact meaningful change.

Explanation: Communication strategies should focus on empowering individuals, illustrating the collective impact of their actions, and debunking the perception that individual efforts are inconsequential.

Motivations for Embracing Sustainable Practices

Common motivations for embracing sustainable practices are observed within the all-issue public, indicating a shared commitment to environmental stewardship. The people who fall into the all-issues category are usually highly educated. Because they are more highly educated and have a greater understanding of the environment, they are able to become better actors and not pass on change.

Explanation: Communication efforts should leverage these motivations, emphasizing the positive impact of sustainable practices on a global scale.

Case Processing Summary

	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
EnvAllIssuePublic * What is your highest level of school you have completed or the highest degree you have received?	285	93.4%	20	6.6%	305	100.0%

Descriptives

		N	Mean	Std. Deviation	Std. Error
EnvKnowledge	Nonpublic	43	50.6977	17.91453	2.73194
	Latent public	29	69.6552	14.01090	2.60176
	Aware public	117	77.4359	11.82880	1.09357
	Active Public (climate change)	98	77.8571	10.86468	1.09750
	Total	287	72.7875	15.97310	.94286
ProEnvAttitude	Nonpublic	43	66.8837	18.39929	2.80587
	Latent public	29	74.0690	14.72105	2.73363
	Aware public	117	83.8632	12.49476	1.15514
	Active Public (climate change)	98	91.5102	8.62058	.87081
	Total	287	82.9408	15.22213	.89853
ProEnvBehavior	Nonpublic	43	41.5814	15.90782	2.42592
	Latent public	29	42.7586	15.12249	2.80818
	Aware public	117	59.0427	18.03942	1.66774
	Active Public (climate change)	98	69.3469	17.72127	1.79012
	Total	287	58.2997	20.16455	1.19028

EnvAllIssuePublic * What Is your highest level of school you have completed or the highest degree you have received? Crosstabulation

			What is your ...
			Four year college degree/bachelor's degree
EnvAllIssuePublic	Passive Env Public	Count	65
		% within EnvAllIssuePublic	31.0%
	Environmental Public (all-issue0	Count	33
		% within EnvAllIssuePublic	44.0%
Total		Count	98
		% within EnvAllIssuePublic	34.4%

EnvAllIssuePublic * What Is your highest level of school you have completed or the highest degree you have received? Crosstabulation

			What is your ...
			High school incomplete
EnvAllIssuePublic	Passive Env Public	Count	5
		% within EnvAllIssuePublic	2.4%
	Environmental Public (all-issue0	Count	0
		% within EnvAllIssuePublic	0.0%
Total		Count	5
		% within EnvAllIssuePublic	1.8%

EnvAllIssuePublic * What Is your highest level of school you have completed or the highest degree you have received? Crosstabulation

			What is your ...
			High school graduate or GED (includes technical/vocational training that doesn't count towards college credit)
EnvAllIssuePublic	Passive Env Public	Count	54
		% within EnvAllIssuePublic	25.7%
	Environmental Public (all-issue0	Count	15
		% within EnvAllIssuePublic	20.0%
Total		Count	69
		% within EnvAllIssuePublic	24.2%

- Willingness to Advocate for Environmental Policies and Changes in Industries

The all-issue public is more willing to advocate for environmental policies and changes in industries, recognizing the need for systemic changes. For example, it would be more worthwhile for environmental companies to tailor their message to white demographics rather than any other race because they are more likely to take action on issues involving climate change, waste disposal, air pollution, and all issues.

ClimatePublic * Which of following describes your race? - Selected Choice Crosstabulation

		Which of following ...		
			White	Black of African-American
ClimatePublic	Nonpublic	Count	34	5
		% within ClimatePublic	79.1%	11.6%
	Latent public	Count	22	2
		% within ClimatePublic	75.9%	6.9%
	Aware public	Count	85	12
		% within ClimatePublic	72.6%	10.3%
	Active Public (climate change)	Count	82	5
		% within ClimatePublic	83.7%	5.1%
Total		Count	223	24
		% within ClimatePublic	77.7%	8.4%

ClimatePublic * Which of following describes your race? - Selected Choice Crosstabulation

		Which of following describes ...		
			Asian or Asian-American	Native American/American Indian/Alaska native
ClimatePublic	Nonpublic	Count	3	0
		% within ClimatePublic	7.0%	0.0%
	Latent public	Count	3	0
		% within ClimatePublic	10.3%	0.0%
	Aware public	Count	8	2
		% within ClimatePublic	6.8%	1.7%
	Active Public (climate change)	Count	6	1
		% within ClimatePublic	6.1%	1.0%
Total		Count	20	3
		% within ClimatePublic	7.0%	1.0%

PollutionPublic * Which of following describes your race? - Selected Choice Crosstabulation

		Which of following ...		
			White	Black of African-American
PollutionPublic	Nonpublic	Count	10	0
		% within PollutionPublic	83.3%	0.0%
	Latent public	Count	19	6
		% within PollutionPublic	61.3%	19.4%
	Aware public	Count	101	12
		% within PollutionPublic	78.3%	9.3%
	Active Public (pollution)	Count	93	7
		% within PollutionPublic	80.2%	6.0%
Total		Count	223	25
		% within PollutionPublic	77.4%	8.7%

PollutionPublic * Which of following describes your race? - Selected Choice Crosstabulation

		Which of following describes ...		
			Asian or Asian-American	Native American/American Indian/Alaska native
PollutionPublic	Nonpublic	Count	1	0
		% within PollutionPublic	8.3%	0.0%
	Latent public	Count	3	0
		% within PollutionPublic	9.7%	0.0%
	Aware public	Count	5	2
		% within PollutionPublic	3.9%	1.6%
	Active Public (pollution)	Count	11	1
		% within PollutionPublic	9.5%	0.9%
Total		Count	20	3
		% within PollutionPublic	6.9%	1.0%

PollutionPublic * Which of following describes your race? - Selected Choice Crosstabulation

		Which of ...		
			Some other race, specify:	Total
PollutionPublic	Nonpublic	Count	1	12
		% within PollutionPublic	8.3%	100.0%
	Latent public	Count	3	31
		% within PollutionPublic	9.7%	100.0%
	Aware public	Count	9	129
		% within PollutionPublic	7.0%	100.0%
	Active Public (pollution)	Count	4	116
		% within PollutionPublic	3.4%	100.0%
Total		Count	17	288
		% within PollutionPublic	5.9%	100.0%

WastePublic * Which of following describes your race? - Selected Choice Crosstabulation

			Which of following describes your race? - ...		
			White	Black of African-American	Asian or Asian-American
WastePublic	Nonpublic	Count	18	0	1
		% within WastePublic	85.7%	0.0%	4.8%
	Latent public	Count	38	7	5
		% within WastePublic	69.1%	12.7%	9.1%
	Aware public	Count	88	11	6
		% within WastePublic	78.6%	9.8%	5.4%
	Active Public (waste)	Count	80	6	8
		% within WastePublic	80.0%	6.0%	8.0%
Total		Count	224	24	20
		% within WastePublic	77.8%	8.3%	6.9%

WastePublic * Which of following describes your race? - Selected Choice Crosstabulation

			Which of following describes ...		Total
			Native American/American Indian/Alaska native	Some other race, specify: _____	
WastePublic	Nonpublic	Count	0	2	21
		% within WastePublic	0.0%	9.5%	100.0%
	Latent public	Count	1	4	55
		% within WastePublic	1.8%	7.3%	100.0%
	Aware public	Count	0	7	112
		% within WastePublic	0.0%	6.3%	100.0%
	Active Public (waste)	Count	2	4	100
		% within WastePublic	2.0%	4.0%	100.0%
Total		Count	3	17	288
		% within WastePublic	1.0%	5.9%	100.0%

EnvAllIssuePublic * Which of following describes your race? - Selected Choice Crosstabulation

		Which of following ...	
		White	Black of African-American
EnvAllIssuePublic	Passive Env Public	Count	158
		% within EnvAllIssuePublic	75.2%
	Environmental Public (all-issue0	Count	64
		% within EnvAllIssuePublic	85.3%
Total		Count	222
		% within EnvAllIssuePublic	77.9%

EnvAllIssuePublic * Which of following describes your race? - Selected Choice Crosstabulation

		Which of ...	
		Asian or Asian-American	
EnvAllIssuePublic	Passive Env Public	Count	14
		% within EnvAllIssuePublic	6.7%
	Environmental Public (all-issue0	Count	6
		% within EnvAllIssuePublic	8.0%
Total		Count	20
		% within EnvAllIssuePublic	7.0%

EnvAllIssuePublic * Which of following describes your race? - Selected Choice Crosstabulation

		Which of ...	
		Native American/American Indian/Alaska native	
EnvAllIssuePublic	Passive Env Public	Count	3
		% within EnvAllIssuePublic	1.4%
	Environmental Public (all-issue0	Count	0
		% within EnvAllIssuePublic	0.0%
Total		Count	3
		% within EnvAllIssuePublic	1.1%

Explanation: Communication strategies should encourage and channel this advocacy, emphasizing the role of collective action in influencing policy changes. It should also take into account how race plays a factor in who will be passive and who will act on these issues

Strategic Communication Plan

Shifting Active Publics to All-Issue Publics

- Targeted Messaging

Highlighting the Environmental Consequences of Current Behaviors

Tailoring messages to emphasize the broader consequences of current behaviors on a global scale will resonate with the active public. Communicating the direct impact of individual actions on the environment can shift perceptions and foster a sense of responsibility.

Emphasizing the Global Impact and Urgency for Change

Communicating the urgency for change by highlighting the interconnected global impact of environmental issues will engage the active public. Connecting local behaviors to global consequences will underscore the need for collective action.

- Education and Awareness Campaigns

Fostering Understanding of Interconnections Between Mining, Farming, and Environmental Challenges

Implementing campaigns to enhance understanding of the intricate connections between mining, farming, and broader environmental challenges will address the knowledge gaps within the active public. This will promote informed decision-making and a holistic approach to environmental issues.

Communicating the Role of Sustainable Practices in Mitigating Environmental Issues

Promoting awareness of the positive impact of sustainable practices in mitigating environmental challenges will resonate with both active and all-issue public. Illustrating the tangible benefits of sustainable behaviors will encourage widespread adoption.

- Collaborative Initiatives

Engaging Stakeholders, Policymakers, and Industry Leaders in Sustainable Practices

Encouraging collaboration among stakeholders, policymakers, and industry leaders to promote sustainable practices aligns with the desires of both public segments. This collaborative approach addresses systemic issues and emphasizes shared responsibility.

Facilitating Partnerships for Global Environmental Conservation

Establishing partnerships to address global environmental conservation challenges collaboratively reinforces the interconnectedness of environmental issues. This collaborative effort aligns with the values of the all-issue public, promoting a holistic approach to conservation.

Proposed Communication Plan

Based on the evidence collected through surveys and research, we have created three communication plans, each targeting specific publics and topics. Not only did we research and use various groups to find different strategic plans to target, but we even chose to target audiences that usually have a latent aspect against things.

Climate Change				
Audience	Strategy	Key Messages	Channel	Timeline
Oklahoma Residents (Age 18-29)	Educate and increase the public's knowledge of climate change	Increase student's interest in climate change issues and how they can help prevent bad habits.	Informational Session	Bi-weekly / 8 weeks
Oklahoma Residents (Age 18-29)	Educate and inform the public on climate change issues	Inform students on the habits around them that affect climate change	Social Media Series	3x week / 8 weeks

For the climate change topic, we used the data collected in our focus group that honed in on mining and farming to draw overall conclusions about climate change. By reaching more young students, the company will be able to help mold and foster an all-issue public or at least an aware/active public. Social media is a great option to reach a large number of people in a short time, and we could also promote in-person information sessions to increase public knowledge.

Waste Disposal				
Audience	Strategy	Key Messages	Channel	Timeline
Female Oklahoma Residents	Educate public on issues surrounding waste disposal	Inform and educate public, primarily by social media campaigns on the affect of waste dispel and how to dispose of waste.	Social Media (Instagram, X, TikTok)	1-3 posts/day (depending upon platform) / 6 Months

Female Oklahoma Residents	“Waste Bucket Challenge” Who can recycle and compost the most waste.	Encourage support and engagement of the issues regarding waste and bring awareness.	Social Media/ Word of Mouth/ Facebook Groups	1 Month
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For the waste disposal topic, we wanted to focus on the mom/daughter of the house. These are the people who cook dinner, clean, watch children, etc. They will more than likely spend the most time at home. By reaching moms/young women, the company can easily create those values in their kids. Social media is a great option to reach a large number of people in a short time, and social media challenges are fun and a great way to create community.

Air Pollution				
Audience	Strategy	Key Messages	Channel	Timeline
Oklahoma Residents (Age 30-39) (4-Year Degree)	Increase knowledge on impacts of air pollution	Explain to residents how prevalent air pollution is in Oklahoma and their surrounding neighborhoods.	Ad in the Oklahoman/ corresponding ad broadcasted across social media channels	1-3 posts/day (depending upon platform) / 6 Months
Oklahoma Residents (Age 30-39) (4-Year Degree)	Initiate habits in the public that help the issues that air pollution causes	Inform residents of simple ways to help prevent and combat air pollution	Social Media (Instagram, TikTok, Facebook)	2x day/3 months

For the air pollution topic, we wanted to focus on educated, middle-aged Oklahoma Residents. This demographic is the most passionate about air pollution from the data that was provided. We wanted to reach multiple different audiences, which is why social media and newspaper outlets like the Oklahoman. By reaching this demographic, we wanted to make them aware of the effects on their future children and grandchildren. People who are highly educated are more likely to be an active public and advocate on these issues.

Farming				
Audience	Strategy	Key Messages	Channel	Timeline
Oklahoma Residents (Age 25-35) (4-Year Degree)	Increase outreach to rural areas in order to reach public effectively	Explain to residents how to farm effectively to prevent climate change and waste issues in Oklahoma and their surrounding neighborhoods.	Ad in the Oklahoman/ corresponding ad broadcasted across social media channels like Instagram, Facebook, and X	Everyday/3 months
Oklahoma Residents Male (Age 50-60)	By reaching older generations, we can segment them to pass down values in younger generations	Explain the importance of keeping the environment healthy in order to continue to prosper crops and natural resources for generations to come.	Use newspaper, newspaper ads, and local television campaigns	2x a week/4 months

In Oklahoma, there are more farming opportunities than mining opportunities. The farmers in Oklahoma tend to be middle-aged to elderly who have grown up in the farming community. We would need to use multiple different platforms to achieve this campaign. For the older generation, age 50-60, we would use the newspaper, run ads, and use local television channels to run campaigns. For the middle-aged generation, ages 25-25, we wanted to change the attitude they have towards farming with the climate involved. By influencing the younger generations, they can have an easier transition, changing their ways.

Environmental Issues (Public Survey) 4453 Module III

Survey Study (US=Online panel Prolific, N=305, June 2023)

Demographics (political stance, ses, gender, trust in science etc.)

STOPS

The United States is currently facing significant social challenges, such as global climate change, waste disposal, pollution. In the following survey, we will ask questions related to these issues, and we would appreciate your thoughts and opinions. Please note that there are no right or wrong answers.

Issue 1: Global Climate Changes

Issue 2: Pollution (Air, Water, Soil)

Issue 3: Waste Disposal

Problem recognition (1-5 strongly disagree to strongly agree)

1. This is a serious national as well as global problem.
2. This problem should be dealt with more seriously by the government and related (international) organizations.
3. There should be immediate efforts to resolve this issue in the US.

Constraint recognition (1-5 strongly disagree to strongly agree)

1. The government and related organizations will consider opinions from persons like me on the issue.
2. I (my efforts) can help in resolving the problem.
3. I can make a difference in the way the problem is solved.

Involvement recognition (1-5 strongly disagree to strongly agree)

1. The issue potentially affects my family members/friends.
2. I am connected with the problem and its consequences.
3. This issue has serious consequences for me and for someone I care about.

Situational motivation (1-5 strongly disagree to strongly agree)

1. I am curious about the issue.
2. I often think about the issue.
3. I want to better understand the issue.
4. I make the issue the most priority these days.

CAPS (Communicative Action in Problem Solving)

Information seeking (1-5 strongly disagree to strongly agree)

1. I often search for more information about this issue on Internet.
2. I have searched for more information about this issue on the websites or experts in the related industry.
3. I often search for news articles or blog postings related to this issue.

Information attending (1-5 strongly disagree to strongly agree)

1. I pay attention to TV and/or radio programs discussing this issue.
2. If the CDC and/or NGOs publish/distribute free information packets related to this issue, I am willing to read them.
3. I may take some time to listen if someone tries to give me information about this issue.

Information forwarding (1-5 strongly disagree to strongly agree)

1. When there are opportunities, I explain this problem to my family members and/or friends.
2. I (often) have conversations with people around me about this issue.
3. I look for chances to share my knowledge and thoughts about this issue.

Information sharing (1-5 strongly disagree to strongly agree)

1. I may not initiate, but I am willing to have conversations about this issue.
2. I join in conversations about this issue if someone else brings them up.
3. When others bring up the problem/issue, I enjoy talking about this problem/issue.

Information forefending (1-5 strongly disagree to strongly agree)

1. I can easily judge the value of information about this issue.
2. I know where to go when I need updated information regarding this issue.
3. Some publicized statements about this problem are worthless.
4. I resist some persuasive information about this issue.
5. I am careful in accepting information regarding this issue because of the vested interests of those who provide the information.

Information permitting (1-5 strongly disagree to strongly agree)

1. I welcome any information about this problem.
2. I have listened to media reports on this problem even if I didn't agree with them.
3. I like to discuss this problem with people who disagree with my opinions to broaden my perspective.

Social Climates

Self-Opinion

1. How do you feel about the scientists' claims of the global warming as a real threat?

Very unfavorable to the scientists' claim (1)

- Somewhat unfavorable (2)
- Neither favorable or unfavorable (3)
- Somewhat favorable (4)
- Very favorable to the scientists' claim (5)

Mass media opinion

2. In your opinion, how favorable is the mass media's coverage to the scientists' claims of the global warming as a real threat?

- Very unfavorable to the scientists' claim (1)
- Somewhat unfavorable (2)
- Neither favorable or unfavorable (3)
- Somewhat favorable (4)
- Very favorable to the scientists' claim (5)

Popular opinion

3. How favorably do you think the majority of US citizens feel about the scientists' claims of the global warming as a real threat?

- Very unfavorable to the scientists' claim (1)
- Somewhat unfavorable (2)
- Neither favorable or unfavorable (3)
- Somewhat favorable (4)
- Very favorable to the scientists' claim (5)

Knowledge

Please respond to the following statements as either true or false.

- Global warming is caused by an increase in the Earth's temperature.

True or False

Answer: False. Global warming refers to the long-term trend of rising average global temperatures, not a single temperature increase event.

- Carbon dioxide is the main cause of global warming.

True or False

Answer: True. Carbon dioxide is the most important greenhouse gas responsible for the warming of the planet.

- Global warming has no impact on human health.

True or False

Answer: False. Global warming is associated with a wide range of health effects, including increased frequency and severity of heat waves, more frequent extreme weather events, and the spread of diseases carried by insects.

- The Earth's climate has always changed, so global warming is nothing to worry about.

True or False

Answer: False. While the Earth's climate has varied over millions of years, the current warming trend is happening much faster than natural climate changes and is largely due to human activities.

- The Arctic sea ice is not affected by global warming.

True or False

Answer: False. The Arctic sea ice is rapidly melting due to global warming, which is having a significant impact on the Arctic ecosystem and global sea levels.

- The oceans absorb most of the excess heat from global warming.

True or False

Answer: True. The oceans are absorbing more than 90% of the extra heat trapped by greenhouse gases, causing sea temperatures to rise.

- Global warming can cause stronger and more frequent hurricanes.

True or False

Answer: True. As the planet warms, there is more energy available to fuel hurricanes, which can lead to more intense and frequent storms.

- Renewable energy sources are more expensive than fossil fuels.

True or False

Answer: False. Renewable energy costs have been declining rapidly in recent years, and in many cases, renewable energy is now cheaper than fossil fuels.

- Global warming can cause droughts in some areas and floods in others.

True or False

Answer: True. As the climate changes, some regions are expected to experience more frequent and severe droughts, while others may experience more intense and frequent floods.

- Global warming is only a problem for future generations.

True or False

Answer: False. The effects of global warming are already being felt around the world, and action is needed now to limit future impacts.

Pro-environmental Attitude:

I believe that taking care of the environment is everyone's responsibility.

Individual actions can make a difference in protecting the environment.

I feel a personal responsibility to take actions to reduce my environmental impact.

I am willing to pay more for environment-friendly products.
 Protecting the environment should be a priority for government and businesses.

Behavioral Intention:

I intend to reduce my use of single-use plastics in the next month.
 I intend to use public transportation or bike instead of driving my car in the next week.
 I intend to purchase energy-efficient appliances for my home in the next year.
 I intend to eat less meat or adopt a vegetarian or vegan diet in the next six months.
 I intend to participate in a community clean-up event in the next three months.

Environmental Issues (Public Survey) 4453 Module III

Science Optimism

Questions	Strongly Disagree (1)	Disagree (2)	Neither Disagree or Agree (3)	Agree (4)	Strongly Agree (5)
Within the next 20 years, internet-related information and communication technologies will further improve our lives.					
Within the next 20 years, nuclear power technology will further improve our lives.					

Questions	Strongly Disagree (1)	Disagree (2)	Neither Disagree or Agree (3)	Agree (4)	Strongly Agree (5)
Within the next 20 years, research on somatic cell nuclear transfer and embryo cloning will further improve our lives.					
Within the next 20 years, aerospace science and technology will further improve our lives.					
The government's increasing support for science and technology research will further improve our lives in the future.					
Scientists know best what is best for humanity.					
Bad (inappropriate, misguided, inaccurate) science and technology can be a great disaster for mankind.					
Even if most people are opposed to it, scientists have the obligation and the right to proceed with their research.					

Questions	Strongly Disagree (1)	Disagree (2)	Neither Disagree or Agree (3)	Agree (4)	Strongly Agree (5)
Many science technologies have been used for unethical purposes.					
The opinions of scientists should be more important than the opinions of the majority of the public in the making of government policies related to science.					

Government Trust

Please indicate your level of agreement with each of the following statements. (1-5 strongly disagree to strongly agree).

1. Sound principles guide the Biden administration's behavior
2. When the Biden administration makes an important decision, people know the government will consider the decision's impact on members.
3. I feel positive about the direction in which the Biden administration is heading.
4. The Biden administration has the ability to accomplish what it ways it will do.
5. The Biden administration can keep its promises to its public.

Conspiracy Perception

- The climate change is a hoax perpetuated by scientists and politicians who want to control people's lives and promote their own agendas.
- Global warming is a natural phenomenon that has nothing to do with human activity, and any evidence to the contrary is fabricated or manipulated.
- The media is suppressing information that contradicts the mainstream narrative on climate change, and only promoting stories that support it.
- Carbon taxes and other environmental regulations are part of a larger globalist conspiracy to redistribute wealth and undermine national sovereignty.
- Climate scientists are part of a secret cabal that seeks to undermine free enterprise and impose a socialist world government.

- The idea of global warming is being pushed by powerful corporations and special interest groups who stand to benefit financially from promoting green energy technologies and carbon offsets.
- AI is a tool of global elites who seek to control the world's population through advanced surveillance and manipulation techniques.
- The rapid adoption of AI is part of a sinister plan to replace humans with machines and establish a new world order.
- The development and deployment of AI is being driven by secretive government agencies and powerful corporations who seek to use the technology for their own nefarious purposes, such as mass surveillance or mind control.

Appendix B

Latent/Unaware Speaker Transcript

Introduction:

“Thank all of you for taking time out of your day to come and give us insight. Today, we are hosting this focus group to gain more insight into your thoughts about deforestation. Deforestation is caused by many things, but let’s hone in on how mining and farming play into cutting down trees, affecting global warming. This is a safe space to air all concerns in a safe, non-judgmental environment. We know none of you are expected, and we do not expect you to be. This is to better understand what all should go into our decision and conservation efforts from all experiences in life.”

“We’ve brought you together so that we can learn from you and promote an open discussion on deforestation. This is a learning experience for both of us, and we are open to all insights. We want to know what you are truly seeing, even if it sounds or looks bad. That is the only way we can all truly learn and grow. We also want to hear from you about the good you have to share and the conservation movements you want to see more of. The good, bad, and the ugly are all encouraged in this conversation.”

“Please air your experiences and emotions on climate change due to deforestation during your lifetime, but focus on the past five years. However, if you have comments or concerns that have happened outside of the past five years, please don’t hesitate to share them.”

“We are recording this session so we can study, ponder, and analyze what you have said and the reactions you will feel today. Confidentiality is extremely important to us, and we assure you what is said will not leave this room or affect you in a positive or negative way. When you have something to say, please be respectful if someone is speaking, and do not talk over others. Also, before answering, please state your name so we are able to better recall your statements...”

Opening Question

Opening Question 1: “How much time would you all say you spend on average outside?”

Opening Answer (Participant A): “I would say about an hour a day.”

Opening Answer (Participant B): “Around 4 hours a day if I had to guess.”

Opening Answer (Participant C): “About 2 hours a day.”

Opening Answer (Participant D): “Probably an hour a day.”

Opening Answer (Participant E): “Hmmm... maybe around 3 hours a day.”

Opening Question 2: “Do you appreciate nature and the world around you? If so, how?”

Opening Answer (Participant A): “I have lots of appreciation for nature. It makes me feel good to spend time outside.”

Opening Answer (Participant B): “I enjoy spending time outside I would say. Especially in different places. I love seeing nature in places like Colorado and California because it’s different everywhere.”

Opening Answer (Participant C): “I would say I appreciate nature enough to care about it.”

Opening Answer (Participant D): “I appreciate nature enough to care about it. I don’t spend a lot of time outside, but I ski in the winter and go to the lake in the summer. Those are the times I appreciate it the most I would say.”

Opening Answer (Participant E): “I agree with everyone else. I appreciate it enough to care about it, but I could spend more time outside to appreciate it more.”

Introduction Questions

Introduction Question 1: “How important would you say protecting the environment is to you personally?”

Introduction Answer (Participant A): “I would say it is pretty important to me personally. I don’t do a whole lot to save it, but I think it is important.”

Introduction Answer (Participant B): “I know it’s important, but I don’t do it as much as I should.”

Introduction Answer (Participant C): “I always have had the thought process that we’re here for a finite amount of time and that this isn’t forever. We are going to be gone soon and leave the world to other people before we can ruin it too much in my opinion.”

Introduction Answer (Participant D): “It honestly stresses me out to think about the fact that we don’t care about the environment a lot, but I don’t contribute to fixing that.”

Introduction Answer (Participant E): “I know it is super important and I wish I did more to protect it personally. I don’t think about it a lot, but when I do, it makes me want to make a change.”

Introduction Question 2: “If you do, how do you currently engage with these environmental issues in your daily life and how engaged would you say you are?”

Introduction Answer (Participant A): “I don’t really engage a whole lot. I recycle when I can and that is how engaged I would say I am.”

Introduction Answer (Participant B): “The thing I do the most is recycle I would say. I also would say that is the thing that I think about the most. I think about engaging with environmental issues in my daily life when it is forced, like when Starbucks hands out paper straws over plastic.”

Introduction Answer (Participant C): “If there is a recycling bin, I will recycle. But, I won’t go out of my way to do it or do anything in particular to engage with environmental issues.”

Introduction Answer (Participant D): “I try to use a reusable water bottle when I can, rather than disposable ones. I also try to recycle as much as I can, but I would say that is about it.”

Introduction Answer (Participant E): “I recycle as much as I can and I always think about why I am recycling, as well as the importance of it. But that really is all I do to engage.”

Transition Questions

Transition Question 1: “What do you know about deforestation, mining, and farming when it comes to how those things affect the environment?”

Transition Answer (Participant A): “I don’t know a lot, but I know that in relation to farming, some farm animals can cause a lot of global warming. I remember reading something that cows can cause global warming.”

Transition Answer (Participant B): “I don’t know much about it. I know that it causes an issue, but I haven’t ever done my own research on it.”

Transition Answer (Participant C): “I am aware of deforestation in the Amazon and that they’re not doing anything to replenish the trees over there. The ecosystem is so solidified over there, so anything you do is screwing it over basically. Other than that, I don’t know much.”

Transition Answer (Participant D): “I know how important trees are, especially to us and to life. But I am very unfamiliar with deforestation.”

Transition Answer (Participant E): “I had heard of deforestation, mining, and farming when it comes to affecting the environment, but I never learned the direct effects of it or why/how those things can be bad.”

Transition Question 2: “How do you personally think deforestation, mining, and farming affects your community?”

Transition Answer (Participant A): “I don’t see it affecting my community, so I honestly can’t feel the effects of it.”

Transition Answer (Participant B): “I don’t feel the effects of it because I don’t even really know what the effects of it are. If I knew more about the effects, I maybe would feel them more.”

Transition Answer (Participant C): “It is hard to see the effects of deforestation in North America. Mining and fracking helps the economy a lot here and my family are all cattle farmers, so I honestly can’t say I want cattle farming to go away. That certain lifestyle and action helps my family get a paycheck, so I don’t see the negative effects of it for my family personally.”

Transition Answer (Participant D): “I personally haven’t experienced any effects.”

Transition Answer (Participant E): “I also haven’t experienced any of the effects those things have on my community, which I feel very fortunate about. I know it affects the environment, especially in other places, but I just haven’t seen it firsthand.”

Key Questions

Facilitator: Explore the core issues in-depth.

Key Question 1: “How do you see deforestation affecting your current generation and the time you will spend on Earth?”

Key Question Answer (Participant A): “It has been trending over time, so I personally think it will continue to grow in how many people know about it and make changes over it.”

Key Question Answer (Participant B): “I personally think it won’t affect our generation the most. Our generation is the middle generation, so these issues will get picked up by the next generation where everyone will be conscious about it. I think either that or more people will be unaware and it will slowly go downhill more and more. No matter what, I think it is up to the next generation.”

Key Question Answer (Participant C): “I consider myself an optimist. I think that we are going to be able to adjust and nature will grow more and more.”

Key Question Answer (Participant D): “I don’t think it will affect our generation a lot, but I do think as time goes on, more regulations will go into place.”

Key Question Answer (Participant E): “I agree that it will affect the next generation the most, but I do think in order for them to be able to possibly save the environment, that starts with us.”

Key Question 2: “Let’s shift to mining. How do you think mining affects your local community and the regions around you?”

Key Question Answer (Participant A): “Honestly, I’m not sure what mining really is or how it affects any place around me.”

Key Question Answer (Participant B): “I honestly have never thought about it if I am being honest.”

Key Question Answer (Participant C): “Oil and gas are the primary contributors to the economy here in Oklahoma, so it affects our lives here daily. Right now, it helps us in this region, but I can see why and how it can be detrimental to the rest of the world.”

Key Question Answer (Participant D): “I grew up in Oklahoma City, where oil and gas are huge there. So, when oil and gas aren’t going well, I have seen how that negatively affects the economy I see firsthand. I just have seen how important oil and gas are here, so I haven’t seen the negative effects of mining in regions around me.”

Key Question Answer (Participant E): “I also can’t say that I have seen the negative or positive effects of it on the regions around me. I am very unfamiliar with it.”

Closing Statements:

“Thank you for all spending your time today and giving us your perspectives. We really appreciate you. We are going to summarize now the main points of our discussion.”

We have gathered the two main ideas from this session. The first is education and mining are extremely important to make decisions in your everyday life. Second, mining is bad for the environment and good for the economy.

Ending Question: "Is there anything else you would like to add or any suggestions on how we can collectively address these issues more effectively?"

Ending Answer (Participant A): “I think it is so important to really think about mining, what it is, and how it affects our community personally, as well as worldwide. That was my biggest takeaway from today for sure.”

Ending Answer (Participant B): “I think you guys did a great job with the questions you asked. They were effective enough to really make me think about the topics, which sparks conversation and education.”

Ending Answer (Participant C): “I think we are all biased because we don’t personally see the effects of any of these issues. We are the biggest consumers, yet we hurt the world the most.”

Ending Answer (Participant D): “I think the most important thing people should do to help the environment is talk about these topics more both locally and worldwide.”

Ending Answer (Participant E): “Sparking conversation on these topics is so important, which I think you guys did a great job doing with these questions. It all starts with a conversation and with educating others on the issues at hand.”

“Thank you again for sharing your opinions with us. Again, this is all confidential, and we appreciate your time and energy spent here. Have a great rest of your day!”

Appendix C

Aware/Active Focus Group Transcript

Introduction

“Thank all of you for taking time out of your day to come and give us insight. Today, we are hosting this focus group to gain more insight into your thoughts about deforestation.

Deforestation is caused by many things, but let’s hone in on how mining and farming play into cutting down trees, affecting global warming. This is a safe space to air all concerns in a safe, non-judgmental environment.”

“We’ve brought you together so that we can learn from her and promote an open discussion on deforestation. We want to know what you are truly seeing, even if it sounds or looks bad. That is the only way we can all truly learn and grow. We also want to hear from you about the good you have to share and the conservation movements you want to see more of. The good, bad, and the ugly are all encouraged in this conversation.”

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Opening Question

Opening Question 1: "To get started, let's hear from each of you briefly. We will start with participant A. Do you enjoy going outside and appreciating nature?"

Opening Answer (Participant A): “Yes, I do enjoy going outside. It really helps me to get outside and get fresh air. It relaxes me when I have a tough day. I really see it as a source of comfort for me. “

Opening Answer (Participant B): “I do appreciate nature, but I don’t go outside often. Life kinda gets in the way when I am busy.”

Opening Answer (Participant C): “I really enjoy going outside. I am a big hiker and reader. Nature has always calmed me, and I just love the Earth. “

Opening Answer (Participant D): “I do. I grew up living in the woods and visiting various places that have to do with nature. I feel like I really appreciate nature because I grew up around it, and my parents instilled that value in me.”

Opening Answer (Participant E): “I am in an environmental club. I got involved in activism when I was in high school. The Earth is our home forever, and we only get one home, so we cannot kill our home.”

Opening Question 2: “What inspired you to become interested in environmental issues like deforestation, mining, and farming?"

Opening Answer (Participant A): “Honestly, I am not sure. There are a lot of things that have been happening with the environment recently. There have been a lot of bad things and bad policies. I want to do everything I can to help our planet while we still can.”

Opening Answer (Participant B): “I am a biology major, and we talk a lot about science related to climate change. That is what immediately sparked my interest. I don’t necessarily agree with everything that has been happening, but I know we can create change.”

Opening Answer (Participant C): “I don’t have an interest other than I grew up on a farm in a small town in Kansas, Oklahoma. The environment was all around us. I knew about farming issues and environmental problems whenever I was old enough to help out around the farm.”

Opening Answer (Participant D): “The interests that I have are the classes that I have taken at the University of Oklahoma and the things that my professors have shared with me. It is important to learn and be educated.”

Opening Answer (Participant E): “I have become passionate through the classes I have taken and the research I have conducted over the years. I am currently studying Brazil and the effects of the government on environmental abuses and issues.”

Introduction Questions

Introduction Question 1: "Now that we know why you're interested in these issues, let's discuss what specific aspects of deforestation, mining, and farming concern you the most?"

Introduction Answer (Participant A): “The most concerning part is indigenous people who live in the Amazon and those people are displaced with nowhere to go and that is all they know. Indigenous people being kicked off or forced to relocate does not sit right with me nor is fair to anyone involved. These people have only known this place all of their lives and now have nowhere to go.”

Introduction Answer (Participant B): “What concerns me the most is the combination of deforestation, mining, and farming. They all play a major role in this crucial period in time to decide whether or not we are going to act or wait for someone else to act for us. We need to make a change to ensure that our future is better.”

Introduction Answer (Participant C): “My biggest concern is how it is ethically done. If it is done with people and land mining or if it is done with other resources that could potentially be harmed during the process. We have rules in place for a reason, and we need to follow those rules in order to succeed.”

Introduction Answer (Participant D): “I feel like my biggest concern is how it affects climate change and global warming. These are becoming really hot topics that people have been noticing and we need to handle it now before there is a bigger problem.”

Introduction Answer (Participant E): “

Introduction Question 2: "How do you currently engage with these issues in your daily life, and what actions have you taken or would like to take to address them?"

Introduction Answer (Participant A): I recycle when I can. I have not taken any actions other than educating myself. I would like to maybe join an activist group or something like that.”

Introduction Answer (Participant B): “In my daily life, I try to recycle and shop responsibly. I do not shop for fast fashion because most of the clothes end up in landfills. I really need to educate myself because the more you are educated, the more you can do and help.”

Introduction Answer (Participant C): “I keep up to date on ethics and do what I can ethically to check on these issues and on others. There is not much you can do other than know what is going wrong in the world.”

Introduction Answer (Participant D): “Just recycling. I would like to be educated more but I do what I can to stay educated and on top of things. You can always be more educated.”

Introduction Answer (Participant E): “Everyone here has good points. However, I like to use my voice to address something I have a problem with. I write to lawmakers and rally difference-makers to see a positive change in our community. Besides staying educated, I also recycle.”

Transition Questions

Transition Question 1: "Building on what you've just shared, let's delve deeper. How do you think these issues impact your local community and the world at large?"

Transition Answer (Participant A): “I think in a good way, it provides land to build on, and in a bad way, there is air pollution and contamination in water sources and where we get our water from. There are issues on a local level with pollution, but we can also see it on a worldwide stage.”

Transition Answer (Participant B): “Locally, we don’t feel an impact, but worldwide we have seen disruptions in habitats. The oxygen has also become contaminated, and there are not enough trees to stay up to date with carbon emissions.”

Transition Answer (Participant C): “I completely agree with both of your statements. We don’t see it as often locally, but we do see it rurally and out in the country. Trees get taken out at a mass rate, and then we cannot expect to see the same environment. It changes the ecosystems.”

Transition Answer (Participant D): “The impacts here, especially in Norman, are extremely limited.”

Transition Answer (Participant E): “Locally, we have issues like littering and finding clear and clean water sources. But, on a global level, there are major impacts. The Amazon Rainforest has really fallen victim to deforestation, and now the Amazon does not collect enough CO₂, which releases carbon emissions into the world.”

Transition Question 2: "Before we move on to the key questions, can you identify any specific challenges or obstacles you face in your efforts to address these issues?"

Transition Answer (Participant A): “I recycle, but other than that, I don’t partake. Sometimes I just get really busy and throw it on the back burner. I try to educate myself as much as I can so I can be prepared for any conversation. I watch the news and read articles, but it is hard to create change as one person and not a cooperation.”

Transition Answer (Participant B): “I agree. The best thing you can do is be educated and stay educated on all fronts. Obstacles-wise, deforestation, and pollution come from major corporations and are hard to monitor on an individual level. There is not much one person can do.”

Transition Answer (Participant C): “The best thing one can do is educate oneself but also rally behind people to create change. On an individual level, you need to continue to contribute what you can and pursue a life of sustainability.”

Transition Answer (Participant D): “As one person, you can try and educate yourself and recycling is important for households. A lot of us do try and try to use our limited resources to make a change. But at the end of the day, we just are one person.”

Transition Answer (Participant E): “On an individual level there are multiple things we can do. We can recycle, use refillable water bottles, be conscious of our plastic use, etc. We can also use our voices to rally together to make change. It comes with electing local and state lawmakers who are environment proactive.”

Key Questions

Facilitator: Explore the core issues in-depth.

Key Question 1: “What are your main concerns regarding deforestation, and how do you see it affecting biodiversity and climate change?”

Key Question Answer (Participant A): “Cutting down trees and stuff like that ruin animals homes and ecosystems all over the world. Animals are forced to relocate to a new location, and that ruins the animal hierarchy. Also, carbon emissions are a big thing with deforestation. It releases carbon back into the atmosphere.”

Key Question Answer (Participant B): “Going off what they said, mass extinction is a major issue we are now dealing with worldwide. Biodiversity and climate change-wise, the Amazon is the biggest oxygen contributor to the world. CO₂ is going up, and oxygen being reproduced is going down.

Key Question Answer (Participant C): “Our population is growing at a rapid rate. There are supposed to be two trees for every single life. With more people coming into the world, CO₂ levels will continue to rise. We are taking out trees at a massive rate. We do not seem to care as a population about biodiversity.”

Key Question Answer (Participant D): “Deforestation is a cause of global warming because trees are now not able to capture as many carbon emissions. This also means damage to farmlands from a topsoil standpoint. Without trees, topsoil can be carried off by the wind, and we can see history repeat itself like the American Dustbowl.”

Key Question Answer (Participant E): “Ecosystems are being destroyed and not properly relocated. Biodiversity will continue to decrease as the years progress. We are overpopulating and not giving enough room for nature to step in and rejuvenate because we drain the Earth of natural resources. “

Key Question 2: "Let's shift our focus to mining. What are your thoughts on the environmental and social impacts of mining in your region or globally?"

Key Question Answer (Participant A): “I haven’t seen the impacts of mining anywhere due to where I live. We don’t necessarily have mines, and I have not gone into one. But, I can assume a lot of contamination in the air is from mining. But, you are also going into the ground and disrupting habitats and making settlements unstable by blowing up rock under the earth.”

Key Question Answer (Participant B): “Mining environmentally I would say, depletes the land, and that is detrimental to the environment, obviously. Socially the mining of blood diamonds in Africa is extremely dangerous and stuff like that. That is a major social problem.”

Key Question Answer (Participant C): “You don’t see the effects of mining around here specifically, but the amount of mining accidents that happen is atrocious. The social impacts of them are not great. There are resources people can obtain from mining but at what cost?”

Key Question Answer (Participant D): “I don’t really know a lot about mining because I do not see it around here, and I did not grow up in a mining community.”

Key Question Answer (Participant E): “Mining was something I have never grown up around but it is extremely dangerous. A couple of years ago, we had a scare with a group of Chilen miners who were trapped in a series of caves. But mining deprives the Earth of its natural resources and creates unstable tunnels.”

Key Question 3: "Regarding farming practices, how do you view the balance between agriculture and environmental sustainability, and what changes do you believe are necessary?"

Key Question Answer (Participant A): “I think making sure that farming happening is in a safe way to the environment. Obviously, we need to get the necessities to survive, but we can’t take more than we need.”

Key Question Answer (Participant B): “We have seen a major shift in farming. Now, only 2% of the world are farmers, which is crazy compared to the past. The biggest challenge is the use of pesticides in agrictilure. That kills a lot of biodiversity.”

Key Question Answer (Participant C): “There is a difference between personal and industrial farming. Industrial farming is way less sustainable than personal farming. Anyone can start their own personal farm if they want and this would be a great way to help the environment. Personal farming also cares more about the land. Caring about biodiversity happens more often at a smaller, local level than a national level”

Key Question Answer (Participant D): “I agree because my grandparents own a farm. It is very small compared to others here in Oklahoma. Small farms allow one to shift crops over and keep the soil fertilized while industrial farms try and crank out one crop as fast as possible.

Key Question Answer (Participant E): “Farming is extremely important to the Oklahoman economy. We as humans cannot survive without farming. However, we have seen a steady decline in the number of farmers and farm land. We need to start protecting our natural resources.”

Closing Statements:

“Thank you for all spending your time today and giving us your perspectives. We really appreciate you. We are going to summarize now the main points of our discussion.”

The three key themes that we heard during this discussion are the following. We are seeing a loss of ecosystems that disrupt food chains and the planet’s overall biological resilience from deforestation. Mining can lead to deforestation, habitat destruction, soil erosion, and water

pollution, as chemicals used in mining processes can contaminate nearby water sources. Lastly, farming is done safely and not taking more than you need from a specific area.

Ending Question 2: "Is there anything else you would like to add or any suggestions on how we can collectively address these issues more effectively?"

Ending Answer (Participant A): "No."

Ending Answer (Participant B): "No, thanks."

Ending Answer (Participant C): : "No."

Ending Answer (Participant D): "No."

Ending Answer (Participant E): "No, thanks.."

"Thank you again for sharing your opinions with us. Again this is all confidential and we appreciate your time and energy spent here. Have a great rest of your day!"