



**Results of the 30th Annual  
“Questionnaire on Environmental Problems and the Survival of  
Humankind”**

Report

September 2021

**THE ASAHI GLASS FOUNDATION**



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## Preface

This report summarizes the results of the 2021 Questionnaire on Environmental Problems and the Survival of Humankind, a survey conducted annually by the Asahi Glass Foundation since 1992. As in the previous years, the Asahi Glass Foundation wishes to continue communicating to as many people as possible the current thoughts and opinions of environmental experts around the world on the state of the global environment.

The environmental survey was conducted in April and May 2021, when the novel coronavirus (COVID-19) infections were continuing to spread worldwide. With the deterioration of postage services, many items we had posted were returned as “undeliverable”. In this situation, through academic websites and journals, we contacted people who might want to take part in our survey. We are grateful that we eventually received responses from 1,893 people, slightly over four percent increase from 2020 when we received responses from 1,813 people. We would like to take this opportunity to thank those who participated in the survey from around the world during this difficult time and we are very pleased to be able to provide this report on the environmental questionnaire results.

This year, the time on the Environmental Doomsday Clock (the “time on the Clock”) has struck 9:42. It first went closest to midnight at 9:47 in 2018, it was 9:46 in 2019, and 9:47 again in 2020, demonstrating a strong awareness of crisis for three consecutive years. In 2021, however, the clock went back by five minutes; this is the first significant change in eight years.

On the questions about the signs of improvement, which were introduced in 2019, “Climate Change” was most frequently selected as the category where the respondents saw signs of improvement. The percentage of respondents who answered that the awareness of the general public had improved also rose for these two consecutive years, suggesting people are becoming more aware of climate change. This year, we also added questions about SDGs to study people’s awareness of common challenges facing humanity.

In addition to the many responses we received from various countries, many of the respondents provided meaningful opinions and comments. As in the previous years, we will post the comments we received on the Asahi Glass Foundation website:

<https://www.af-info.or.jp/questionnaire/result.html>

Please read through the candid opinions of environmental experts.

We sincerely hope that we can make a contribution to the resolution of the global environmental issues through this questionnaire by inspiring not only those who are involved in environmental issues but also as many people as possible from all walks of life to take an interest in environmental issues.

We once again extend our deepest gratitude to the respondents for taking time to share their valuable opinions and experiences through the survey. We would also appreciate valuable advice and guidance from the readers of this report.

September 2021  
The Asahi Glass Foundation

# I. Survey Overview

Survey period: April to June 2021

**Respondents:** Environmental experts who work or who have worked for national or local governments, NGOs, NPOs, universities and research institutions, corporations, mass media, and so on, worldwide (based on the Asahi Glass Foundation database)

**Number of questionnaires mailed:** 31,806 (30,241 to overseas respondents and 1,565 to respondents in Japan)

**Number of questionnaires returned:** 1,893

**Response rate:** 6.0%

**Table 1 Breakdown of Respondents by Region and Organization**

<b>Region</b>	<b>Number of responses</b>	<b>Percent of total</b>
Oceania	45	2.4
North America	179	9.5
Mexico, Central America & The Caribbean	61	3.2
South America	116	6.1
Western Europe	193	10.2
Africa	81	4.3
Middle East	34	1.8
Eastern Europe & former Soviet Union	39	2.1
Asia	1145	60.5
<b>Total</b>	<b>1893</b>	<b>100.0</b>

<b>Organization</b>	<b>Number of responses</b>	<b>Percent of total</b>
Central government, Local government	213	11.3
University or research institution	712	37.6
NGO/NPO	369	19.5
Corporation	350	18.5
Mass Media	29	1.5
Others	215	11.4
Organization not stated	5	0.3
<b>Total</b>	<b>1893</b>	<b>100.0</b>

\*1. Unless otherwise specifically explained, the questionnaire calculated the percentages for its analysis as follows:

For questions where respondents were asked to choose one response: the denominator is the number of questionnaires returned. For questions where respondents were given options to provide multiple answers: the denominator is the total number of valid responses.

\*2. Figures have been rounded to whole numbers or the first decimal place.

\*3. On the total number of responses basis: The total number of responses given to a specific question is used as the base, not simply the number of questionnaires returned.

## II. Summary of Questionnaire Results

### II-1. Level of the Crisis for Human Survival—The Environmental Doomsday Clock

- The time on the Environmental Doomsday Clock (the “time on the Clock”) for the world had been 9:46~47 since 2018, showing the strongest sense of crisis for three straight years. This year, it is 9:42, five minutes earlier than last year, and back over four minutes from the preceding year; this is the first significant change in eight years.
- Looking at the times on the Clock around the world, the Clock receded back 30 minutes in North America and the times are also earlier than last year in most regions. The US rejoining the Paris Agreement in January may have positively affected the times on the Clock around the world.
- The three most often selected categories of the “environmental issues to be taken into account” were “Climate Change (31 %),” “Biosphere Integrity (Biodiversity) (14%),” and “Society, Economy and Environment, Policies, Measures (12%).”
- When arranging the “environmental issues to be taken into account” for the entire world in order of descending time on the Clock, “Biosphere Integrity (Biodiversity) (9:54)” and “Biochemical Flows (Pollution/Contamination) (9:53)” had the time closer to midnight by over 10 minutes compared to the world average time (9:42).

### II-2. Signs of Improvement in the Approach to Environmental Issues: Comparison with the Situation before 2015 When the Paris Agreement and SDGs Were Adopted

Since 2019, we have asked questions about transition to a decarbonized society and environmental issues to be taken into account; this is to investigate if there are signs of improvement in the approach to environmental issues, from the three aspects, “Public Awareness,” “Policies and Legal System,” and “Social Infrastructure (Funds, Human Resources, Technologies, and Facilities).”

- With regard to the transition to a decarbonized society, some signs of improvement were noted, but the result shows that the advances made in “Policies and Legal System” and “Social Infrastructure (Funds, Human Resources, Technologies, and Facilities)” were less pronounced than those for “Public Awareness.” Nonetheless, improvements have been made in all three areas for two years in a row since 2019.
- The category most commonly identified as showing signs of improvement in approach was “Climate Change” at 28%, followed by “Society Economy and Environment, Policies, Measures” (18%), and “Lifestyle (Consumption Habits)” (17%). Compared with the values in 2019, improvements have been observed in “Public Awareness” and “Social Infrastructure (Funds, Human Resources, Technologies, and Facilities),” while awareness of signs of improvement became lower for “Policies and Legal System.” Fourteen percentage of the respondents selected the answer, “There is no sign of improvement at all.”

### III-3. Realization of 17 Sustainable Development Goals (SDGs) in 2030

- On the world average, in most countries, “9. Industry, Innovation, and Infrastructure” and “13. Climate Action” were selected as the top two goals that will have the highest level of realization in 2030.
- On the world average, “1. No Poverty” was the most selected as the goal that will have the lowest level of realization in 2030, followed by “2. Zero Hunger,” and “10. Reduced Inequalities.” Obviously, people around the world think that these are the most difficult goals to achieve.
- In the respondents’ own country or region, “9. Industry, Innovation, and Infrastructure,” “4. Quality Education,” and “6. Clean Water and Sanitation” were the most commonly selected goals that will have the highest level of realization in 2030.
- In the respondents’ own country or region, many people selected “1. No Poverty,” and “10. Reduced Inequalities” as the goals that will have the lowest level of realization in 2030. On the world average, these were also selected as the goals that will have the lowest level of realization, indicating that these are common major challenges worldwide.

### III. Questionnaire Results

#### III-1. Level of the Crisis Facing Human Survival – The Environmental Doomsday Clock

In Table 5 on page 8, “Environmental issues to be taken into account” are shown. Keeping in mind the problems that the environment faces at a global level, please select the three most pressing issues for the country or the region where you reside. Then, please rank them in order of importance. Lastly, for each item, select a time using hours and minutes between 0:10 to 12:00, to indicate the level of crisis for that issue. For the purpose of calculating results, please select your times in units no smaller than 10 minutes.

Regarding the calculation of the time on the Environmental Doomsday Clock

The time on the Environmental Doomsday Clock will be determined by taking the weighted average of the data. The issue ranked in first place will be weighted at 50%, second place at 30%, and third place at 20%.

If a respondent selected only two issues, the first-ranked issue is weighted at 62.5% and second place at 37.5%. If the respondent selected only one issue, the selected issue is weighted at 100%.

## The Environmental Doomsday Clock

the sense of crisis felt about the continuance of the human race

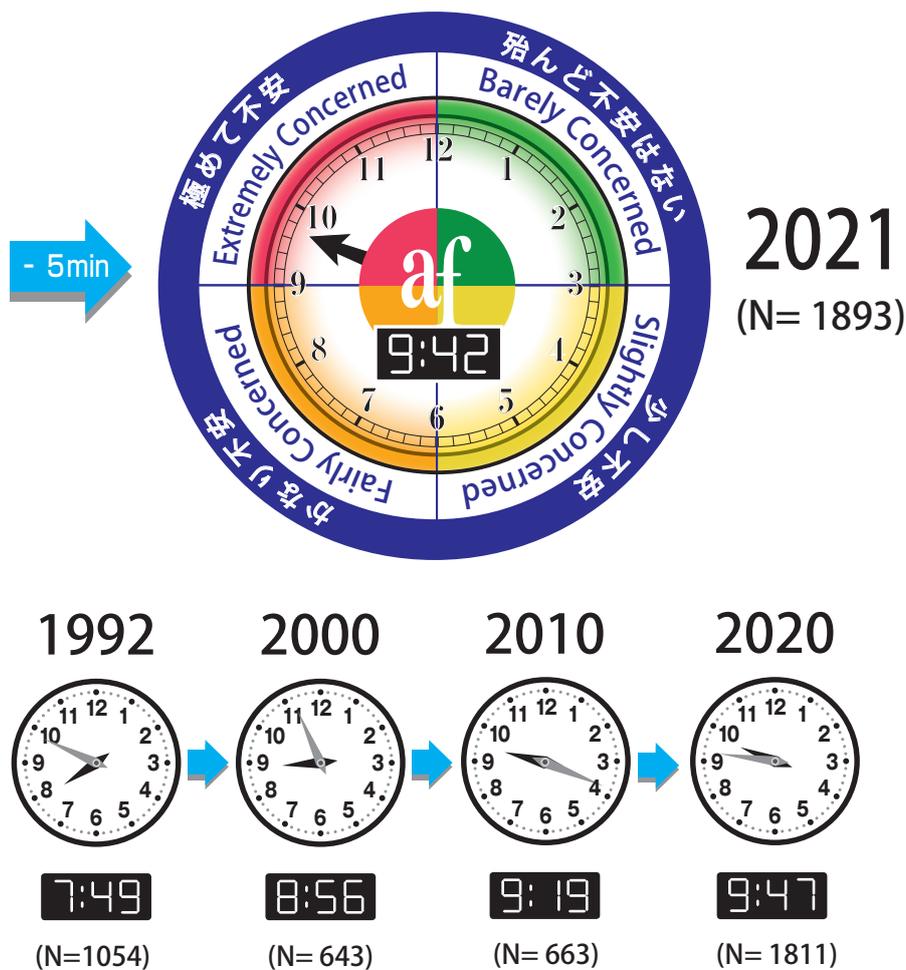


Fig. 1 The Time on the Environmental Doomsday Clock

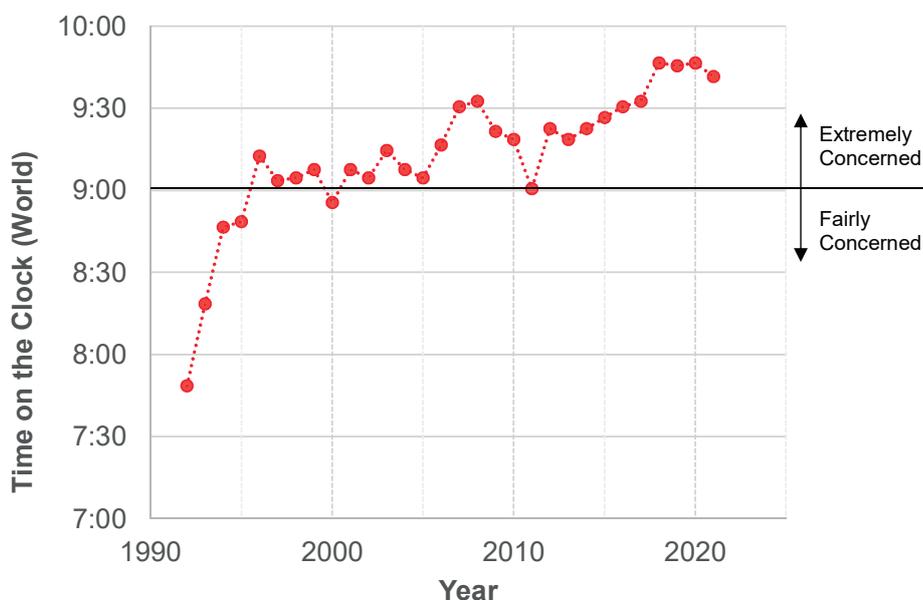
### III-1-1. The Time on the Environmental Doomsday Clock

**Table 2 Change in Time on the Environmental Doomsday Clock (World) since 1992**

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Time	-	7:49	8:19	8:47	8:49	9:13	9:04	9:05	9:08	8:56
Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Time	9:08	9:05	9:15	9:08	9:05	9:17	9:31	9:33	9:22	9:19
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Time	9:01	9:23	9:19	9:23	9:27	9:31	9:33	9:47	9:46	9:47
Year	2021									
Time	9:42									

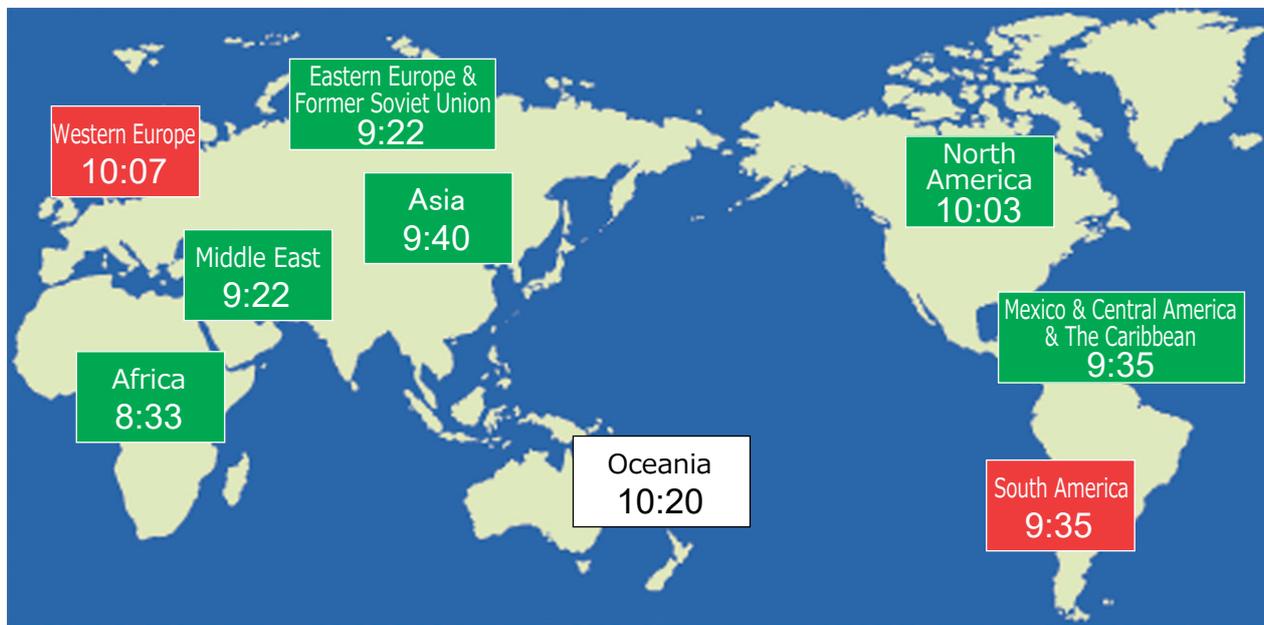
Since the inception of the survey, ■ represents the lowest sense of crisis, while ■ represents the highest.

(footnote) Since the inception of the survey, ■ represents the lowest sense of crisis, while ■ represents the highest.



**Fig. 2 Change in the Time on the Environmental Doomsday Clock (World) since 1992**

- The time on the Clock had had a tendency to get closer to midnight since 2011, but in 2021, it is 9:42, over four minutes earlier than the previous year, which is the first significant change in eight years.



■ represents regions where the time retreated further from midnight than last year.  
■ represents regions where the time became closer to midnight than last year.  
 represents regions where the time remained the same.

**Fig. 3 Regional Times on the Environmental Doomsday Clock**

**Table 3 Change in the Time on the Environmental Doomsday Clock over Time**

Year	Change in Time on the Clock			Change in Time (min)	
	2011	2020	2021	2011 → 2021	2020 → 2021
World	9:01	→ 9:47	→ 9:42	+41	-5
Oceania	10:06	→ 10:20	→ 10:20	+14	±0
North America	9:35	→ 10:33	→ 10:03	+28	-30
Mexico, Central America & The Caribbean	9:18 <sup>*2</sup>	→ 9:38	→ 9:35	+17	-3
South America	→ 9:29	→ 9:35		+17	+6
Western Europe	9:28	→ 9:59	→ 10:07	+39	+8
Africa	9:09	→ 8:34	→ 8:33	-36	-1
Middle East	10:24	→ 9:35	→ 9:22	-62	-13
Eastern Europe & former Soviet Union	9:13	→ 9:30	→ 9:22	+9	-8
Asia <sup>*1</sup>	8:48	→ 9:44	→ 9:40	+52	-4

Red numbers indicate the time became closer to midnight; green numbers indicates the time became further from midnight.

\*1: Incl. Japan, \*2: Time for South America, Mexico, Central America, and the Caribbean

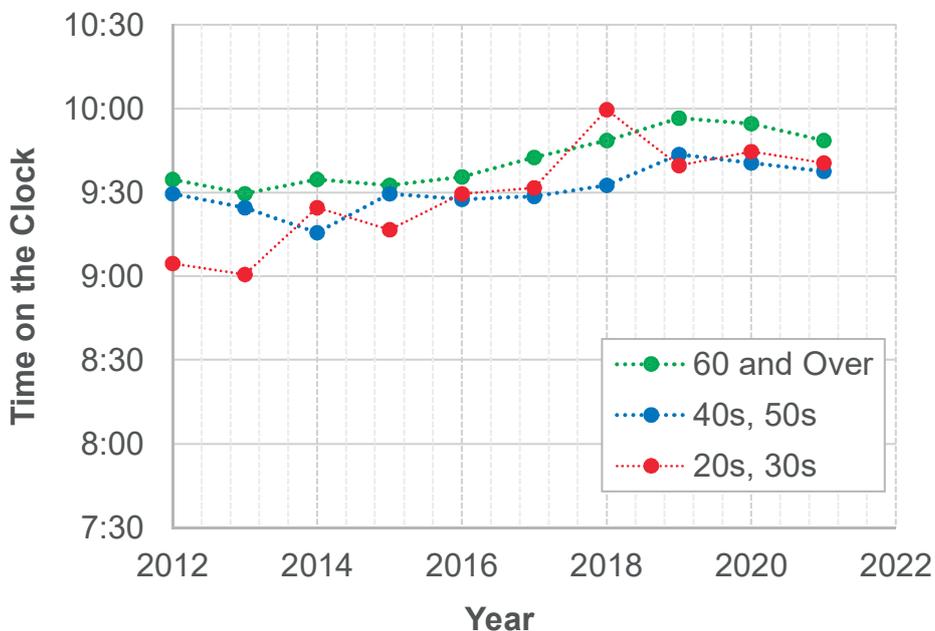
- The time on the Clock for the world is 9:42, which is five minute earlier than last year.
- Looking at the times on the Clock around the world, it is 30 minutes earlier in North America and the times are earlier than last year in most regions. The fact that the US rejoined the Paris Agreement in January may have positively affected the times on the Clock around the world.
- The time on the Clock in North America is 10:03, 30 minutes earlier compared to last year. North America has still the third strongest sense of crisis in the world after Oceania and Western Europe.

### III-1-1-2. Change in the Time on the Environmental Doomsday Clock by Generation Over the Last 10 Years (2012 – 2021)

**Table 4 Change in the Time on the Environmental Doomsday Clock by Generation**

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Time	9:23	9:19	9:23	9:27	9:31	9:33	9:47	9:46	9:47	9:42
60 and Over	9:35	9:30	9:35	9:33	9:36	9:43	9:49	9:57	9:55	9:49
40s, 50s	9:30	9:25	9:16	9:30	9:28	9:29	9:33	9:44	9:41	9:38
20s, 30s	9:05	9:01	9:25	9:17	9:30	9:32	10:00	9:40	9:45	9:41

- The survey respondents aged 60 and over tended to report more advanced times on the Clock than other age groups.
- Ten years ago, people in their 20s and 30s had an apparently lower awareness level about the environment than those of higher generations. Recently, however, the difference in the awareness level of crisis among generations tends to become smaller.
- While all age groups had been developing a stronger sense of crisis each year, the Clock was set back in all age groups this year, for the first time in the last eight years.
- The times reported by respondents in their 40s, 50s, 60s and over had advanced from 2016 until 2019, but were set back consecutively in 2020 and 2021.
- Since 2013, when the Clock was 9:01, the times reported by respondents in their 20s and 30s had kept moving forward, but in 2018, the time on the Clock hit 10:00 for these age groups due to the impact of the growing sense of crisis among the Chinese respondents in their 20s and 30s. It then returned to the 9:40 range from 2019 onward.



**Fig. 4 Change in the Time on the Clock by Generation**

### III-1-2. Environmental Issues to be Taken into Account

**Table 5 Environmental Issues to be Taken into Account**

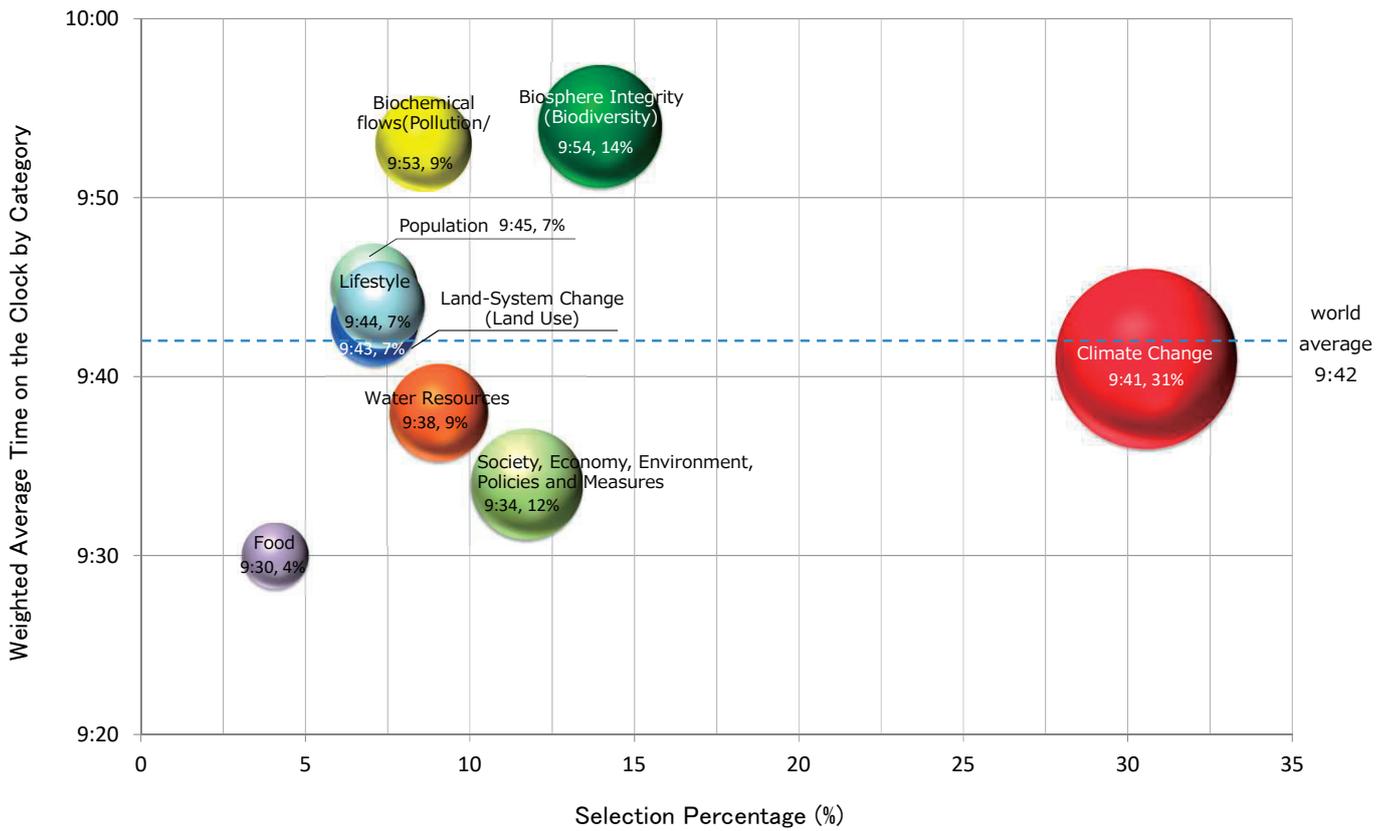
No.	Category	Examples of Observable Changes in the Country or the Region in which You Reside	Planetary Boundaries (PB)	Category by SDGs # (Sustainable Development Goals: SDGs)
1.	Climate Change	Global warming; CO <sub>2</sub> %, ocean acidification; climatic aberrations (droughts, torrential rains and flooding, severe storms, heavy snow, abnormal temperatures, desertification, etc.)	Climate change, Ocean acidification, Atmospheric aerosol loading, Stratospheric ozone depletion	13
2.	Biosphere Integrity (Biodiversity)	Acceleration of species extinction rate; effects of contamination, climate change, land use	Genetic diversity, Functional diversity	14, 15
3.	Land-System Change (Land Use)	Change in the amount of forest cover remaining at the tropical, temperate and boreal biomes. Change in the amount of cropland	Land-system change	13, 15
4.	Biochemical flows (Pollution/ Contamination)	Increase in river, ocean and soil pollution: eutrophication caused by excessive nitrogen and phosphorus and contamination by microplastics and chemical substances; atmospheric pollution: particulates suspended in the atmosphere, soot and chemical substances	Chemical pollution, Nitrogen and phosphorous cycles	3, 6, 7
5.	Water Resources	Diminution of usable fresh water resources (depletion, contamination) Control and degeneration of green water quality (water contained in soil and used by plants)	Freshwater use	6
6.	Population	Population growth beyond what the Earth can support; aging of the population	Related with almost all the PB	1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12
7.	Food	Diminution of food supply from land and oceans	Related with almost all the PB	2, 12, 14, 15
8.	Lifestyle (Consumption Habits)	Transformation of lifestyles away from excessive consumption of resources like energy	Related with almost all the PB	4, 11, 12
9.	Society, Economy and Environment, Policies, Measures	Establishing a green economy with environmental economics and accounting Environmental awareness at the individual and societal levels, progress of environmental education, Legal system, social foundation; poverty, governance; the status of women	Related with almost all the PB	1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 16, 17

Terms in blue are categories listed in Planetary boundaries: Will Steffen, Katherine Richardson, Johan Rockstrom et.al. Science 13 Feb 2015 vol. 347, issue 6223



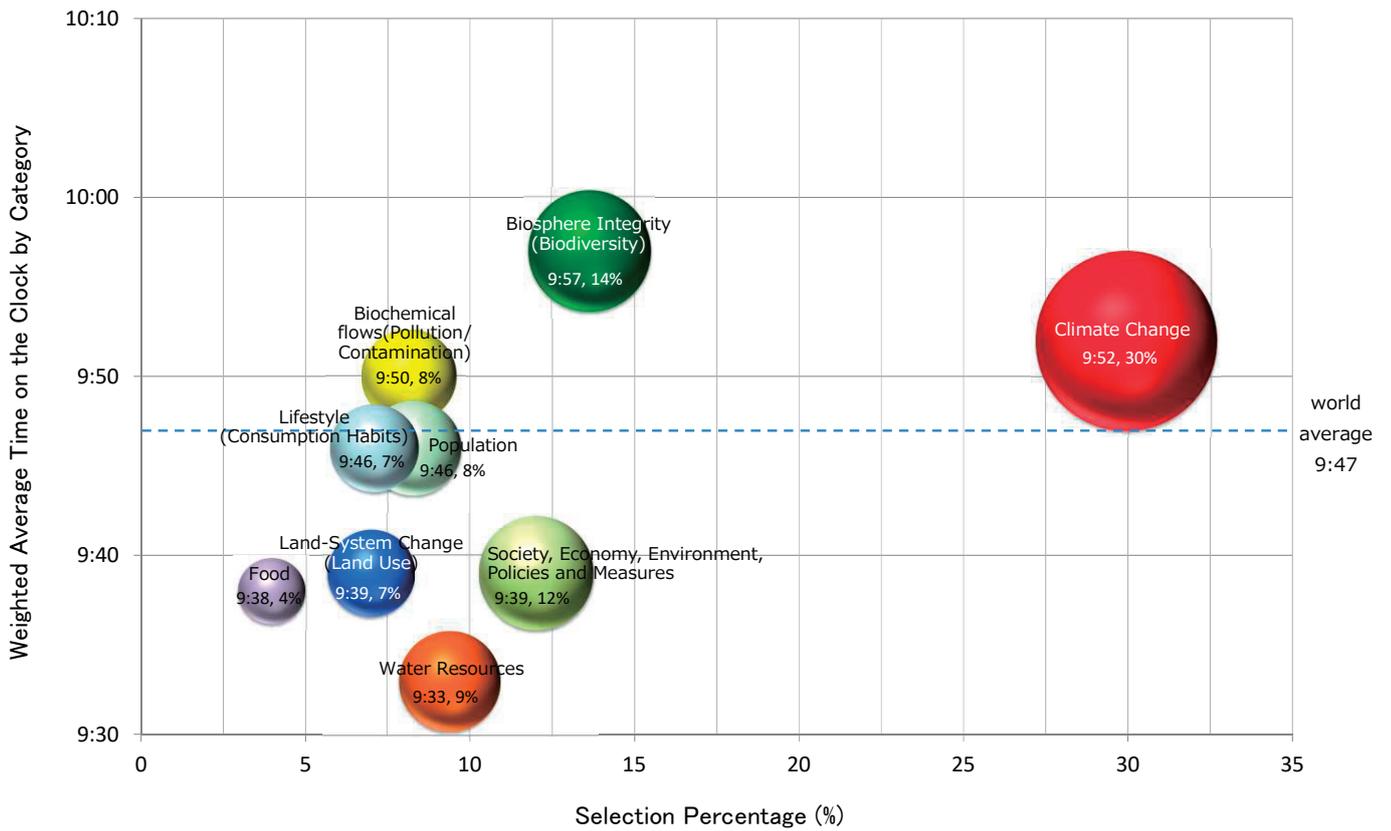
**Fig. 5 Sustainable Development Goals (SDGs)**

**III-1-2-1. Distribution of the Environmental Issues to be Taken into Account, Showing Selection Percentage of Respondent's 3 Most Pressing Issues and the Time on the Clock**

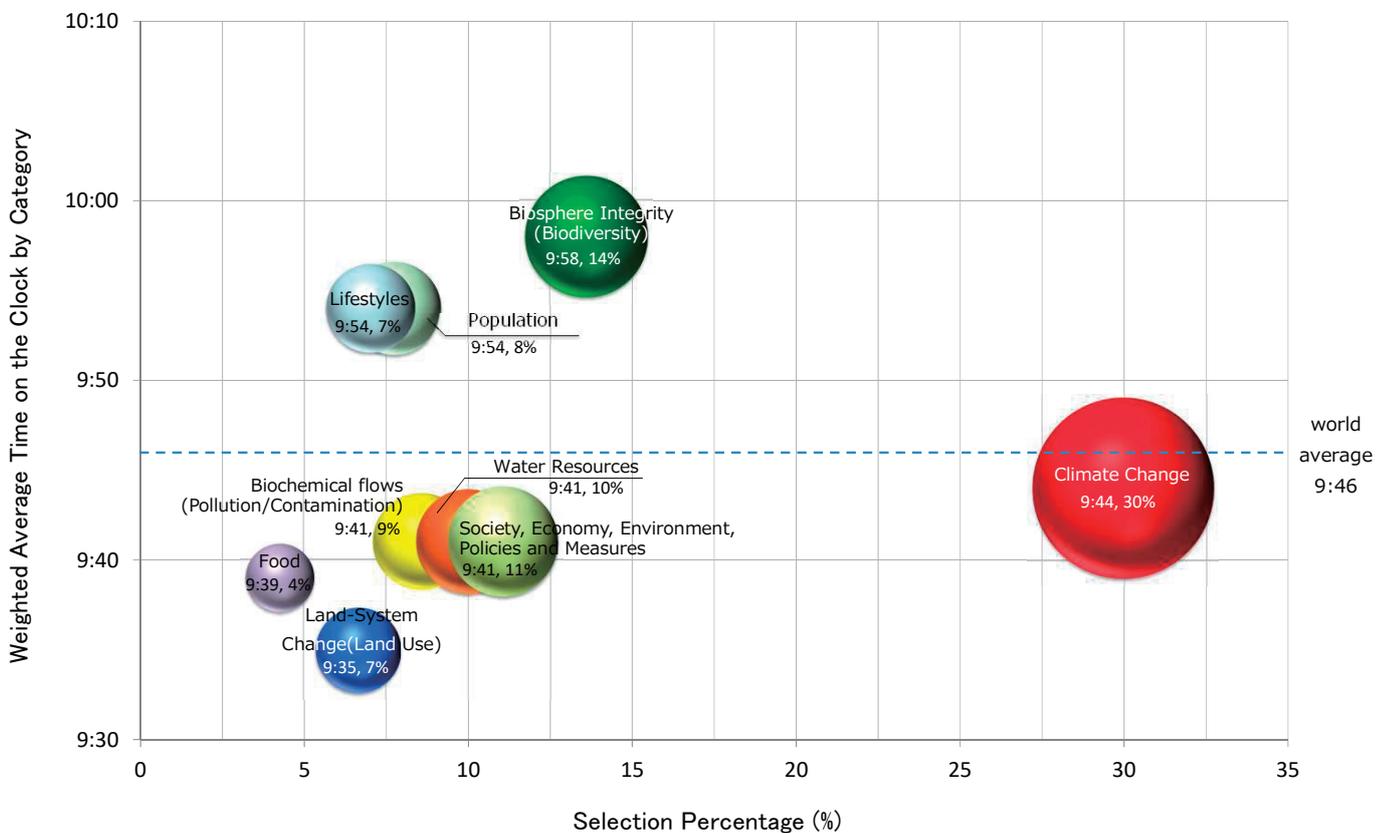


**Fig. 6-1 2021 Distribution of the Environmental Issues to be Taken into Account, Showing Selection Percentage of Respondent's 3 Most Pressing Issues and the Time on the Clock**

- As in the last year, “Climate Change” (31%) was the most often selected category among the “environmental issues to be taken into account,” which are used to calculate the time on the worldwide Environmental Doomsday Clock. This was followed by “Biosphere Integrity (Biodiversity)” (14%), “Society, Economy, and Environment, Policies, Measures” (12%), “Water Resources” (9%), “Biochemical Flows (Pollution/Contamination)” (9%), “Lifestyle (Consumption Habits)” (7%), “Land-System Change (Land Use)” (7%), “Population” (7%), and “Food” (4%). The percentage of each issue has changed little from last year.
- When arranging the “environmental issues to be taken into account” for the entire world on the Environmental Doomsday Clock, “Biosphere Integrity (Biodiversity)” was at 9:54, “Biochemical Flows (Pollution/Contamination)” 9:53, “Population” 9:45, “Lifestyle (Consumption Habits)” 9:44, and “Land-System Change (Land Use)” 9:43 were closer to midnight than the world’s average time of 9:42, followed by “Climate Change” 9:41, “Water Resources” 9:38, “Society, Economy, and Environment, Policies, Measures” 9:34, and “Food” 9:30.
- “Biosphere Integrity (Biodiversity)” has shown the closest time to midnight recently, and the time for “Biochemical Flows (Pollution/Contamination)” has been getting consistently closer to midnight, compared to other environmental issues.

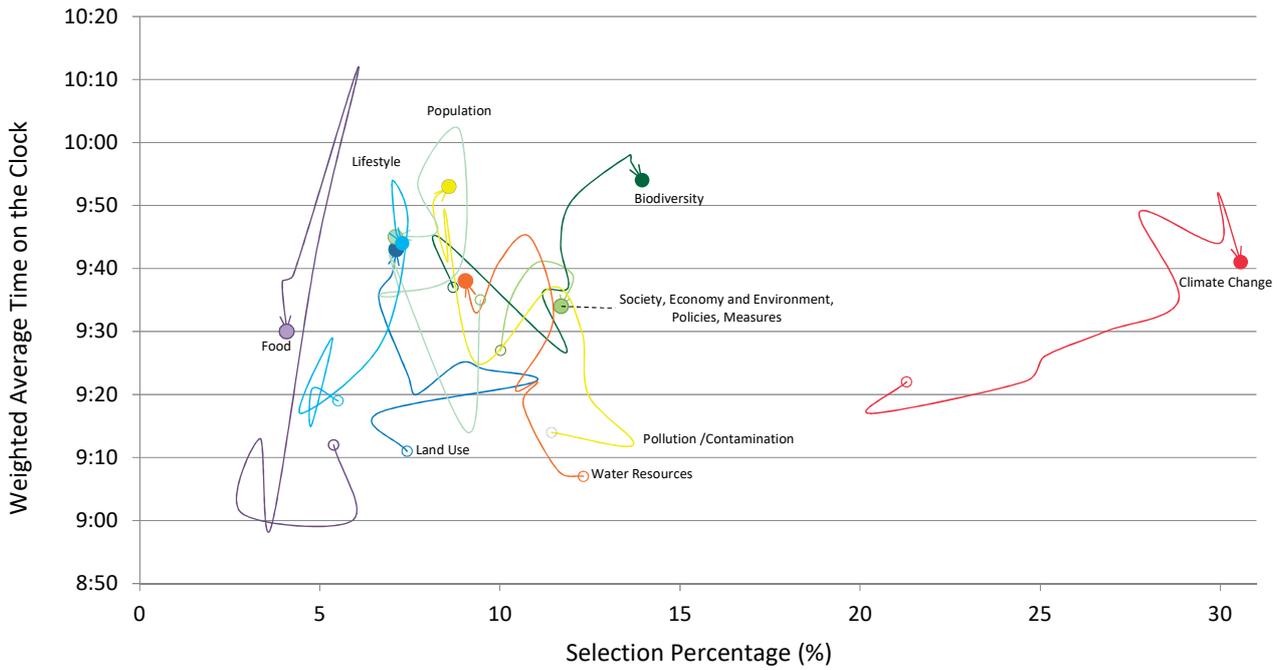


**Fig. 6-2 2020 Distribution of the Environmental Issues, Showing Selection Percentage Of Respondent's 3 Most Pressing Issues and the Time on the Clock**



**Fig. 6-3 2019 Distribution of the Environmental Issues to be Taken into Account, Showing Selection Percentage Of Respondent's 3 Most Pressing Issues and the Time on the Clock**

### III-1-2-2. Annual Change in the Time on the Clock and Selection Percentage of Environmental Issues



\*1. The categories “Warming Measures,” “Environment and Economy,” “Environment and Society” were used until 2017, after which “Society, Economy, and Environment” was used until 2019.

\*2 “Society, Economy and Environment” was changed to “Society, Economy and Environment, Policies, Measures” in 2019



**Fig. 7 Annual Change in the Time on the Clock and Selection Percentage (FY2012-2021)**

- For the last decade, the selection percentage of “Climate Change” shows an increasing trend and the time on the Clock trends closer to midnight. For other environmental issues, the change in selection percentage is not large, but fluctuates between nine and ten o’clock.

### III-1-2-3. Selection Percentage for “Environmental Issues” by Region

**Table 6 Selection Percentage for “Environmental Issues” by Region**

	1. Climate Change	2. Biosphere Integrity (Biodiversity)	3. Land-System Change (Land Use)	4. Biochemical Flows (Pollution/Contamination)	5. Water Resources	6. Population	7. Food	8. Lifestyle (Consumption Habits)	9. Society, Economy and Environment, Policies, Measures
World	31%	14%	7%	9%	9%	7%	4%	7%	12%
Oceania	33%	22%	7%	4%	4%	15%	0%	8%	6%
Australia	35%	21%	6%	2%	3%	17%	0%	8%	7%
Oceania (except Australia)	30%	23%	9%	7%	7%	11%	2%	9%	3%
North America	37%	17%	6%	4%	6%	8%	1%	11%	10%
Canada	35%	19%	7%	4%	5%	7%	2%	12%	10%
USA	38%	16%	6%	4%	6%	8%	1%	10%	10%
Mexico & Central America & The Caribbean	25%	22%	11%	3%	12%	4%	1%	8%	14%
South America	18%	23%	21%	5%	9%	3%	3%	6%	13%
Western Europe	30%	23%	10%	6%	4%	5%	1%	10%	10%
Western Europe (excl. UK)	30%	22%	11%	6%	5%	5%	1%	10%	10%
UK	28%	26%	6%	8%	1%	7%	0%	11%	13%
Africa	27%	15%	12%	4%	11%	9%	6%	2%	12%
Middle East	27%	17%	10%	1%	21%	4%	1%	4%	13%
Eastern Europe & former Soviet Unions	18%	16%	13%	12%	9%	3%	1%	10%	17%
Asia	32%	10%	5%	11%	10%	8%	6%	7%	12%
Japan	39%	11%	4%	7%	4%	6%	6%	8%	15%
India	27%	14%	9%	7%	11%	18%	0%	4%	11%
China	24%	7%	3%	14%	16%	10%	8%	6%	10%
Taiwan	37%	5%	3%	24%	13%	3%	2%	3%	9%
Korea	37%	14%	2%	8%	5%	5%	3%	15%	11%
Asia (excl. the above 5 nations)	28%	18%	16%	7%	11%	3%	2%	4%	10%

\*Red columns (■) represent the most frequently selected category in the region/country; blue columns (■) represent the second most frequently selected category in the region/country.

- As with last year, “Climate Change”(31%) was the issue that the respondents worldwide most often selected as the most pressing environmental issue to be taken into account, followed by “Biosphere Integrity (Biodiversity)” (14%). This trend can be seen in many geographical regions.
- Within Asia, however, differences emerged in the second most selected category, being “Population” in India, “Water Resources” in China, “Biochemical Flows (Pollution/Contamination)” in Taiwan, “Lifestyle (Consumption Habits)” in Korea, and “Society, Economy, and Environment, Policies, Measures” in Japan.
- While “Climate Change” has the highest selection percentage in most regions of the world, the respondents in South America most often selected “Biosphere Integrity (Biodiversity)”. This was also the case for the region in 2020 when “Biosphere Integrity (Biodiversity)” and “Land-System Change (Land Use)” were the most and second-most selected issues, respectively, ahead of “Climate Change.”

### III-1-2-4. Times on the Clock for Environmental Issues by Region

**Table 7 Times on the Clock for Environmental Issues by Region**

	Weighted Average Time	1. Climate Change	2. Biosphere Integrity (Biodiversity)	3. Land-System Change (Land Use)	4. Biochemical Flows (Pollution/Contamination)	5. Water Resources	6. Population	7. Food	8. Lifestyle (Consumption Habits)	9. Society, Economy and Environment, Policies, Measures
World	9:42	9:41	9:54	9:43	9:53	9:38	9:45	9:30	9:44	9:34
Oceania	10:20	10:49	10:11	9:11	-	-	9:56	-	10:36	8:31
Australia	10:31	10:44	10:40	-	-	-	9:42	-	10:30	-
Oceania (excl. Australia)	9:51	11:01	9:10	-	-	-	-	-	-	-
North America	10:03	10:02	10:15	10:17	8:44	8:32	10:41	-	9:49	9:27
Canada	10:02	10:04	10:01	9:25	6:53	10:13	11:18	-	9:31	9:28
USA	10:03	10:02	10:23	10:40	9:37	7:57	10:28	-	10:00	9:30
Mexico, Central America, The Caribbean	9:35	9:17	10:02	9:24	-	10:15	9:31	-	10:19	9:39
South America	9:35	9:19	9:41	9:52	9:13	9:08	10:10	9:38	10:10	9:14
Western Europe	10:07	10:17	10:35	9:44	10:06	9:53	10:02	-	9:52	9:17
UK	10:28	10:48	10:50	10:51	9:48	-	9:20	-	10:45	10:21
Western Europe (excl. UK)	10:00	10:09	10:30	9:36	10:18	9:57	10:30	-	9:37	8:47
Africa	8:33	8:19	8:56	8:46	10:21	8:59	9:34	-	-	8:52
Middle East	9:22	9:00	9:25	9:26	-	9:13	-	-	-	9:46
Eastern Europe & former Soviet Unions	9:22	9:38	9:11	9:44	9:32	8:33	-	-	9:14	10:02
Asia	9:40	9:36	9:44	9:41	9:57	9:49	9:38	9:38	9:39	9:40
Japan	9:36	9:35	9:46	9:10	9:39	9:03	9:25	9:27	9:32	9:38
India	8:57	8:36	9:42	9:40	8:29	10:18	9:11	-	5:29	9:01
China	10:06	10:10	10:06	9:51	10:15	10:11	9:57	9:50	10:01	10:03
Taiwan	8:51	8:30	8:23	9:36	9:25	8:49	8:49	-	9:15	8:52
Korea	9:38	10:01	9:49	-	9:40	9:54	8:54	-	9:20	8:55
Asia (excl. the above 5 nations)	9:25	9:20	9:22	9:56	9:59	8:05	9:35	9:35	10:43	9:26

Where possible, three or more responses were used to calculate the time on the Clock. ■ : 11:00-11:59, ■ : 10:00-10:59, ■ : 9:00-9:59, ■ : 8:00-8:59, ■ : 7:00 and earlier

- The world’s average time on the Clock is 9:42. Only two issues, namely “Biosphere Integrity (Biodiversity)” (9:54) and “Biochemical Flows (Pollution/Contamination)” (9:53) are ahead of the average time by more than 10 minutes. The time on the Clock for “Climate Change” was 9:52 last year; but this year, the Clock went back by 11 minutes to 9:41.
- By region, a heightened sense of crisis is shown for “Climate Change” in Oceania (10:49), “Population” in North America (10:41), and “Biosphere Integrity (Biodiversity)” in Western Europe (10:35).

### III-1-2-5. Regional Distribution of Times on the Clock, Showing Selection Percentage of Respondent's 3 Most Pressing Issues and the Time on the Clock

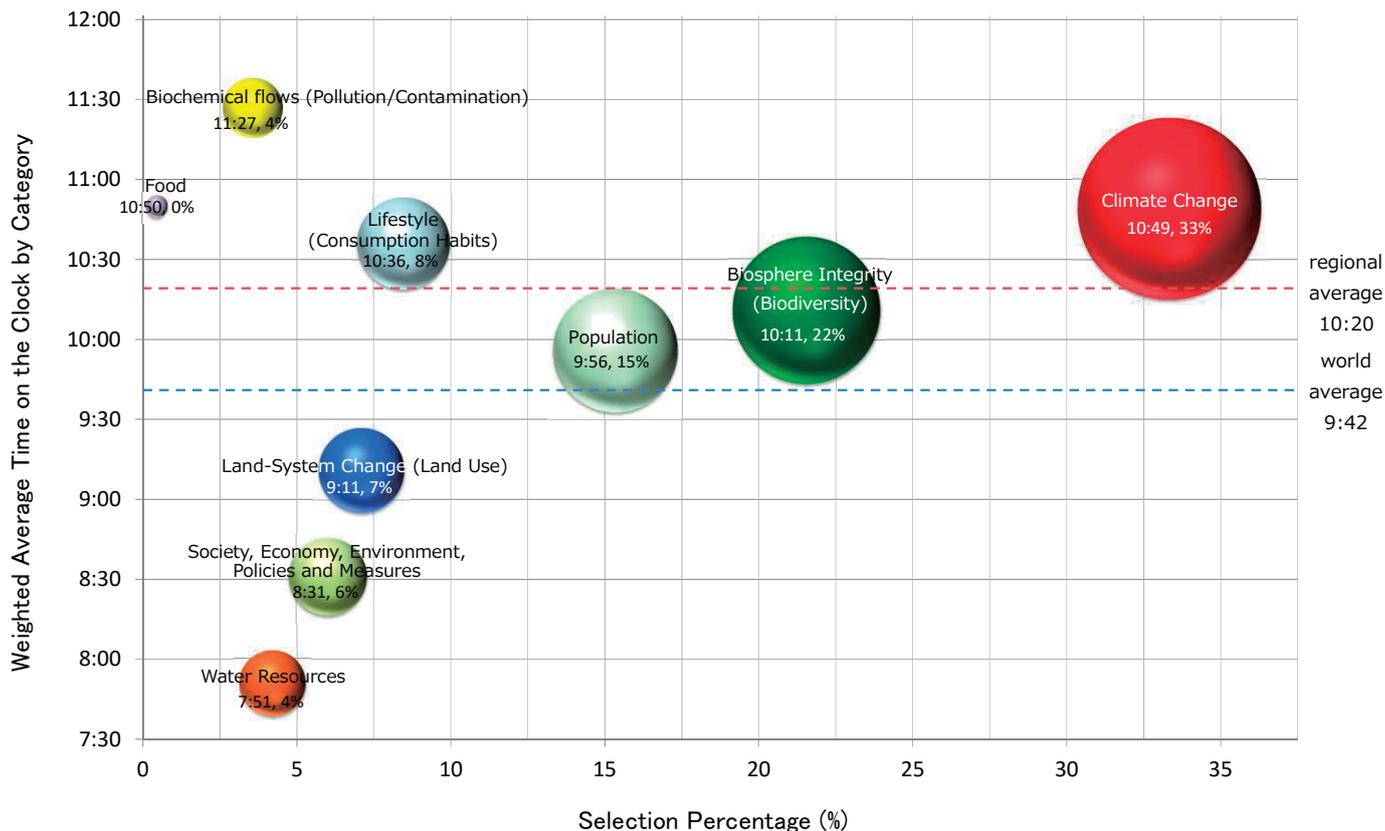


Fig. 8-1. Oceania

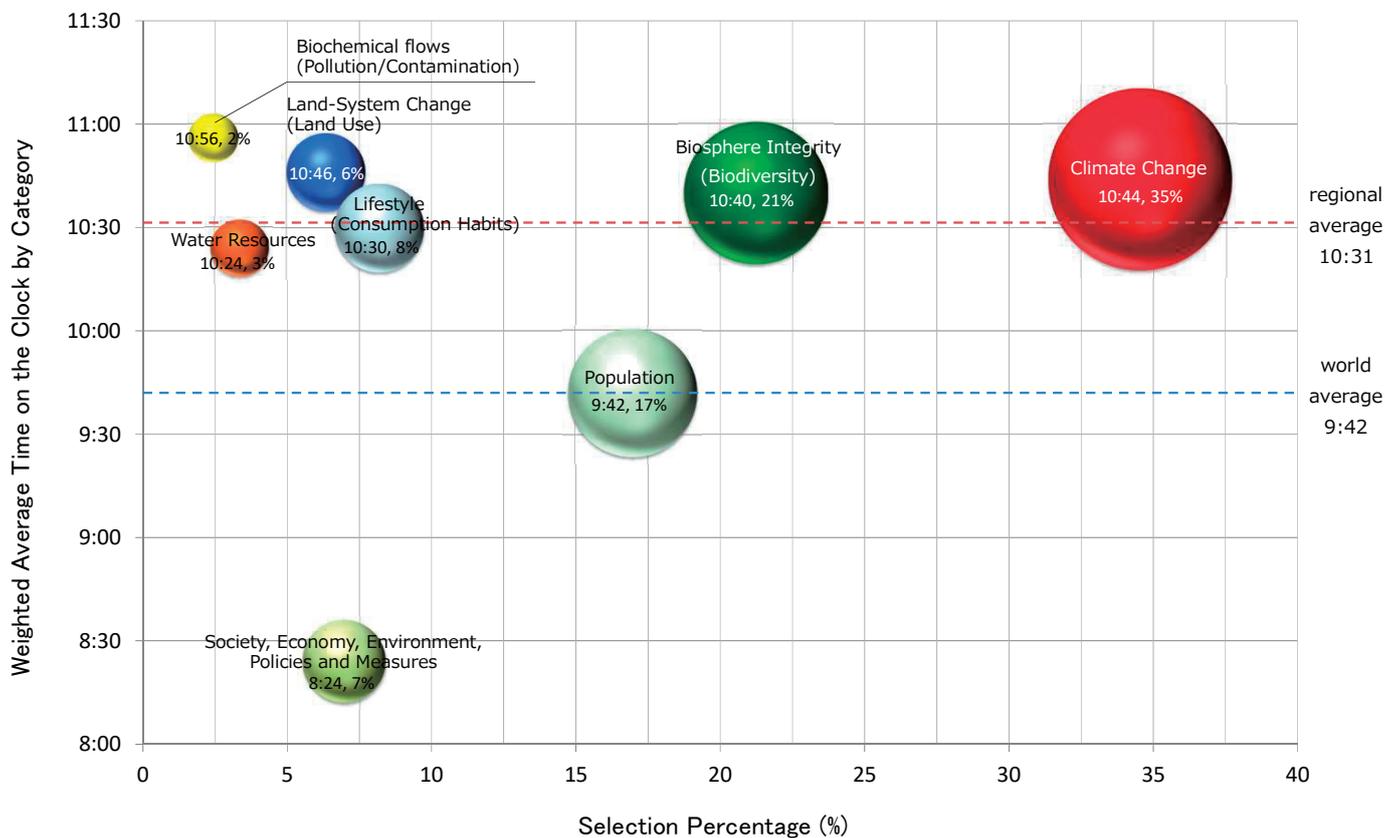
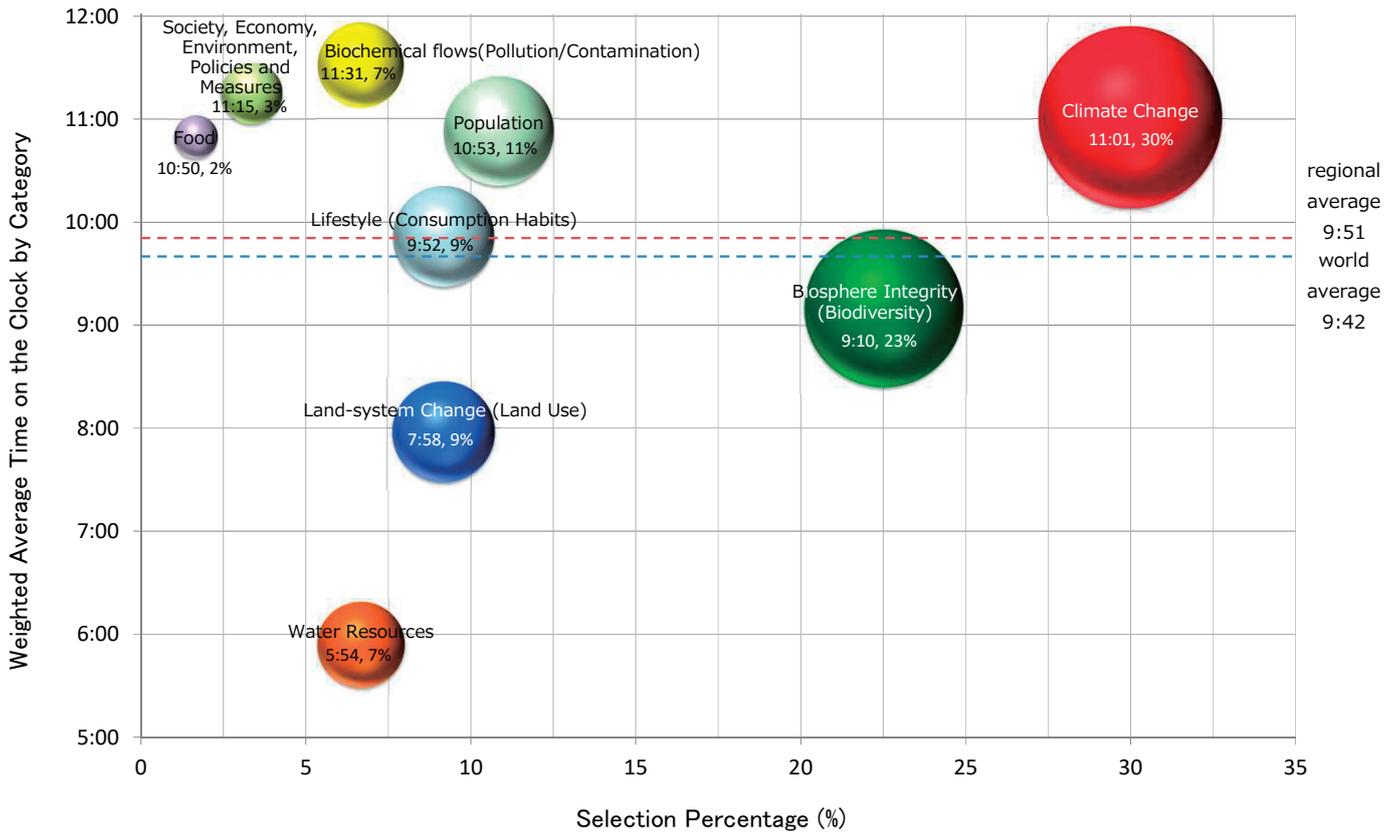
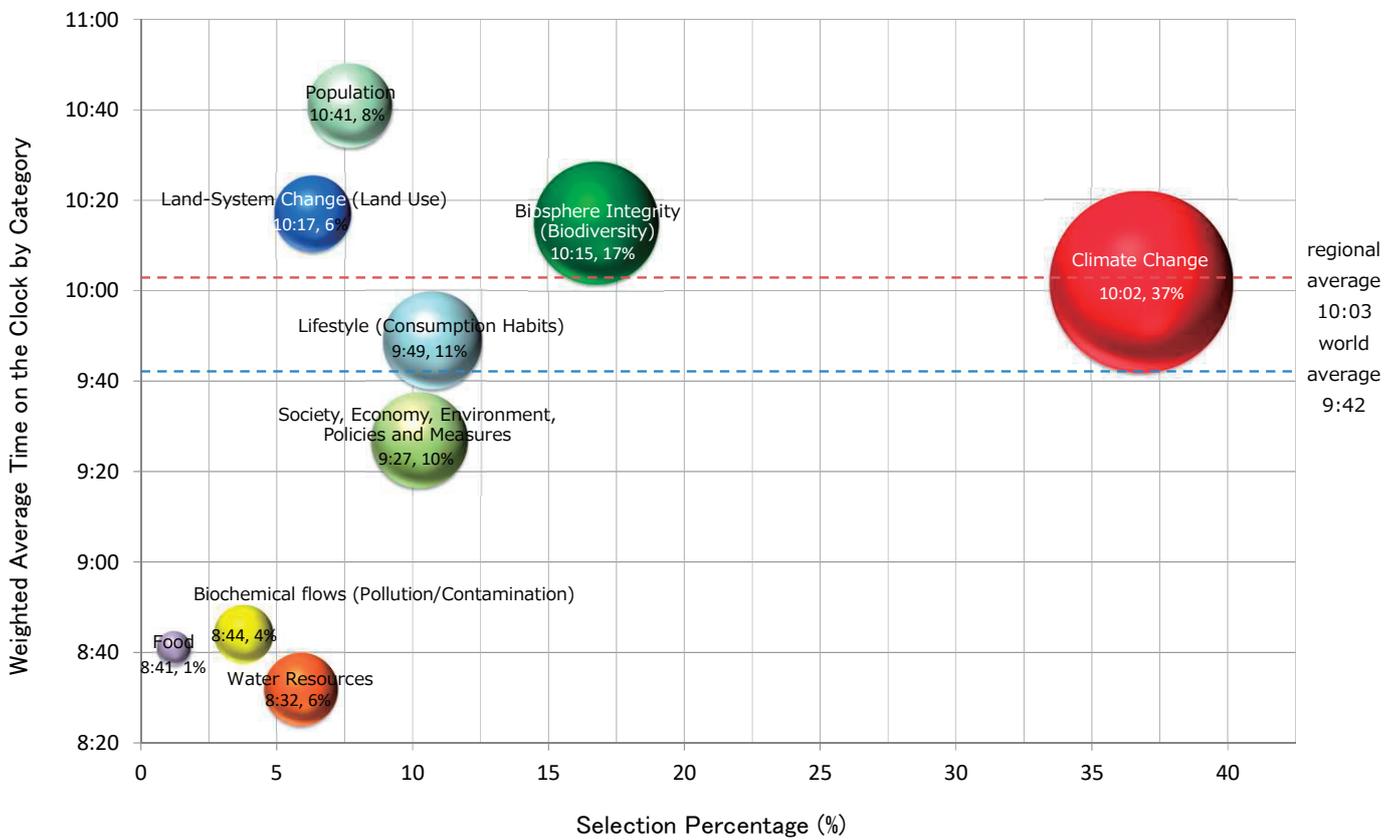


Fig. 8-2. Australia



**Fig. 8-3. Oseania (excl. Australia)**



**Fig. 9-1. North America**

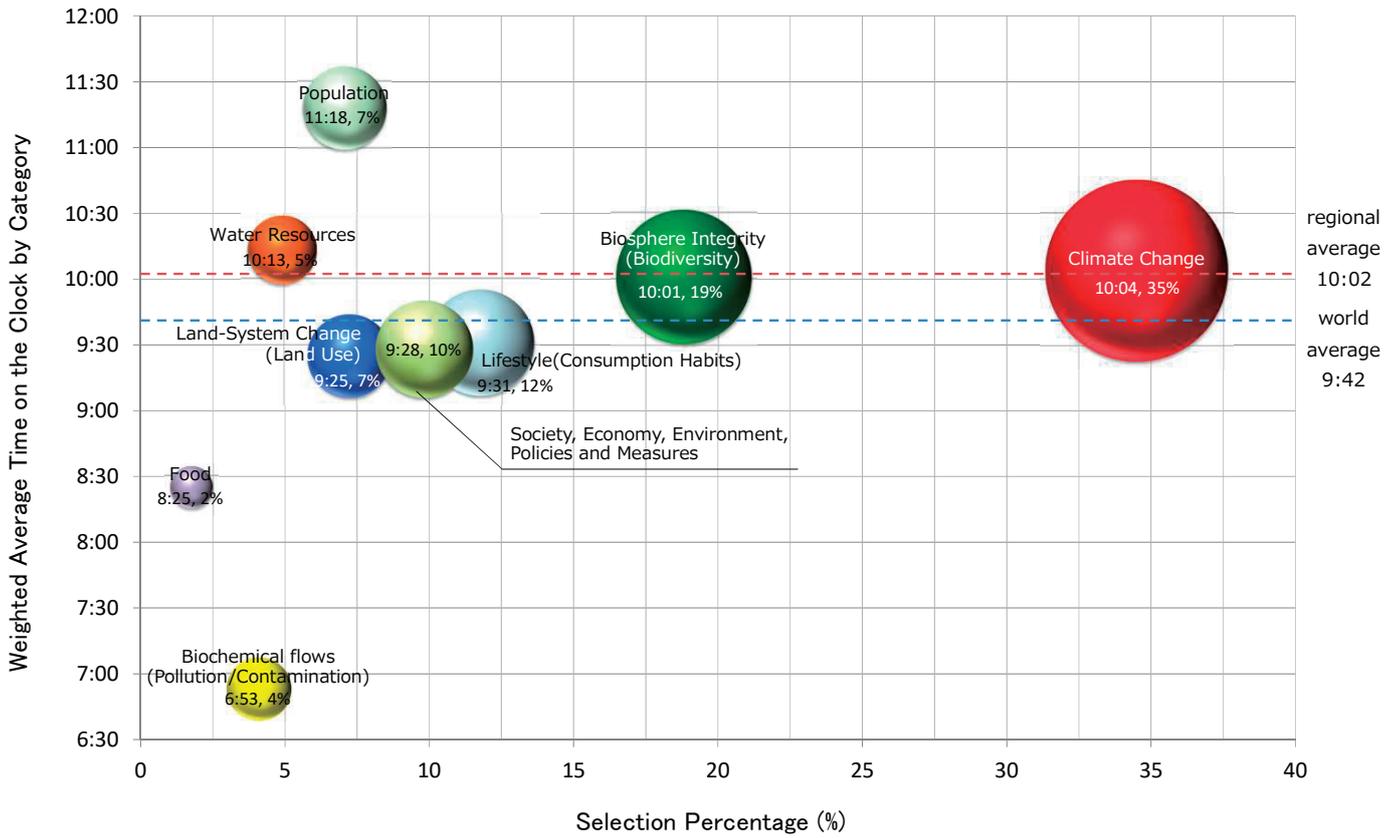


Fig. 9-2. Canada

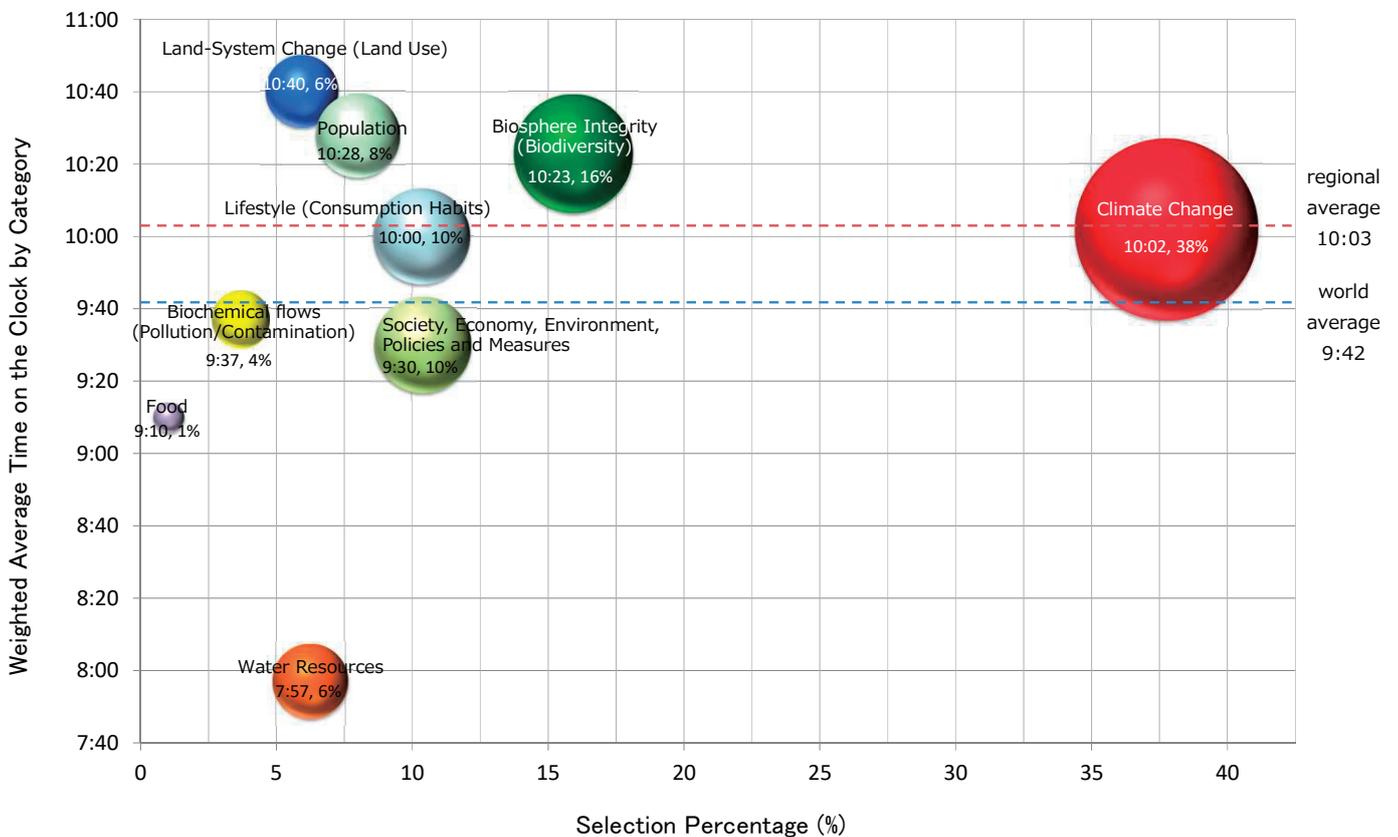
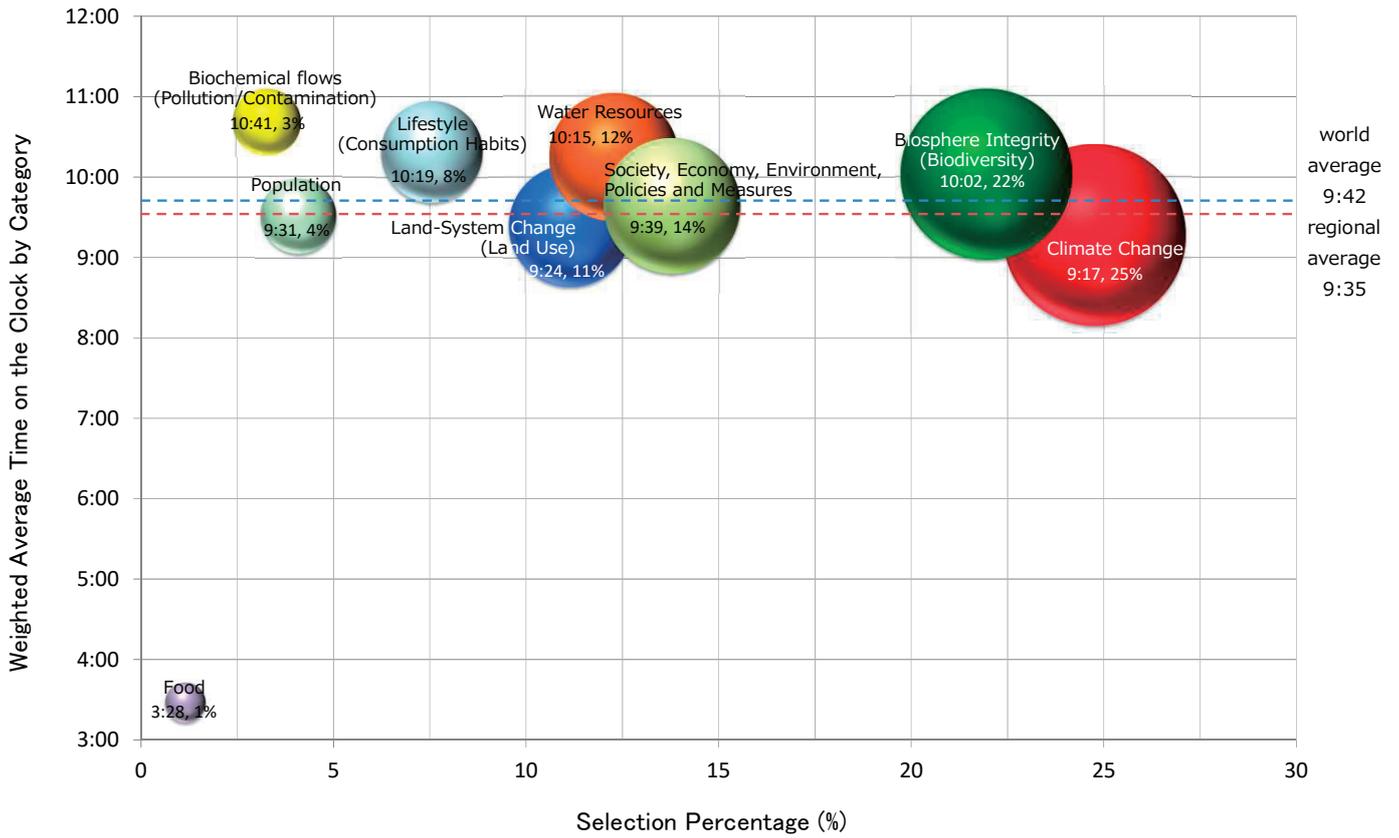
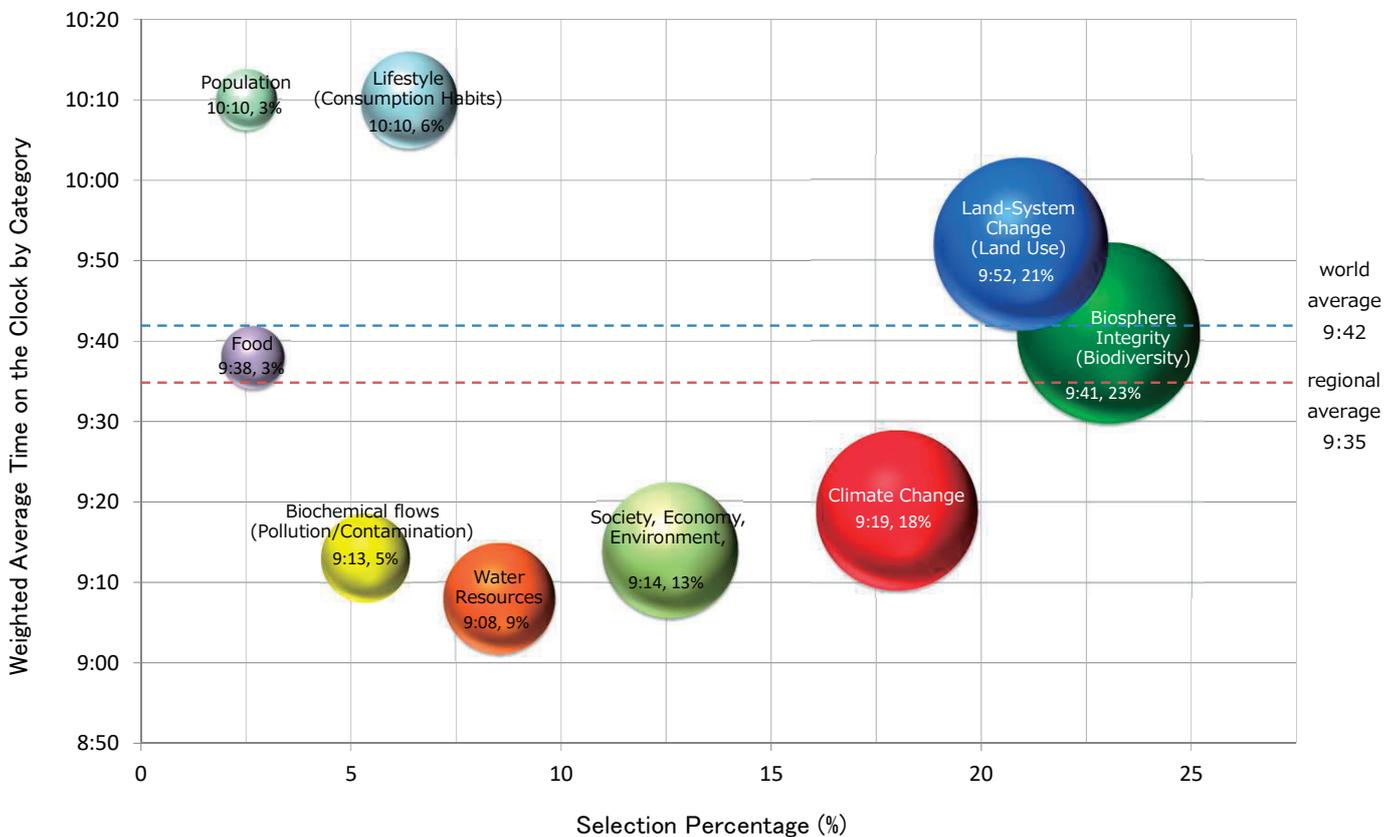


Fig. 9-3. USA



**Fig. 10. Mexico, Central America & The Caribbean**



**Fig. 11. South America**

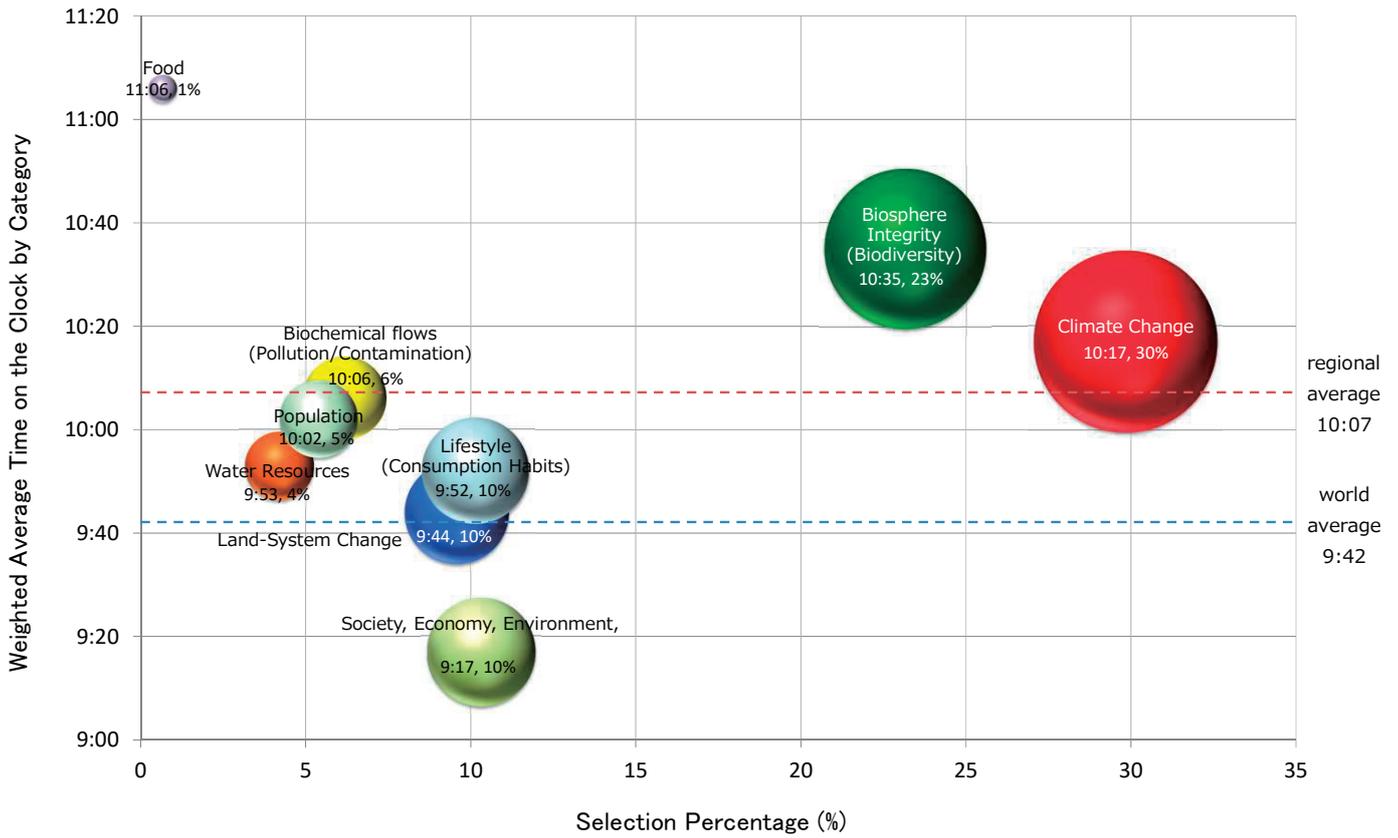


Fig. 12-1. Western Europe

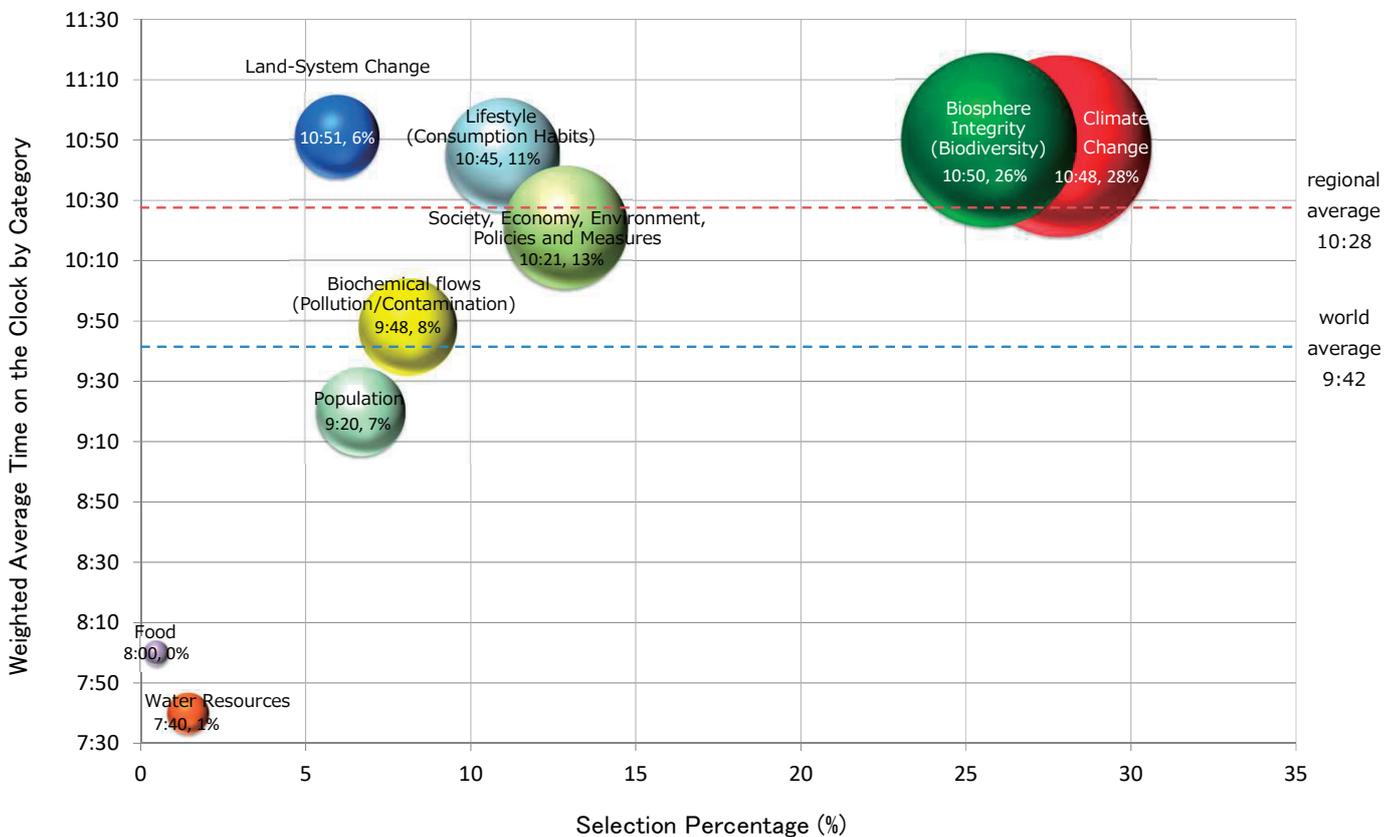
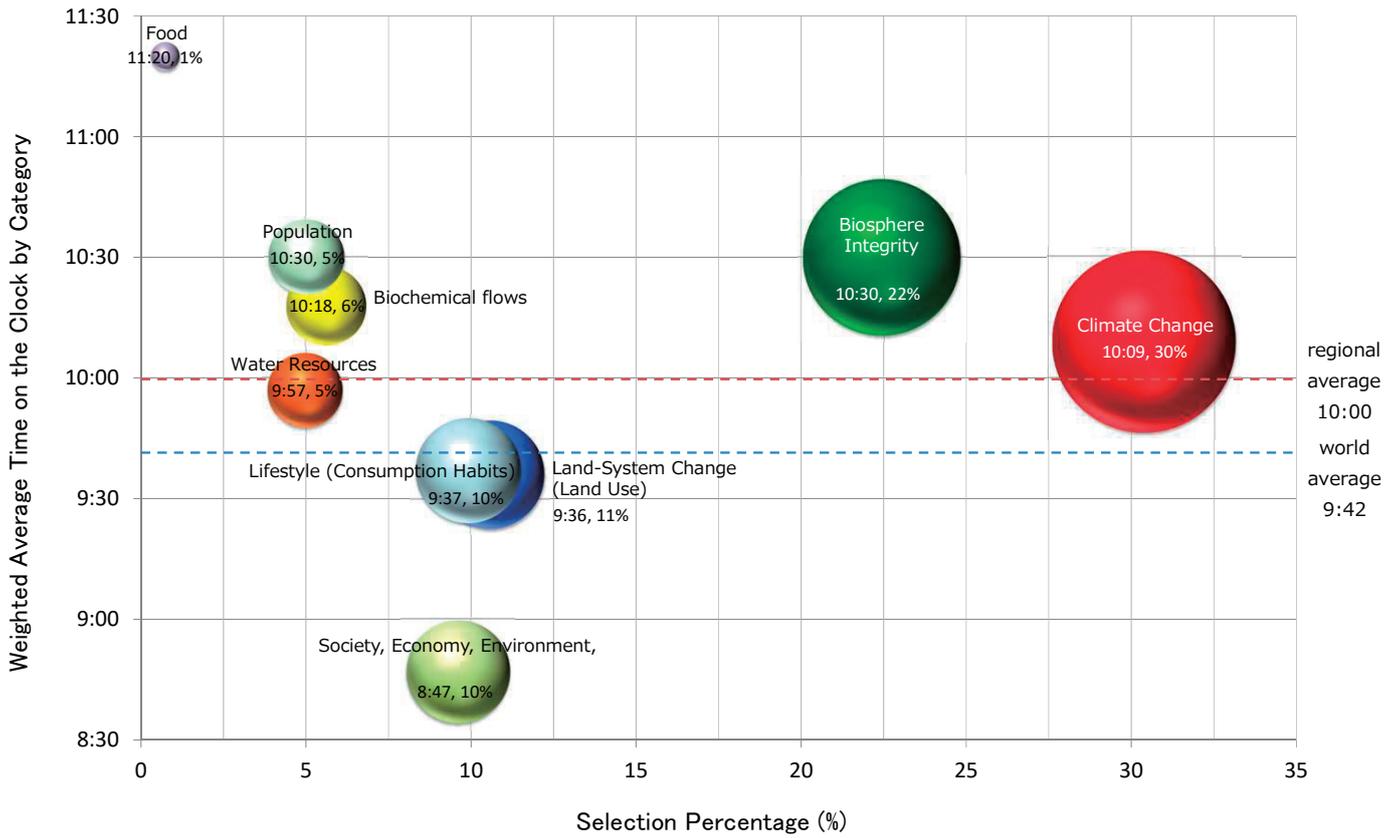
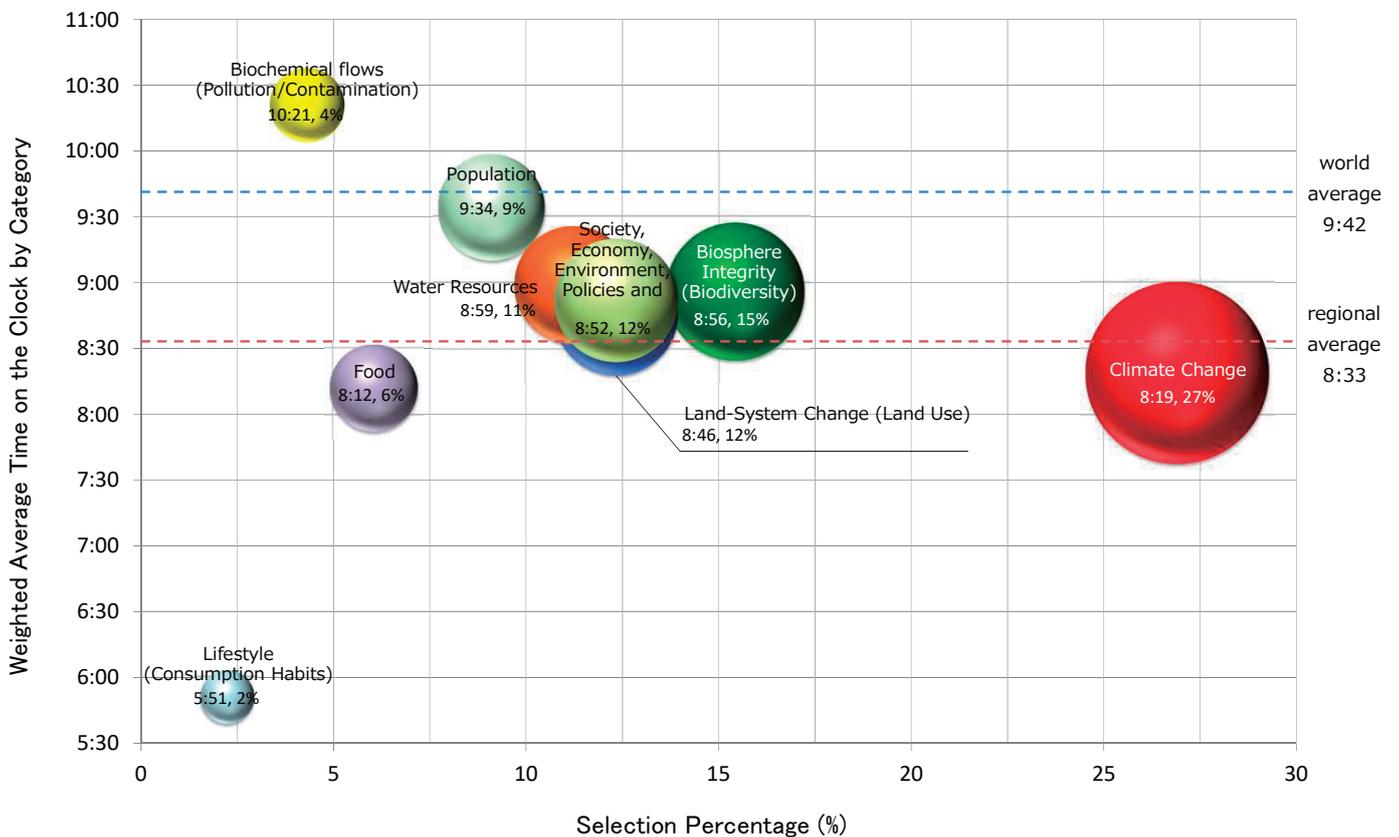


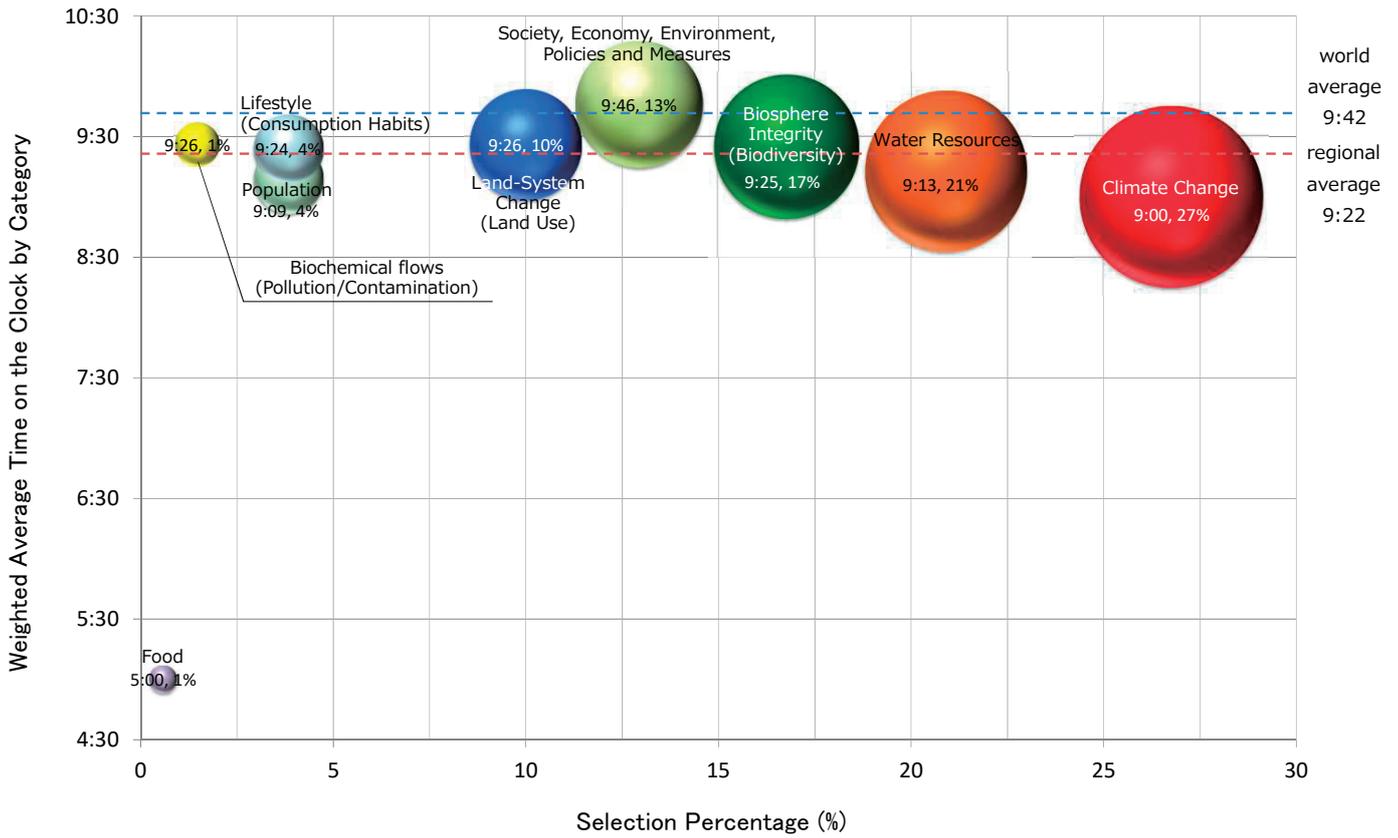
Fig. 12-2. UK



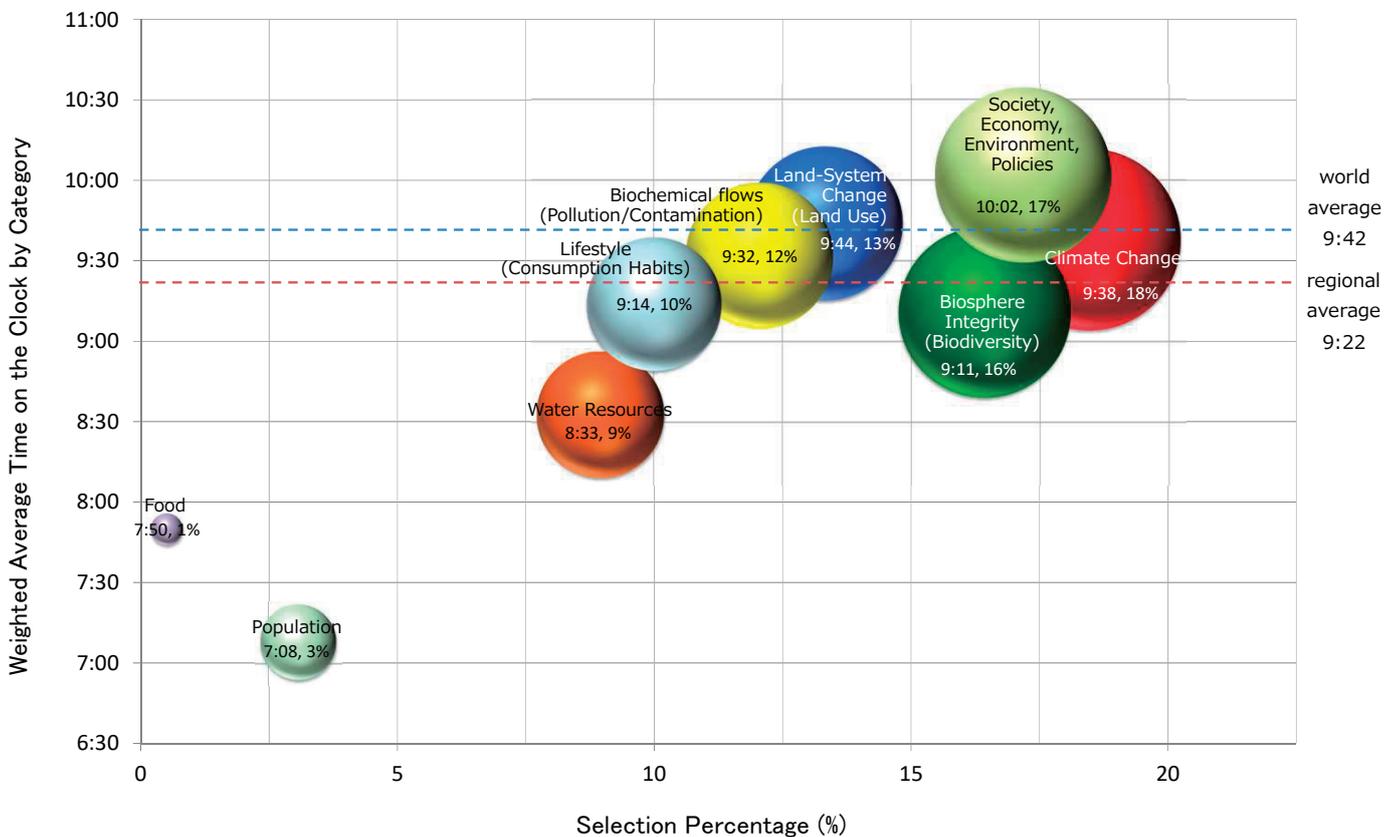
**Fig. 12-3. Western Europe (excl. UK)**



**Fig. 13. Africa**



**Fig. 14. Middle East**



**Fig. 15. Eastern Europe & former Soviet Union**

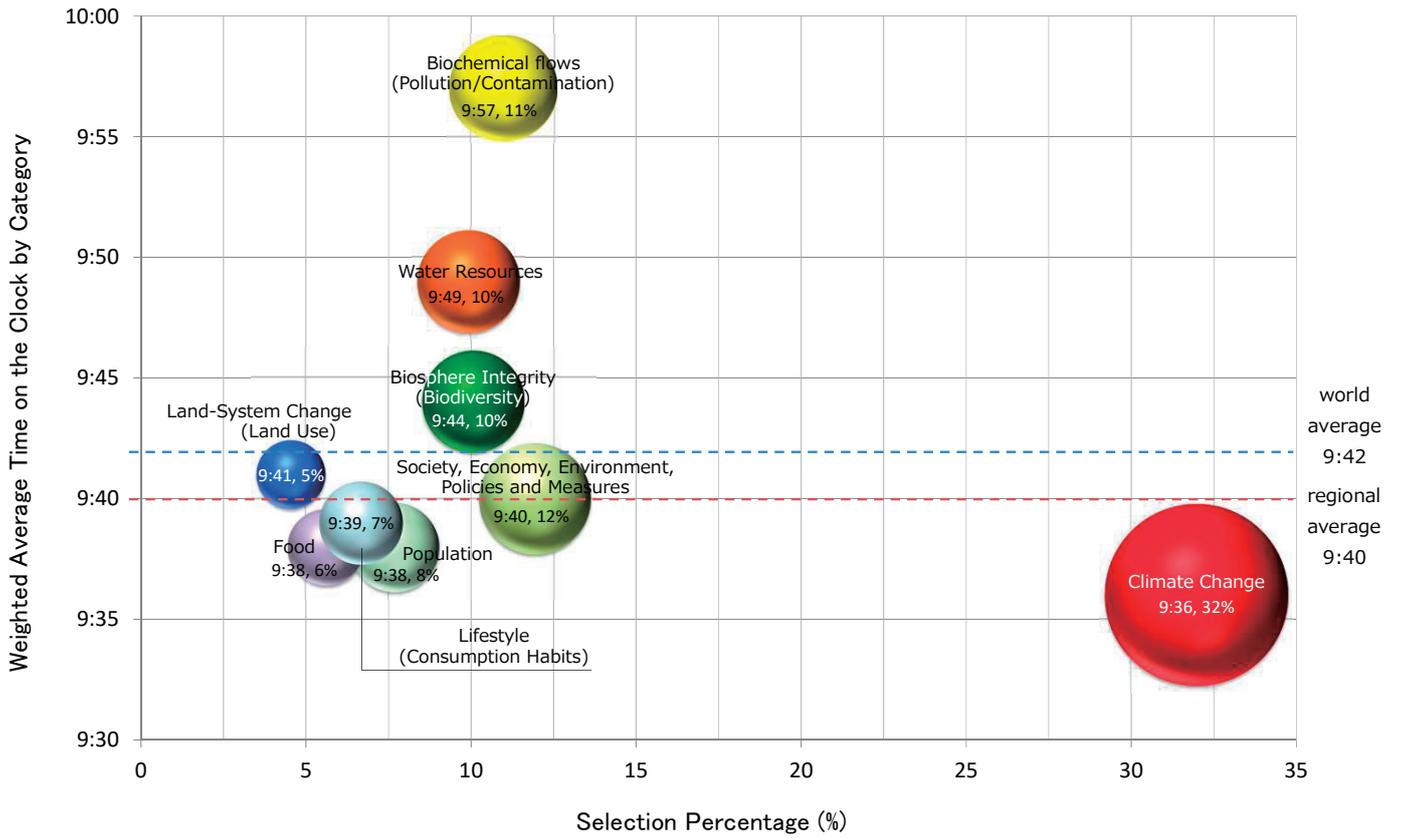


Fig. 16-1. Asia

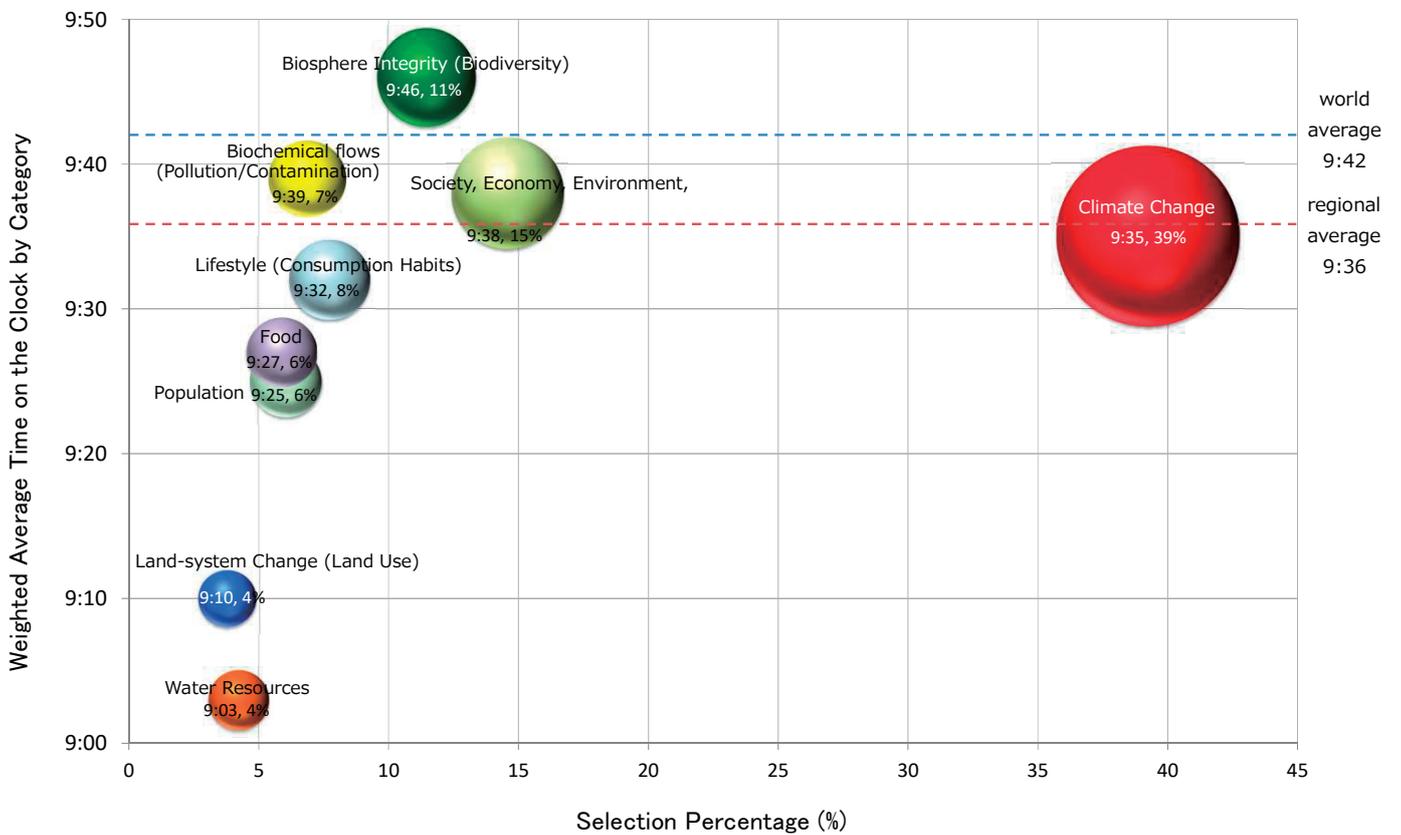


Fig. 16-2. Japan

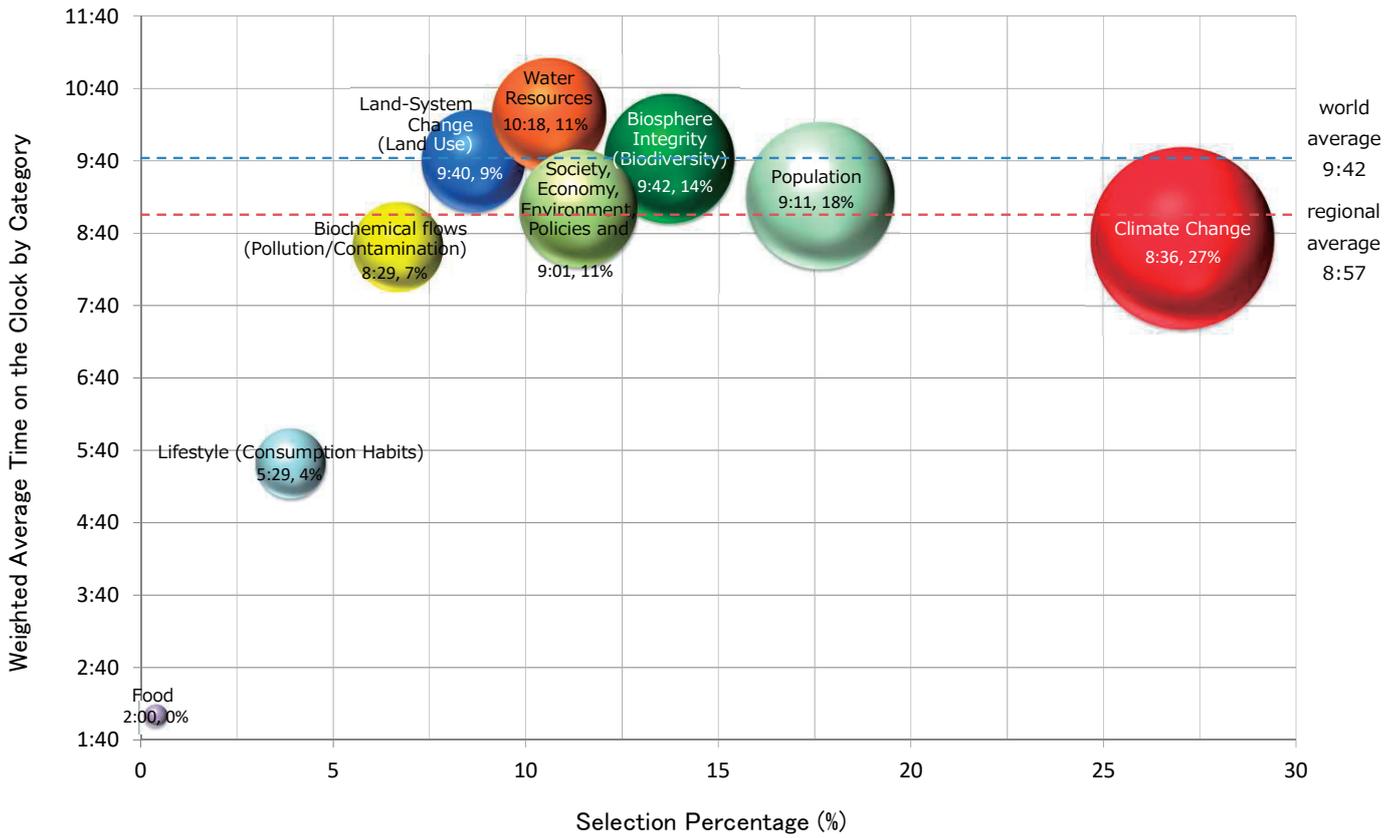


Fig. 16-3. India

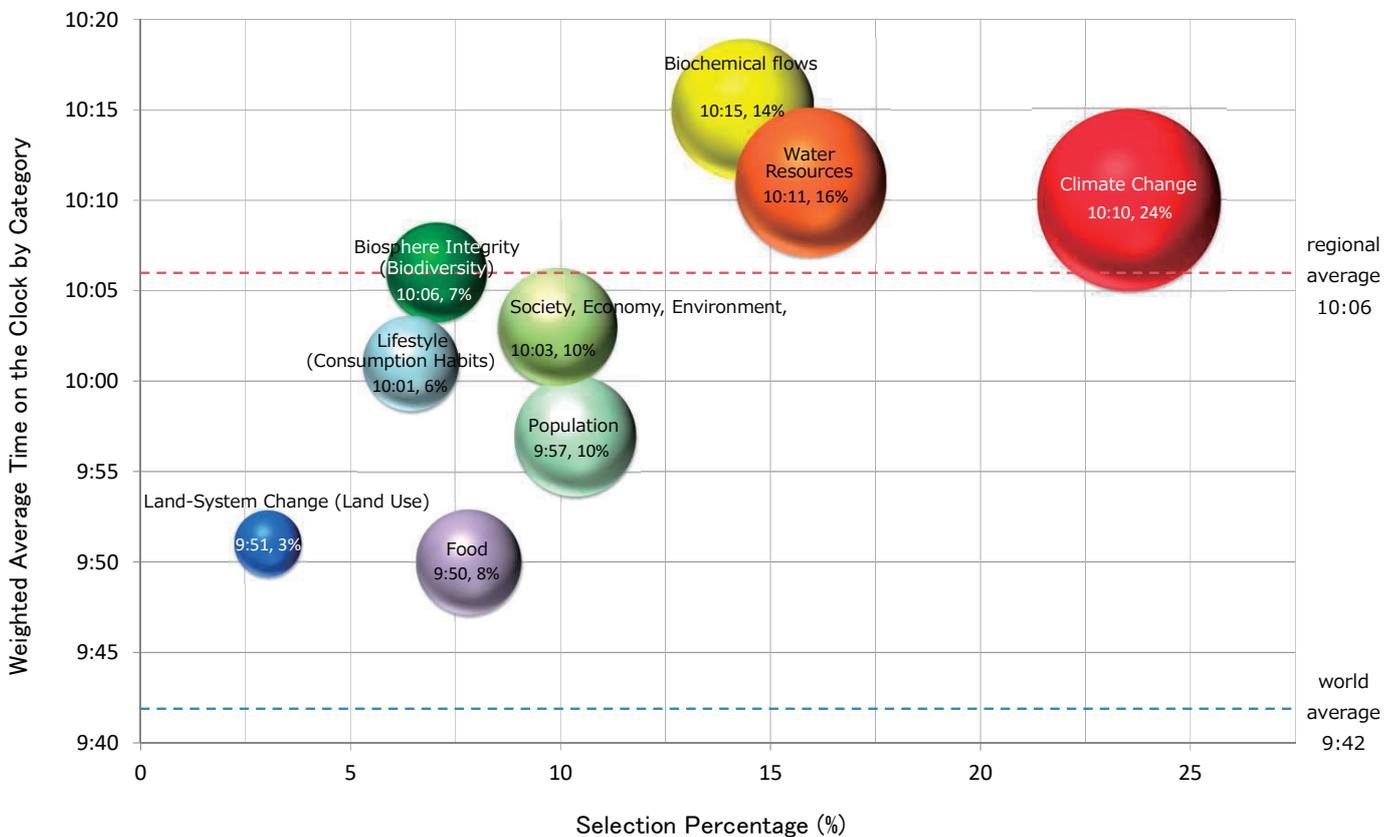


Fig. 16-4. China

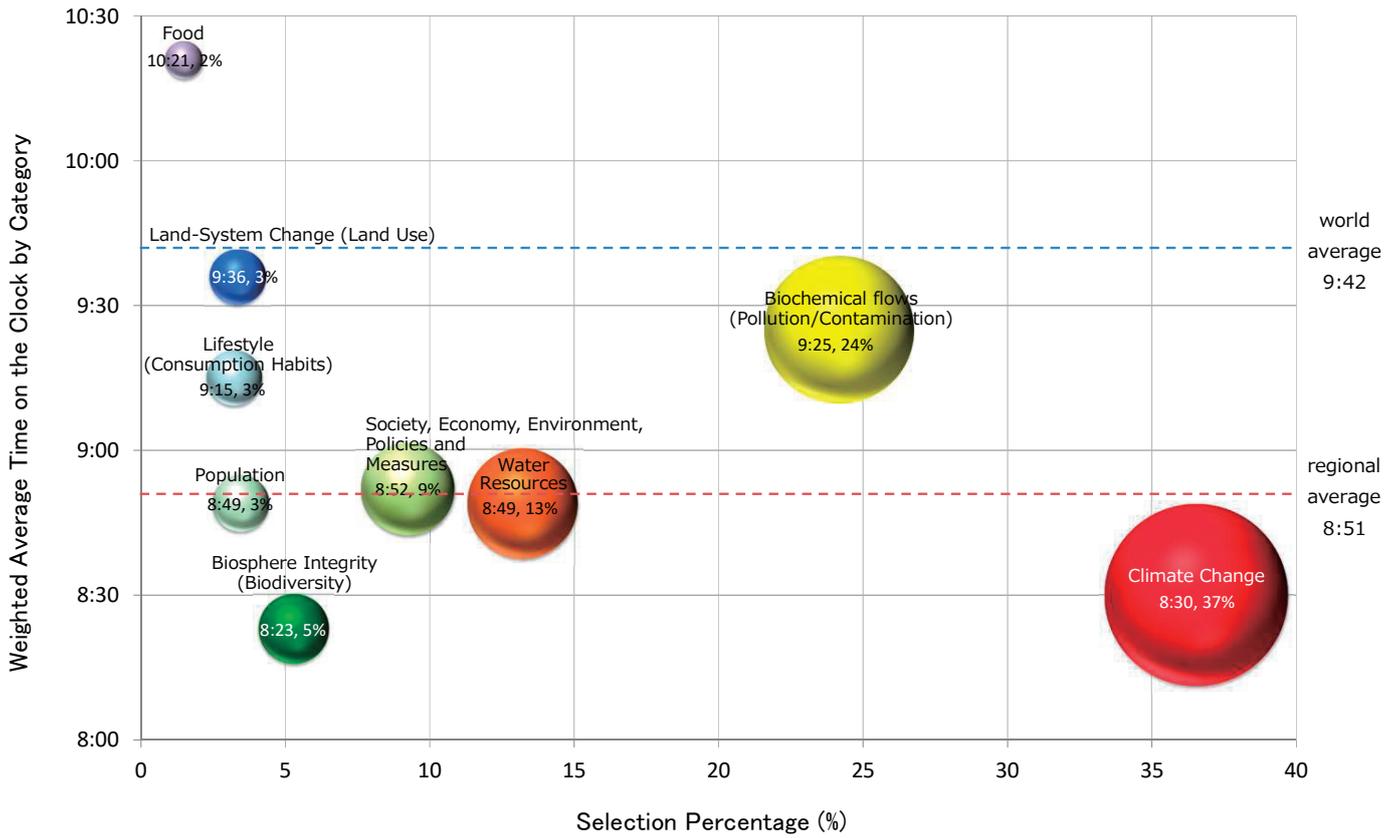


Fig. 16-5. Taiwan

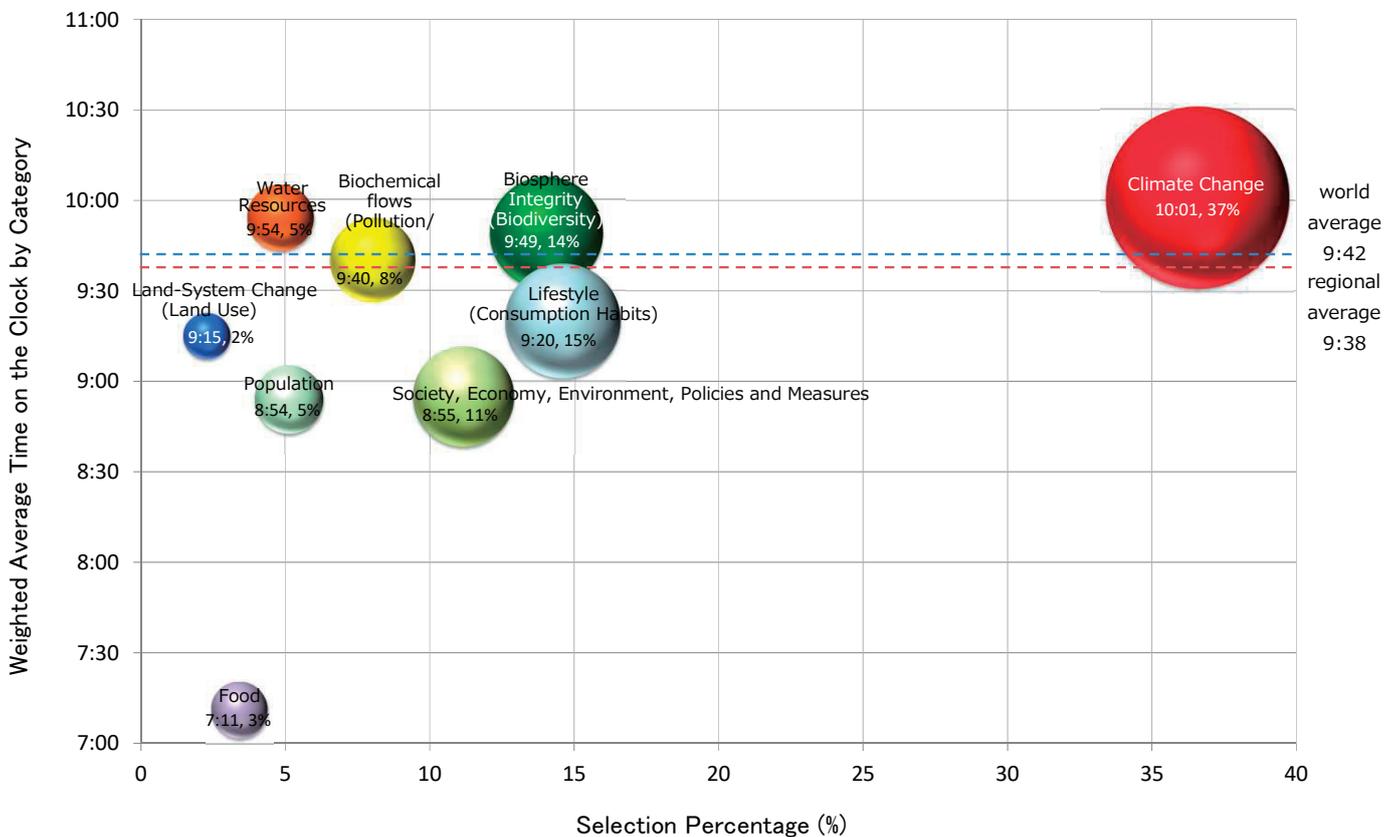
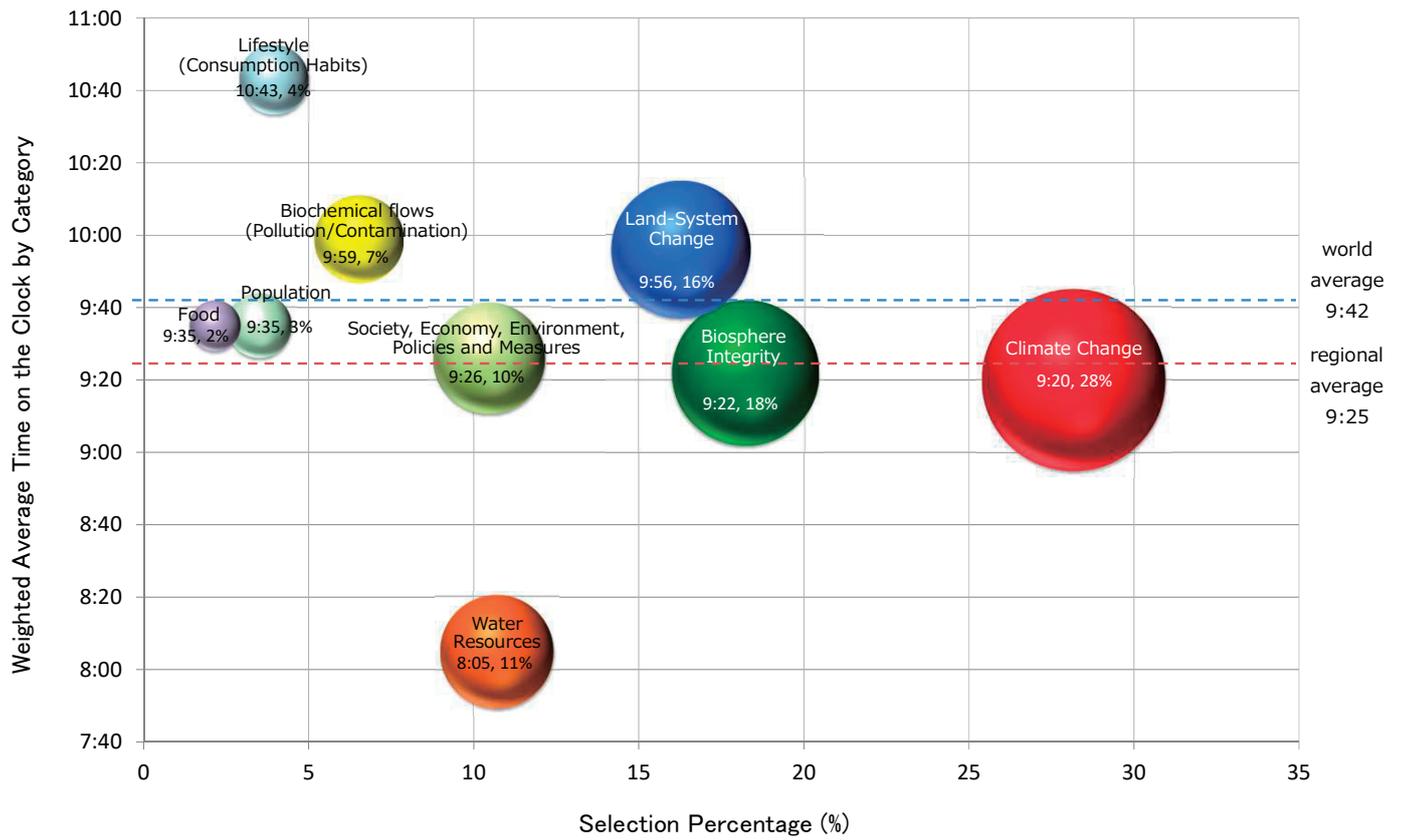


Fig. 16-6. Korea



**Fig. 16-7. Asia (excl. Japan, India, China, Taiwan, and Korea)**

### III-2. Signs of Improvement in the Approach to Environmental Issues

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Question 2: Do you see any signs of improvement in the approach to global environmental issues? Please answer these questions from the following three viewpoints in comparison with the situation before 2015 when the Paris Agreement and SDGs were adopted.

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Signs of improvement were investigated from the three perspectives, “Public Awareness,” “Policies and Legal System,” and “Social Infrastructure (Funds, Human Resources, Technologies, and Facilities). We asked the respondent’s opinion on whether there have been signs of improvement in the approach to global environmental issues with respect to a transition to a decarbonized society and where they saw signs of improvement from a list of “Environmental Issues to be Taken into Account.”

We calculated the average score by quantifying the answers and giving a score of “-2” for the answer “Not improved at all,” “-1” for the answer “Somewhat not improved,” “0” for the answer “Neither improved or not improved,” “+1” for the answer “Somewhat improved,” and “+2” for the answer “Definitely improved.” We used 30 or more responses to calculate the average score for each region or country.

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Question 2-1 Do you think any progress has been made in a transition to a decarbonized society

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The average score for the entire world and the average score for each region and country are shown in Table 8.

The world’s average scores are as follows:

- Public Awareness: +0.75
- Policies and Legal System: +0.49
- Social Infrastructure (Funds, Human Resources, Technologies, and Facilities): +0.45

- Overall, with regard to transitioning to a decarbonized society, the results showed an equal lack of progress in “Policies and Legal System” and “Social Infrastructure (Funds, Human Resources, Technologies, and Facilities)” compared with “Public Awareness.” Nonetheless, Table 8 indicates that the respondents think that more progress has been made in the three perspectives since 2019 with respect to a decarbonized society.
- There were regional differences in the respondents’ perception on how much progress had been made in “Public Awareness” and “Policies and Legal System.” In India, China, and Taiwan, there was little difference between the two, and results showed that “Policies and Legal System” had made slightly more progress than “Public Awareness”. In comparison, there was a big difference between the two viewpoints in Australia, North America, and Western Europe. The results showed that progress in “Policies and Legal System” was significantly behind “Public Awareness.” This trend has not changed since 2019.
- In Japan, Canada, and the United States, compared to 2020, in 2021 respondents have become more confident that progress had been made in “Policies and Legal System” and “Social Infrastructure (Funds, Human Resources, Technologies, and Facilities)” with respect to a decarbonized society.
- For three consecutive years, respondents in China think that more progress has been made in “Policies and Legal System” and “Social Infrastructure (Funds, Human Resources, Technologies, and Facilities)” with respect to a decarbonized society.
- For three consecutive years, results from Korea showed that no progress had been made in any aspects.
- In Africa and East Europe & former Soviet Unions, the average score for “Social Infrastructure (Funds, Human Resources, Technologies, and Facilities)” decreased significantly between 2020 and 2021.
- By organization, respondents working for corporations considered that more progress had been made in “Policies and Legal System” and “Social Infrastructure (Funds, Human Resources, Technologies, and Facilities)” with respect to a decarbonized society.
- By generation, the younger generation in their 20s and 30s considered more progress had been made in “Policies and Legal System” than in “Public Awareness.” On the other hand, respondents in their 40s and above tended to consider government policies to be lagging behind.

**Table 8 Progress in a Transition to a Decarbonized Society: World Average and Average Scores by Region, Organization, and Age Range**

Transition to a Decarbonized Society		Public Awareness			Policies and Legal System			Social Infrastructure		
		2019	2020	2021	2019	2020	2021	2019	2020	2021
Region	World	0.52	0.61	0.75	0.27	0.29	0.49	0.32	0.36	0.45
	Oceania	0.86	1.00	1.27	-0.21	0.00	0.27	0.29	0.53	0.49
	Australia	0.84	1.00	1.36	-0.29	-0.03	0.24	0.25	0.66	0.61
	North America	0.71	0.70	1.18	-0.27	-0.32	0.26	0.10	0.20	0.56
	Canada	0.60	0.95	1.12	-0.04	0.08	0.31	0.10	0.25	0.71
	USA	0.75	0.63	1.20	-0.34	-0.43	0.24	0.10	0.18	0.51
	Mexico, Central America, The Caribbean	0.13	0.28	0.46	-0.17	0.11	0.11	-0.20	-0.01	-0.03
	South America	0.30	0.33	0.51	0.00	-0.18	-0.16	0.05	0.06	0.09
	Western Europe	0.86	1.00	1.14	-0.02	0.42	0.40	0.29	0.45	0.53
	UK	1.00	0.98	1.29	0.13	0.60	0.43	0.42	0.40	0.48
	Western Europe (excl. UK)	0.82	1.00	1.10	-0.06	0.37	0.40	0.25	0.46	0.54
	Africa	0.26	0.41	0.54	0.05	0.31	0.16	0.04	0.40	-0.04
	Eastern Europe & former Soviet Unions	0.74	0.48	0.85	0.21	0.26	0.36	0.13	0.50	0.13
	Asia	0.47	0.57	0.64	0.55	0.46	0.68	0.48	0.41	0.52
	Japan	0.12	0.28	0.38	-0.11	-0.16	0.25	0.12	0.06	0.20
	India	0.94	1.00	0.59	0.65	0.83	0.75	0.48	0.56	0.55
	China	0.68	0.87	1.02	1.16	1.07	1.27	0.94	0.84	0.97
	Taiwan	0.27	0.44	0.40	0.40	0.54	0.52	0.21	0.36	0.34
Korea	-0.28	-0.42	-0.03	-0.31	-0.58	-0.17	-0.72	-0.76	-0.40	
Asia (excl. the above 5 nations)	0.93	0.61	0.88	0.60	0.29	0.67	0.37	0.30	0.70	
Organization	Central government	0.58	0.65	0.80	0.38	0.53	0.79	0.26	0.46	0.53
	Local government	0.42	0.51	0.61	0.46	0.47	0.56	0.50	0.29	0.39
	University/Research institution	0.43	0.54	0.67	0.15	0.14	0.38	0.29	0.22	0.34
	NGO/NPO	0.51	0.55	0.70	0.03	0.01	0.24	0.10	0.21	0.34
	Corporation	0.64	0.83	0.95	0.88	0.87	0.98	0.84	0.81	0.84
	Media	0.65	0.83	0.90	-0.15	0.03	0.52	0.15	0.27	0.41
	Others	0.61	0.57	0.74	0.01	0.15	0.30	0.03	0.33	0.36
Generation	20s, 30s	0.61	0.70	0.84	0.65	0.63	0.89	0.61	0.58	0.73
	40s, 50s	0.51	0.56	0.71	0.15	0.22	0.30	0.22	0.34	0.30
	60s and Over 60	0.41	0.55	0.68	-0.10	-0.04	0.28	0.08	0.12	0.31

■: Max value of the year, ■: Min value of the year, ■: Notable Values

Question 2-2. Where do you see signs of improvement? Please choose one category from Table 5, which shows a list of “Environmental issues to be taken into account.”

**Table 9 Change in Selection Percentage and Average Score in Signs of Improvement (Category)**

Selected Category	Selection Percentage (%)			Public Awareness			Policies and Legal System			Social Infrastructure		
	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
Signs of Improvement				1.06	1.12	1.15	0.71	0.71	0.80	0.71	0.71	0.69
Climate Change	24.7	27.3	27.7	1.22	1.28	1.33	0.65	0.59	0.81	0.61	0.75	0.72
Society, Economy and Environment, Policies, Measures	16.8	14.3	18.0	0.99	1.07	1.03	0.91	1.02	1.00	0.86	0.91	0.75
Lifestyle (Consumption Habits)	12.7	14.3	16.5	1.07	1.09	1.13	0.43	0.52	0.58	0.62	0.60	0.64
Biochemical Flows (Pollution/Contamination)	8.3	7.3	7.0	1.04	1.09	1.10	0.95	0.91	1.01	0.90	0.79	0.77
Biosphere Integrity (Biodiversity)	7.2	8.2	6.9	1.03	1.05	1.12	0.63	0.72	0.68	0.49	0.51	0.53
Water Resources	4.6	4.6	2.9	0.96	0.94	1.00	1.03	0.87	1.15	1.01	0.72	0.95
Population	3.2	2.6	2.8	0.80	0.96	0.66	0.52	0.50	0.40	0.59	0.42	0.43
Land-System Change (Land Use)	3.6	3.1	2.2	0.81	0.70	0.98	0.57	0.66	0.52	0.56	0.45	0.29
Food	1.9	2.2	1.8	0.88	1.33	1.23	0.73	0.85	0.71	0.85	0.90	0.80
No Sign of Improvement	16.9	16.1	14.1	-	-	-	-	-	-	-	-	-

■ : Max value of the year, ■ : Min value of the year

- In 2021, the category most frequently selected for showing signs of improvement was “Climate Change” at 27.7%, followed by “Society, Economy and Environment, Policies, Measures” at 18.0%, and “Lifestyle (Consumption Habits)” at 16.5%; the trend has not changed since 2019. About 14 percent of the respondents selected the answer, “There are no improvements at all.” The results (shown in Table 9) were quantified in the same manner as in Q2-1.
- “Climate Change” was the most selected category in Q1 as an important environmental issue to take into account, demonstrating the world’s heightened interest in “Climate Change” and efforts to tackle the issue. As for “Biosphere Integrity (Biodiversity)”, which was the second most selected category in Q1 and whose time on the Clock is the closest to midnight of all the categories, it is fourth in terms of signs of improvement. Although the scores for signs of improvement are not so high, the changes in the score for “Public Awareness” indicate that people have become more strongly aware of the improvement in the situation since 2019.

Regarding the category Climate Change, which was most frequently selected as a crucial environmental issue, the average scores were calculated and shown in Table 10 where possible with 15 or more responses from each region, organization, or generation.

**Table 10 Signs of Improvement: Change in World Average and Average Scores by Region, Organization, and Generation**

Signs of Improvement		Public Awareness			Policies and Legal System			Social Infrastructure		
		2019	2020	2021	2019	2020	2021	2019	2020	2021
Region	World	1.22	1.28	1.33	0.65	0.59	0.81	0.61	0.75	0.72
	Oceania	1.61	1.45	1.56	0.26	0.60	0.63	0.52	0.70	0.50
	Australia	1.59	1.60	-	0.14	0.40	-	0.59	0.80	-
	North America	1.44	1.49	1.66	0.48	0.27	0.79	0.63	0.76	0.85
	Canada	1.57	1.47	1.70	1.04	0.24	0.83	0.96	0.59	0.83
	USA	1.40	1.49	1.64	0.30	0.28	0.77	0.53	0.80	0.86
	Mexico, Central America, The Caribbean	1.22	1.19	1.29	0.92	0.40	0.47	0.28	0.48	0.71
	South America			1.26			0.52			0.52
	Western Europe	1.60	1.64	1.72	0.69	0.85	0.96	0.83	0.92	0.94
	UK	1.59	1.67	1.80	0.82	1.04	1.00	1.00	1.07	0.95
	Western Europe (excl. UK)	1.60	1.63	1.69	0.66	0.77	0.95	0.79	0.86	0.93
	Africa	1.22	0.95	1.33	0.63	0.62	0.75	0.54	0.52	0.22
	Eastern Europe & former Soviet Unions	-	1.44	1.13	-	0.94	0.47	-	0.94	0.40
	Asia	0.87	1.06	1.04	0.71	0.58	0.86	0.60	0.75	0.71
	Japan	0.72	0.97	0.87	0.33	0.15	0.61	0.39	0.50	0.60
India	1.00	1.30	1.19	0.68	0.80	0.88	0.79	0.90	0.50	
China	0.81	1.02	1.22	1.07	1.16	1.38	0.93	1.04	1.12	
Asia (excl. the above 5 nations)	1.35	1.38	1.45	1.10	0.65	1.03	0.83	1.27	0.74	
Organization	Central government	1.31	1.17	1.38	1.06	0.70	0.95	0.69	0.83	0.75
	Local government	1.00	1.11	1.15	0.52	0.85	0.69	0.74	0.70	0.50
	University/Research institution	1.30	1.32	1.30	0.68	0.64	0.81	0.61	0.78	0.75
	NGO/NPO	1.24	1.33	1.38	0.64	0.37	0.78	0.63	0.75	0.74
	Media	1.47	-	1.47	0.35	-	0.53	0.53	-	0.53
	Others	1.29	1.25	1.38	0.26	0.46	0.68	0.41	0.53	0.66
Generation	20s, 30s	1.08	1.19	1.28	0.76	0.84	0.89	0.60	0.87	0.79
	40s, 50s	1.34	1.31	1.34	0.80	0.59	0.82	0.71	0.82	0.68
	60s and Over 60	1.19	1.31	1.36	0.36	0.39	0.73	0.51	0.60	0.72

■: Max value of the year, ■: Min value of the year, ■: Notable Values

- The world’s average score for “Public Awareness” in 2021 is +1.33 and the score has increased two years in a row. In 2021, Oceania, North America, and Western Europe show very high score of over +1.5 for “Public Awareness.”
- The world’s average score for “Policies and Legal System” is +0.81 in 2021, but China’s score of +1.38 far outweighs the score of others.
- The world’s average score for “Social Infrastructure (Funds, Human Resources, Technologies, and Facilities)” is +0.72 in 2021. Scores for China and Western Europe are higher than the average while scores for India, Oceania, South America, and Africa tended to be lower.
- From 2020 to 2021, Japan and North America has shown major signs of improvement in “Policies and Legal System.”

\*No analysis was made for categories except Climate Change due to the small number of samples viewed in each country/region.

### III-3. Realization of 17 Sustainable Development Goals (SDGs) in 2030

Regarding realization of 17 sustainable development goals (SDGs) in 2030, we asked the respondents to choose and rank three goals (out of 17 SDGs) that will have the highest/lowest level of realization in 2030, in terms of the realization level on the world average and in the respondents' own country/region. Responses were analyzed by the 1st-3rd summation method, and the results are shown in Tables 11-14. More detailed data is available in the 2021 annual report of the survey.

**Table 11 (World Average) Three Goals (out of 17 SDGs) That Will Have the Highest Level of Realization in 2030 (1st-3rd summation method, multiple answers)**

	1. No Poverty	2. Zero Hunger	3. Good Health and Well-being	4. Quality Education	5. Gender Equality	6. Clean Water and Sanitation	7. Affordable and Clean Energy	8. Decent Work and Economic Growth	9. Industry, Innovation and Infrastructure	10. Reduced Inequalities	11. Sustainable Cities and Communities	12. Responsible Consumption and Production	13. Climate Action	14. Life Below Water	15. Life on Land	16. Peace, Justice and Strong Institutions	17. Partnerships for the Goals
World	8	15	15	17	20	17	29	14	36	9	19	18	35	4	5	5	25
Oceania	7	7	9	20	16	18	44	20	38	4	18	9	49	7	7	0	29
Australia	9	9	12	18	15	18	55	15	39	3	21	6	52	3	6	0	18
Oceania (excl. Australia)	0	0	0	25	17	17	17	33	33	8	8	17	42	17	8	0	58
North America	8	8	9	15	22	19	36	15	37	13	18	6	41	5	4	2	40
Canada	10	4	8	22	22	25	24	12	41	8	31	4	41	2	4	0	39
USA	7	9	9	13	22	16	41	16	35	15	13	7	41	6	4	3	41
Mexico, Central America, The Caribbean	13	10	16	7	30	10	31	10	26	2	18	16	48	5	8	3	46
South America	1	3	7	12	34	13	30	9	33	9	16	20	47	3	7	7	50
Western Europe	6	19	13	24	24	16	31	14	42	9	15	12	37	3	4	2	29
UK	5	0	12	17	26	14	26	14	48	17	14	17	50	2	2	0	36
W. Europe (excl. UK)	7	24	14	26	24	17	32	14	41	7	15	11	33	3	5	2	27
Africa	2	11	23	28	31	7	26	7	33	15	6	7	48	1	9	10	32
Middle East	15	18	3	21	15	26	35	3	29	6	12	24	38	3	9	12	32
Eastern Europe & former Soviet Unions	5	15	23	23	21	23	23	3	38	10	15	13	31	3	18	8	28
Asia	10	17	16	16	17	18	27	15	36	8	22	23	31	5	4	5	17
Japan	8	13	5	16	24	18	29	13	47	2	22	34	32	5	4	3	21
India	6	22	27	20	12	20	22	8	27	12	16	18	51	0	4	6	31
China	13	24	19	17	15	19	26	14	29	16	26	11	20	4	2	6	7
Taiwan	2	6	35	10	5	14	20	48	26	2	13	25	46	10	1	8	25
Korea	11	6	40	26	20	0	46	6	37	0	20	29	34	0	6	0	17
Asia (excl. the above 5 nations)	10	18	27	11	7	25	24	8	29	10	13	13	43	11	16	11	24

■: Three goals (out of 17 SDGs) that will have the highest level of realization

- On the world average, “9. Industry, Innovation, and Infrastructure” and “13. Climate Action” were selected as the top two goals that will have the highest level of realization in 2030, followed by “7. Affordable and Clean Energy”.

The top two goals were selected by respondents in many countries.

- In Asian countries, “17. Partnerships for the Goals” was rarely selected, in contrast, this was a popular choice among in other regions.
- In India, Taiwan, and Korea “3. Good Health and Well-being” was commonly selected.

**Table 12 (World Average) Three Goals (out of 17 SDGs) that Will Have the Lowest Level of Realization in 2030 (1st-3rd summation method, multiple answers)**

	1. No Poverty	2. Zero Hunger	3. Good Health and Well-being	4. Quality Education	5. Gender Equality	6. Clean Water and Sanitation	7. Affordable and Clean Energy	8. Decent Work and Economic Growth	9. Industry, Innovation and Infrastructure	10. Reduced Inequalities	11. Sustainable Cities and Communities	12. Responsible Consumption and Production	13. Climate Action	14. Life Below Water	15. Life on Land	16. Peace, Justice and Strong Institutions	17. Partnerships for the Goals
World	56	36	16	11	15	9	8	8	4	35	6	11	15	17	11	28	6
Oceania	67	47	4	11	18	16	2	4	0	40	4	13	11	22	20	20	0
Australia	70	45	6	15	15	18	3	3	0	42	3	6	12	24	21	15	0
Oceania (excl. Australia)	58	50	0	0	25	8	0	8	0	33	8	33	8	17	17	33	0
North America	60	42	11	6	17	4	2	6	2	31	6	31	17	23	13	24	4
Canada	51	41	14	4	20	4	2	8	0	35	6	33	18	27	12	20	4
USA	64	42	10	6	16	4	2	5	2	30	6	30	16	22	14	26	4
Mexico, Central America, The Caribbean	57	31	18	15	16	7	5	16	3	30	8	13	11	21	15	23	8
South America	74	56	19	17	4	14	7	7	1	28	5	9	9	16	17	16	2
Western Europe	51	33	13	6	12	9	6	7	2	34	5	16	17	27	22	36	3
UK	60	40	19	5	5	7	0	2	0	29	7	29	10	26	26	31	5
W. Europe (excl. UK)	48	31	12	7	15	10	7	8	3	35	5	13	19	27	21	37	3
Africa	65	52	22	7	10	6	14	7	6	33	9	11	14	7	6	23	6
Middle East	53	50	21	9	18	18	6	9	0	29	6	12	15	9	0	38	9
Eastern Europe & former Soviet Unions	49	38	13	13	26	5	5	10	10	31	15	10	15	21	8	15	15
Asia	53	32	17	11	16	10	9	9	4	37	6	8	16	15	8	29	6
Japan	64	38	28	11	11	7	8	4	1	42	2	3	17	14	7	39	3
India	47	43	18	8	20	12	10	18	6	39	14	12	8	16	0	24	8
China	41	28	11	15	22	11	9	14	9	26	9	11	16	13	8	18	7
Taiwan	75	23	2	0	17	18	9	0	0	57	4	5	12	17	9	32	17
Korea	26	23	3	9	20	11	6	11	0	60	6	11	31	26	17	31	6
Asia (excl. the above 5 nations)	40	29	13	11	12	7	18	12	8	33	13	20	8	27	11	29	8

■: Three goals (out of 17 SDGs) that will have the lowest level of realization

“1. No Poverty” was selected as a goal that will have the lowest level of realization in 2030, followed by “2. Zero Hunger,” and “10. Reduced Inequalities.” This is an indication that many people around the world believe these goals are difficult to achieve.

- Many respondents in Japan, Korea, Western Europe, and the Middle East selected “16. Peace, Justice and Strong Institutions;” they think these goals are difficult to achieve.
- Compared to the goals selected as ones that will have the highest level of realization in 2030, there were few regional differences in goals selected as ones that will have the lowest level of realization in 2030, indicating that challenges facing humanity are condensed in these goals.

**Table 13 (Respondents' Own Country/Region) Three Goals (out of 17 SDGs) That Will Have the Highest Level of Realization in 2030 (1st-3rd summation method, multiple answers)**

	1. No Poverty	2. Zero Hunger	3. Good Health and Well-being	4. Quality Education	5. Gender Equality	6. Clean Water and Sanitation	7. Affordable and Clean Energy	8. Decent Work and Economic Growth	9. Industry, Innovation and Infrastructure	10. Reduced Inequalities	11. Sustainable Cities and Communities	12. Responsible Consumption and Production	13. Climate Action	14. Life Below Water	15. Life on Land	16. Peace, Justice and Strong Institutions	17. Partnerships for the Goals
World	12	25	21	27	21	26	21	16	28	10	18	14	19	3	5	9	14
Oceania	7	18	33	24	18	27	20	27	18	7	16	11	22	13	7	16	18
Australia	3	24	36	24	15	27	21	30	21	9	18	12	18	6	6	12	15
Oceania (excl. Australia)	17	0	25	25	25	25	17	17	8	0	8	8	33	33	8	25	25
North America	4	8	12	24	28	23	33	30	35	14	15	8	30	3	6	11	17
Canada	8	8	27	29	29	25	24	20	25	16	16	6	31	2	8	12	8
USA	2	8	6	22	27	22	37	34	39	13	14	9	29	3	5	10	20
Mexico, Central America, The Caribbean	7	11	11	20	31	16	26	18	31	21	3	16	30	2	7	8	41
South America	4	10	9	9	42	18	30	6	28	10	7	22	30	7	9	8	49
Western Europe	8	30	24	30	33	26	26	13	22	7	16	9	26	2	4	14	12
UK	2	19	21	26	24	48	26	10	26	0	17	10	31	0	0	21	19
W. Europe (excl. UK)	9	32	25	30	35	20	26	14	21	9	16	9	25	3	5	12	10
Africa	4	19	12	37	35	14	19	10	16	25	5	10	40	2	7	15	31
Middle East	15	18	26	35	15	44	15	12	18	15	15	12	21	6	12	9	15
Eastern Europe & former Soviet Unions	8	15	21	23	28	31	18	13	41	5	15	18	26	3	8	18	10
Asia	15	30	24	28	15	29	18	16	30	9	22	15	13	3	5	8	8
Japan	9	38	18	34	10	42	18	10	34	4	25	21	12	4	3	8	8
India	14	27	25	29	12	39	25	16	29	14	22	6	20	0	0	6	16
China	26	32	20	19	17	16	17	18	25	15	24	11	12	1	2	8	5
Taiwan	0	10	63	35	25	18	20	41	25	2	8	13	6	4	14	2	6
Korea	14	3	34	34	29	29	34	9	34	6	11	14	17	0	9	6	11
Asia (excl. the above 5 nations)	14	12	34	22	17	20	13	19	30	12	18	10	25	8	16	11	18

■: Three goals (out of 17 SDGs) that will have the highest level of realization

- In many countries and regions, “9. Industry, Innovation and Infrastructure,” “4. Quality Education,” and “6. Clean Water and Sanitation” were selected as goals that will have the highest level of realization in 2030.
- It is intriguing to note that “9. Industry, Innovation and Infrastructure” was selected in all Asian countries surveyed as the goal that will have the highest level of realization in 2030.
- “13. Climate Action” was selected in most countries as a goal that will have the highest level of realization, but very limited number of people think this goal will have the highest level of realization in their own country.
- On the world average, “4. Quality Education” was not selected as top three highest level of realization in 2030, but in the respondents’ own country or region, many people think this goal will have the highest level of realization in 2030.
- In most regions except Asia, “17. Partnerships for the Goals” was selected as a goal that will have the highest level of realization in 2030, but in the respondents’ own country or region, people in most countries did not think that this goal will have the highest level of realization in 2030.

**Table 14 (Respondents' Own Country/Region) Three Goals (out of 17 SDGs) That Will Have the Lowest Level of Realization in 2030 (1st-3rd summation method, multiple answers)**

	1. No Poverty	2. Zero Hunger	3. Good Health and Well-being	4. Quality Education	5. Gender Equality	6. Clean Water and Sanitation	7. Affordable and Clean Energy	8. Decent Work and Economic Growth	9. Industry, Innovation and Infrastructure	10. Reduced Inequalities	11. Sustainable Cities and Communities	12. Responsible Consumption and Production	13. Climate Action	14. Life Below Water	15. Life on Land	16. Peace, Justice and Strong Institutions	17. Partnerships for the Goals
World	34	13	12	12	24	9	13	18	7	31	13	20	23	22	15	18	7
Oceania	18	4	4	2	24	4	13	9	4	44	13	24	44	33	36	13	7
Australia	18	6	3	0	27	0	15	9	0	42	12	21	55	36	36	12	6
Oceania (excl. Australia)	17	0	8	8	17	17	8	8	17	50	17	33	17	25	33	17	8
North America	46	19	10	6	7	6	10	4	3	42	16	49	25	19	12	20	3
Canada	39	14	10	2	6	4	22	4	4	51	18	47	24	18	14	12	8
USA	48	21	10	7	8	6	5	5	3	38	15	49	26	20	12	23	2
Mexico, Central America, The Caribbean	57	26	18	8	11	16	15	13	16	28	15	10	16	13	11	23	2
South America	66	30	20	28	8	8	6	16	6	34	9	8	10	8	14	28	3
Western Europe	30	7	10	7	12	5	8	14	4	44	17	36	24	30	32	12	7
UK	45	12	17	2	7	2	5	10	0	48	14	48	7	33	36	10	5
W. Europe (excl. UK)	26	6	9	8	14	5	9	15	5	42	18	33	29	29	30	13	8
Africa	51	37	16	12	10	17	22	15	10	21	20	12	12	10	12	20	2
Middle East	26	21	9	15	15	15	12	18	3	26	24	24	21	29	12	29	3
Eastern Europe & former Soviet Unions	31	21	21	13	23	5	13	10	8	31	18	21	28	21	8	21	10
Asia	28	8	12	12	32	9	15	23	8	28	11	14	24	23	12	18	8
Japan	29	3	15	9	50	1	19	32	6	27	10	8	30	20	13	17	8
India	43	25	14	14	35	20	8	14	12	33	8	22	10	12	6	18	8
China	26	10	12	18	18	11	12	20	11	23	11	21	18	22	14	11	7
Taiwan	34	6	3	9	11	25	15	4	4	30	13	8	27	40	5	49	12
Korea	9	3	0	3	34	9	14	34	0	60	3	14	37	26	20	17	11
Asia (excl. the above 5 nations)	28	20	13	8	13	13	14	8	11	34	20	19	16	29	14	24	13

■ : Three goals (out of 17 SDGs) that will have the lowest level of realization

- In the respondents' own country or region, "1. No Poverty" and "10. Reduced Inequalities" were most commonly selected as goals that will have the lowest level of realization in 2030. These goals were also most commonly considered to have the lowest level of realization on the world average, indicating that these are common major challenges worldwide.
- Regarding world average, respondents in most countries selected "2. Zero Hunger" as the goal that will have the lowest level of realization in 2030 but did not choose the same goal with regard to their own country.
- Only in Japan, India, and Korea, a large number of respondents selected "5. Gender Equality" as a goal difficult to achieve.
- In the respondents' own country or region, "12. Responsible Consumption and Production," "14. Life below Water," and "15. Life on Land" were selected by a number of countries as goals that will have the lowest level of realization in 2030. On the world average, however, more people think that "1. No Poverty," "2. Zero Hunger," and "10. Reduced Inequalities" are the goals that will have the lower level of realization in 2030.

## IV. Closing Comment

The time on the Environmental Doomsday Clock for the world had been 9:46~47 since 2018, showing a strong sense of crisis for three straight years, but this year it is 9:42, five minutes earlier than last year. Let's hope this is the first step toward achieving the target of the Paris Agreement.

As in the previous year, the survey asked the respondents if they saw any signs of improvement in comparison with the situations before 2015 when the Paris Agreement and SDGs were adopted. Given that the respondents' answer to this question in terms of "Policies and Legal System" and "Social Infrastructure (Funds, Human Resources, Technologies, and Facilities)" varied from one region or country to another, we calculated the average scores for the entire world and for each region/country and compiled them into a table to show the changes in the scores since 2019.

With regard to a transition to a decarbonized society in Question 2-1, although there were regional differences in the respondents' perception of improvements made in "Public Awareness" and "Policies and Legal System," the results suggest that people have become more strongly aware that progress has been made in a transition to a decarbonized society since 2019.

In Question 2-2, the top categories showing signs of improvement in the approach to environmental issues were as follows in order of descending selection percentage: "Climate Change" at 27.7%, "Society, Economy, and Environment, Policies, Measures" at 18.0%, and "Lifestyle (Consumption Habits)" at 16.5%. "Climate Change" was also selected most frequently as a category that was important in considering environmental issues. This shows the strong worldwide attention to the "Climate Change" issue and the efforts to improve it.

This year, we added questions on the level of realization of sustainable development goals (SDGs) that the world is pushing to achieve by 2030. Although there were some regional differences regarding goals that will have the highest level of realization, most countries selected both "1. No Poverty" and "10. Reduced Inequalities" as goals that will have the lowest level of realization, a clear indication that these are the crucial issues facing humanity.

Starting this year, we have created, as reference material, a table of significant environmental events that occurred around the world in the year immediately preceding the response period of this survey. You can refer to this information when analyzing the results in this report.

We will continue using the above questions for a while and continue conducting this survey, paying attention to the average scores for the entire world and variations among regions and countries. We do hope that we can count on your support again next year.

## Reference 1: World Environmental Events (April 2020 – March 2021)

Month/Year	World Environmental Events
Apr 2020	
May	·Heavy rain in Michigan (USA) caused rivers to swell, which in turn caused the dams to collapse, flooding an entire neighborhood.
Jun	
Jul	·The middle and lower reaches of the Yangtze River basin in China experienced an active seasonal rain front from the middle of June. Rainfall recorded in July, and over the two months of June through July was the highest ever over the past 24 years. More than 160 people in total were reported dead or missing due to the heavy rain. ·On July 25th, the bulk carrier Wakashio ran aground in Mauritius, causing an oil spill. ·The number of people infected by COVID-19 world wide reached approximately 14 million. (As of July 20,2020) ·The Tokyo 2020 Olympics and Paralympics were postponed by one year.
Aug	·By September 16th , the total area burnt by wild fires, which started in August, in California, Oregon, and Washington (USA) had reached 18,000 square kilometers. ·On August 16th, the temperature in Death Valley, California (USA) reached 54.4°C, the highest in 89 years. ·On August 27th, the biggest hurricane in the state's history hit Louisiana (USA).
Sep	·Between September 7th and 8th, the temperature in Colorado (USA) plummeted by 31°C, taking the state from a heat wave to snow fall in just 24 hours. ·Mass deaths of migratory bird occurred in New Mexico (USA). Suspected causes include wild fires and a sudden cold spell. ·In the month of August, the Northern Hemisphere temperature was 1.19°C above average, the highest ever recorded. WMO and NOAA announced separately that the temperature in Verkhoyansk, Republic of Sakha, one of the coldest places in Siberia, Russia, reached 38°C, the highest ever recorded in the Arctic Circle.
Oct	·The worst wild fires in the region's history broke out in Pantanal in Brazil, the world's largest wetland. According to the local NGO, Pantanal SOS, 3.461 million hectares, had burnt between January and September 27th. The wildfires, were probably because of a combination of unprecedented drought and burning off for land clearing, destroying a valuable ecosystem.
Nov	·Joe Biden defeated incumbent US President Donald Trump in the presidential election and became President-elect.
Dec	·Heavy rain in Italy's northwestern city of Pisa: Monthly rainfall 241mm (2.73 times the average) ·On December 2nd , the World Meteorological Organization (WMO) announced that 2020 was likely to become one of the three warmest years on record. ·The Climate Ambition Summit was held on line on December 12 to mark the fifth anniversary of the 2015 Paris Climate Agreement. Leaders from approximately 80 countries, corporate leaders, and environmental activists participated and pledged their commitment to a carbon-free society.
Jan 2021	·Heavy rain (snow) in South East Asia and Europe: Singapore: Monthly rainfall 693 mm (2.81 times the average), Stockholm : Monthly rainfall 81 mm (2.141 times the average), Prague: Monthly rainfall 43 mm (2.02 times the average), Abbeville in northern France: Monthly rainfall 175 mm (3.28 times the average), Sofia, Bulgaria: Monthly rainfall 99 mm (2.92 times the average) ·On January 20th , President Biden signed an executive order for the US to rejoin the Paris Agreement. Thirty days after informing the United Nations, the US officially rejoined as a member. The world's second-biggest emitter of greenhouse gases returned to the global movement in tackling climate change.
Feb	·A severe cold wave hit Texas (USA) in mid -February, and the temperature dropped to minus 22°C. The state issued a disaster declaration in response. A massive blackout affecting over four million households occurred due to the cold temperature and heavy snow .
Mar	·Record rainfall in the coastal areas of New South Wales in eastern Australia, with rainfall reaching 249 mm in Port Macquarie. Premier Gladys Berejiklian called it a one-in-100 year flood.

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**REPORT**

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