





Segmentation Survey Report: A Low-Carbon Diet and its Impact on the Climate Crisis

June, 2025



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Solutions for Our Climate

A Low-Carbon Diet and its Impact on the Climate Crisis Segmentation Research Report

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PART

Background and Overview

- 1. Background
- 2. Overview

1. Background

The food and agriculture sectors account for approximately 30% of global greenhouse emissions, making it a critical area for addressing the climate crisis (FAO, 2024)¹.

Interest in low-carbon food systems is growing both domestically and internationally as a means of reducing greenhouse gas emissions. As a result, the research and development of alternative forms of protein is garnering increased attention.

I The objective of this research effort is to investigate consumers' awareness of the climate crisis, along with their perceptions of and willingness to implement emission reduction measures, in order to establish a sustainable food system and reduce greenhouse gas emissions in the agri-food sector.

The time has come to consider low-carbon diets as one response to the climate crisis





3. Survey Overview

01	Population		• Men and women over the age of 18 nationwide
02	Sampling Framework	÷.	• Hankook Research's Master Panel
03	Sampling Method		• Proportionally allocated sampling by region, gender, and age
04	Sample Size		• 2,000 respondents
05	Sampling Error		 Assuming random sampling, the maximum allowable sample error at a 95% confidence level is ±2.2% points
06	Methodology	1=	• Web surveys (survey URLs were sent via text message and email)
07	Weighting Methodology		• Weighted by region, gender, and age based on the resident registration population announced by the Ministry of the Interior and Safety in February 2025 (cell weighting)
08	Timeframe	<u>c-c</u>	• March 11, 2025 – March 17, 2025
09	Research Agency	Å	• Hankook Research Co., LTD

A Low-Carbon Diet and its Impact on the Climate Crisis Segmentation Research Report

PART

Findings

1. Summary of Key Findings

2. Analysis of Results

- 1) Awareness of and attitudes towards the climate crisis
- 2) Healthy eating habits, food consumption behavior
- 3) Eating habits such as meat consumption and vegetarianism
- 4) The link between food and the climate crisis
- 5) Awareness levels of and willingness to practice a low-carbon diet
- 6) Awareness levels of alternative foods and willingness to consume them
- 7) Awareness levels of cultured meat and willingness to consume it
- 8) Policies to help spread the consumption of alternative foods and the practice of low-carbon diets
- 9) Accessibility of information and media consumption



1. Summary of Key Findings

Trends in Climate Crisis Awareness

- (Awareness of the Climate Crisis) Among the various issues facing our society, 9 out of 10 people (91%) view the climate crisis as an important issue (34% view it as a top priority, 57% view it as important but not a top priority). In Korea, the climate crisis is an important societal issue that needs to be addressed, but the respondents answered that it is considered a low priority of concern (34%) compared to low birth rates, an aging population (67%), and national security (51%).
- (Severity) The climate crisis is viewed as a serious issue both domestically (88%) and globally (95%), with greater concerns being expressed at the global level. People are more concerned about their future (91%) and future generations (95%) than about the present (81%).
- Society views the climate crisis as a very serious issue and believe that it threatens not only themselves but also future generations. People believe that they and environmental/civic groups are, in fact, actively working to address the climate crisis. On the other hand, only 30-40% of respondents believe that government agencies, businesses, and agricultural/livestock workers are making any efforts (some effort + to address the issue These efforts are viewed as being insufficient.

The Current State of Food Consumption and its Link to the Climate Crisis

- (Climate Change and Food Shortage Problems) 71% of the population DISAGREE with the statement "that climate change will not cause food shortages in our country." There is a perception that climate change could lead to food shortages. More than 9 out of 10 respondents pointed out that the use of disposable products (94%) and food waste (90%) contribute to the climate crisis. At the same time, consumers feel that reducing food waste" (58%, 1st+2nd 3rd priority) and using reusable containers (53%) are key activities that must be practiced. However, the importance of practical, everyday activities such as dietary changes such as consuming alternative foods or plant-based foods was relatively low.
- <u>(Meat Consumption)</u> Nearly 9 in 10 people point to factory farming and increased meat consumption as factors that contribute to the climate crisis. Nevertheless, over 90% of Korean consume meat (red meat 90%, white meat 92%), and even those who identify as vegetarians (vegans, lacto-ovo, pescatarians) consume a wide variety of foods.
- (Buying Food) When purchasing food products, the 2 most important factors are "freshness" (47%, 1st +2nd +3rd) and "price" (47%). Environmentally friendly packaging/production methods (12%) and ethical factors (animal welfare 7%, vegan certification 2%) are of lower priority. This suggests that personal gain still has a greater influence on food consumption decisions than environmental values.
- Despite the fact that livestock farming and meat consumption are identified as major causes of accelerating the climate crisis (greenhouse gas emissions), consumers tend NOT to make any changes to their diet. As a result, awareness levels that diet or food consumption is directly related to the climate crisis remain low.



13 \ Awareness and the Actual Practice of a Low-Carbon Diet

- (Awareness and Understanding) Awareness that a "low-carbon diet" minimizes carbon emissions is at 37%, indicating a lack of an accurate understanding of the concept. The term "low-carb diet" is sometimes confused with "low-carb, low-fat diets" (27%), a "lean diet" (24%), or a "low-calorie diet" (13%).
- The primary channels for gathering information are television (41%) and YouTube (39%). At the same time, information is rarely gained from "educational government campaigns" (17%).
- (Real-World Application and Satisfaction) Only 33% of those surveyed have ever tried a low-carbon diet. However, satisfaction among practitioners of low-carbon diets is very high at 96%. The most common methods actually practiced are in the following order: "reducing food waste" (78%), "cooking food for yourself" (65%), and "consuming local food products" (51%). Respondents preferred indirect methods over direct methods such as "reducing meat consumption and eating a plant-based diet" (45%).
- (Motivations and Barriers) The most common reasons for engaging in a low-carbon diet were "protection of the environment" (73%, 1st+2nd+3rd) and "managing my health" (69%). The most common reasons cited for NOT engaging in a low-carbon diet were "familiarity with my existing diet" (50%), "concerns about taste/texture" (36%), and the "burden of higher prices" (35%). Habits, economic factors, and practical factors form the basis of the main barriers.

Receptivity of Alternative Proteins and Cultured Meat

- (Awareness and Experience) Awareness levels of alternative types of protein are in the following order: "plant-based protein" (61%), "edible insects" (51%), and "fermented microbes" (34%). This shows that awareness of cutting-edge technology-based foods is lower than that of more traditional alternative foods. Only 3 out of 10 respondents stated that they knew about cultured meat. But if we take into consideration the fact that cultured meat has not reached full commercialization, 3 out of 10 is not a terribly low mark.
- (Concerns) Those that do NOT consume alternative proteins or cultured meat cite concerns about dissatisfaction with taste/texture, lack of safety, lack of trust, high prices, and low accessibility.
- (Purchase/Consumption Intent and Paths to Improvement) 60% of respondents are willing to consume alternative foods. 51% are willing to purchase/consume cultured meat. Quality must be improved, prices must decline, consumers must trust more, and these foods must be more accessible in order for the alternative food market to expand.



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$\mathbf{05}$ \times Promoting Policies and a Strategy for Communicating with the Public

- (The Need to Disseminate Information and the Role of the Entity Performing that Role) 91% of respondents agree that information about the impact of food consumption on the climate crisis should be more widely know. To this end, there is a strong perception that governing bodies such as the "central government" (68%, 1st+2nd+3rd), companies such as "food production/manufacturing/ distribution/sales companies" (63%), and "local governments" (37%) should spearhead policies. More than 40% of respondents believe that they, themselves, should also make efforts to help.
- 81% of respondents agreed that there is a need to spread information about alternative foods and low-carbon diets. Respondents believe that the main actors should be the "central government" (68%), "food production/manufacturing/distribution/sales companies" (63%), and "consumers" (46%), in that order.
- Respondents prefer to see government policies that bring "price stabilization and price support" (57%), "public awareness/improvement campaigns and educational programs" (46%), and "efforts that improve the accessibility of low-carbon/local foods." (39%). There is a perception that "subsidies for improving facilities and developing technologies" (83%) are needed more than additional taxes on foods with high carbon emissions.
- (Media Content and Formats that Effectively Promote this Content) Respondents typically use YouTube (61%) and television (60%) as their main sources of information. "Short-form videos" (56%) are the most preferred format.
- During the past 1 year, 48% of respondents had been exposed to content related to the climate crisis and vegetarianism, and 48% stated that this had some influence on their behavior. After seeing related content, 70% of respondents "reduced their food waste," only 25% "reduced their meat consumption and started a vegetarian diet", and only 25% "purchased eco-friendly certified food/ingredients."
- In summary, there exists a gap between access to information and actual behavioral changes. In addition, indirect practices, such as reducing food waste are more common than direct behavioral changes such as changing actual eating habits.



06 \ Implications

- The gap between awareness and practice, barriers to entry into "environmentally friendly eating habits"
- The majority of Koreans are aware of the severity of the climate and food crisis. However, very few have actually reduced their meat consumption, practiced a low-carbon diet, or consumed alternative foods.
- Rather than simple indifference, this is due primarily to barriers to entry such as psychological familiarity with existing eating habits, the taste of these foods, prices, and accessibility of information.
- People choose foods that prioritize personal utility over environmental values
- When purchasing food, freshness and price are the most important factors, while environmental values and ethics (vegan certification, animal welfare, etc.) are pushed to the back burner.
- Among respondents, the concept of a "low-carbon diet + alternative foods as a means of a responding to the climate crisis" has not been established
- The concept of a "low-carbon diet" is poorly understood and the percentage of respondents who fail to recognize that "alternative foods" are a solution to the climate crisis is high.
- Actual reasons for consuming certain foods are focused on taste and personal health rather than the environment.
- Unfortunately, the sea of available information/communication has not led to any real action
- Although we are constantly exposed to climate and diet-related content on YouTube and the TV, only half of respondents actually do anything to help address these issues.
- In particular, we see indirect practices (such as reducing food waste) far more often than changes in eating habits.
- Consumers' spontaneity has its limits, the need for policy-based intervention
- Without policy guidance, information, and industrial support from the government and large companies, there are hard limits to the spread of helpful consumer practices. Institutional support and communication strategies that overcome these structural barriers must be implemented in parallel.



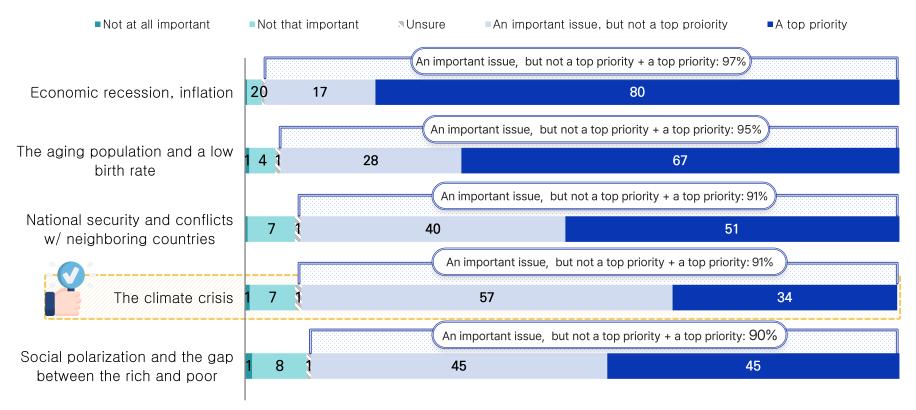
2. Analysis of Results – 1) Awareness of and Attitudes Towards the Climate Crisis

I Only 34% of respondents felt that the climate crisis is a top priority issue. Economic recession / inflation (80%), an aging population, a low birth rate (67%), national security (51%), and social polarization (45%) were all deemed to be more urgent issues. However, if we include those that felt that the climate crisis is "important but not a top priority" (57%), a total of 91% of respondents recognize the climate crisis as an important issue.

8% of respondents felt that the climate crisis is "not an important issue" (not at all important + not that important).



[Base: 2,000 respondents, unit: %]



Q. What are your thoughts on the following issues our country faces?



At 90%, the level of interest in the climate crisis is very high (20% very interested, 70% somewhat interested). Roughly 10% of respondents were not interested in the climate crisis.

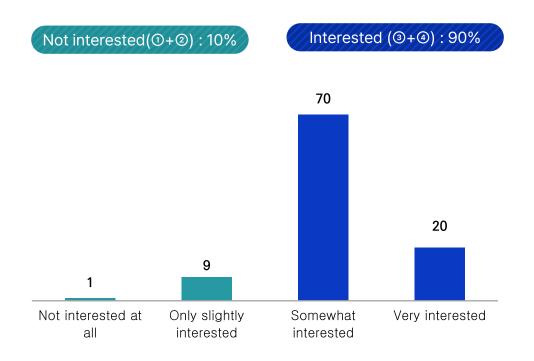
- The climate crisis is viewed as a global problem both here in Korea and around the world. 88% of Koreans feel that is a severe issue while 95% of global populations feel the same way.
- I 62% of the global population feel that climate crisis is a "very severe issue, while only 29% of Koreans feel the same way.
- I 11% of Koreans and 4% of the global population feel that it is NOT a serious issue.

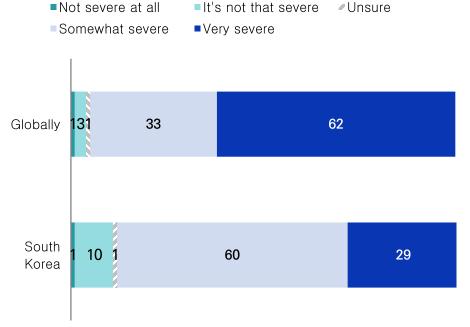
Interest in the climate crisis

Recognizing the severity of the climate crisis

[Base: 2,000 respondents, unit: %]

[Base: 2,000 respondents, unit: %]





Q. How severe do you think the climate crisis is? Please answer the following questions.

12 1

Q. How would you rate your interest in the climate crisis?



I The majority of people (89%) feel that the climate crisis has an impact on their daily lives (22% feel that it impact them greatly, 67% feel that it impacts them somewhat). Only 11% feel that it does NOT impact their lives.

- I 81% of all respondents agree that it "is a threat to my life currently." 91% agree that it "is a future threat to my life" and a whopping 95% agree that it "threatens the lives of future generations." While the majority agree that it threatens their lives and the lives of future generations, a higher percentage are more concerned about the lives of future generations.
- I 27% strongly agree that the climate crisis "is a threat to my life currently." 48% strongly agree that it "is a future threat to my life. A whopping 69% strongly agree that "it threatens the lives of future generations."

Perceptions of the climate crisis

[Base: 2,000 respondents, unit: %]

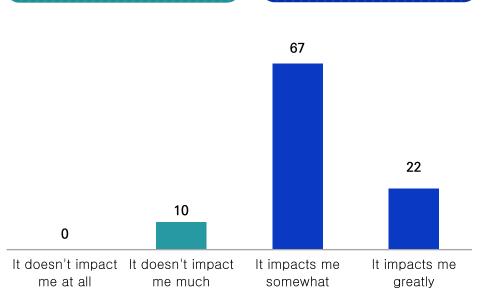
Impact of the climate crisis – Threats to my life and future generations

■Strongly disagree ■Disagree ■Unsure ■Lagree ■Lstrongly agree

[Base: 2,000 respondents, unit: %]

It doesn't impact me (①+②):11%

It impacts me (③+④) : 89%





Q. How much of an impact does the climate crisis have on your everyday life?

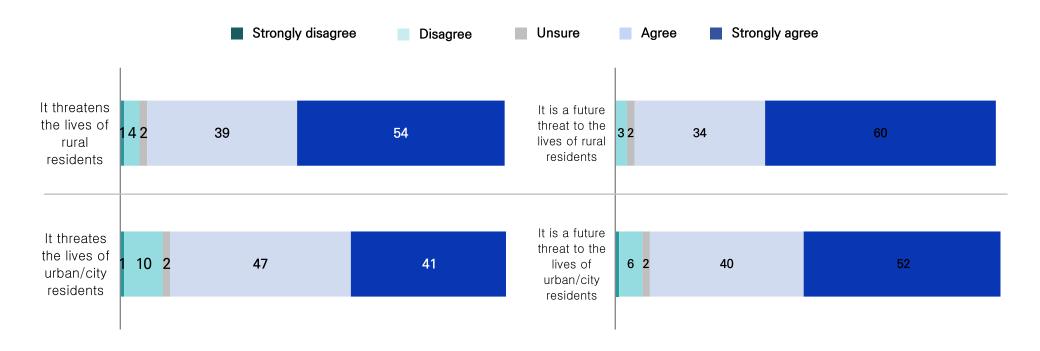
Q. What impact does the climate crisis have?



Respondents are of the opinion that the climate crisis poses a greater threat to "rural residents" (currently: 93%, in the future: 94%) than it does to urban/city residents (currently: 87%, in the future: 91%). The majority of respondents "strongly agree" that the climate crisis threatens the lives of rural residents both now (54%) and in the future (60%).

The Impact of the climate crisis – Threats to the lives of urban and rural residents

[Base: 2,000 respondents, unit: %]

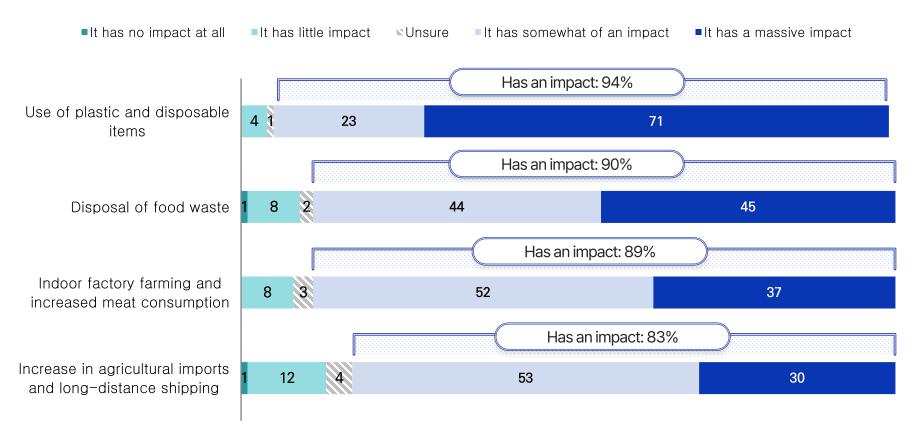




- I 8-9 people out of 10 believe that "indoor factory farming and increased meat consumption" (89%, "it has a massive impact" + "it has somewhat of an impact") and "increase in agricultural imports and long-distance shipping" (83%) are contributing to the climate crisis. 30-40% of respondents feel that these 2 factors "have a massive effect" on the climate crisis.
- The "use of plastic and disposable items" (94%) and "disposal of food waste" (90%) were also identified as factors contributing to the climate crisis.



[Base: 2,000 respondents, unit: %]



Q. How much of an impact do the following agricultural and food-related factors have on the climate crisis?

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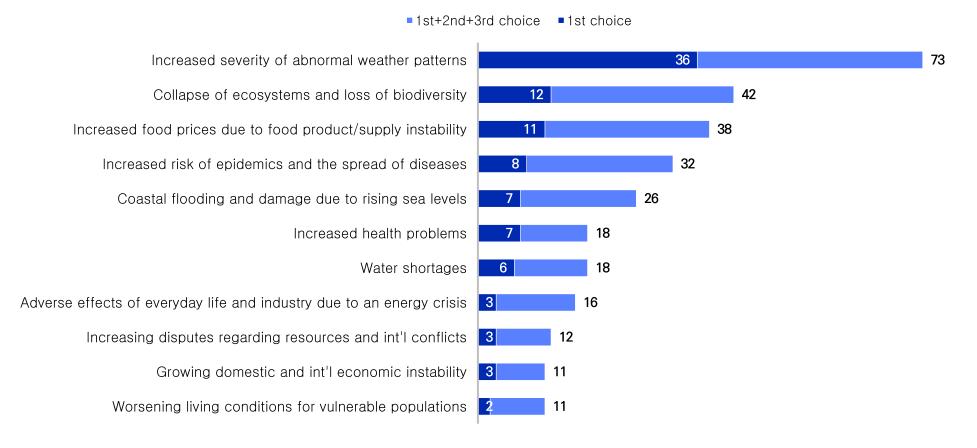


38% of respondents (1st+2nd+3rd choice) are concerned about "increased food prices due to food production/supply instability" caused by the climate crisis.

The 2 most common concerns were "increased severity of abnormal weather patterns (heat waves, cold waves, droughts, floods, 73%) and "collapse of ecosystems and loss of biodiversity" (42%).

Concerns regarding the climate crisis

[Base: 2,000 respondents, multiple responses, unit: %]



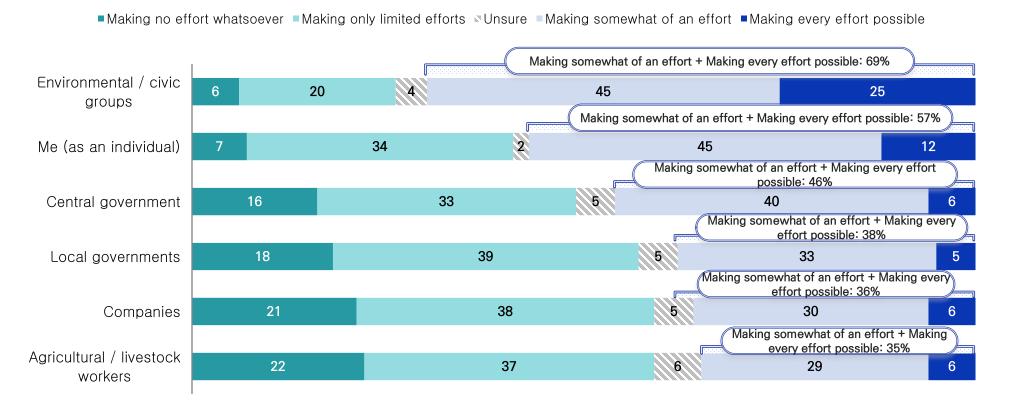
Q. What are you top concerns when it comes to the climate crisis? Choose up to 3 of the following responses and rank them in order of importance.



Respondents believe that the entities trying the hardest to overcome the climate crisis are "environmental/civic groups (69%, making somewhat of an effort + making every effort possible). This was followed by "me" at 57%, the "central government" at 46%, "local governments" at 38%, "companies" at 36%, and "agricultural/livestock workers" at 35%. More than half of respondents felt that environmental/civic groups and the respondents themselves were helping to address the climate crisis. The efforts of all other entities are viewed as being insufficient (making no effort whatsoever + making only limited efforts).

Efforts by different stakeholders to overcome the climate crisis

[Base: 2,000 respondents, unit: %]



Q. How much effort do you think the following entities are making to overcome the climate crisis?

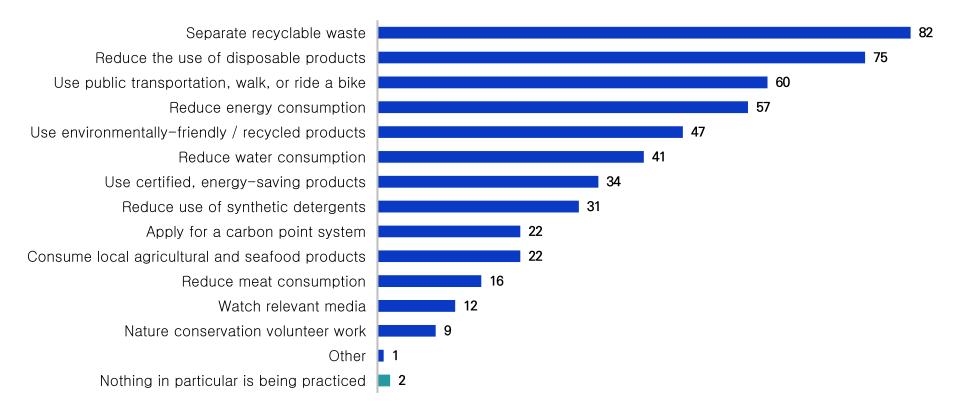
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- Relatively few people are helping to overcome the climate crisis by improving/changing their eating habits. Only 22% of respondents "consume local agricultural and seafood products (local foods) and only 16% are "reducing their meat consumption."
- I People are making simple and relatively easy changes to their everyday lives to help alleviate the climate crisis. Few people are making changes that require extensive personal time and effort such as applying for a carbon point system, searching out local foods, and engaging in volunteer work.

Individual behaviors in responding to the climate crisis

[Base: 2,000 respondents, unit: %]



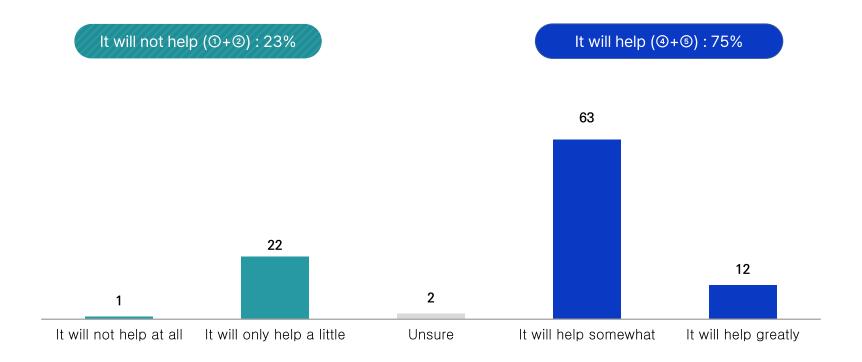
Q. Select ALL of the activities you are currently engaging in to help alleviate the climate crisis.



I 75% of respondents feel that individual efforts to overcome the climate crisis will actually help to solve the climate crisis. However, only 12% felt that their personal efforts would "help greatly." 23% of respondents were skeptical about the effectiveness of individual efforts to help alleviate the climate crisis. (it will not help at all + it will only help a little).

Impact of personal efforts to address the climate crisis

[Base: 2,000 respondents, unit: %]



19 ¹

Q. How much do you expect your personal efforts to help address the climate crisis to actually help to solve the problem?



2. Analysis of Results – 2) A Healthy Diet / Food Consumption Behaviors

I 83% of respondents usually pay attention to their own health (11% pay a lot of attention, 72% pay some attention).

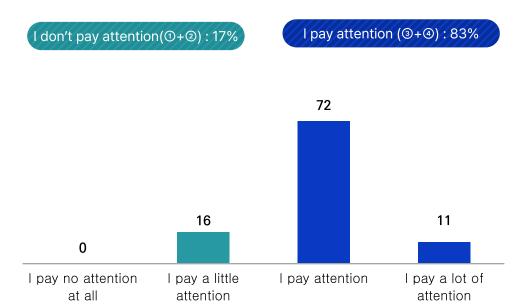
- At 77%, "eating foods that contain a variety of nutrients" was the most common practice among respondents. This was followed by "eating fresh foods instead of processed foods" at 75%.
- Just over half of all respondents are trying to "eat plant-based foods instead of meat" (55%) and "eco-friendly foods and food ingredients" (54%). People are more commonly engaging in practices that directly affect personal health rather than practice that eating habits that are environmentally friendly.

Healthcare-related behaviors

[Base: 2,000 respondents, unit: %]

Healthcare-related practices

[Base: 2,000 respondents, unit: %]



Eco-friendly eating Personal health habits 77 75 54 55 Eat foods that Eat fresh foods Eat plant-Eat ecobased foods friendly foods contain a instead of variety of processed instead of meat and food nutrients foods inaredients

Q. How much attention do you typically pay to your health? Q. How often do

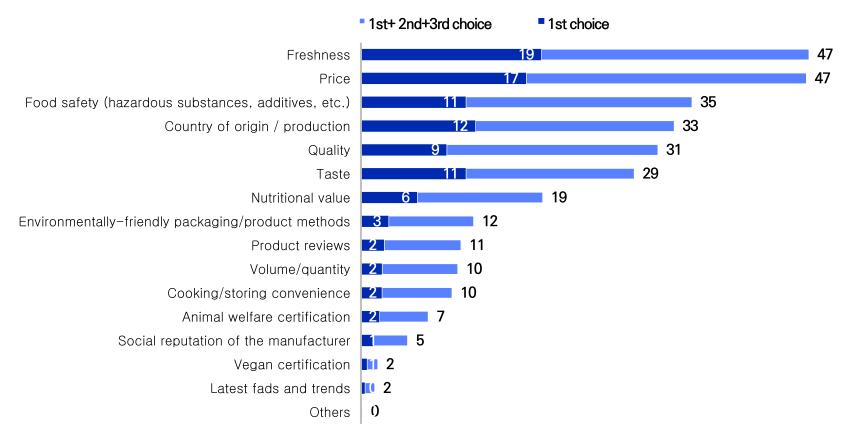
Q. How often do you engage in the following activities to help maintain your health?



- When purchasing groceries, the top 2 considerations are "freshness" (47%, 1st +2nd +3rd) and "price" (47%). These were followed by "food safety (hazardous substances, additives, etc.)" at 35%, "country of origin/production at 33%, "quality" at 31%, "taste" at 29%, and then "nutritional value" at 19%.
- I Rarely are "environmentally-friendly packaging/production methods," "animal welfare certification," and "vegan certification" considered important factors when buying groceries.

Important factors when purchasing groceries

[Base: 2,000 respondents, multiple responses, unit: %]



Q. What do you consider most important when purchasing groceries? Please select up to three, in order of importance.



I 95% of all respondents said that they are trying to reduce their food waste. (trying very hard 38%, trying 57%).

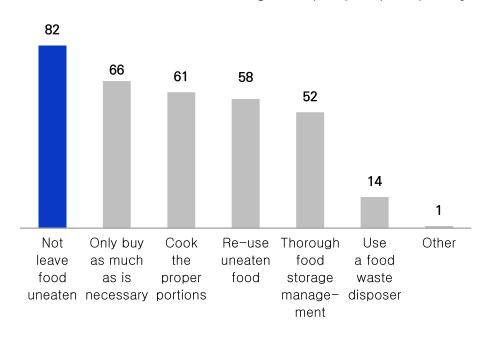
- Among 1,986 respondents, the most common practiced behavior to reduce food waste is "not leave food left uneaten." (82%).
- This was followed by "only buying as much as is necessary (refrain from overbuying)" (66%), "cooking the proper portions" (61%), "re-use uneaten food (freeze, re-cook, etc.)" (58%), and "thorough food storage management" (52%). "Using a food waste disposer" was the most uncommon practice.

Efforts to reduce food waste

[Base: 2,000 respondents, unit: %]

Practical actions to reduce food waste

[Base: the 1,986 respondents who are trying to reduce food waste on a regular basis, multiple responses, unit: %]



Q. Do you take any actions in an effort to reduce food waste generated at home? Select all responses that apply.

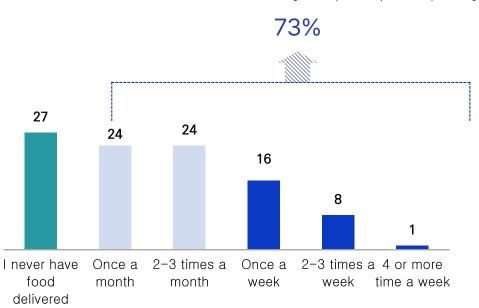
Q. Do you usually try to reduce your food waste?



- I During the past 1 month, 73% of all respondents stated that they had eaten delivery food. 27% stated that they had not eaten delivery food at all.
- More than 7 out of 10 respondents said they had ordered delivery food during the past 1 month, and 1 out of 4 people said that they had ordered delivery food more than once a week. (16% said once a week, 8% said 2-3 times a week).

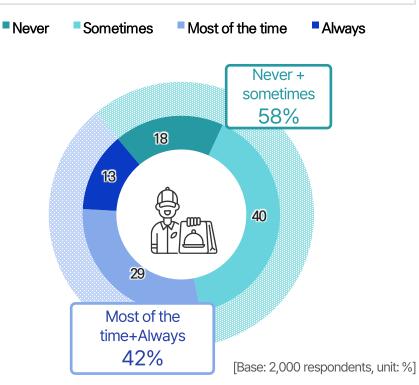
How often delivery food is consumed

[Base: 2,000 respondents, unit: %]



- The number of people who do NOT make environmentally-friendly choice (e.g. not receiving disposable items, choosing reusable containers, picking food up in person) when ordering delivery food (58%, never 18% + sometimes 40%) was 16% higher than those who answered they do (42%, 13% always + 29% most of the time).
- Roughly 25% of all respondents order delivery food at least once a week. But less than half of them make environmentally-friendly choices.

Delivery food consumption patterns



Q. When ordering delivery food, how often do you make environmentally-friendly choices? (e.g. no disposable items, eco-friendly packaging, reusable containers, pick up food in person rather than having it delivered, etc.)

Q. How many times have you ordered delivery food during the past 1 month?

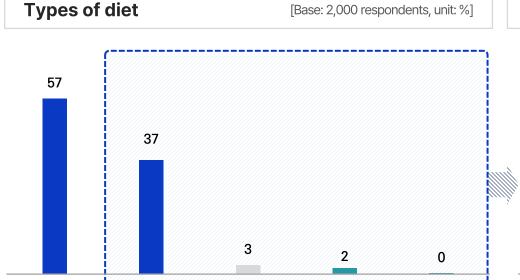


[Base: 866 vegans or vegetarians, unit: %]

2. Analysis of Results – 3) Eating Habits such as Meat Consumption and Vegetarianism

- I 57% of respondents do not consider themselves vegans or vegetarians. 43% consider themselves some form of vegetarian. Although there are a significant number of non-vegetarians, there are also quite a few vegetarians.
- I The % of respondents who do not consume any animal products at all is essentially 0. The number of strict vegetarians is very small, with 2% being lacto-ovo vegetarians (do not eat meat, but eat dairy products and eggs) and 3% being pescatarians (do not eat meat, but eat fish and other seafood).

Among the 866 vegans and vegetarians, those who have been practicing these diets for "less than 6 months" account for the largest portion at 33%, while those practicing these diets for "over 10 years" account for a fairly large portion at 25%. The vast majority of vegetarians have either just started these diets or have been sticking to these diets for a long time.

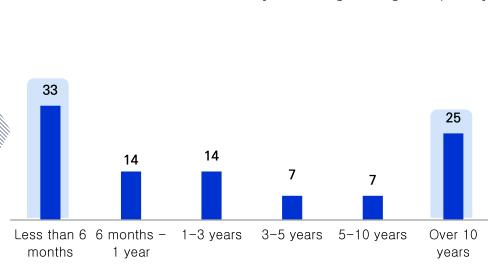


Pescatarian

Lacto-ovo

vegetarian

How long have you been a vegetarian



Flexitarian

I am not a

vegetarian nor

do I plan to become one

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Vegan

Q. In your own opinion, which of the following best describes your diet?

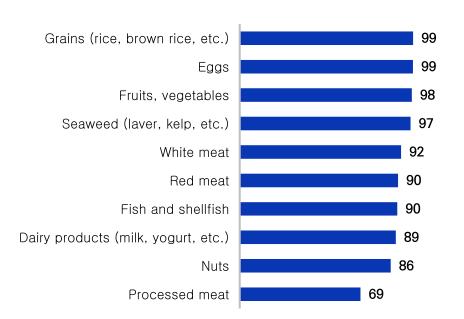
Q. How long have you been a vegtarian?



- I Most respondents eat a wide variety of foods. The % that eat grains (rice, brown rice, etc.) (99%), eggs (99%), fruits/vegetables (98%), and seaweed (97%) is very high. More than 90% of respondents said they consume white meat (chicken, duck, but excluding fish/shellfish, and processed meat), red meat (pork, beef, lamb), and fish/shellfish (oysters, shrimp, crab, squid, etc.).
- I A relatively low 69% of respondents eat processed meat (ham, sausage, bacon, meatballs, etc.) but more than half of all respondents eat it on a regular basis.

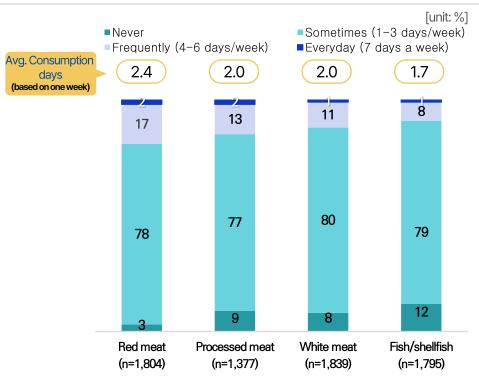
Types of foods consumed

[Base: 2,000 respondents, unit: %]



- I Meat was consumed, on average, 2 days a week (processed meat, red meat, white meat, fish/shellfish). The # of days during the past week that meat was consumed at least once a day was 2.4 days for red meat, 2.0 days for processed meat and white meat, ad 1.7 days for fish/shellfish.
- I Most meat eaters eat meat "occasionally" (1-3 days a week) (processed meat 77%, red meat 78%, white meat 80%, fish/shellfish 79%). "Red meat" was eaten the most frequently (17%) and "fish/shellfish" was eaten the least frequently. (8%) Less than 2% of respondents stated that they ate meat everyday.

Meat consumption frequency

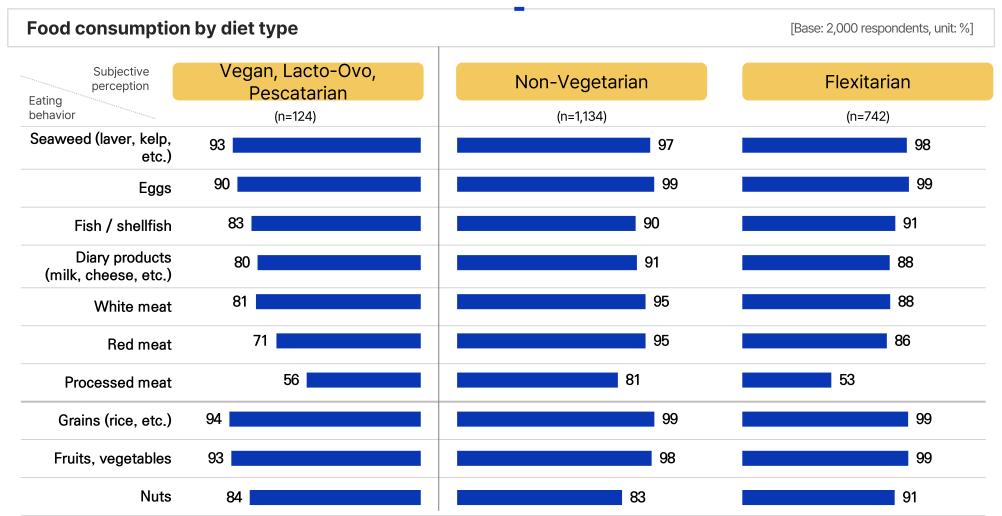


Q. During the past week, how many days did you eat each of the following meat types? Tell us how many days you ate each type of meat of least once a day.

Q. Do you eat the following foods? Indicate which food items you usually eat.



I The various types of vegetarians (vegans, lacto-ovo, or pescatarian, as well as a flexitarians and non-vegetarians) consume a wide variety of foods. More than 90% of non-vegetarians consume white meat, red meat, fish/shellfish, and dairy products. This figure drops to 70-80% among vegans, lacto-oco, and pescatarians. Even vegetarians who do not eat meat or seafood reported that they eat a balanced diet of a variety of foods. In short, many people consider themselves one form of vegetarian, but most of their diets are not as flexible and open as those of flexitarians.



Q. Do you eat the following foods? Indicate which food items you usually eat.

26 ¹



- I Of the 866 vegetarians, the most common reason for practicing or wanting to become a vegetarian is "to stay healthy and prevent disease" (80%, 1st+2nd+3rd choice).
- I 52% stated it is because the food is easy to digest. 49% stated it is "to manage weight and stay attractive."
- Very few people become vegetarians for value-oriented reasons such as "to protect the environment" (23%), "to protect animals" (9%)', and "to prepare for future food shortages."

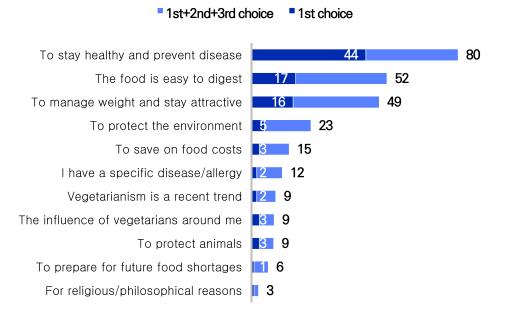
Roughly half of all respondents intend to become or remain a vegetarian. Only 8% of people have a strong desire to become a vegetarian. 1 in 5 respondents said they have no intention at all of becoming a vegetarian.

Reasons for being a vegetarian

[Base: Base: 866 vegans or vegetarians, multiple responses, unit: %]

Intention to become/remain a vegetarian

[Base: 2,000 respondents, unit: %]



NO (①+②): 51%

YES (③+④): 49%

40

8

Absolutely not No, not really Yes, somewhat Yes, absolutely

Q. What are your reasons for practicing vegetarianism or pursuing vegetarianism? Select the 3 most important reasons.

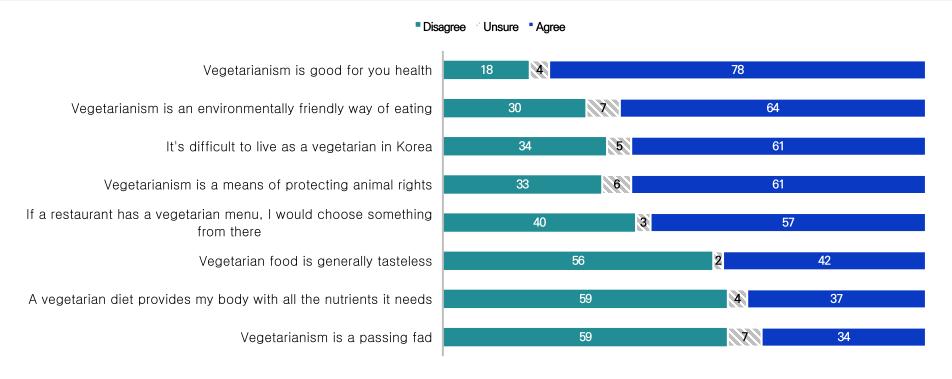
Q. Do you intend to become a vegetarian? Do you intend to continue being a vegetarian?



- I The perception that vegetarianism helps people stay healthy and is an environmentally-friendly way of eating is widespread. 78% (strongly agree + agree) of people believe that vegetarianism is good for your health, 64% believe it is an environmentally-friendly way of eating, and 61% believe that it is a means of protecting animal rights. 57% said that they would order from a restaurant's vegetarian menu, while 56% disagreed with the statement that "vegetarian food is generally tasteless (strongly disagree + disagree).
- People look favorably upon vegetarianism with roughly half of all respondents saying they intend to begin or remain vegetarian. 59% disagree with the statement that "vegetarianism is a passing fad."
- I However, 61% of respondents believe that "it's difficult to live as a vegetarian in Korea" and 59% disagree with the statement that "a vegetarian diet provides my body with all the nutrients it needs."

Perceptions of vegetarianism

[Base: 2,000 respondents, unit: %]



Q. Do you agree or disagree with the following statements regarding veganism or vegetarianism.

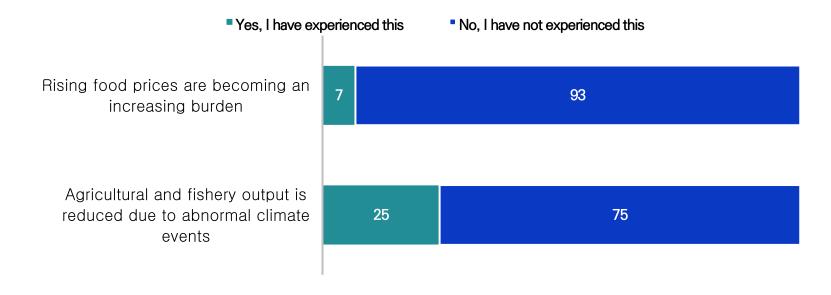


2. Analysis of Results – 4) The Link between Food and the Climate Crisis

I We checked to see what food-related problems respondents experienced during the past year (April, 2024 to the present). 93% of respondents felt that "rising food prices are becoming an increasing burden" and 75% felt that "agricultural and fishery output is reduced due to abnormal climate events such as droughts, heat waves, and typhoons. The majority of respondents experienced some food-related problems during the past year.

Experience of food-related problems

[Base: 2,000 respondents, unit: %]



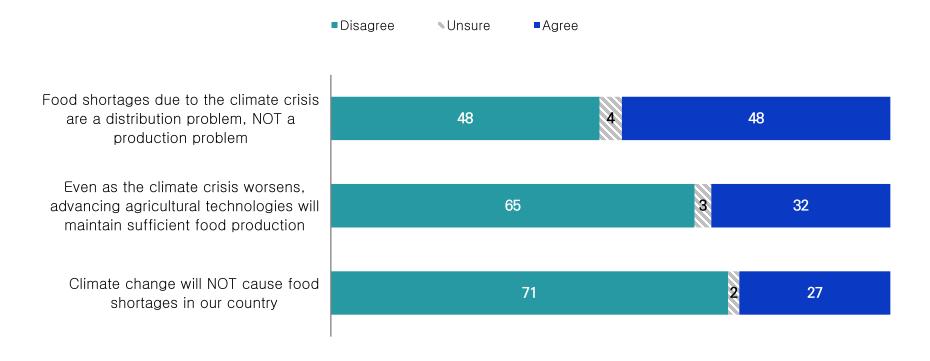
29 ¹



- I Although the majority of respondents stated that they are experiencing food-related issues, 71% disagree with the statement that "climate change will NOT cause food shortages in our country" (strongly disagree + disagree). 65% of respondents disagree with the statement that "even as the climate crisis worsens, advancing agricultural technologies will maintain sufficient food product." This indicates that people are skeptical of technology being able to solve this issue.
- Roughly half agreed with and roughly half disagreed with the statement that "food shortages due to the climate crisis are a distribution problem, NOT a production problem." However, in general, people are keenly aware of the impact that the climate crisis is having on food production and the resulting food shortages.



[Base: 2,000 respondents, unit: %]



Q. To what extent do you agree or disagree with the following statements.

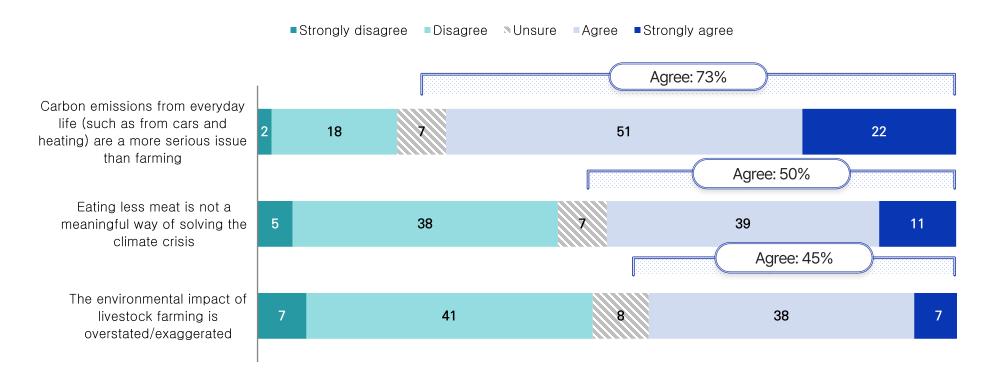
30 1



- I There is a general consensus that the climate crisis is causing food shortages. Greenhouse gas emissions are viewed as one of the major factors contributing to the climate crisis. 73% of respondents agreed with the statement "carbon emissions from everyday life such as cars and heating are a more serious threat than the carbon emissions from livestock farming." (agree + strongly agree).
- I Opinions are divided on the statements "eating less meat is not a meaningful way of solving the climate crisis" (50% agree, 43% disagree) and "the environmental impact of livestock farming is overstated/exaggerated (45% agree, 48% disagree). The number of people that believe there is a link between livestock farming, meat consumption, and the climate crisis is fairly low.



[Base: 2,000 respondents, unit: %]



Q. To what extent do you agree or disagree with the following statements?

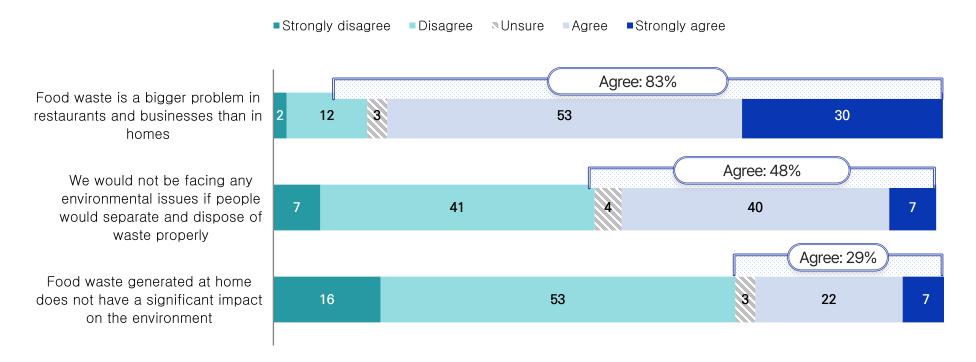
31 ¹



- I 69% of respondents disagreed (strongly disagree + disagree) that "food waste generated at home does not have a significant impact on the environment." This indicates that most people agree that household food waste has a negative impact on the environment.
- I However, 83% of respondents agreed (strongly agree + agree) that "food waste is a bigger problem in restaurants and businesses than in homes." Opinions were split evenly regarding the statement "we would not be facing any environmental issues if people would separate and dispose of waste properly." (48% agree, 48% disagree). While acknowledging the fact that household food waste contributes to environmental pollution, food waste in restaurants and businesses is viewed as a bigger threat.

Perceptions of reducing food waste and greenhouse gases

[Base: 2,000 respondents, unit: %]



Q. To what extent do you agree or disagree with the following statements?



2. Analysis of Results – 5) Perceptions and Willingness to Engage in a Low-Carbon Diet

I 37% of respondents are familiar with the term "low-carbon diet" (3% know a lot about it, 34% have heard the term and am somewhat familiar with it). Only 3% are knowledgeable about low-carbon diets. 63% of respondents have either never heard the term or have heard the term but know little about it. There are far more people who do NOT know about low-carbon diets than those who do.

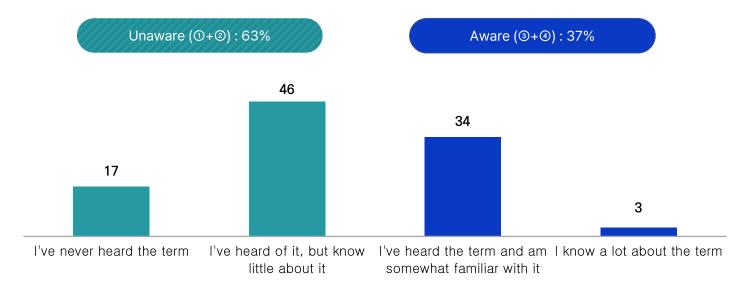
What is a low-carbon diet?

A low-carbon diet refers to a lifestyle that minimizes carbon emission in all food-related processes – from food production to packaging, distribution, and even waste disposal after consumption.

This diet includes practices such as choosing plant-based proteins instead of meat, which generates a lot of carbon during its production process, or using products with a "low-carbon agricultural certification." This goes beyond only choosing certain foods or limiting oneself to certain foods. A low-carbon diet is a comprehensive dietary practice that aims to reduce the carbon footprint of the entire food chain.

Awareness levels of a low-carbon diet

[Base: 2,000 participants, unit: %]

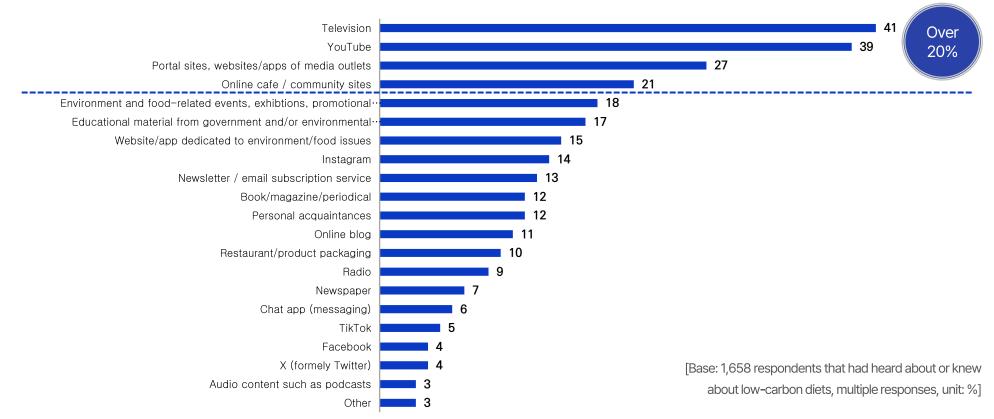


Q. Have you ever heard of the term "low-carbon diet"?



- Among the 1,658 respondents who had heard about or know about low-carbon diets, the most common pathways to information were: television (41%), YouTube (39%), portal sites/websites/apps of media outlets" (27%), and online cafes/community sites such as Naver or Daum café (21%). Mass media and online platforms are the main sources of information.
- I Relatively few people obtain information about low-carbon diets through events or campaigns focused on the environment (18%), educational material from government and/or environmental organizations (17%), and websites/apps dedicated to environment/food issues (15%). Although we have already confirmed that online platforms were the main source of information, only 15% of respondents obtained information from websites and applications dedicated to environmental issues.

Pathways of acceptance to Information regarding low-carbon diets



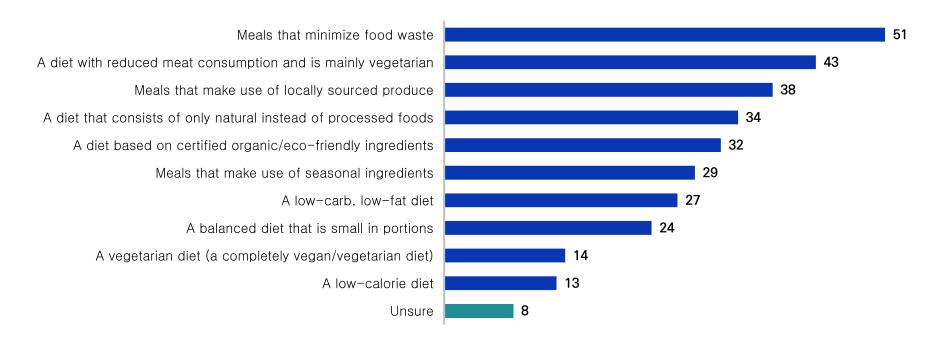
Q. Where did you get information about low-carbon diets? Select all applicable sources of information.



- Before providing an explanation, we asked respondents what they thought a "low-carbon diet" is. The results of our survey show that people have a poor understanding of what a "low-carbon diet" actually is. The most common belief is that a low-carbon diet is one with "meals that minimize food waste" (51%). This was followed by the belief that it is a "diet with reduced meat consumption and is mainly vegetarian" (43%), "meals that make use of locally sourced products" (38%), "a diet that consists of only natural instead of processed foods" (34%), "a diet based on certified organic/eco-friendly ingredients" (32%), and "meals that make use of seasonal food ingredients (29%).
- I Many people confuse a low-carbon diet with completely unrelated ideas such as "a low-carb, low-fat diet" (27%), "a balanced diet that is small in portions" (24%), and "low-calorie diet" (13%). 8% of respondents stated they were "unsure" what a low-carbon diet indicating a lack of a clear understanding of what a low-carbon diet actually is.

The public's understanding of a low-carbon diet

[Base: 2,000 respondents, multiple responses, unit: %]



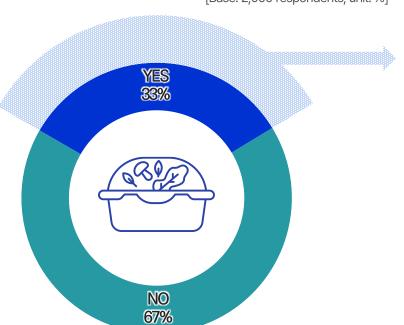
Q. In your opinion, what is a "low-carbon diet"? Select all responses that apply.

SFO°C

In general, few people have ever tried a low-carbon diet. 33% of respondents said that they have tried a low-carbon diet, 67% said that they never had.

Experience practicing a low-carbon diet

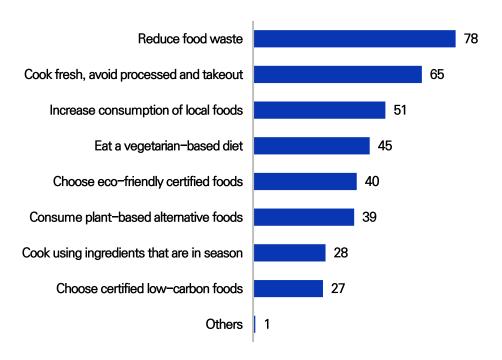
[Base: 2,000 respondents, unit: %]



- I The most common method of practicing a low-carbon diet among the 670 respondents who have experience with it was to eat "meals that minimize food waste" (78%). More than half of these respondents "reduced their intake of delivery/processed food and cooked themselves" (65%)', and "increased their used of locally sourced produce" (51%). 45% "reduced their meat consumption and ate more vegetables, 40% chose certified eco-friendly foods and roughly 40% consumed "plant-based alternative foods (soybeans, soy milk, etc.)
- The percentage of people who chose "certified low-carbon agricultural products was rather low at only 27%.

Ways of practicing a low-carbon diet

[Base: the 670 respondents who have tried a low-carbon diet, multiple responses, unit: %]



Q. In which of the following ways have you practiced a low-carbon diet? Select all that apply.

Q. Have you ever tried a low-carbon diet?

SFO°C

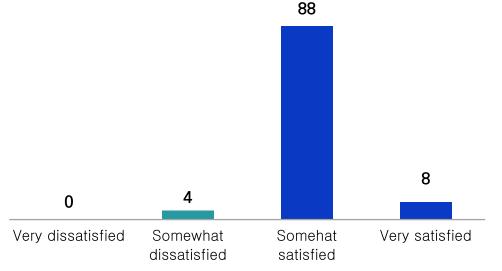
Among the 670 respondents who have tried a low-carbon diet, a whopping 96% found the experience satisfying. (8% were very satisfied, 88% were somewhat satisfied). Only 4% found the experience dissatisfying (somewhat dissatisfied).

- A staggering 76% of respondents were willing to practice a low-carbon diet in the future (16% definitely or already practicing a low-carbon diet, 60% likely yes).
- 20% were not willing to try a low-carbon diet (4% no, not at all, 16% likely not). When we include the respondents that were unsure, roughly 1 in 4 people have no interest in practicing a low-carbon diet.



[Base: the 670 respondents who have tried a low-carbon diet, multiple responses, unit: %]

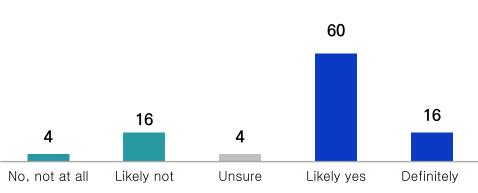
Dissatisfied (①+②):4% Satisfied (③+④):96%



Intention to practice a low-carbon diet in the future

[Base: 2,000 respondents, unit: %]





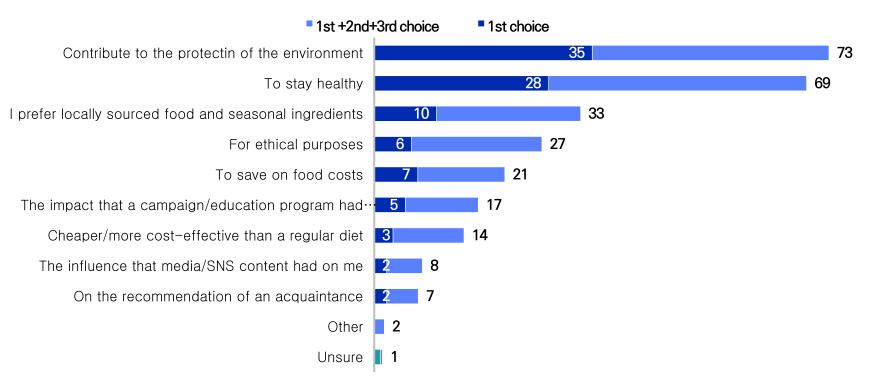
Q. Are you willing to try a low-carbon diet in the future?

Q. Did you find a low-carbon diet satisfying or dissatisfying?



- I 1,522 people who are practicing or intend to practice a low-carbon diet cite wanting to "contribute to the protection of the environment (by reducing carbon emissions, sustainability, etc.) as their biggest reason (73%, 1st+2nd+3rd choice). The 2nd most popular reason was "to stay healthy (manage weight, maintain good nutritional balance, prevent diseases, allergies, etc.) (69%). The environment and personal health are the main drivers of people practicing or wanting to practice a low-carbon diet.
- Other fairly common reasons cited were a "preference for locally sourced food and seasonal ingredients" (33%), "for ethical reasons" (27%), and "to save on food costs" (21%).

Reasons for practicing a low-carbon diet



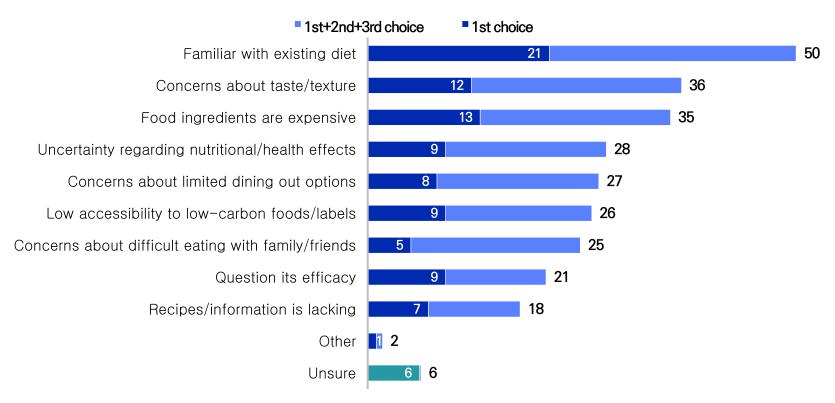
[Base: 1,522 respondents who are practicing or intend to practice a low-carbon diet, multiple responses, unit: %]

Q. Why are you currently practicing a low-carbon diet or plan to practice on in the future? Select up to 3 responses and rank them in order of importance.



Among the 478 respondents who have no intention of practicing a low-carbon diet, the most common reason cited for this hesitancy is "familiarity with their existing diet" (50%, 1st+2nd+3rd choice). This was followed by "concerns about taste/texture" at 36%, "low-carbon food ingredients are expensive" at 35%, and "uncertainty regarding nutritional/health effects" at 28%. People are simply too familiar with their existing diets and find it difficult to break away from what they find satisfying taste-wise and texture-wise. In addition to this, concerns about the taste/texture of low-carbon foods, the high price of these foods, and concerns about the nutritional value of these foods give people hesitation.

Barriers to following a low-carbon diet



[Base: 478 respondents who said they have no intention of practicing a low-carbon diet or know nothing about it, multiple responses, unit: %]

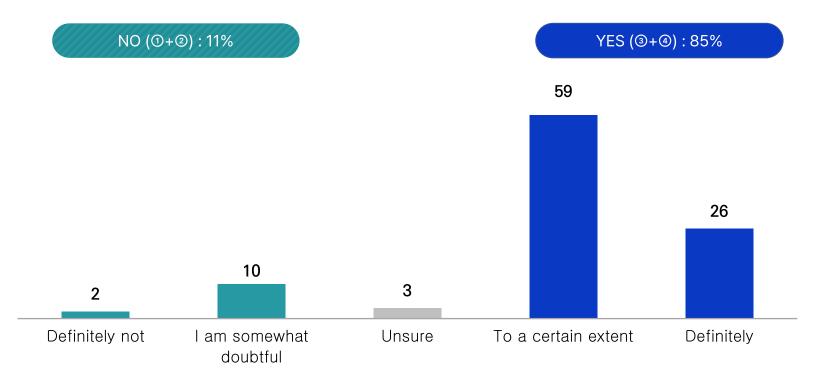
Q. Which of the following are reasons for you NOT wanting to follow a low-carbon diet? Select up to 3 responses and rank them in order of importance.



- I A staggering 85% (definitely 26%, to a certain extent 59%) of respondents feel that low-carbon diets will help us to overcome the climate crisis. 11% believe that it will do nothing to help solve the problem (definitely not 2%, I am somewhat doubtful 10%).
- More than 8 out 10 respondents believe that low-carbon diets can have an impact on the climate crisis, but current awareness levels of a low-carbon diet are low and the actual practice of the diet is rare. However, 76% of respondents said they are willing to try a low-carbon diet, suggesting that this type of diet may become a long-term eating habit rather than just a passing fad. In order for a low-carbon diet to become more of a social mainstay, issues such as dissatisfaction with taste/texture, higher prices, and uncertainty regarding the nutritional value of these foods must be resolved.



[Base: 2,000 respondents, unit: %]



Q. Do you think that practicing a low-carbon diet can help overcome the climate crisis?

40 ¹



2. Analysis of Results – 6) Awareness of and Willingness to Eat Alternative Foods

- Respondents were the most familiar with "plant-based protein" alternative foods (plant-based meat, plant-based seafood, plant-based dairy products, etc.) (61%). Roughly half of all respondents were aware of "edible insects" as an alternative food showing an intermediate level of awareness. Only 3 in 10 respondents were aware of "microbial fermentation methods" for creating alternative foods (reproducing the flavor of meat or fat through the fermentation of microorganisms such as bacteria, mold, and yeast)(34%).
- Among the various forms of alternative foods, foods fermented using microorganisms are in the process of being fully commercialized in some countries including the U.K. Although only 30% of Koreans are aware of these foods and accessibility is low, there are quite a few people who are familiar with foods that are fermented using microbial organisms.

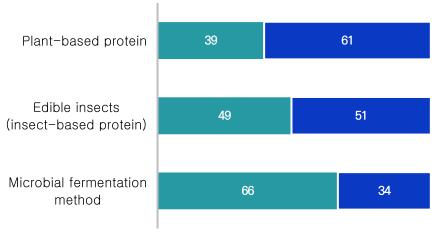
What are "Alternative Foods"?

These are foods that look similar, taste similar, and have a similar texture to existing foods. Instead of animal-based raw ingredients, these foods are made using plant-based raw materials, microorganisms, edible insects, and cell cultures.

Awareness of alternative foods - "I am familiar with the concept"

[Base: 2,000 respondents, unit: %]

- Not familiar with (never heard of it + don't know)
- Familiar with (very familiary with + somewhat familiar with)

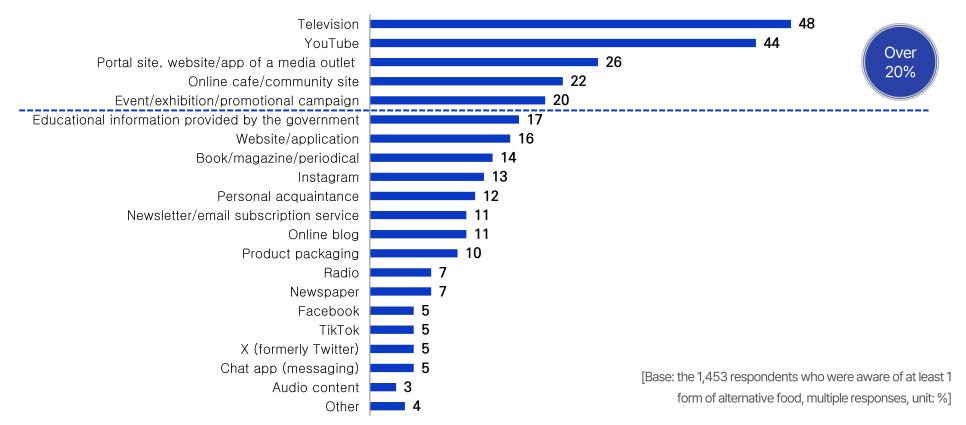


Q. Have you heard of "alternative foods"? Select all of the alternative foods you are aware of.



- I Among the 1,453 respondents who were aware of at least one form of alternative food, the most common pathway to gaining this awareness was television (48%). This was followed by "YouTube" at 44%, "portal site, website/application of a media outlet" at 26%, and then "online café/community sites" at (Naver, Daum Café, Band, etc.) at 22%.
- I Roughly 20% of these respondents cited "event/exhibition/promotional campaign," "educational information provided by the government," or "website/application dedicate to environment/food issues" as their source for information. The most common sources of information for both low-carbon diets and alternative foods are mass media and online platforms.

Channels for obtaining information on alternative foods



Q. Where did you get information about alternative foods? Select all sources you obtained information from.



I 59% of respondents have never tried alternative foods, while 49% have. Although a majority of people have never tried alternative foods, 4 in 10 have. This is still a significant number of people.

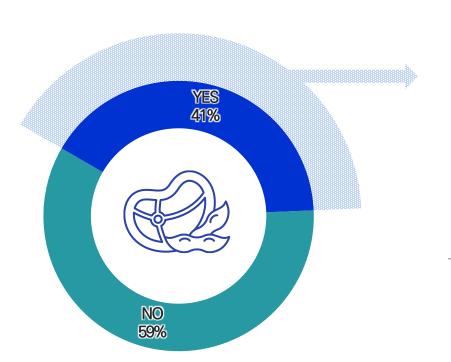
Among the 813 respondents who either purchased or ate alternative food, 70% were satisfied with the experience (very satisfied 3%, somewhat satisfied 67%). Only 30% were dissatisfied with experience (very dissatisfied 3%, somewhat dissatisfied 27%). Generally speaking, the response to alternative food is positive.

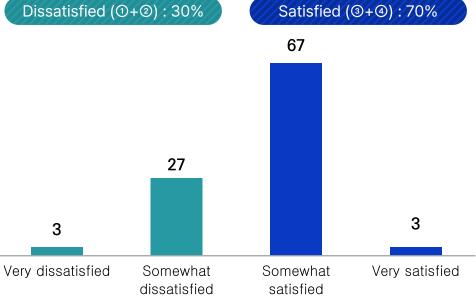
Have you tried alternative foods?

Satisfaction after eating alternative foods

[Base: 2,000 respondents, unit: %]

[Base: the 813 respondents who either purchased or ate alternative food, unit: %]





Q. Were you satisfied or dissatisfied with alternative foods?

Q. Have you ever purchased or eaten alternative foods?

SFO°C

- I 51% of respondents purchased alternative foods less than once a month. 28% purchased alternative foods "once every 2-3 months," 18 did so 1-3 times a month, and 4% did so more than once a week.
- I 22% of respondents purchased alternative food at least once a month (1-3 times a month 18%, more than once a week 4%). Add in the 28% of respondents who buy alternative food once every 2-3 months, and 1 in 2 people purchase alternative food at least once a quarter.

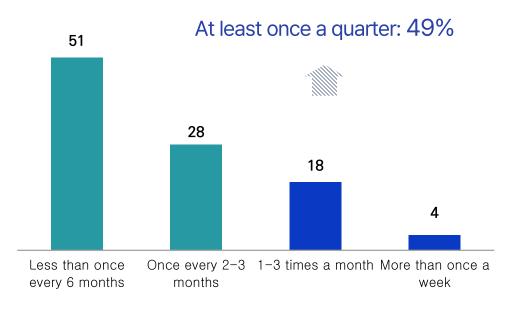
The primary purchasing channels for alternative foods are markets and offline stores" (supermarket, grocery store, etc.) (45%) and "online shopping malls such as Coupang and Market Kurly" (39%). Only 12% of respondents purchased alternative foods at a specialty store (ecofriendly/vegan specialty store 9%, vegan specialty restaurant 3%).

How often alternative food is purchased

[Base: the 813 respondents who have either purchased or eaten alternative food, unit: %]

Where alternative foods are purchased

[Base: the 813 respondents who have either purchased or eaten alternative food, unit: %]





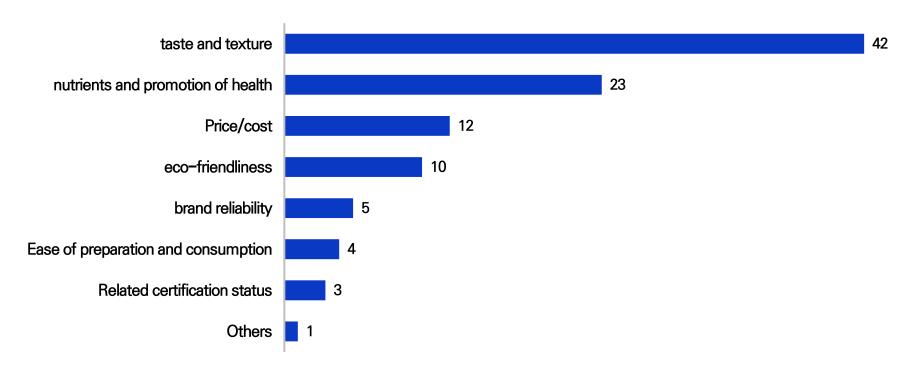
Q. How often do you buy alternative foods?

Q. Where do you usually buy alternative foods?



The single most important factor taken into consideration when buying alternative food is "taste and texture" (42%). This is followed by "nutrients and promotion of health" (23%). "Price/cost" (12%), "eco-friendliness" (10%)', and "brand reliability" (5%) are relatively insignificant factors. 12% or fewer respondents stated that these factors were important to them.

Important factors taken into consideration when buying alternative foods



[Base: the 813 respondents who have either purchased or eaten alternative food, unit: %]

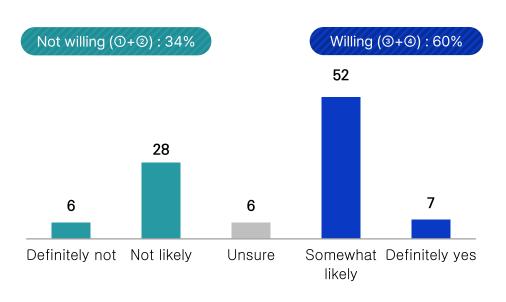
45 ¹

SFO°C

I 60% of respondents expressed a willingness to eat alternative foods in the future (definitely yes (currently eating) 7%, somewhat likely 52%) – indicating that more than half of all respondents are willing to eat alternative foods. 1 in 3 respondents or roughly 34% had no intention of eating alternative foods (definitely not 6%, 28% not likely).

Willingness to eat alternative foods

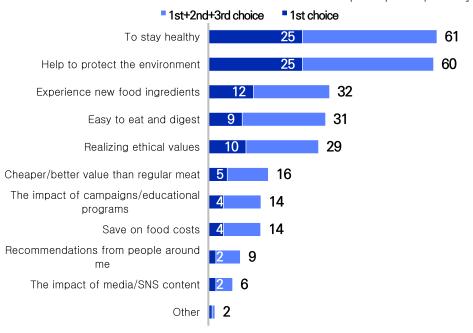
[Base: 2,000 respondents, unit: %]



- The most common reason cited for consumption among the 1,199 respondents who are willing to consume or currently consume alternative foods is "to stay healthy" (manage weight, maintain nutritional balance, prevent diseases/allergies, etc.) (61%, 1st+2nd+3rd choice). 60% chose "to help protect the environment" (reduce carbon emissions, sustainability, etc.) as their reason. The environment and personal health are the main reasons for eating alternative foods.
- I Roughly 1 in 3 respondents eat alternative foods for one of the following 3 reasons: "to experience new food ingredients, "it is easy to eat and digest," and "to realize ethical values (animal welfare, being opposed to factory farming, etc.

Reasons for eating alternative foods

[Base: the 1,199 respondents willing to eat or are currently eating alternative food, multiple responses, unit: %]



Q. Why are you currently eating alternative food or planning to eat alternative food in the future? Select up to 3 reasons and rank them in order of importance.

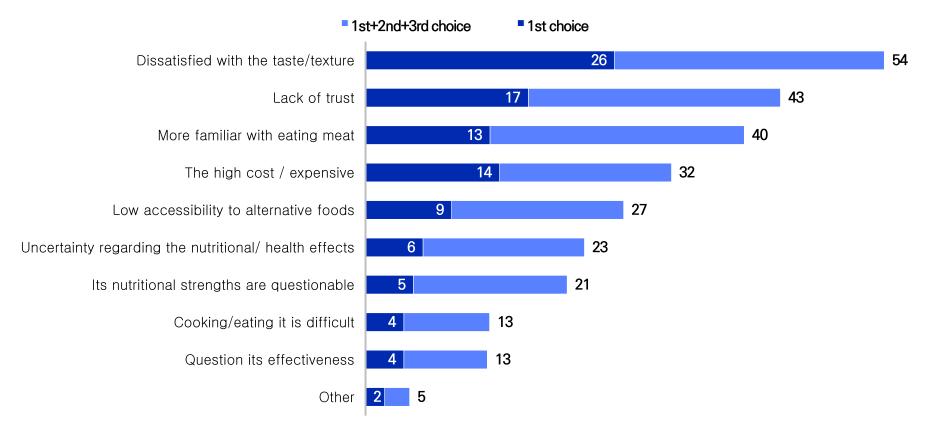
Q. Are you willing to eat alternative foods in the future?



- The most common reason cited for NOT eating alternative foods is "I don't think the taste or texture will be satisfactory compared to conventional meats" (54%, 1st+2nd+3rd choice). This was followed by 43% of respondents choosing "a lack of trust in alternative foods" and 40% choosing "being more familiar with conventional meats."
- I There were quite a few respondents who cited "the high cost" (32%) and "low accessibility" (27%) as reasons for not eating alternative foods.

Reasons for NOT eating alternative foods

[Base: the 801 respondents who were not willing to eat alternative foods, multiple responses, unit: %]



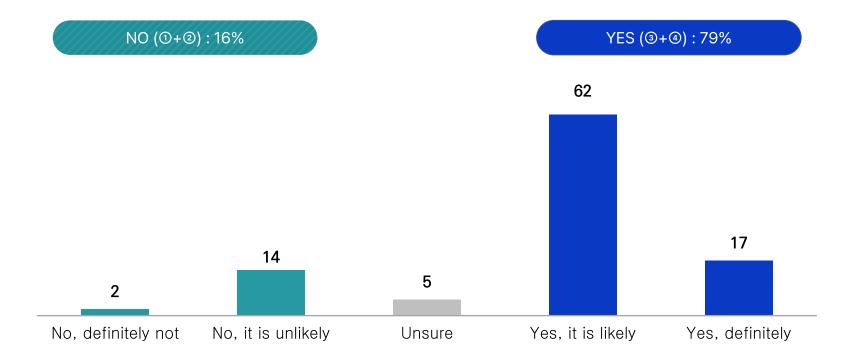
Q. Which of the following are your reasons for NOT wanting to eat alternative foods? Select all that apply.



- I At 79%, a high percentage of respondents feel that eating alternative foods can help to overcome the climate crisis. (yes, it is likely 62%, yes, definitely 17%). 16% of respondents feel that it does not help. (no, definitely not 2%, no, it is unlikely 14%). In general, most people agree that eating alternative foods has a positive impact on overcoming the climate crisis.
- I Although the majority of people agree that eating alternative foods has a positive impact on the climate crisis, 60% of all respondents have never bought or eaten alternative foods. Since we know that roughly 60% are willing to eat alternative foods, it is imperative to find ways to improve its taste, trust, and familiarity.

The relationship between alternative foods and the climate crisis

[Base: 2,000 respondents, unit: %]



48 ¹

Q. Do you think that eating alternative foods can help overcome the climate crisis?



2. Analysis of Results – 7) Awareness and Intention to Consume Cultured Meat

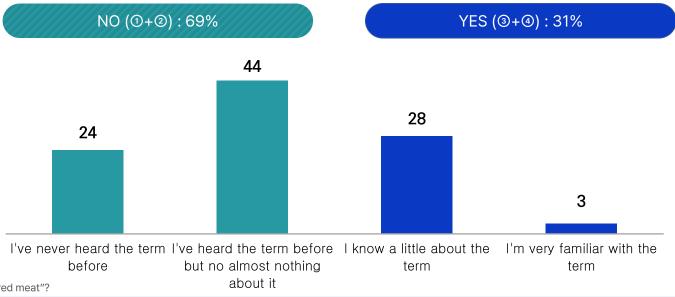
I Only 31% of respondents know what cultured meat is. 28% "knew a little about it" and only 3% were "very familiar with the term." 69% of respondents did not know what cultured meat is. 24% have never heard the term before and 44% have heard the term but know almost nothing about it. Awareness levels for cultured meat are roughly half of awareness levels of plant-based alternative proteins (61%).

What is cultured meat?

Cultured meat is meat that is similar in taste and nutritional value as conventional meat but is produced by growing animal cells in a laboratory setting, rather than raising and slaughtering animals. There is no current legal definition of cultured meat. Some policies describe it as "edible meat produced by extracting living animal cells and culturing them using cell engineering technology." It is also known as "cell-cultured food."

Awareness of cultured meat

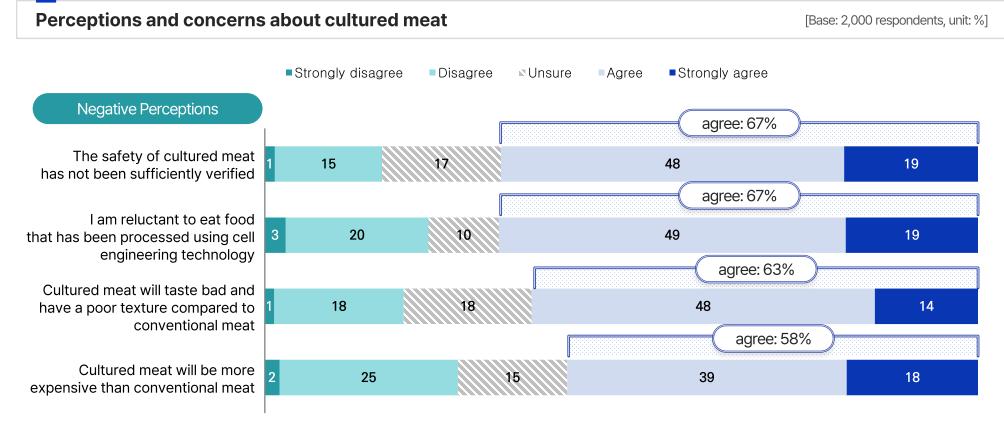
[Base: 2,000 respondents, unit: %]



Q. Have you ever heard the term "cultured meat"?



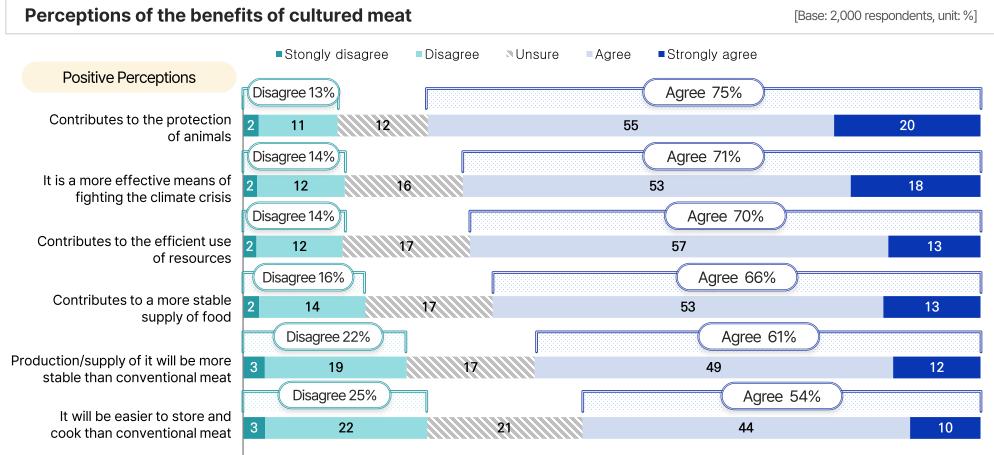
4 statements containing concerns about cultured meat were presented to respondents. We then asked to what extent they agree or disagree with these statements. In terms of the safety of eating cultured meat, 67% agreed with the statement that "the safety of cultured meat has not been sufficiently verified" (strongly agree + agree) – indicating a fair amount of concern. From a psychological standpoint, 67% stated that they are "reluctant to eat food that has been processed using cell engineering technology." From a quality standpoint, 63% were concerned that "cultured meat will taste bad and have a poor texture compared to conventional meat." From an economic standpoint, 58% are concerned that "cultured meat will be more expensive than conventional meat." 1-2 out of 10 people have strong negative perceptions about the safety, psychological aspects, quality, and price of cultured meat.



Q. To what extent do you agree or disagree with the following statements regarding cultured meat?



- I 6 statements regarding the impact of cultured meat on society were presented to respondents. We then asked to what extent they agree or disagree with these statements. From an ethical point of view, 75% agreed that it "contributes to the protection of animals." From an environmental point of view, 70% agreed that "it is a more effective means of fighting the climate crisis than eating conventional meat." In terms of an efficient use of resources, 69% agree that it "contributes to the efficient use of resources."
- I 66% agreed that it would "contribute to a more stable supply of food." From a stability standpoint, 61% agreed that the "production/supply of it will be more stable than conventional meat. In terms of real-world practicality, 54% agreed that "it will be easier to store and cook than conventional meat." Although concerns about the consumption of cultured meat certainly do exist, most people agree that it can have a positive impact on our society as a whole.



Q. To what extent do you agree or disagree with the following statements regarding cultured meat?

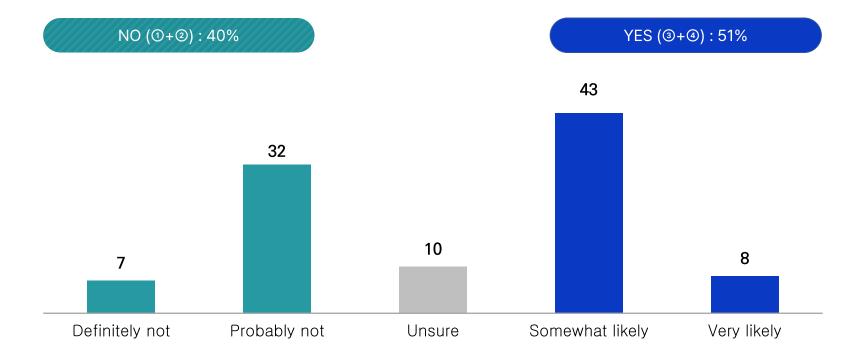
51 ¹



I 51% of respondents are likely to buy or consume cultured meat in the future (43% are somewhat likely, 8% are very likely), while 40% are unwilling (7% definitely not, 32% probably not). Despite their being concerns about the safety, psychological aspects, quality, and price of cultured meat, more than half of all respondents exhibited a positive attitude towards the possibility of eating cultured meat in the future.

Willingness to buy/consume cultured meat

[Base: 2,000 respondents, unit: %]



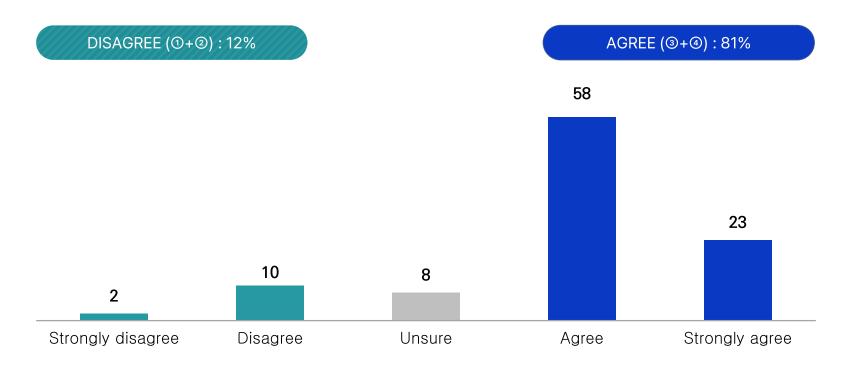
Q. Do you have any intention of buying or eating cultured meat in the future?



2. Analysis of Results – 8) Policies to help expand the consumption of alternative foods and practice of low-carbon diets

I An overwhelming 81% of respondents agree that the consumption of alternative foods and the practice of low-carbon diets should be expanded. (23% strongly agree, 58% agree). Only 12% of respondents disagree with this. (2% strongly disagree, 10% disagree). There is a growing social consensus on the need to change our eating habits to address the climate crisis.

The need to expand the consumption of alternative foods and practice of low-carbon diets

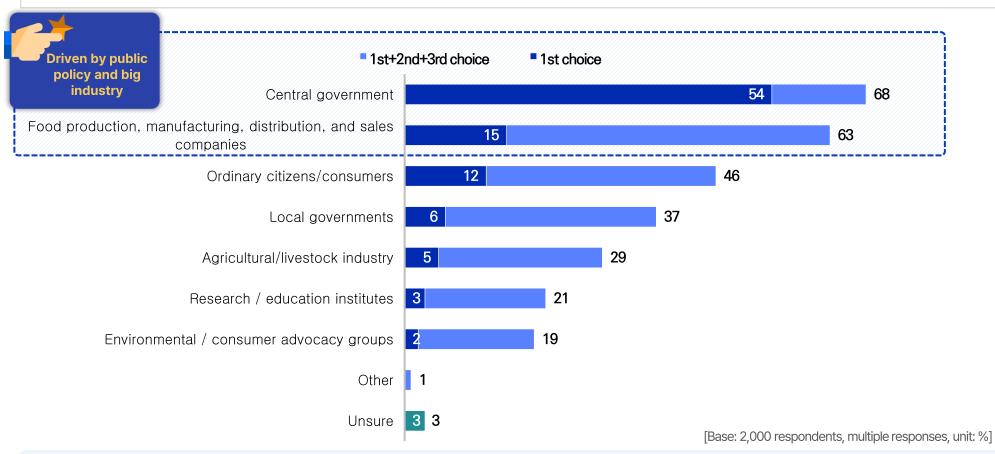


[Base: 2,000 respondents, unit: %]



The increased consumption of alternative foods and the practice of low-carbon diets is essential to help address the climate crisis. 68% of respondents believe that the central government should play the biggest role in increasing awareness and consumption of alternative foods and a low-carbon diet. (1st+2nd+3rd choice). This was followed by 63% of respondents believing that "food product, manufacturing, distribution, and sales companies" should play the biggest role, 46% believing that "ordinary citizens/consumers" should play the biggest role, and 37% believing that local governments should play the biggest role. A majority of people believe that governments and businesses should take the lead in implementing policies to increase the consumption of alternative foods and the practice of low-carbon diets. Relatively few people believe that this responsibility should fall to the "agricultural/livestock industry" or "environmental/consumer advocacy groups."

Ways of increasing the consumption of alternative foods and practicing low-carbon diets



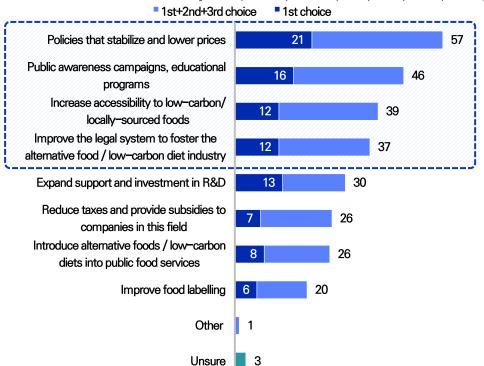
SFO°C

People believe that it is primarily the responsibility of government agencies to create policies that will increase the consumption of alternative foods and the practice of low-carbon diets. 57% believe top priority should be given to "policies that stabilize and lower prices" (1st+2nd+3rd choice). This is followed by "public awareness campaigns" (46%), "increase accessibility to low-carbon/locally-sourced food" (39%), and "improve the legal system to foster the alternative food, low-carbon diet industry" (37%). Generally speaking, policies that make prices more reasonable, enhance knowledge of, and increase accessibility should take top priority.

The role of companies is also very important. 57% of respondents believe that companies should give top priority to "developing alternative foods with improved taste and texture." "Improving the safety/quality of alternative foods" (53%) and "making the prices of these foods reasonable" (51%) are also considered fairly important. Companies are under the impression that they need to improve the taste, safety, price, and accessibility of alternative foods to increase customer acceptance.

Government policies

[Base: 2,000 respondents, multiple responses, unit: %]



Q. Which of the following policies do you think governments should give the highest priority to promote alternative foods and low-carbon diets? Select up to 3 responses and rank them in order of importance.

Activities companies much undertake [Base: 2,000 respondents, multiple responses, unit: %] 1st+2nd+3rd choice 1st choice Develop alternative foods with improved 57 taste and texture Improve the safety/quality of alternative 21 53 foods Make prices of alternative foods reasonable 16 51 Improve accessibility by increasing sales 34 outlets/distribution Reduce carbon emissions during the 30 10 production/distribution process Use simplified, eco-friendly packing 25 Implement educational campains about 20 low-carbon diets Provide more info about the impact on the 15 environment Other

Q. Which of the following policies do you think companies should give the highest priority to promote alternative foods and low-carbon diets? Select up to 3 responses and rank them in order of importance.

Unsure

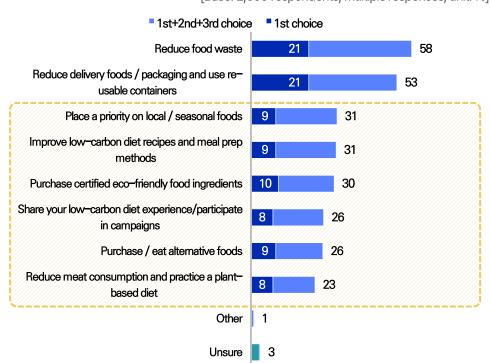


People believe that ordinary citizens also play an important role. Roughly 30% of respondents felt that citizens should "place a priority on buying local/seasonal foods," "improve low-carbon diet recipes and meal prep methods," and "purchase certified eco-friendly foods." However, there was a clear tendency to prioritize indirect practices such as "reducing food waste" and "reducing the consumption of delivery foods / packaging and using re-usable containers" over direct changes to eating habits.

I Activities that civic organizations should give the highest priority to include "promote low-carbon diet programs" (42%), "monitor for false/exaggerated marketing claims (greenwashing)" (40%) and "build a business-consumer-gov't collaboration network" (39%). Roughly 1/3 of respondents felt that social organizations should "improve the legal system to foster the alternative food and low-carbon industry," "monitor the environmental impact of companies and info about their carbon emissions," and "promote low-carbon diets through the media."

Activities the public should carry out

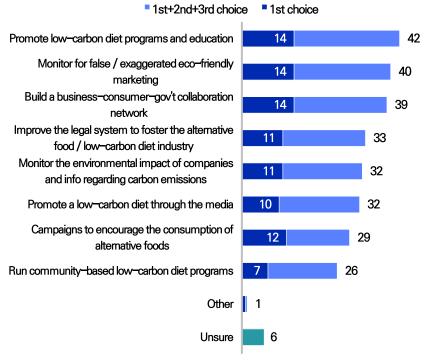
[Base: 2,000 respondents, multiple responses, unit: %]



Q. Which of the following activities should citizens give the highest priority to promote alternative foods and low-carbon diets? Select up to 3 responses and rank them in order of importance.

Activities that social organizations should carry out

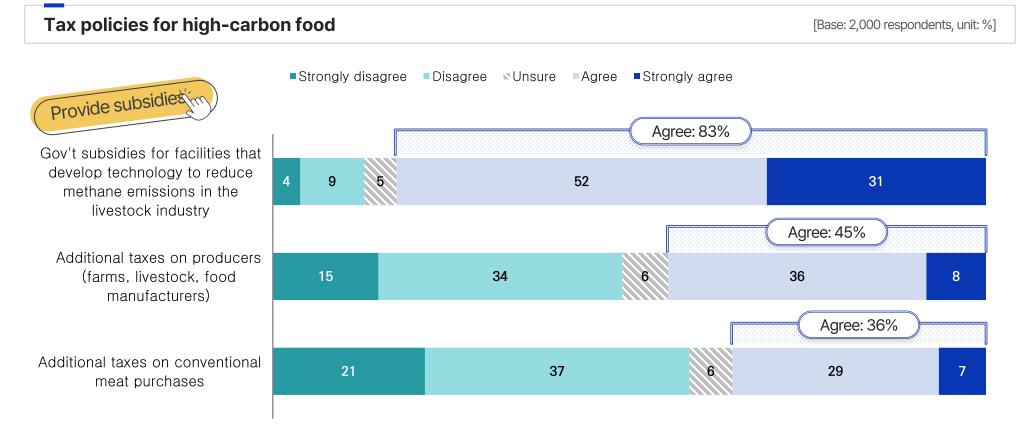
[Base: 2,000 respondents, multiple responses, unit: %]



Q. Which of the following activities should civic organizations give the highest priority to promote alternative foods and low-carbon diets? Select up to 3 responses and rank them in order of importance.



- This survey examined how people felt about additional taxes being levied on high-carbon foods. 45% agreed that additional taxes should be levied on producers (farms, livestock, food manufacturers." (36% agree, 8% strongly agree). 49% disagree with this proposal (strongly disagree+disagree). More than half (58%) of respondents disagreed with the idea of "additional taxes being imposed on consumers when buying conventional meat."
- I 83% agreed that governments should provide subsidies to facilities that develop technology to help reduce methane emissions. Rather than having more taxes imposed on themselves, respondents prefer to see subsidies given to companies who are helping in the effort to address the climate crisis.



Q. Do you agree or disagree that additional taxes should be imposed on foods associated with high carbon emissions? Provide a response for the 3 statements below.

57 ¹



I 61% of respondents report having been exposed to information about the impact of food consumption on the climate crisis (all the time 10%, from time to time 50%). 36% report never have been exposed to this information (never 5%, rarely 31%). More than half of all respondents gain regular exposure to this information.

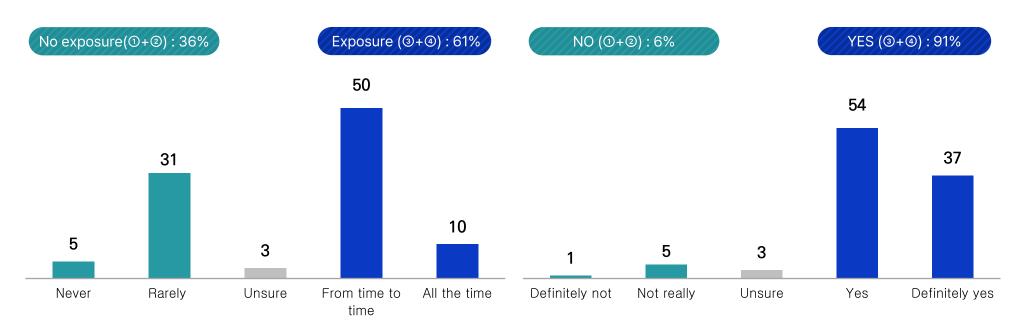
The overwhelming majority (91%) of people believe that there should be more information about the impact of food consumption on the climate crisis (definitely yes 37%, yes 54%). Only 6% feel that there is no need for more information on the topic. (definitely not 1%, not really 5%)

Accessibility of Info on food consumption & the climate crisis

[Base: 2,000 respondents, unit: %]

The need to disseminate relevant information

[Base: 2,000 respondents, unit: %]



Q. How often you come across information about the impact of food consumption on the climate crisis?

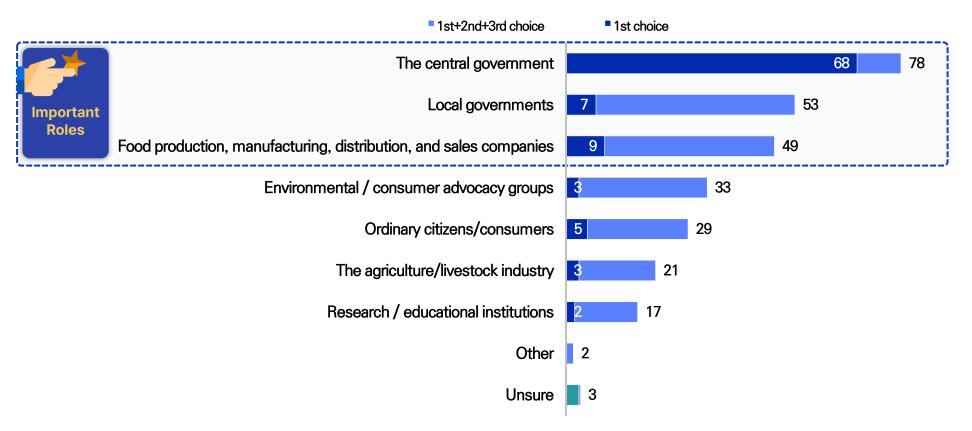
Q. Should more information about the impact of food consumption on the climate crisis be available than it is now?



The overwhelming majority of respondents felt that the central government bears the greatest responsibility for disseminating information (78%, 1st+2nd+3rd choice). This was followed by "local governments" at 53% and "food production, manufacturing, distribution, and sales companies" at 49%. Earlier, we confirmed that government agencies should play a leading role in disseminating information about alternative foods and low-carbon diets. Respondents believe that governments should also take the lead in providing information about the impact food consumption has on the climate crisis.

Persons/Entities responsible for providing information

[Base: 2,000 respondents, multiple responses, unit %]



Q. Who should bear the most responsibility for information people about the impact of food consumption on the climate crisis? Select up to 3 persons/entities and rank them in order of importance.



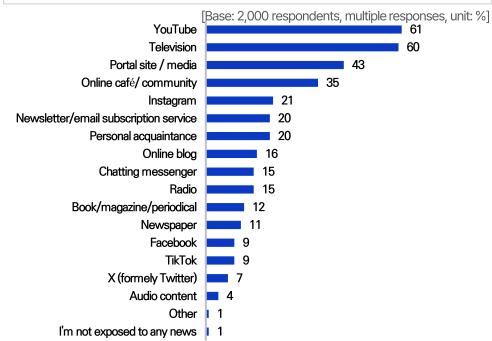
2. Analysis of Results - 9) Access to Information and Media Consumption

The most common pathways to news and information about The most preferred online content format is "short-form videos society were YouTube (61%) and television (60%). 43% reported getting news from "portal site, homepages of media outlets,"35% from "online cafes/communities." Instagram was the most commonly used SNS platform (21%). Roughly 20% of respondents got their news from a "newsletter/email subscription service" or a "personal acquaintance."

If we exclude TV, we see that most people get their news from line media outlets such as YouTube and portal sites.

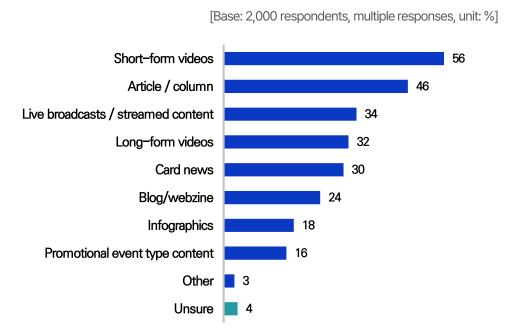
that last 15-60 seconds" (56%). This was followed by "article/column" (text-based, in-depth analytical content) at 46%, "live broadcasts, stream content" (YouTube Live, Instagram Live, , etc.) at 34%, "long-form videos" (video that are 5 mins or more in length, for example: YouTube documentaries, vlogs) at 32%, and "card news" (summarized information presented on cards) at 30%. In general, there is a stronger preference for video content than text.

Access to Information



Q. Through what channels / media outlets do you usually get information and news about our society? Select all that apply.

Preferred format for online content



Q. What is your preferred format for online content? Select all that apply.

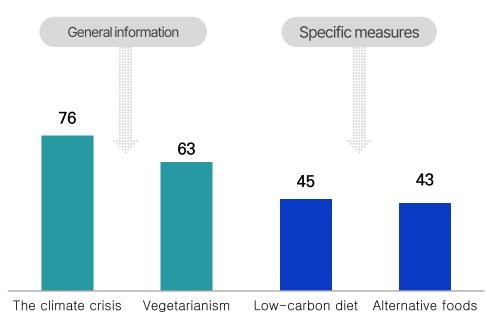
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During the past year, respondents reported being exposed to content regarding "the climate crisis" the most often (76%). 63% reported having seen content regarding "vegetarianism." Only roughly 45% of people reported being exposed to content regarding "low-carbon diets" and "alternative foods." While general information about the climate crisis is widely available, information about specific measures to combat it receives far less exposure.

Exposure to Content regarding the Climate Crisis – "Yes, I have been exposed"

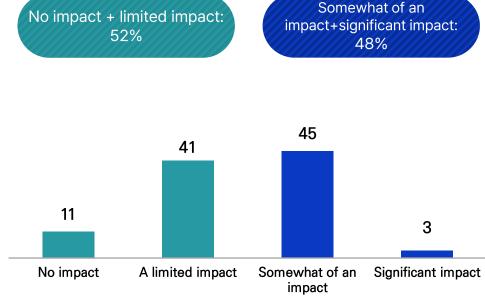
[Base: 2,000 respondents, unit: %]



Among the 1,685 people who have encountered content related to the climate crisis, vegetarianism, alternative foods, and low-carbon diets within the past year, only 48% report having been actually influenced by it in any way (significant impact 3%, somewhat of an impact 45%). 52% said that it had no impact on them (no impact 11%, a limited impact 41%). Although a large portion of society is exposed to this information, it rarely translates into any meaningful behavioral changes.

The Impact of Content on Behavior

[Base: the 1,685 respondents who have encountered content regarding the climate crisis, vegetarianism, alternative foods, and low-carbon diets w/in the past year 1,685 respondents, unit: %]



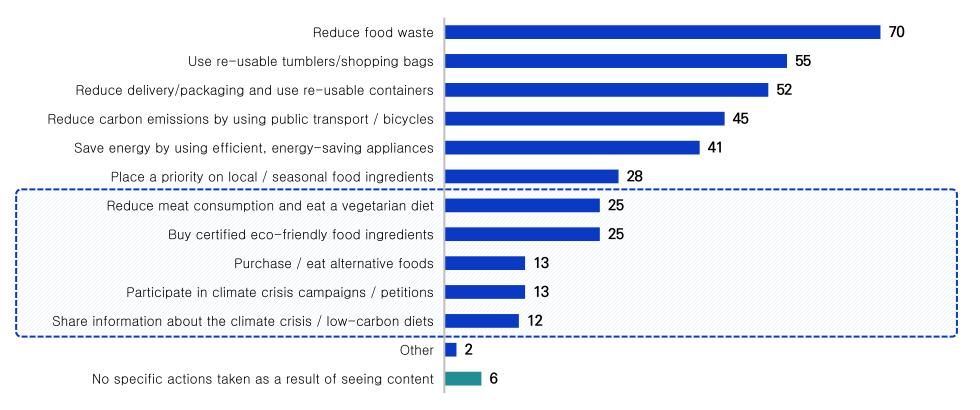
Q. Have you encountered any content regarding the following topics during the past year (April 2024 – present)?

Q. Has content you've seen regarding the climate crisis/vegetarianism/low-carbon diets/alternative foods had an actual impact on your lifestyle?



- I The most common response to being exposed to content related to the climate crisis was "reducing food waste." (70%) More than half of all respondents responded by "using re-usable tumblers, shopping bags," (55%), "reduce delivery/packaging and use re-usable containers," (52%). 40-45% of respondents responded by "reducing carbon emissions by using public transport, bicycles" and "saving energy by using efficient, energy-saving appliances."
- I Only 1 in 4 people answered that they "reduced their meat consumption and ate a vegetarian diet" or "bought certified eco-friendly food ingredients." Less than 15% of respondents "purchased/ate alternative foods," "participated in climate crisis campaigns/petitions," or "shared information about the climate crisis with those around them."





Q. Have you encountered any content regarding the following topics during the past year (April 2024 – present)?

Q. Has content you've seen regarding the climate crisis/vegetarianism/low-carbon diets/alternative foods had an actual impact on your lifestyle?

A Low-Carbon Diet and its Impact on the Climate Crisis Segmentation Research Report



Segmentation Analysis

- 1. Segmentation Overview
- 2. Segment Profile
- 3. Informational awareness and changes in behavioral pattens, by segment
- 4. Communication Strategies for Individual Segments



PART III. Segmentation Analysis

- 1. Segmentation Overview
- 1) Typology Analysis Methodology
- 2) Typology Results
- 3) Typology Summary
- 4) Positioning Map



1. Segmentation Overview – 1) Typology Analysis Methodology

I After examining response distributions, composition ratio, and other variables, latent class analysis (LCA) was performed to classify data.

Step 1

Examine variables by reviewing key results

Variables reviewed

- 1 Variables related to awareness levels of climate change
 - Importance, interest, severity, perceived levels, influence, and effectiveness of national efforts to overcome the climate crisis
- 2 Eating habits
 - Whether or not people take care of their own health, meat consumption habits, whether people are vegetarian, whether people are willing to practice (continue) vegetarianism
- 3 Low-carbon diet, alternative foods, cultured meat
 - Awareness/experience with low-carbon diets, intention to practice (continue) a low-carbon diet
 - Experience eating alternative foods, intention to eat alternative foods
 - Awareness / intention to buy/eat cultured meat
- 4 Demographic variables
 - Gender, age, level of education, occupation, income, marital status, household income, etc.

Step 2

After combining various variables and comparing model fit and error rates, the variable combination with the highest explanatory power is determined.

Variables used for analysis

- 1 Group Classification Variables (Indicators)
 - Importance of the climate crisis as a national task
 - Interest in the climate crisis
 - How severe Koreans believe the climate crisis is
 - Perceptions of the climate crisis
 - Willing to practice (continue) a vegetarian diet
 - Experience with a low-carbon diet
 - Willing to practice (continue) a low-carbon diet
 - Willingness to eat alternative foods
 - Willing to buy/eat cultured meat

2 Covariates

- Demographic variables such as gender, age, level of education, occupation, marital status, # of members in the household, average monthly household income
- Everyday healthcare routines

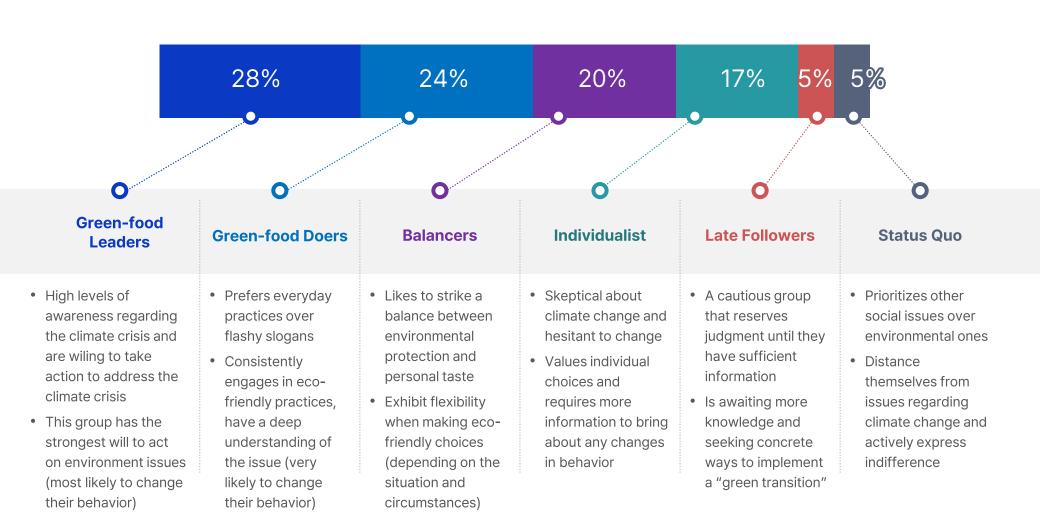


^{*} Latent Class Analysis (LCA): a statistical technique for analyzing response patterns of respondents and group people together based on common, latent tendencies or attitudes. In addition to examining average and overall response distributions, LCA allows us to do an in-depth examination of the characteristics of each group.



2) Typology Results

- I Based on perceptions of the climate crisis and low-carbon diet / alternative food behaviors, Koreans can be categorized into 6 distinct groups.
- I Detailed characteristics and descriptions of each group type can be seen in the table below





3) Typology Summary – Demographic and Socioeconomic Characteristics

	Green Food Leaders	Greed Food Doers	Balancers	Individualists	Late Followers	Status Quo
% of Total Adult Population	28%	24%	20%	17%	5%	5%
Demographic Characteristics	Women, over the age of 50	50% women, 50% men, over the age of 50	Women, 20-40 years old	Men, 20-30 years old	Majority are women, over the age of 40	Under the age of 40, high % are men
Socioeconomic characteristics	Married / widowed, with adult children	High school graduate or lower, married or widowed, with adult children, single-person household, monthly household income is less than KRW 2 million	College graduate or higher, student, office worker/manager/professional, w/ children in elementary, middle, or high school, 4 or more people in the household, monthly household income is KRW 6-10 million	College graduate or higher, student, office worker/ management/ professional, single, no children, monthly household income is greater than KRW 10 million	_	_
Everyday health management	Cares strongly	Cares somewhat	Doesn't care	Doesn't care	_	_



3) Typology Summary – Attitudes towards the Climate Crisis

	Green Food Leaders	Green Food Doers	Balancers	Individualists	Late Followers	Status Quo
% of total adult population	28%	24%	20%	17%	5%	5%
Climate crisis as a national task	The top priority	Important, but not the top priority	50% the top priority, 50% important, but not a top priority	Important, but not a top priority	Important, but not a top priority	ls not an important problem
The severity of the climate crisis in Korea	Very severe	Severe	50% very severe / 50% severe	Severe	Severe	Not severe
Interest in the climate crisis	Highly interested	Interested	Interested	Interested	Interested	Not interested
Perceived impact of the climate crisis	Very noticeable/ somewhat noticeable	Somewhat noticeable	Somewhat noticeable	Somewhat noticeable	Somewhat noticeable	Not noticeable
Level of effort to overcome the climate crisis	Medium + high	Medium	Low-Medium	Medium	Medium-Low	No effort + low effort
The belief that eating less meat is a solution to the climate crisis	Important	_	_	Not important	Not important / Unsure	Not important
Additional taxes levied on high-carbon foods	Should be imposed on both producers and consumers	Should be imposed on producers	Do not agree	Do not agree	Do not agree / unsure	Do not agree



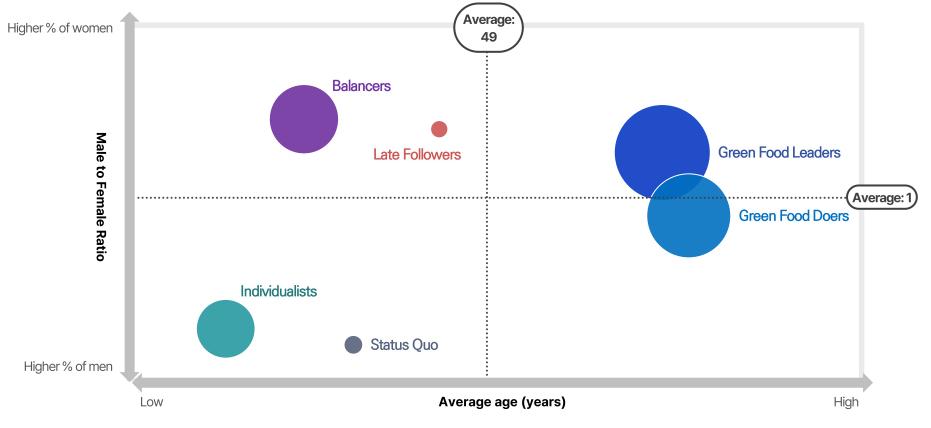
3) Typology Summary – Eating Habits and Attitudes toward Low-Carbon Diets

	Green Food Leaders	Green Food Doers	Balancers	Individualists	Late Followers	Status Quo
% of total adult population	28%	24%	20%	17%	5%	5%
Are you a vegetarian (subjective judgment)	Flexitarian	Flexitarian	Non-vegetarian	Non-vegetarian	Non-vegetarian	Non-vegetarian
Willing to practice (continue) a vegetarian diet	Somewhat willing	Somewhat willing	Somewhat unwilling	Somewhat unwilling + Not at all	Somewhat unwilling	Not at all
Have you tried a low-carbon diet?	YES	YES	NO	NO	NO	NO
Willingness to practice (continue) a low-carbon diet	Willing	Willing	Wiling	Unwilling	Unsure	Unwilling
Have you eaten alternative foods?	50% YES, 50% NO	50% YES, 50% NO	NO	NO	NO	NO
Willingness to eat alternative foods	Willing	Willing	Willing	Unwilling	Unsure	50% willing / 50% unwilling
Willing to eat cultured meat	Somewhat willing	Somewhat willing	Somewhat unwilling	Somewhat unwilling	Unsure	Somewhat unwilling



4) Positioning Map - Age x Gender

- I The average age of Green Food Leaders and Green Food Doers is high. Green Food Leaders tend to be women. The number of men and women that are Green Food Doers is roughly equal.
- Balancers tend to be younger and female. Individualists are typically younger and male.

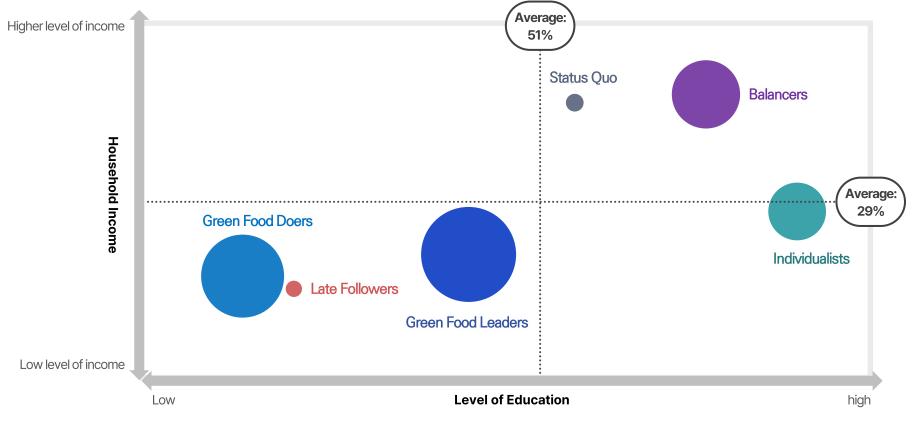


- * Gender composition: the ratio of men to women. The average is 1.0. The closer to the top, the higher the proportion of women. The close to the bottom, the higher the proportion of men.
- * Circle size: each group's proportion of the entire adult population



4) Positioning Map – Level of Education x Household Income

- I Green Food Leaders' income and level of education are similar to the overall averages. Green Food Doers have a lower level of education and income compared to overall averages.
- Balancers are highly educated and earn high levels of income.



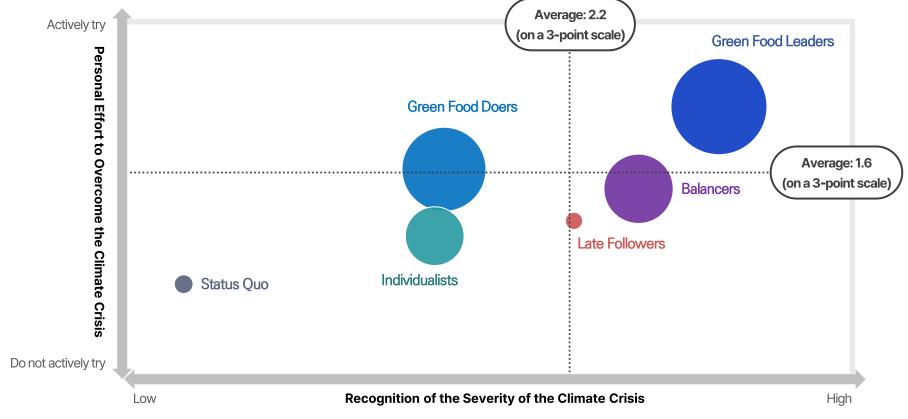
- * Level of education: the % of people in each group that attained a college degree or higher. The closer to the right, the higher the % of highly educated people
- * Household income: the % of people in each group whose monthly average household income is KRW 6 million or more (median income for a 4-person household). The close to the top, the higher the % of high-income households.
- * Circle size: each group's proportion of the entire adult population



4) Positioning Map – Awareness of the Severity of the Climate Crisis x Level of Effort to Overcome the Climate Crisis

- I Green Food Leaders are keenly aware how serious the climate crisis is in Korea and actively trying to address the issue
- I Balancers are very aware how serious the climate crisis is, but do little to actively address the issue

I Green Food Doers exhibit low awareness of the severity of the climate crisis. They do little to actively address the issue and have relatively low awareness of liberal individualism.



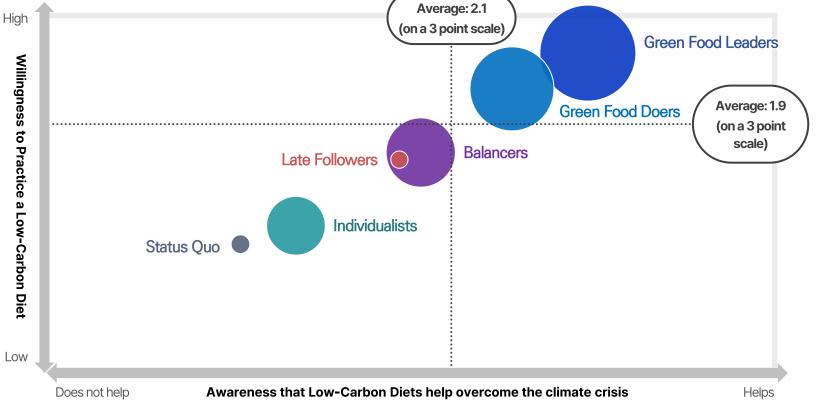
- * Perception of the severity of the climate crisis: the perception of how severe the climate crisis is in Korea (average, 4-point scale). The closer to the right, the more severe the problem is perceived as being.
- * Personal effort to overcome the climate crisis: level of effort put forth by individuals to help overcome the climate crisis (average, on a 4-point scale). The closer to the top, the more effort they are making.
- * Circle size: each group's proportion of the entire adult population



4) Positioning Map – Awareness of a Low-Carbon Diet's Ability to Help Overcome the Climate Crisis x Willingness to Practice a Low-Carbon Diet

- I The higher the awareness that a low-carbon diet helps with the climate crisis, the more likely it is that a person will practice a low-carbon diet.
- I Green Food Leaders and Green Food Doers believe that a low-carbon diet helps with the climate crisis. They have a strong wiliness to practice a low-carbon diet.

Individualists exhibit low awareness that a low-carbon diet helps with the climate crisis and low willingness to practice a low-carbon diet.



^{*} Awareness that a low-carbon diet helps overcome the climate crisis: whether members are aware that a low-carbon diet helps with the climate crisis (average, on a 4-point scale). The closer to the right, the higher the awareness.

^{*} Willingness to practice a low-carbon diet: the willingness to practice or continue a low-carbon diet (average, on a 4-point scale). The closer to the top, the stronger the willingness.

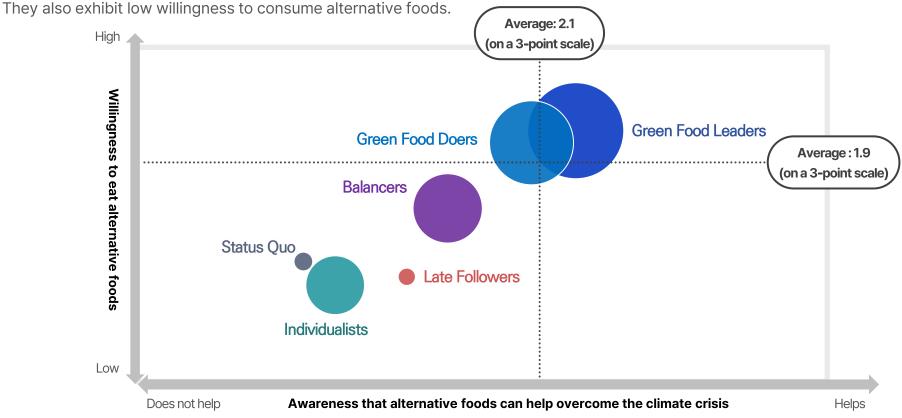
^{*} Circle size: each group's proportion of the entire adult population



4) Positioning Map – Awareness that eating alternative foods help overcome the climate crisis x Willing to consume alternative foods

- I Just as with low-carbon diets, the higher the awareness that eating alternative foods help with the climate crisis, the higher the willingness to eat alternative foods.
- I Green Food Leaders and Green Food Doers are highly aware that alternative foods help with the climate crisis and are willing to eat alternative foods.

I The Status Quo, Individualists, and Late Followers exhibit low levels of awareness that alternative foods help with the climate crisis.



^{*} Awareness that alternative foods can help overcome the climate crisis: whether they are aware that alternative foods help to address the climate crisis (average, 4-point scale). The closer to the right, the higher the awareness of this relationship.

^{*} Willingness to eat alternative food: willing to eat or continue eating alternative foods (average, 4-point scale). The closer to the top, the higher the willingness.

^{*} Circle size: each group's proportion of the entire adult population

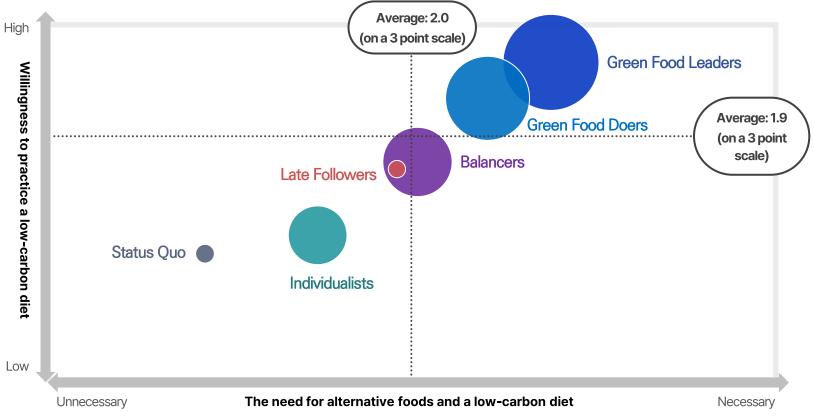


4) Positioning Map – The need to increase consumption of alternative foods and low-carbon diets x Willingness to practice a low-carbon diet

The more people recognize the need for alternative foods and low-carbon diets, the stronger the willingness to practice a low-carbon diet.

I Green Food Leaders and Green Food Doers exhibit a strong willingness to practice a low-carbon diet and recognize the need to increase the consumption of alternative foods.

Individualists and the Status Quo do not recognize the need to increase the consumption of alternative foods nor do they have any intention to practice a low-carbon diet.



^{*} Need to increase the consumption of alternative foods and low-carbon diets: awareness of the need to increase the consumption of alternative foods and a low-carbon diet (average, 4-point scale). The closer to the right, the higher the awareness of this need.

^{*} Willingness to practice a low-carbon diet: willingness to practice or continue a low-carbon diet (average, on a 4 point scale). The close to the top, the stronger the willingness.

^{*} Circle size: each group's proportion of the entire adult population

PART III. Segmentation Analysis

2. Segment Profile

- 1) Green-food Leaders
- 2) Green-food Doers
- 3) Balancers
- 4) Individualists
- 5) Late Followers
- 6) Status Quo



2. Segment Profile - 1) Green-Food Leaders



This group exhibits a high level of awareness and interest in the climate crisis. They view the climate crisis as a top priority for Korea and feel the impact of the climate crisis on their everyday lives.

This group believes that protecting the environment is a social responsibility and are ready to play a role in solving the climate crisis.



The Climate Crisis is My Problem, Our Problem

Green Food Leaders believe that the climate crisis is a top, national priority and have a high level of interest in climate-related issues. This group feels the impact of the climate crisis on their daily lives and are keenly aware that the climate crisis is a direct threat to their lives. They believe that environmental protection is a social responsibility, and that both individuals and society must play a role in helping to resolve the crisis.



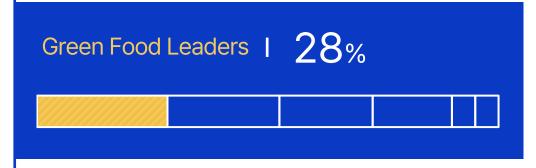
Healthy diet, eco-friendly eating habits

Green Food Leaders practice healthy and eco-friendly eating habits. They value a nutritionally balanced diet, prefer fresh food over processed food, and many eat plant-based foods instead of meat. Many make use of eco-friendly food ingredients and many define themselves as flexitarians. When purchasing food, their top considerations are food safety, area of origin, and freshness. They actively try to reduce food waste.



Believe that a low-carbon diet is a mean of overcoming the climate crisis

Green Food Leaders are highly accepting of low-carbon diets and alternative foods. They have more knowledge and practical experience with low-carbon diets than other groups, and most have the intention to practice a low-carbon diet. They have purchased alternative foods, find them satisfying, and intend to continue purchasing them. They fully support food policies that attempt to address the climate crisis. They overwhelmingly agree that an increased in both the consumption of alternative foods and a low-carbon diet is necessary.



#women #elderly_people_over_50 #married #with_adult_children

Recognize the climate crisis as a top priority

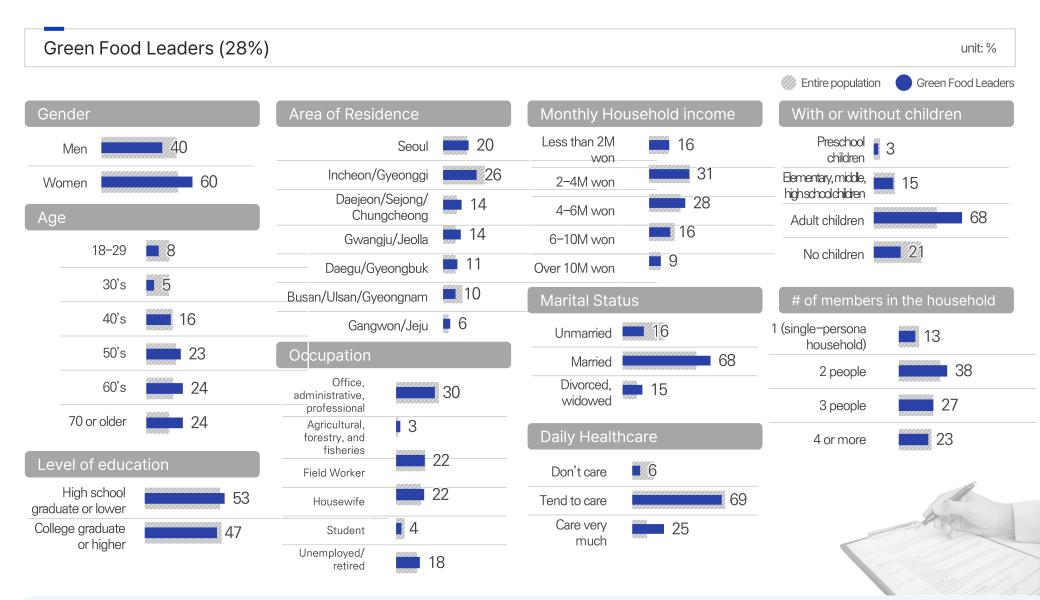
Are highly concerned about the climate crisis

Believe Korea's climate crisis is "very serious" Is impact by the climate crisis on a daily basis

- Highly concerned about taking care of their own health
- · Have vegetarian-oriented eating habits
- High awareness and willingness to eat alternative foods and practice a low-carbon diet
- Highly accepting of cultured meat

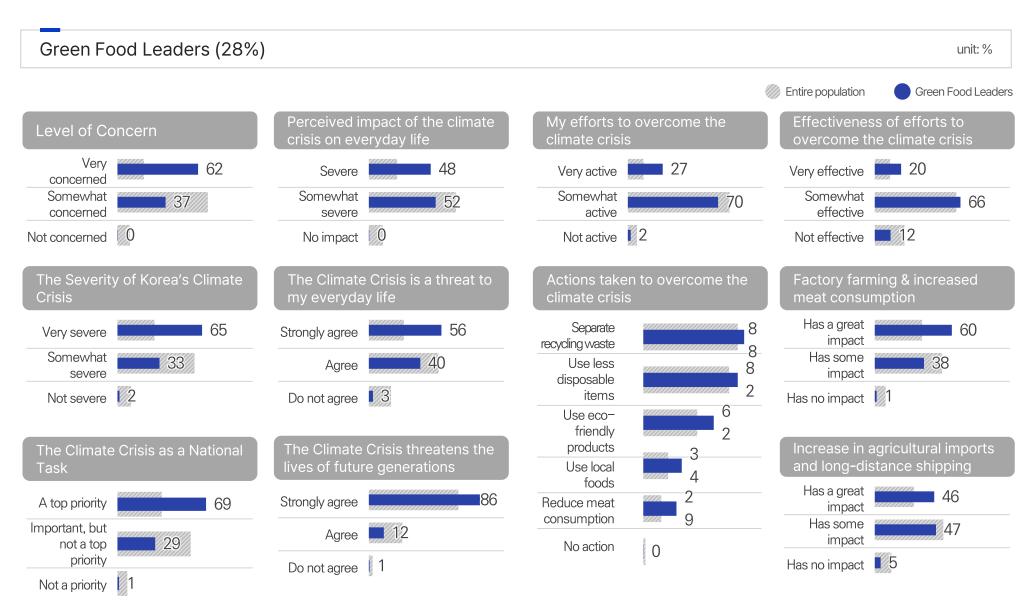


1) Green-Food Leaders: Socio-demographic characteristics



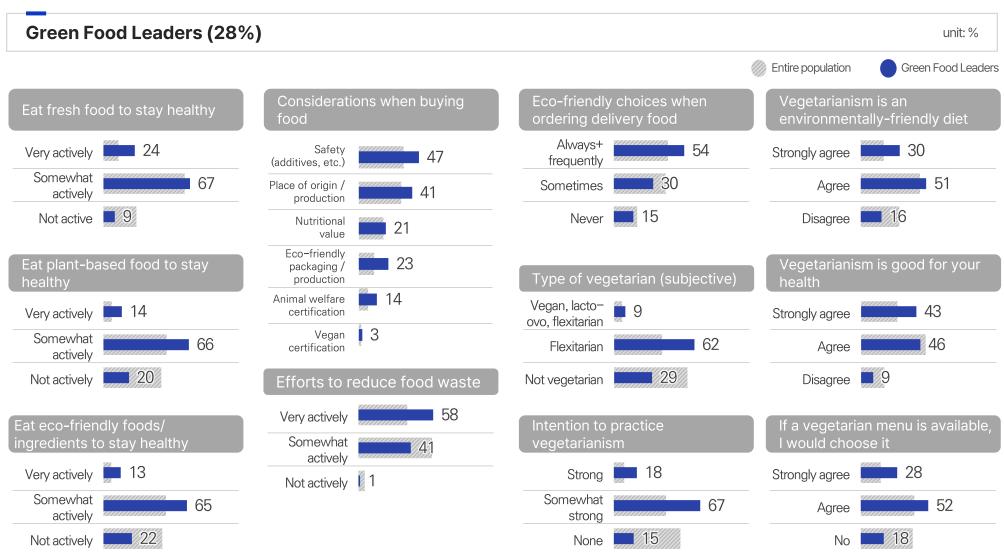


1) Green-Food Leaders: Awareness and attitudes towards the climate crisis



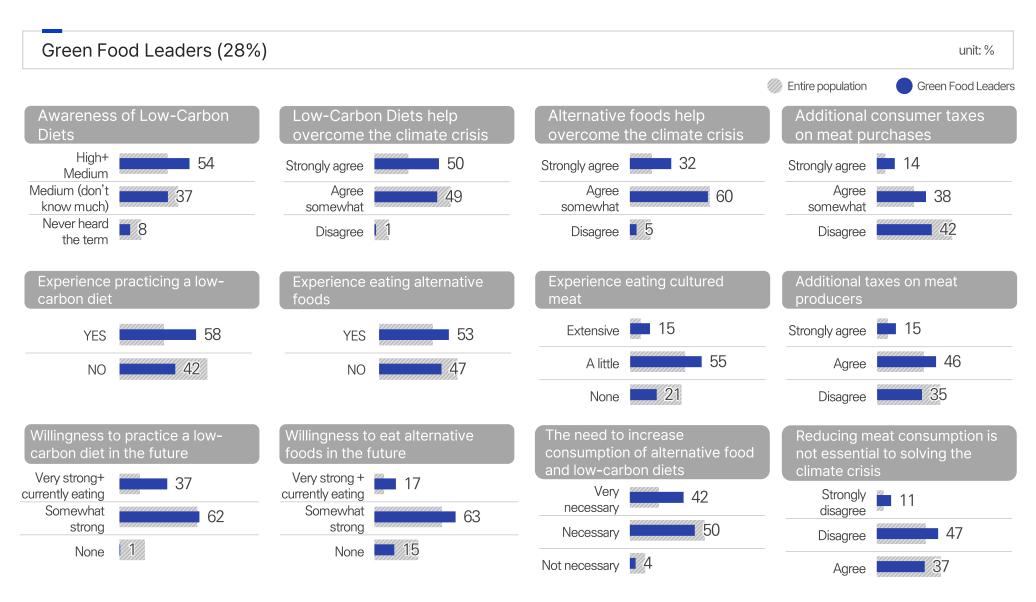


1) Green-Food Leaders: Awareness of eating habits, food consumption behavior, and vegetarianism





1) Green-Food Leaders: Low-carbon diets, alternative foods, cultured meat





2) Green-Food Doers



Although the climate crisis is not our society's top problem, this group fully recognizes its severity and are implementing practical behavioral changes.

Green Food Doers value healthy eating habits and eco-friendly consumption, and are highly accepting of alternative foods and low-carbon diets.

The Climate Crisis – a problem that threatens future generations

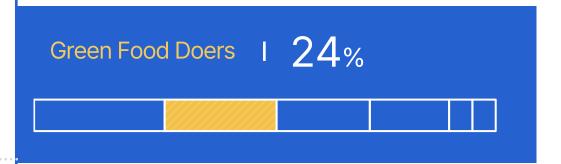
Green Food Doers agree that the climate crisis is a serious issue, but their conviction is not as strong. They agree that it is a problem that threatens both themselves and future generations. They agree that plastic, food waste, and factory farming contribute to the climate crisis.

🔀 A diet that helps both their health and the environment

Green Food Doers are highly interested in their own health and are interested in maintaining healthy eating habits. This is evidenced by their preference for fresh food and reduced consumption of delivery food. Many define themselves as flexitarians. They actively try to reduce food waste.

High acceptance of alternative foods and sustainable diets

Most Green Food Doers believe that a low-carbon diet will help solve the climate crisis, so they exhibit a strong willingness to practice a low-carbon diet. Their willingness to consume alternative foods and cultured meat is also high. They actively support the spread of alternative foods and cultured meat. They believe that the government and companies should spearhead these changes.



#even_ratio_of_men_to_women #elderly_people_over_50 #high_school_graduate_or_lower #with_adult_children

The climate crisis is important, but not a top priority

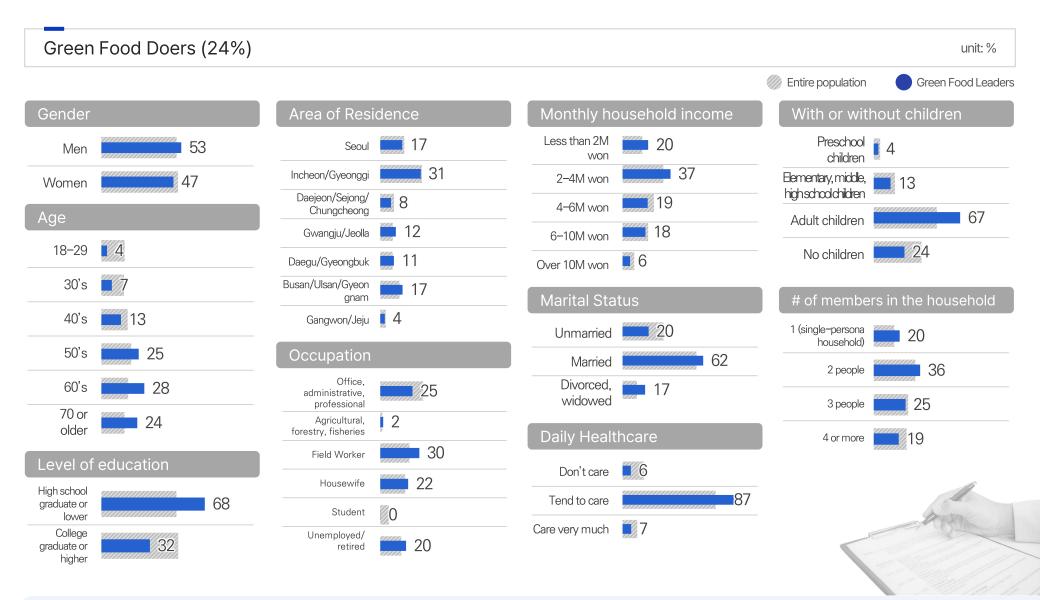
Concerned about the climate crisis

Korea's climate crisis is "severe"

- Take care of their health
- Vegetarian-oriented eating habits
- High willingness to practice a low-carbon diet
- High willingness to consume alternative foods

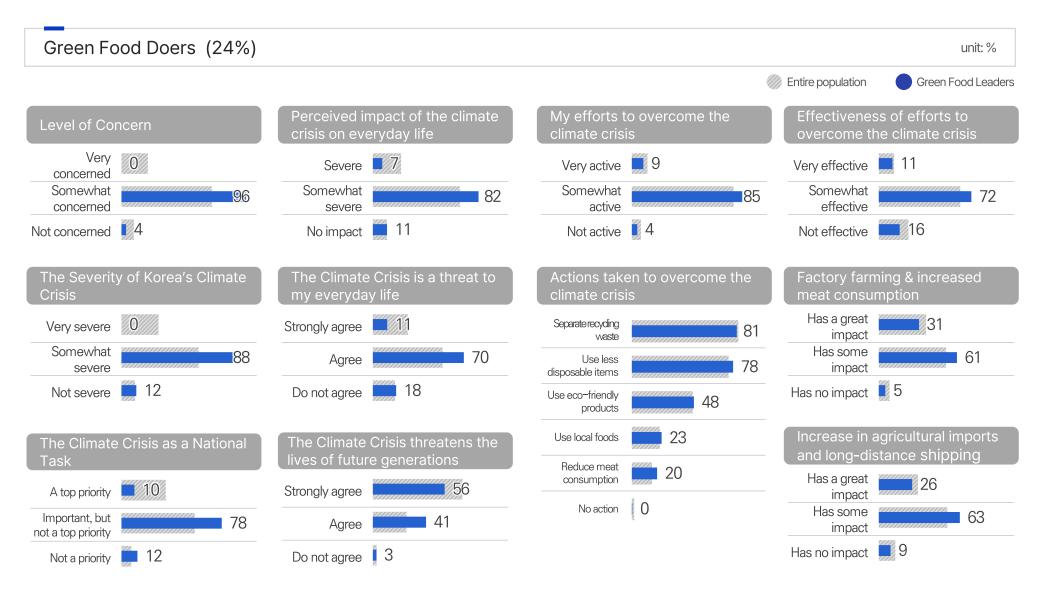


2) Green-Food Doers: Socio-demographic characteristics





2) Green-Food Doers: Awareness and attitudes towards the climate crisis



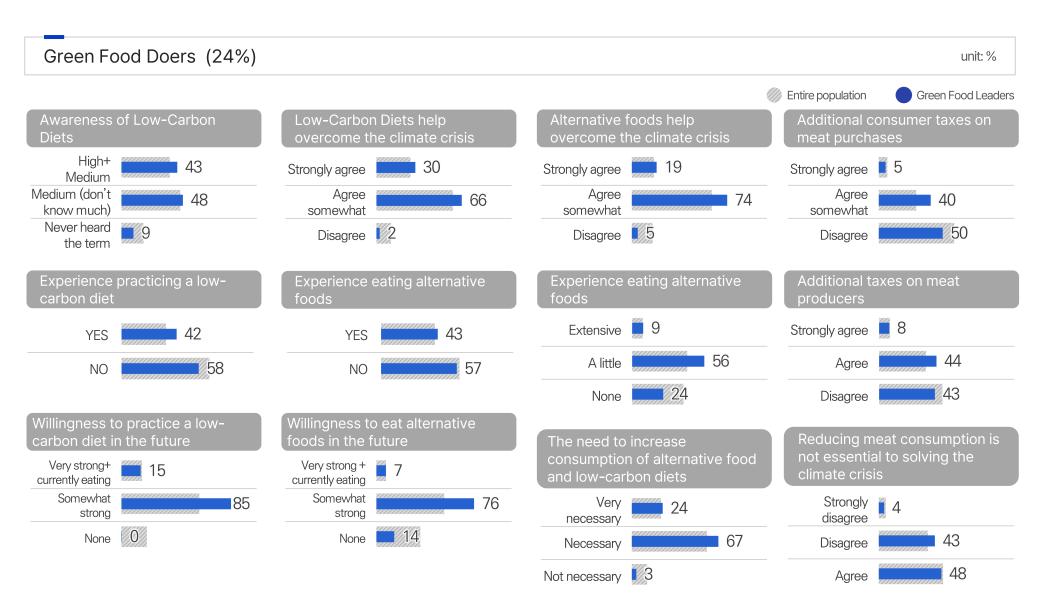


2) Green-Food Doers: Awareness of eating habits, food consumption behavior, and vegetarianism





2) Green-Food Doers: Low-carbon diets, alternative foods, cultured meat





3) Balancers



Balancers acknowledge that the climate crisis is a serious problem, but seek solutions through institutional changes rather than changes in eating habits or their own diet.

Balancer strive to find a balance that allows them to contribute to environmental protection without sacrificing personal enjoyment and/or convenience.



Are keenly aware of the climate crisis, are concerned about future generations

Balancers agree that the climate crisis is a serious threat to Korea. They are keenly aware of the threat it poses to them and future generations. Balancers believe that plastic use, food waste, and factory farming have a significant impact on the climate crisis. However, they place greater expectations on the role of the government and corporations than on the individual.



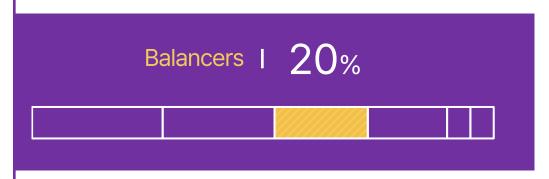
Health is important, but maintain a meat-centric diet

Balancers prefer a balanced diet and fresh foods, but they consume less plant-based foods than average. They actively reduce food waste but are reluctant to switch to a plant-based diet. Only a small minority define themselves as "flexitarians." and the majority want to maintain their existing eating habits and diets.



Prefer gradual change and institution-driven solutions

Balancers have limited awareness / experience with low-carbon diets but exhibit a high willingness to practice them. They agree on the need to increase the consumption of alternative foods and lowcarbon diets. They believe that the government and corporations should play a leading role in bringing about change. They prefer policies that reduce the burden on consumers and like educational campaigns and desire improvement in food quality.



#women #under_the_age_of_40 #highly_educated #high_income_earners #no_children

Believe the climate crisis is serious and crtitcal

The climate crisis impact their everyday lives

- Non-vegetarian
- Awareness of low-carbon diets is low, but willingness to practice it is high
- Interest in acceptance of alternative foods is average
- Acceptance of cultured meat is average

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3) Balancers: Socio-demographic characteristics



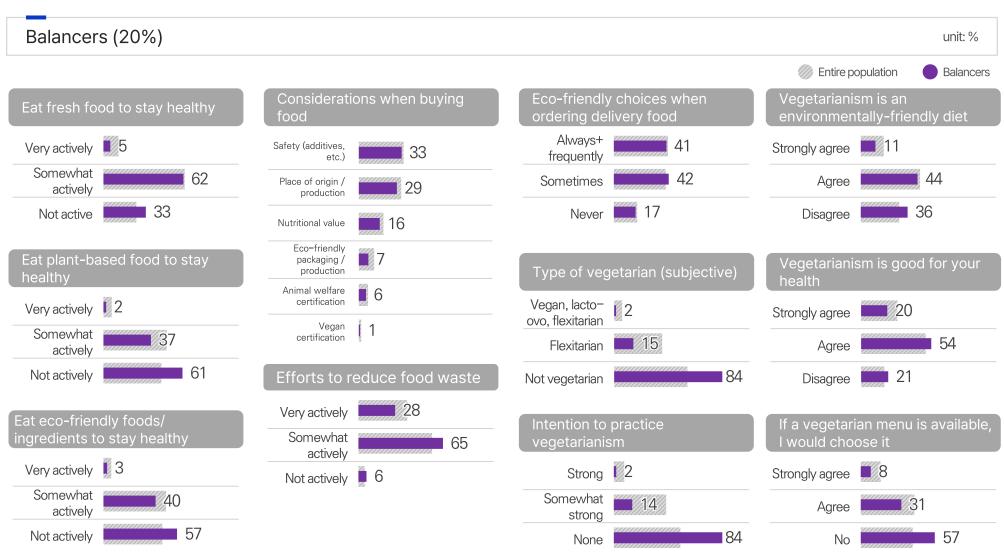


3) Balancers: Awareness and attitudes towards the climate crisis



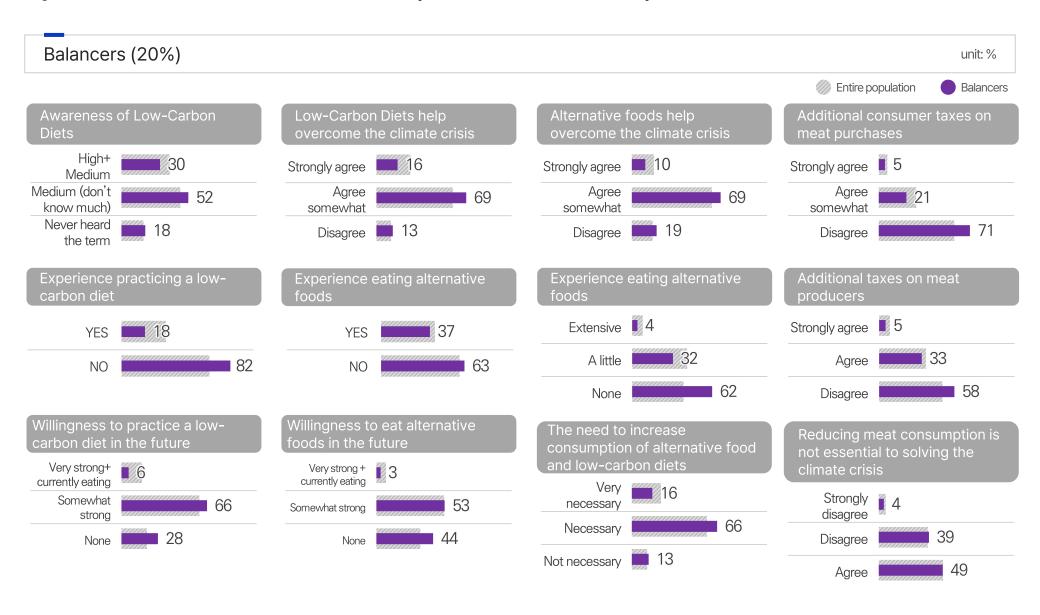


3) Balancers: Awareness of eating habits, food consumption behavior, and vegetarianism





3) Balancers: Low-carbon diets, alternative foods, cultured meat





4) Individualists



Although they acknowledge the climate crisis, they exhibit a strong resistance to changes in eating habits and dislike governmental intervention as a response.

Individualists prefer personal choice and freedom and are skeptical about changes in food consumption patterns to address the climate crisis.

They acknowledge the climate crisis, but do not consider it the top issue

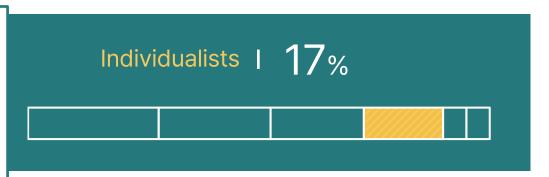
Individualists acknowledge the severity of the climate crisis, but they give social issues such as a recession and aging higher priority. The % of individualists who are impacted by the climate crisis in their daily lives is high, but they view it as a threat to future generations rather than to themselves. They are skeptical about the effectiveness of individual efforts to solve environmental problems.

Stick to a traditional, meat-centric diet

Individualists like a balanced diet and consume fresh food, but are very negative about eating plant-based foods instead of meat. Most individualists eat meat and processed meat regularly and have negative views on vegetarianism. The most important considerations when buying food are taste and price. They prioritize personal satisfaction over environmental impact.

Strong resistance to changes in food consumption patterns and policy intervention

Individualists exhibit very low intention to practice a low-carbon diet and eat alternative foods. Their acceptance of cultured meat is low. They are strongly opposed to policy interventions such as levying taxes on meat consumption. They oppose any form of regulation that restricts their freedom of food choices. They'd rather not see governments intervene in an effort to increase the consumption of alternative foods and low-carbon diets.



#men #under_the_age_of_30 #highly_educated #unmarried #no_children

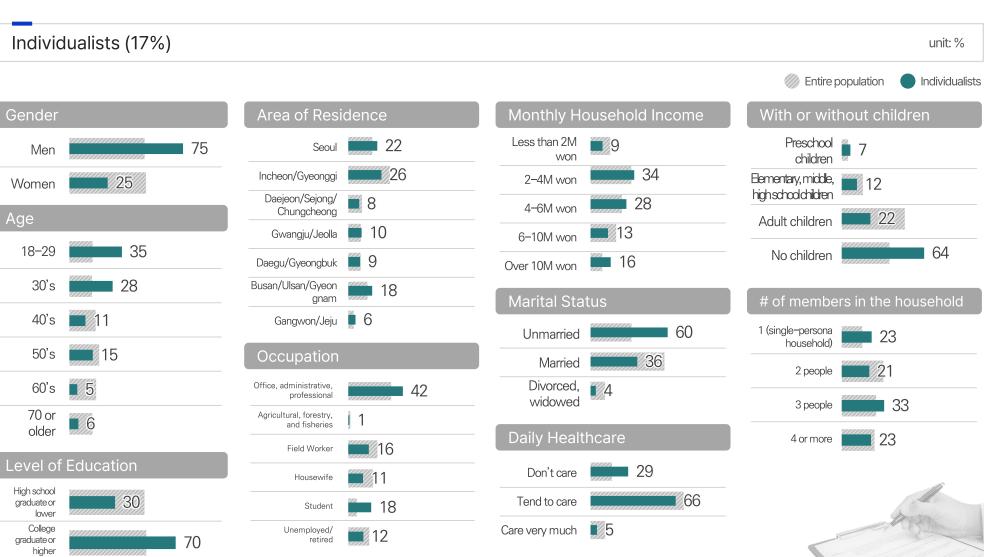
Korea' climate crisis is severe

The climate crisis is NOT the top priority

- Prefer traditional, conventional meat
- Low willingness to practice a low-carbon diet
- Low willingness to consume alternative foods
- Strong aversion to cultured meat



4) Individualists: Socio-demographic characteristics



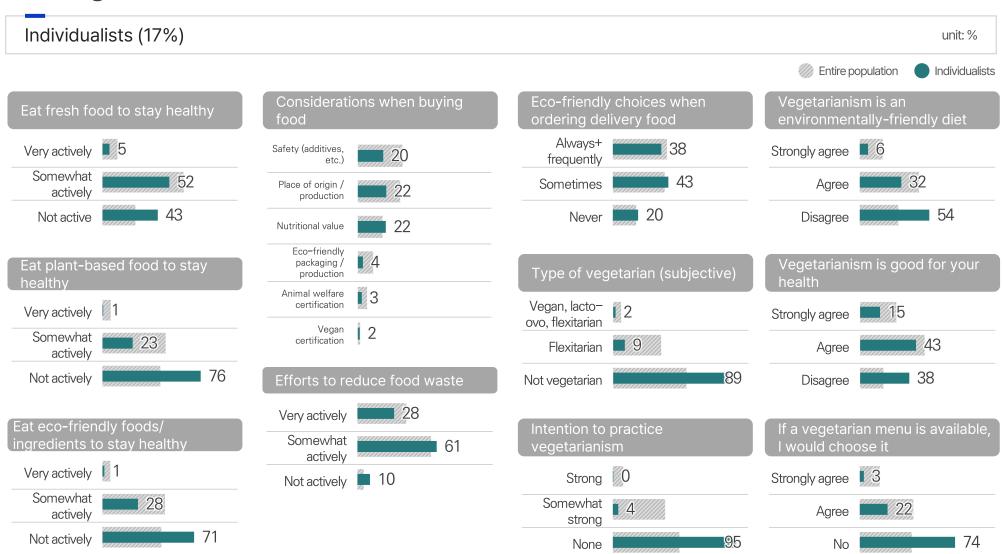


4) Individualists: Awareness and attitudes towards the climate crisis



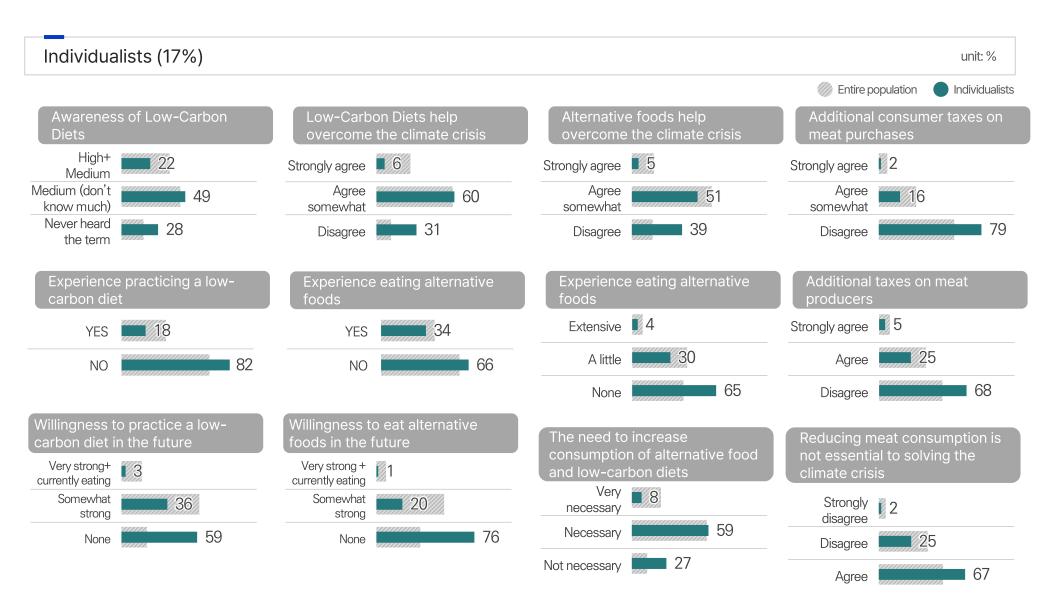


4) Individualists: Awareness of eating habits, food consumption behavior, and vegetarianism





4) Individualists: Low-carbon diets, alternative foods, cultured meat





5) Late Followers



They do not have a clear stance on the climate crisis or about making changes to their eating habits.

They exhibit low awareness of the climate crisis and how food consumption is related to it. They tend to reserve judgment in uncertain situations.

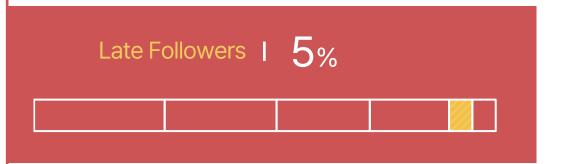
Aware of the Climate Crisis, but lack a full understanding of the issue

Late Followers exhibit some level of awareness of the severity of the climate crisis, but they lack a full understanding of the issue. They are interested in protecting the environment, but this does not lead to active participation.

Neutral about making changes to eating habits

Late Followers want to make healthy choices but are reluctant to change to eco-friendly eating habits. Their desire for a nutritionally balanced diet and preference for fresh food are average. But their consumption of plant-based food and use of eco-friendly ingredients is low.

Late Followers have significantly lower awareness and interest in low-carbon diets and alternative foods. They agree to some extent on the need to increase our consumption of alternative foods and low-carbon diets. However, they do not have a clear position on policy measures or the role of individuals. They prioritize price and taste when choosing food, and environmental impact is not a major consideration.



#women #in_their_mid_40s #low_level_of_education_and_income

Care about the climate crisis

"reserved opinion" on most topics

- Have never tried a low-carbon diet
- Low awareness and interest in alternative foods and cultured meat

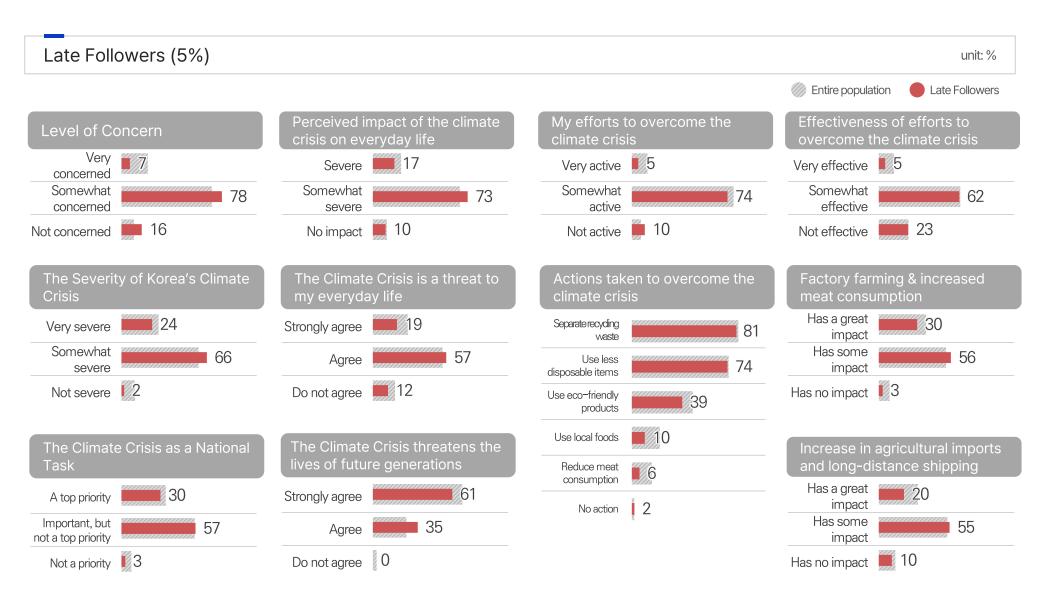


5) Late Followers: Socio-demographic characteristics





5) Late Followers: Awareness and attitudes towards the climate crisis



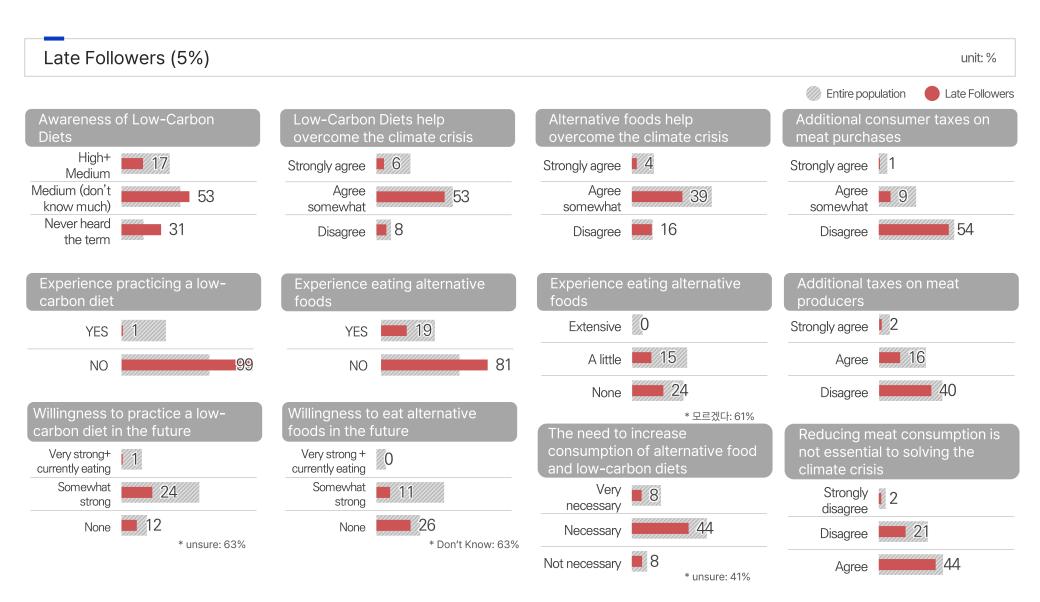


5) Late Followers: Awareness of eating habits, food consumption behavior, and vegetarianism





5) Late Followers: Low-carbon diets, alternative foods, cultured meat





6) Status Quo



Those in the Status Quo have fundamental doubts about the severity and impact of the climate crisis. They are strongly opposed to changes in their eating habits or policy interventions to help address the climate crisis.

These individuals are generally skeptical about issues regarding climate change and value individual / traditional values.

Fundamentally skeptical of the discourse surrounding climate change

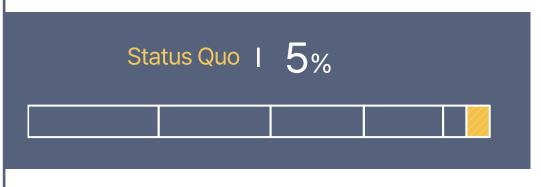
These individuals question the very existence of the climate crisis. They do not believe that it is a serious issue in Korea and do not agree with the claim that the climate crisis threatens present and future life.

Meat-centric diet, advocate for freedom of personal choice

These individuals have little interest in their own health. They hold negative perceptions of vegetarianism, and the majority regularly consume meat and processed meat. Their top priorities when choosing food are taste and personal preference. Little consideration is given to environmental impact. Participation in activities that protect the environment (such as reducing food waste or using eco-friendly products) is low.

Strong aversion to low-carbon diets and alternative foods

The Status Quo is unwilling to practice low-carbon diets / eat alternative foods and are skeptical of the claims that alternative foods will help solve the climate crisis. They do not agree with the need to increase the consumption of alternative foods and low-carbon diets. They are skeptical that changes in food consumption behavior will help and do not feel that this type of information needs to be disseminated. They are firm in protecting traditional food culture and individual freedoms.



#men #under_the_age_of_40 #highly_educated #unmarried

The climate crisis is not a major issue

The climate crisis in Korea is not serious

Not interested in the climate crisis

Do not feel the impact of the climate crisis in their everyday lives

- No interest in taking care of their health
- Non-vegetarian
- Strong aversion to low-carbon diets, alternative foods, and cultured meat



6) Status Quo: Socio-demographic characteristics





6) Status Quo: Awareness and attitudes towards the climate crisis



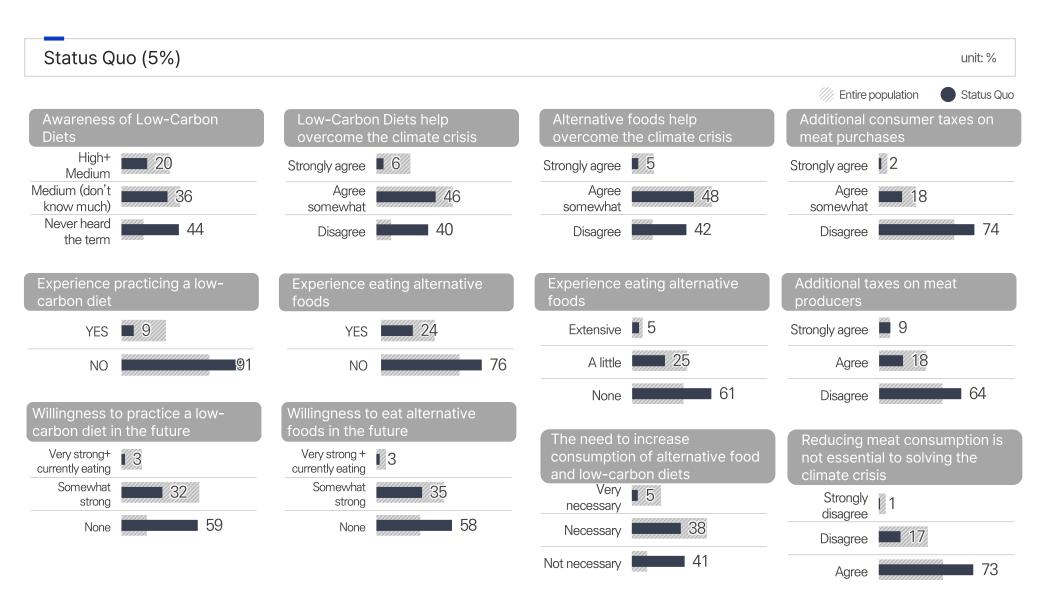


6) Status Quo: Awareness of eating habits, food consumption behavior, and vegetarianism





6) Status Quo: Low-carbon diets, alternative foods, cultured meat





A Low-Carbon Diet and its Impact on the Climate Crisis Segmentation Research Report

PART III. Segmentation Analysis

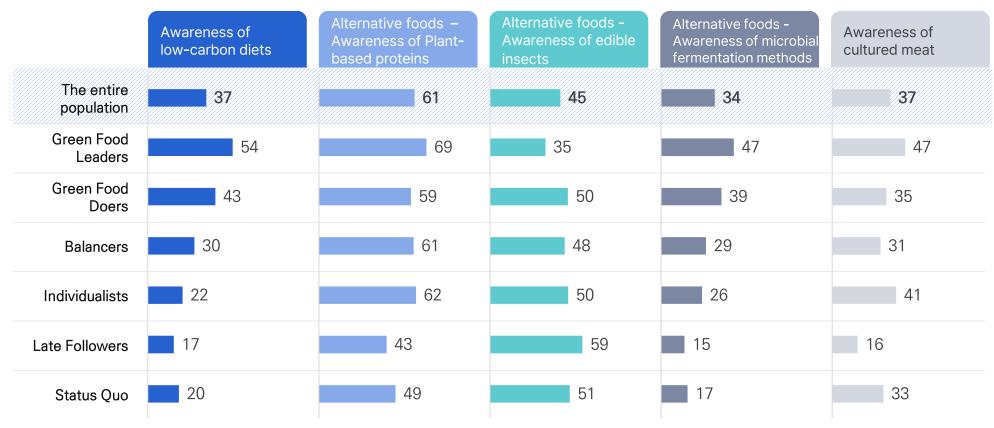
3. Informational awareness and changes in behavioral pattens, by segment

- 1) Awareness levels of low-carbon diets, alternative foods, and cultured meat
- 2) Main paths to awareness and information in Korean society
- 3) Paths to awareness of low-carbon diets and alternative foods
- 4) Exposure to information regarding the climate crisis, vegetarianism, alternative foods, and low-carbon diets and resulting behavioral changes



3. Informational awareness and changes in behavioral pattens, by segment 1) Awareness of low-carbon diets, alternative foods, and cultured meat

- I We examined awareness levels of low-carbon diets, 3 types of alternative foods, and cultured meat. At 61%, awareness was highest for plant-based proteins. This was followed by edible insects (45%), microbial fermentation (34%), cultured meat (37%), and cultured meat (37%).
- Among alternative foods, awareness of plant-based proteins and edible insects is generally high across all groups. Green Food Leaders exhibit high levels of awareness for all types of alternative foods. Awareness of low-carbon diets and alternative foods excluding traditional alternative foods is lower than the overall average for individualists, late followers, and the status quo.



^{*} Know a lot about it + Know a little about it



2) Mains paths to awareness and information in Korean society

- I Personalized platforms, portal sites and homepage of media companies, online cafes / communities are the most commonly used pathways to information in Korea.
- I The most common paths to awareness among SNS platforms are (in order): Instagram (21%), blogs (16%), Facebook (9%), TikTok (9%), and X (7%).
- I Green Food Leaders are multi-channel information consumers who utilize traditional media such as TV, online cafes / community sites, as well as a variety of other online channels. Green Food Doers obtain information in much the same way as the whole of society. They do exhibit a slight preference for mainstream media outlets such as YouTube and television.
- Balancers use Instagram and blogs more than the overall average. Individualists tend to obtain information through online pathways such as YouTube and portal sites.

	YouTube	TV	Portal site, homepag e or app of a media company		Instagra m	Newslett er / email subscript ion service	Personal	Blog	Chat messeng er (Kakao Talk, Telegram, etc.)	Radio	Book, magazin e, periodica	or	Faceboo k	TikTok	X (formely Twitter)	Audio content such as podcasts	Other	I'm not exposed to any new about our society
Entire population	61	60	43	35	21	20	20	16	15	15	12	11	9	9	7	4	1	1
Green Food Leaders	61	67	42	42	18	25	22	15	19	17	18	16	12	11	8	6	2	0
Green Food Doers	58	63	39	33	15	19	21	11	18	17	11	12	8	10	3	2	1	1
Balancers	61	56	47	33	32	20	15	23	12	11	9	7	10	8	10	4	1	0
Individualists	67	48	50	32	23	18	21	16	11	12	11	9	7	3	7	4	0	1
Late Followers	58	63	38	32	24	12	19	10	11	18	8	6	5	15	8	2	2	2
Status Quo	65	48	41	28	20	18	20	14	8	11	6	6	9	6	5	0	2	1



3) Paths to awareness for low-carbon diets and alternative foods

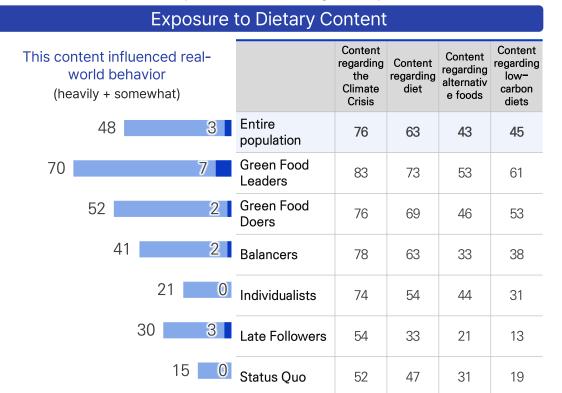
- I The most common paths to awareness for low-carbon diets and alternative foods are YouTube and television. In particular, roughly half (48%) who obtained information regarding alternative foods did so through television.
- I After YouTube and TV, the most common paths to awareness are portal sites and media websites, online cafes, and community websites. The number of people receiving information through environmental events, promotional campaigns, educational materials, and websites of organizations dedicated to these causes is relatively small.
- I Green Food Leaders and Individualists obtain a lot of information through professional channels. A large portion of Green Food Doers obtain information through television. Balancers obtain information through Instagram more than other groups, and a significant percentage of Individualists get information through YouTube.

	YouTube		YouTube		YouTube		Т	V	homer app me	l site, page or of a edia pany	Online comn		Enviro and f rela eve exhib pro camp	ood- ited nts, itions,	mate fro govern environ	ational erials om nment / nmenta I zations	apps d to enviro	pages / edicate the nment/ od	Insta	agram	subsc	letter / nail ription vice	maga	ok, azine, odical	Pers acquai	sonal ntance	В	og	and p	aurant roduct aging
	Low- carbo n diet	Altern ative foods	Low- carbo n diet	ative	carbo	ative	carbo		carbo		carbo		carbo	ative	carbo	ative	Low- carbo n diet		carbo	ative	carbo		carbo		Low- carbo n diet	ative				
Entire population	39	44	41	48	27	26	21	22	18	20	17	17	15	16	14	13	13	11	12	14	12	12	11	11	10	10				
Green Food Leaders	38	39	49	51	31	26	27	26	27	29	24	22	25	23	12	11	18	13	17	18	15	18	14	14	14	15				
Green Food Doers	37	41	46	54	26	23	24	19	18	21	18	20	14	18	11	10	14	12	10	12	13	11	11	9	11	10				
Balancers	43	45	34	42	26	29	17	22	12	13	11	12	8	12	19	17	10	12	8	10	7	9	11	9	6	8				
Individualists	44	54	28	38	25	31	13	18	12	14	16	10	11	9	14	15	11	6	13	14	9	8	9	11	5	8				
Late Followers	37	37	42	50	13	14	21	21	9	13	5	15	3	6	17	13	9	11	7	11	5	9	9	7	9	5				
Status Quo	35	44	32	42	28	25	19	21	12	10	11	10	10	3	13	10	3	8	5	17	15	11	10	6	5	4				



4) Exposure to information regarding the climate crisis, vegetarianism, alternative foods, and low-carbon diets and resulting behavioral changes

- I Green Food Leaders reported high levels of exposure to information regarding the climate crisis and their diet. They exhibited the most behavioral change. A significant % of the population tries to reduce food waste and tries to buy local food / seasonal ingredients.
- I Green Food Doers reported average levels of content exposure and behavioral changes. They made some efforts to make behavioral changes (such as reducing food waste).
- Balancers reported below average exposure to content regarding alternative foods and low-carbon diets. Behavioral changes were also below average. Rather than making changes to their eating habits, Balancers made changes to daily life such as using a tumbler or using re-usable shopping bags.
- Individualists reported below average exposure to all types of content except alternative foods. They showed few behavioral changes. Content consumption does not lead to behavioral or psychological changes.
- Late Followers report very limited exposure to content and exhibit little to no behavioral changes. The Status Quo received the least exposure to relevant content and virtually no behavioral changes. They are indifferent to environmental issues.



Behavioral Changes

	Reduce food waste	Give priority to local food / seasonal ingredient s	Reduce meat consumpti on & eat a vegetarian diet	Purchase eco- friendly certified food ingredient s	Buy/eat alternative foods	No action taken as a result of exposure to content
Entire population	70	28	25	25	13	6
Green Food Leaders	80	42	41	39	20	1
Green Food Doers	72	30	33	27	16	2
Balancers	69	22	14	18	8	5
Individualists	55	18	5	14	8	18
Late Followers	60	15	4	13	0	13
Status Quo	50	7	15	7	9	26



A Low-Carbon Diet and its Impact on the Climate Crisis Segmentation Research Report

PART III. Segmentation Analysis

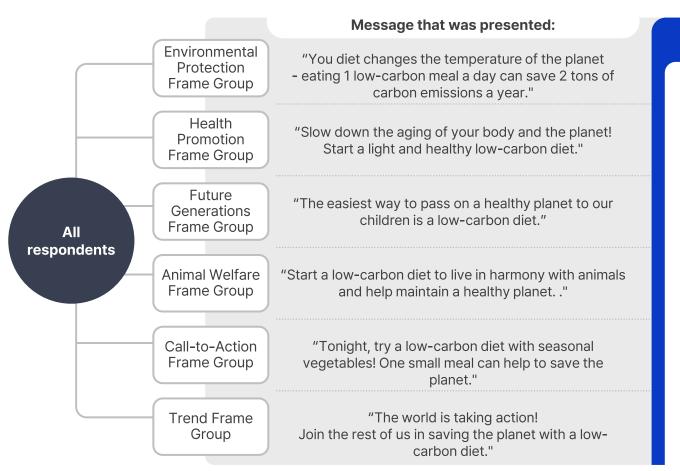
4. Communication strategies for individual groups (segments)

- 1) Experimental Design
- 2) Summary of Results
- 3) Comparison of Frameworks, by Type
- 4) Target Segmentation and Communication Strategies to make Low-Carbon Diets more Widespread



4. Segment Communication Strategy - 1) Experimental Design

- A total of 2,000 respondents were randomly divided into 6 groups (324 to 339 people in each group). Each group was then shown a different low-carbon diet participation slogan/phrase.
- I We asked each participant to rate their level of agreement, level of understanding, the persuasive power, level of impression, and degree of stimulation. Then each group's responses were compared to the others'.
- I The aim is to identify the most effective low-carbon diet program framework using a randomized, controlled trial.



Evaluation of the message

Level of agreement

Do you agree with this statement?

Level of understanding

Do you have a clear understanding of this phrase?

Persuasive power

How persuasive is this phrase?

Level of impression

How memorable is this phrase?

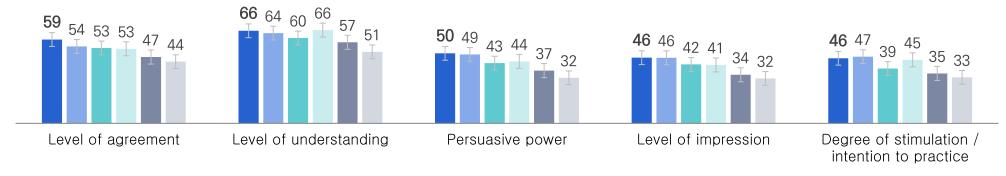
Degree of stimulation

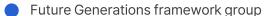
Does reading this phrase actually make you want to try a low-carbon diet?



2) Summary of Results

- I Of the 5 frameworks, the Future Generations framework ("the easiest way to pass on a healthy planet to our children is a low-carbon diet") and the Environmental Protection framework ("your diet changes the planet's temperature 1 low-carbon meal a day saves 2 tons of carbon emissions a year) received the most positive feedback.
- I The Health Promotion framework ("slow down the aging of your body and the planet! Start a light and healthy low-carbon diet") and the Call-to-Action framework ("tonight, try a low-carbon diet with seasonal vegetables! One small meal can help save the planet") ranked 3rd and 4th. These 2 frameworks received similar level of agreement and level of understanding scores as the Future Generations and Environmental Protection frameworks, but received lower scores for persuasiveness and level of impression.
- I The Animal Welfare framework ("start a low-carbon diet to live in harmony with animals and help maintain) and Trend framework ("the world is taking action! Join the rest of us in saving the planet) received poor feedback. Of the 6 slogans, the Trend framework received the lowest scores.





"The easiest way to pass on a healthy planet to our children is a low-carbon diet."

Environmental Protection framework group

"Your diet changes the planet's temperature - 1 low-carbon meal a day saves 2 tons of carbon emissions a year."

Health Promotion framework group

"Slow down the aging of your body and the planet! Start a light and healthy low-carbon diet."

Call-to-Action framework group

"Tonight, try a low-carbon diet with seasonal vegetables! One small meal can help save the planet."

Animal Welfare framework group

"Start a low-carbon diet to live in harmony with animals and help maintain a healthy planet."

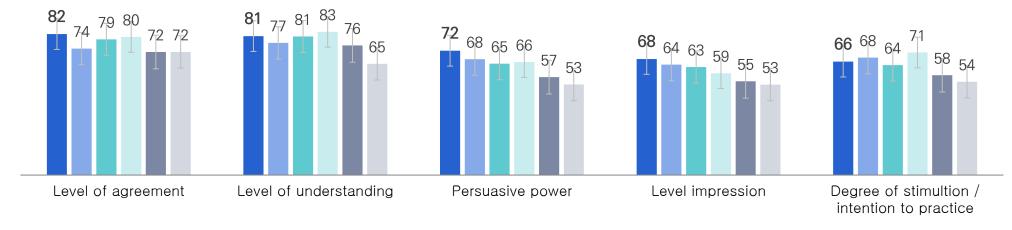
Trend framework group

"The world is taking action! Join the rest of us in saving the planet with a low-carbon diet."



3) Comparison of Frameworks – Green Food Leaders

- I Over half of Green Food Leaders gave positive feedback regarding all 6 frameworks. This group exhibited high overall acceptance, making it easy to spread the word among members of this group.
- In particular, feedback for the Future Generations framework was the most positive among Green Food Leaders. The Call-to-Action framework received high marks for level of understanding and degree of stimulation.
- I On the other hand, the Trend framework received relatively low marks. But as with the other frameworks, this suggests that messages that emphasize positive values are effective.





"The easiest way to pass on a healthy planet to our children is a low-carbon diet."

Environmental Protection framework group

"Your diet change the planet's temperature – 1 low-carbon meal a day saves 2 tons of carbon emissions a year."

Health Promotion framework group

"Slow down the aging of your body and the planet! Start a light and healthy low-carbon diet."

Call-to-Action framework group

"Tonight, try a low-carbon diet with seasonal vegetables! One small meal can help save the planet."

Animal Welfare framework group

"Start a low-carbon diet to live in harmony with animals and help maintain a healthy planet."

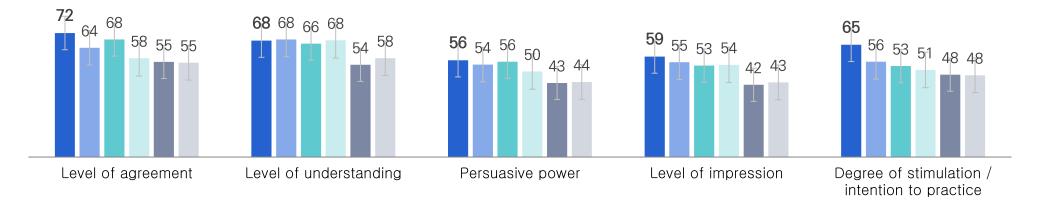
Trend framework group

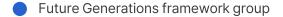
"The world is taking action! Join the rest of us in saving the planet with a low-carbon diet."



3) Comparison of Frameworks – Green Food Doers

- I The Future Generations framework received the highest marks from the Green Food Doers group. This framework scored especially high for creating an intention to practice a low-carbon diet.
- I The Environmental Protection and Health Promotion frameworks received very similar scores. The level of understanding for the Call-to-Action framework is high, but the level of agreement and intention to practice a low-carbon diet scored poorly.
- I The Animal Welfare framework received the lowest scores from Green Food Doers.





- Environmental Protection framework group
- Health Promotion framework group
- Call-to-Action framework group
- Animal Welfare framework group
- Trend framework group

"The easiest way to pass on a healthy planet to our children is a low-carbon diet."

"Your diet change the planet's temperature – 1 low-carbon meal a day saves 2 tons of carbon emissions a year."

"Slow down the aging of your body and the planet! Start a light and healthy low-carbon diet."

"Tonight, try a low-carbon diet with seasonal vegetables! One small meal can help save the planet."

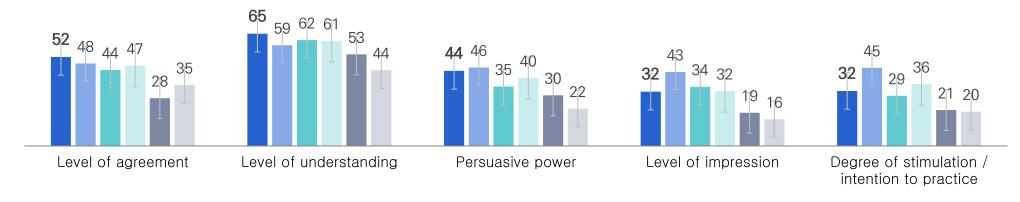
"Start a low-carbon diet to live in harmony with animals and help maintain a healthy planet."

"The world is taking action! Join the rest of us in saving the planet with a low-carbon diet."



3) Comparison of Frameworks - Balancers

- I While Green Food Leaders and Green Food Doers gave the Future Generations frameworks the highest scores, the Environmental Protection framework received the highest marks from Balancers. Among Balancers, the Environmental Protection framework received high marks for level of impression and creating a desire to practice a low-carbon diet.
- I The Future Generations framework received positive marks from Balancers in terms of level of agreement and level of understanding, but the level of impression and creating a desire to practice a low-carbon diet were relatively low. It is uncertain whether this framework will lead to specific behavioral changes.
- The Animal Welfare and Trend frameworks received low marks from Balancers.



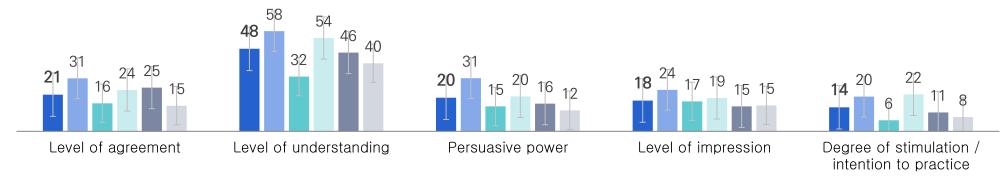
- Future Generations framework group
- Environmental Protection framework group
- Health Promotion framework group
- Call-to-Action framework group
- Animal Welfare framework group
- Trend framework group

- "The easiest way to pass on a healthy planet to our children is a low-carbon diet."
- "Your diet change the planet's temperature 1 low-carbon meal a day saves 2 tons of carbon emissions a year."
- "Slow down the aging of your body and the planet! Start a light and healthy low-carbon diet."
- "Tonight, try a low-carbon diet with seasonal vegetables! One small meal can help save the planet."
- "Start a low-carbon diet to live in harmony with animals and help maintain a healthy planet."
- "The world is taking action! Join the rest of us in saving the planet with a low-carbon diet."



3) Comparison of Frameworks - Individualists

- I Individualists were generally negative in their evaluations of the 6 frameworks. In particular, levels of persuasiveness and intention to practice a low-carbon diet were low compared to their level of understanding. The low-carbon diet message is unlikely to lead to actual participation among Individualists.
- I Just as with Balancers, the environmental protection framework received the highest marks from Individualists. The environmental protection framework received the highest marks across all 5 areas of evaluation.
- I The Future Generations framework received high level of understanding scores, but persuasiveness, level of impression, and motivation to practice a low-carbon diet received relatively low scores.
- Among Individualists, the Health Promotion framework received the lowest marks of all the 6 frameworks.



- Future Generations framework group
- Environmental Protection framework group
- Health Promotion framework group
- Call-to-Action framework group
- Animal Welfare framework group
- Trend framework group

- "The easiest way to pass on a healthy planet to our children is a low-carbon diet."
- "Your diet change the planet's temperature 1 low-carbon meal a day saves 2 tons of carbon emissions a year."
- "Slow down the aging of your body and the planet! Start a light and healthy low-carbon diet."
- "Tonight, try a low-carbon diet with seasonal vegetables! One small meal can help save the planet."
- "Start a low-carbon diet to live in harmony with animals and help maintain a healthy planet."
- "The world is taking action! Join the rest of us in saving the planet with a low-carbon diet."



4) Target Segmentation and Communication Strategies for Spreading Low-Carbon Diets – Setting Key Targets

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	0/ - [1 - 1 -]		Information	n Channels	Level of	
Group Type	% of total population	Key Characteristics	#1 channel	Featured Channel	Behavioral Change	
Green Food Leaders	28%	High awareness / practice rates, tend to share information with others	TV, YouTube	Environmental events, educational materials, dedicated websites	70% say that content influences their behavior	Key Disseminators (Primary target) - acquire information through a variety of channels - respond strongly to campaigns - play a central role in spreading and disseminating information
Green Food Doers	24%	Above average awareness, prefer mainstream media	TV, YouTube	-	52% say that content influences their behavior	Action Leaders (Secondary target) - acquire information through mainstream media channels - strong willingness to practice a low-carbon diet, respond strongly to campaigns - due to having an open attitude, high possibility of changes in behavior
Balancers	20%	Prefer visual presentation of info /SNS, practice convenience in their daily lives	TV, YouTube	Instagram	41% say that content influences their behavior	Transition-to-Action potential layer (Tertiary target) - high utilization of visual media such as YouTube and Instagram - do not respond well to campaigns, but are willing to practice a low-carbon diet - possibility of changes in behavior within a practical range
Individualists	17%	Use online info channels, exhibit little change in behavior	Portal site, website of media outlets, YouTube	-	79% show little to no changes in behavior	Information–Action Gap Layer (Quaternary Target) – exposed to information but does lead to action – strong resistance to a vegetarian diet – now a key target, requires a more mid to long— term approach
Late Followers	5%	Low experience rates, minimal change in behavior	TV, YouTube	-	70% show little to no changes in behavior	
Status Quo	5%	Very low awareness and practice rates	TV, YouTube	-	85% show little to no changes in behavior	



Green Food Leaders: Core Propagator (primary target)

Channels to be used

Primary channel: TV, YouTube
Secondary channels: events and websites dedicated
to environmental causes

Ways to spread the message

- TV: documentaries, news, entertainment programs, public service announcements, and campaigns
- YouTube: ways to practice eco-friendly behaviors, success stories, expert interviews, etc.
- In-depth, professional, educational materials, websites, events dedicated to environmental causes: low-carbon diet tastings, cooking classes, workshops, etc.



"Broader, deeper: Leading the way in Low-Carbon Diets"

Effective ways to frame the message

Future Generations Highest levels of understanding, persuasiveness, and imprinting

Call-to-Action Highest levels of understanding and creating a desire to practice

Health Promotion framework High levels of agreement, understanding

Environmental High levels of persuasiveness, creating a desire Protection framework to practice

- Overall, responses to all 6 frameworks was positive, but the Future Generations framework was the most effective.
- The Call-to-Action framework is an effective message in that it stimulates the will to act the most.
- It is effective to present environmental values and personal benefits (healthy) in a balanced manner.

Core Message

Incorporate elements of a Call-to-Action based on the Future Generations framework, emphasize subject matter expertise and a leading role

For example: "The first step to leaving a healthy planet to our children is a low-carbon diet. Tonight, start with seasonal vegetables! Your choices protect the future of our planet."



Green Food Doers: Action Leaders (secondary target)

Channels to be used

Mainstream media such as TV and YouTube

Ways to spread the message

- TV: documentaries, news, entertainment programs, public service announcements, and campaigns
- YouTube: ways to practice eco-friendly behaviors, success stories, expert interviews, etc.



Effective ways to frame the message

Future Generations Framework Received the absolute highest scores across all attributes. Creating a desire to practice a low carbon diet stood out most

Environmental Protection Framework Highest levels of agreement, impression, and creating a desire to practice

Health Promotion Framework

High levels of understanding and persuasiveness

- The Future Generations framework is the most effective
- The Environmental Protection and Health Promotion frameworks are similar and complementary
- A message that is based on rational judgment and evidence is necessary

Core Message

Combine the Environmental Protection and Future Generations framework. Emphasize practicality and a step-by-step implementation strategy.

For example: "To pass on a healthy planet to our children, eat a low-carbon meal once a day. This reduces carbon emissions by 2 tons per year. Your actions decide the future of our planet. Get started today."



Balancers:

Transition-to-Action Layer (tertiary target)

Channels to be used

Differentiated approach using visual platforms such as SNS, TV, YouTube, and Instagram

Ways to spread the message

- TV: documentaries, news, entertainment programs, public service announcements, and campaigns
- YouTube: ways to practice eco-friendly behaviors, success stories, expert interviews, etc.
- Instagram: visual content such as card news, reviews, food recipes, etc.



"It's easy and convenient: make eco-friendly changes to your everyday life"

Effective ways to frame the message

Environmental Protection framework

Highest levels of persuasiveness, imprinting, and creating a desire to practice a low-carbon diet

Future Generations framework

Highest levels of agreement and understanding

- The Environmental Protection framework is expected to have the greatest practical effect
- The Future Generations framework received high scores for agreement and understanding, but low marks for creating a desire to practice a low-carbon diet



Provide specific implementation methods within the Environmental Protection framework. Emphasize convenience and the potential to act right now.

For example: "A single low-carbon meal a day can save 2 tons of carbon emissions a year. If you're wondering what to eat for dinner tonight, think One Meal for the Climate. Start now."



Individualists:

Information-Action Gap Layer (quaternary target)

Channels to be used

In addition to TV and YouTube, use portal sites and online news articles

Ways to spread the message

- TV: documentaries, news, entertainment programs, public service announcements, and campaigns
- YouTube: ways to practice eco-friendly behaviors, success stories, expert interviews, etc.
- Portal sites, online newspaper articles: fact-checked, objective, and scientific data-based articles



Effective ways to frame the message

Environmental
Protection framework

Relatively high levels of agreement, understanding, persuasiveness, and imprinting

Call-to-Action framework

Creates a relatively high desire to practice a low-carbon diet

- Social pressure and requests for conformity have little effect.
 Even emphasizing personal benefits is met with a negative response.
- The Environmental Protection framework is somewhat more persuasive. A direct message is expected to be more effective.



A gradual approach that is based on the Environmental Protection framework and makes use of concrete, numerical evidence. Emphasize freedom of choice.

For example: "Priorities can vary, but you can take action. Small choices help.

Just a single low-carbon meal once a day can save up to 2 tons of carbon

emissions a year."

