Results of the 31st Annual "Questionnaire on Environmental Problems and the Survival of Humankind"

Report

September 2022

THE ASAHI GLASS FOUNDATION

Contents

Preface

This report summarizes the results of the 2022 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 2022, when the novel coronavirus (COVID-19) infections were continuing to spread worldwide. On February 24, moreover, Russia launched a full-scale invasion of Ukraine, raising people's fears and concerns about the state of the world. With the deterioration of postal services in many places, we were concerned that the number of responses to our survey would decrease but eventually we received responses from 1,876 people, almost the same number as the previous year (1,893 people in 2021). We would like to take this opportunity to thank those from around the world who participated in the survey during such a difficult time through the COVID-19 pandemic and the war, 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 9:35. 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, and by seven more minutes in 2022. Last year, the clock went back in many regions. However, this year saw a bipolarized tendency, with the clock going back in Asia and Oceania, regions which face the Pacific Ocean and with the clock moving forward in North America, Africa, Middle East, and Eastern Europe & former Soviet Union. It seems that the present geopolitical factors in the world have played a role in this result.

The Annual Survey on the Sense of the Environmental Crisis Among Ordinary Japanese People was conducted in 2020 and 2021. This year, we carried out *the Annual Survey on the Sense of the Environmental Crisis Among Ordinary People Around the World,* which was conducted in 25 countries including Japan. The results will be published on our website so that you can compare the results of this survey with those of the survey directed at global experts on environmental issues.

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 2022
The Asahi Glass Foundation

I. Survey Overview

Survey period: April to June 2022

Respondents: Environmental experts working/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: 25,770 (23,997 to overseas respondents and 1,773 to respondents in Japan)

Number of questionnaires returned: 1,876

Response rate: 7.3%

Table 1 Breakdown of Respondents by Region and Organization

Region	Number of responses	Percent of total
Oceania	46	2.5
North America	156	8.3
Mexico, Central America & the Caribbean	47	2.5
South America	76	4.1
Western Europe	192	10.2
Africa	80	4.3
Middle East	34	1.8
Eastern Europe & former Soviet Union	32	1.7
Asia	1213	64.7
Total	1876	100.0
Organization		
Central government, Local government	93	5.0
University or research institution	783	41.7
NGO/NPO	363	19.3
Corporation	424	22.6
Mass Media	32	1.7
Others	176	9.4
Organization not stated	5	0.3
Total	1876	100.0

*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 Clock for the world had been moving forward since 2011. However, it has turned back for two consecutive years since 2021, striking 9:35 in 2022. It was the first period in 12 years the time on the Clock had gone back for two consecutive years.

- Looking at the time on the Clock around the world, the Clock went back more than 10 minutes compared to last year in Asia and Oceania, regions which face the Pacific Ocean, but it moved forward more than 10 minutes in North America, Africa, Middle East, and Eastern Europe & former Soviet Union, showing a bipolarized tendency.

- The Clock in Japan struck 9:33, three minutes earlier than last year.

- The three most often selected categories of the "environmental issues to be taken into account" were "Climate Change (32%)," "Biosphere Integrity (Biodiversity) (13%)," 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, "Society, Economy and Environment, Policies, Measures (9:49)" showed the time closest to midnight. In the past, "Biosphere Integrity (Biodiversity)" had the time closest to midnight; this year, however, "Society, Economy and Environment, Policies, Measures" has shown the time closer to midnight by 15 minutes from 9:34 the previous year. It seems that Russia's invasion of Ukraine has affected the times on the Clock around the world.

II-2. Signs of Improvement in the Approach to Environmental Issues: Comparison with the Situation before 2015

Since 2019, we have asked questions about the 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."

- The category most commonly identified as showing signs of improvement in approach was "Climate Change" (30.0%), followed by "Society Economy and Environment, Policies, Measures" (15.1%), and "Lifestyle (Consumption Habits)" (14.5%). The percentage of respondents who selected "Climate Change" rose for the second consecutive year. Of the respondents, 14.1% selected the answer, "There is no sign of improvement at all."

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

- In respondents' world view, as in the previous year, "9. Industry, Innovation, and Infrastructure" and "13. Climate Action" were selected in most countries as the top two goals that will have the highest level of realization in 2030.

- In respondents' world view, "l. 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 "16. Peace, Justice and Strong Institutions." This result shows that people around the world think that these are the most difficult goals to achieve.

- In the respondents' own country or region, on a world average, "2. Zero Hunger," "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 a world average, these two 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%.

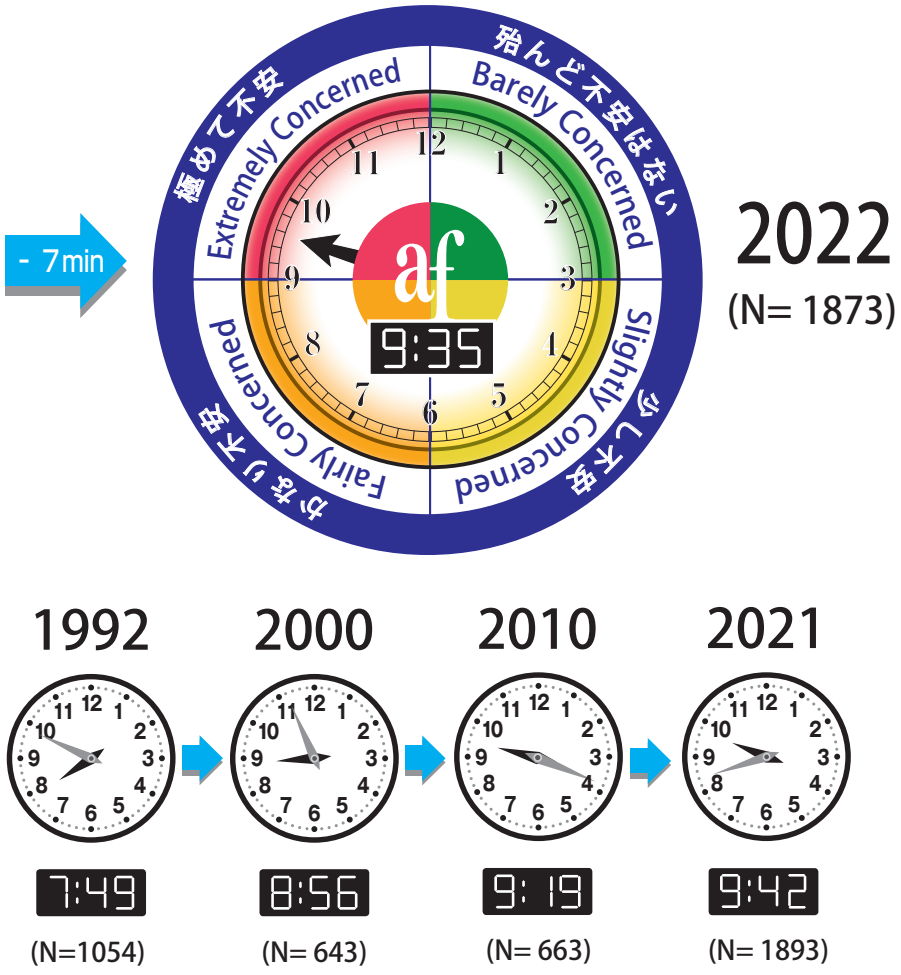


Fig. 1 The Time on the Environmental Doomsday Clock

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	2022								
Time	9:42	9:35								

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.

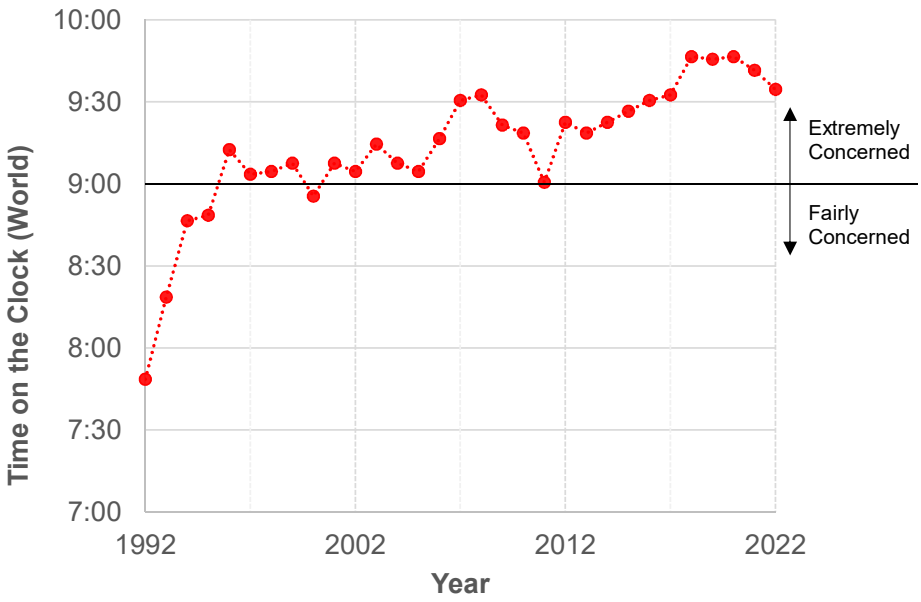
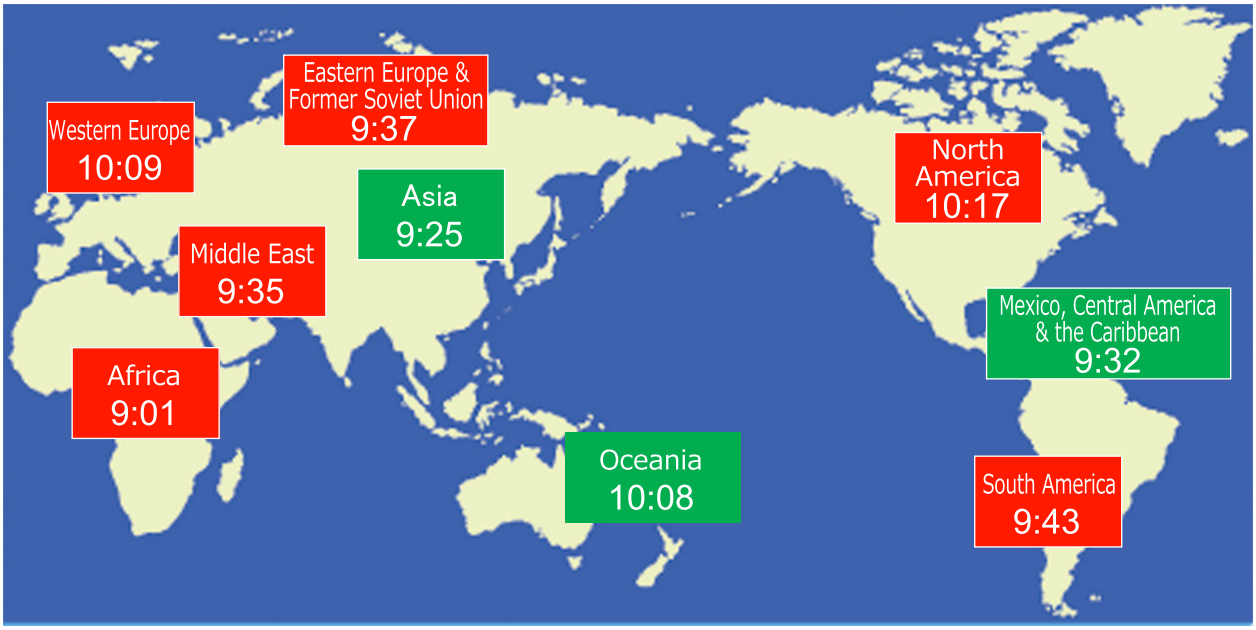


Fig. 2 Change in the Time on the Environmental Doomsday Clock (World) since 1992

- The time on the Clock had had a tendency to get closer to midnight since 2011, but this year the Clock has once again gone back for the second consecutive year.



■ 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. 3-1 Regional Times on the Environmental Doomsday Clock

Fig. 3 Regional Times on the Clock

Table 3 Change in the Time on the Environmental Doomsday Clock Since 2013

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	# of Respondents in 2022
World	9:19	9:23	9:27	9:31	9:33	9:47	9:46	9:47	9:42	**9:35**	1873
Asia	9:08	9:15	9:15	9:18	9:25	9:48	9:38	9:44	9:40	**9:25**	1211
Japan	9:05	9:04	9:09	9:03	9:11	9:31	9:38	9:46	9:36	**9:33**	492
China	9:15	9:38	9:29	9:41	10:09	10:35	10:02	10:03	10:07	**9:29**	437
Taiwan	8:40	8:42	8:29	8:53	7:59	8:40	8:53	8:52	8:51	**8:50**	109
Oceania	10:01	10:08	10:06	10:01	10:12	10:03	10:31	10:20	10:20	**10:08**	46
N. America	10:16	9:55	10:01	9:58	10:08	10:11	10:30	10:33	10:03	**10:17**	155
Mexico, Central America & the Caribbean	9:46*1	9:12	9:47	9:38	9:19	9:10	9:38	9:38	9:35	**9:32**	47
S. America		9:23	9:54	9:48	9:32	9:24	9:38	9:29	9:35	**9:43**	76
W. Europe	9:40	9:33	9:42	9:47	9:45	10:04	10:06	9:59	10:07	**10:09**	192
Africa	9:41	9:09	9:00	9:09	9:14	9:29	9:01	8:34	8:33	**9:01**	80
Middle East	9:08	9:21	9:10	10:06	9:05	9:30	9:45	9:35	9:22	**9:35**	34
E. Europe & former Soviet Union	9:48	8:59	8:51	8:51	8:47	8:42	9:13	9:30	9:22	**9:37**	32

*1: Time for South America, Mexico, Central America, and the Caribbean

- The average time on the Environmental Doomsday Clock (the “time on the Clock”) for the world is 9:35, which is seven minutes earlier than last year.
- The time on the Clock in China is 9:29, which is as much as 38 minutes earlier than last year.
- The time on the Clock in Japan is 9:33, which is three minutes earlier than last year.

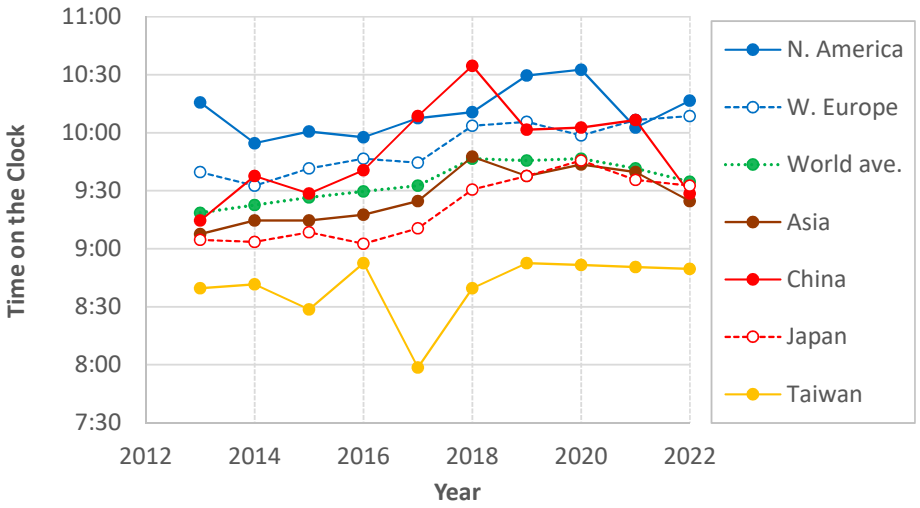


Fig. 3-2 Change in the Time on the Environmental Doomsday Clock Since 2013

Figure 3-2 shows the change in the time on the Environmental Doomsday Clock over the past ten years from the regions and counties with the highest number of respondents selected from among those shown in Table 3-1.

- By region, the time on the Clock in Asia went back by 15 minutes from last year, which is mainly due to the fact that the time on the Clock in China moved back by 38 minutes. China's 14th Five-Year Plan (2021–2025) includes the strengthening of environmental regulations, with goals to reduce carbon dioxide emissions, which emphasizes the need to reduce the total discharge of major pollutants. As shown in Table 3-1, there are many survey respondents in China. Those in their 20s and 30s, who account for nearly 90% of the total number of respondents in China, seem to consider that environmental issues in China have improved due to the environmental measures being taken by the Chinese government.

- Looking at the times on the Clock around the world, the time moved forward more than 10 minutes in North America, Africa, Middle East, and Eastern Europe & former Soviet Union.

- Last year, the time on the Clock in North America was 10:03, 30 minutes earlier compared to the preceding year. This year, however, the time moved forward 14 minutes.

III-1-1-2. Change in the Time on the Environmental Doomsday Clock by Generation Over the Last 10 Years (2013 – 2022)

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

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Time	9:19	9:23	9:27	9:31	9:33	9:47	9:46	9:47	9:42	9:35
60 and Over	9:30	9:35	9:33	9:36	9:43	9:49	9:57	9:55	9:49	9:53
40s & 50s	9:25	9:16	9:30	9:28	9:29	9:33	9:44	9:41	9:38	9:31
20s & 30s	9:01	9:25	9:17	9:30	9:32	10:00	9:40	9:45	9:41	9:25

Table 4 and Fig. 4 show change in the time on the Clock by generation.

- The survey respondents aged 60 and over tended to report more advanced times on the Clock than other age groups.
- This year, the only respondents who reported advanced times on the Clock were those in their 60s, but the Clock was set back among respondents in their 20s to 50s.
- Since 2013, when the Clock was 9:01, the times reported by respondents in their 20s and 30s had mostly 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. The time reported this year was as much as 16 minutes earlier than the previous year.

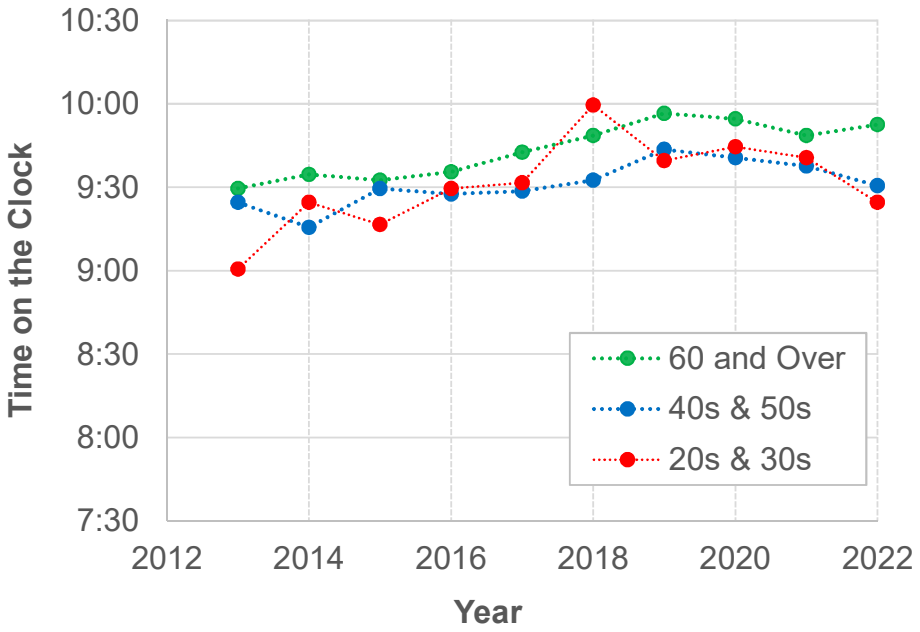


Fig. 4 Change in the Time on the Clock by Generation

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_2%, 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 polution, 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.	Lifestyles (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

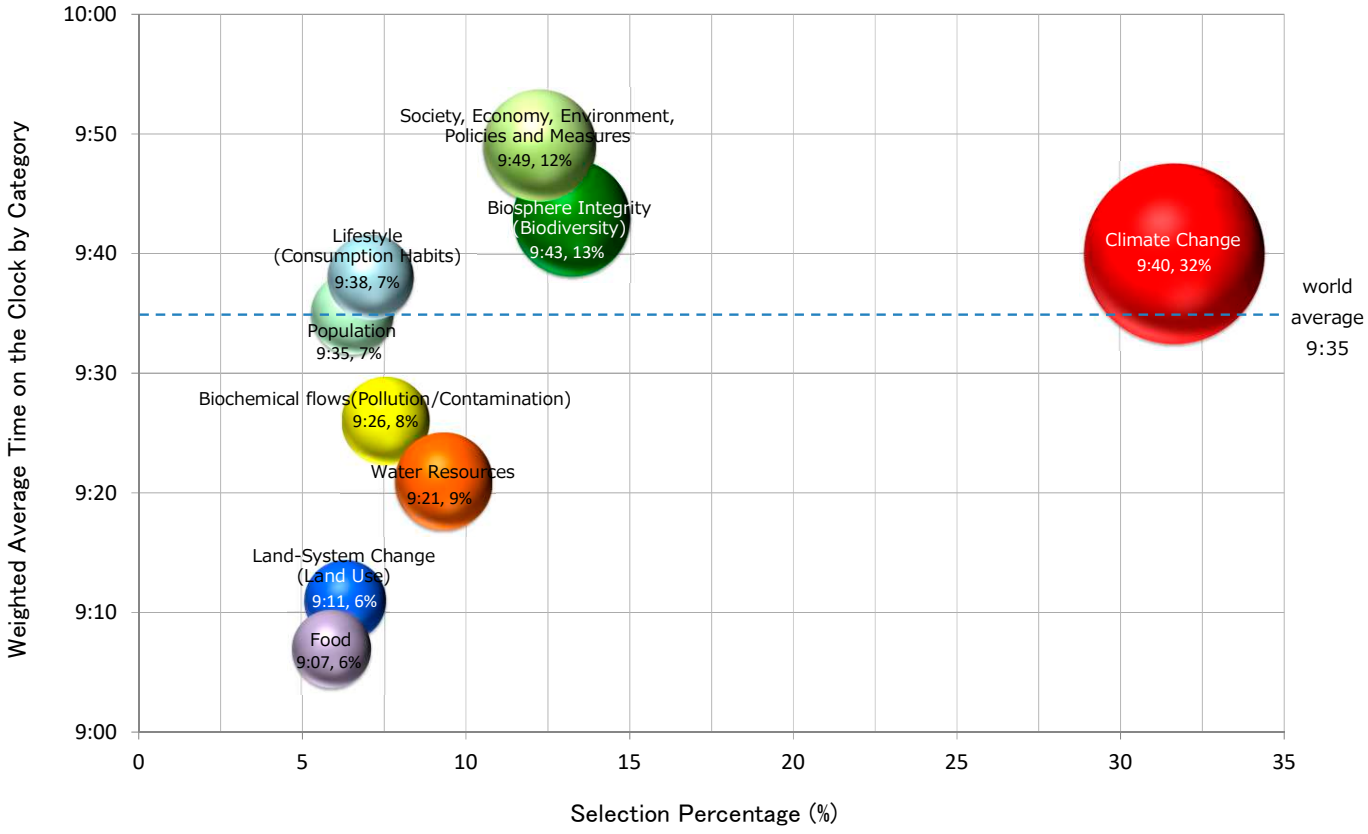


Fig. 6-1 2022 Distribution of the Environmental Issues to be Taken into Account, Showing Selection Percentage of Respondent's 3 Most Pressing Issues and the Time on the Clock

- As in the last year, "Climate Change" (32%) 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)" (13%), "Society, Economy and Environment, Policies, Measures" (12%), "Water Resources" (9%), "Biochemical Flows (Pollution/Contamination)" (8%), "Lifestyle (Consumption Habits)" (7%), "Population" (7%), "Land-System Change (Land Use)" (6%), and "Food" (6%). 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, "Society, Economy and Environment, Policies, Measures" was at 9:49, "Biosphere Integrity (Biodiversity)" 9:43, "Climate Change" 9:40, and "Lifestyle (Consumption Habits)" 9:38, were all closer to midnight than the world's average time of 9:35. These were followed by "Population" 9:35, "Biochemical Flows (Pollution/Contamination)" 9:26, "Water Resources" 9:21, and "Land-System Change (Land Use)" 9:11, and "Food" 9:07.

- It is noteworthy that although "Biosphere Integrity (Biodiversity)" had shown the closest time to midnight until last year, "Society, Economy and Environment, Policies, Measures" became the issue with the strongest sense of crisis and the Clock moved forward by 15 minutes from 9:34 last year to 9:49 this year. It seems that Russia's invasion of Ukraine has affected this result.

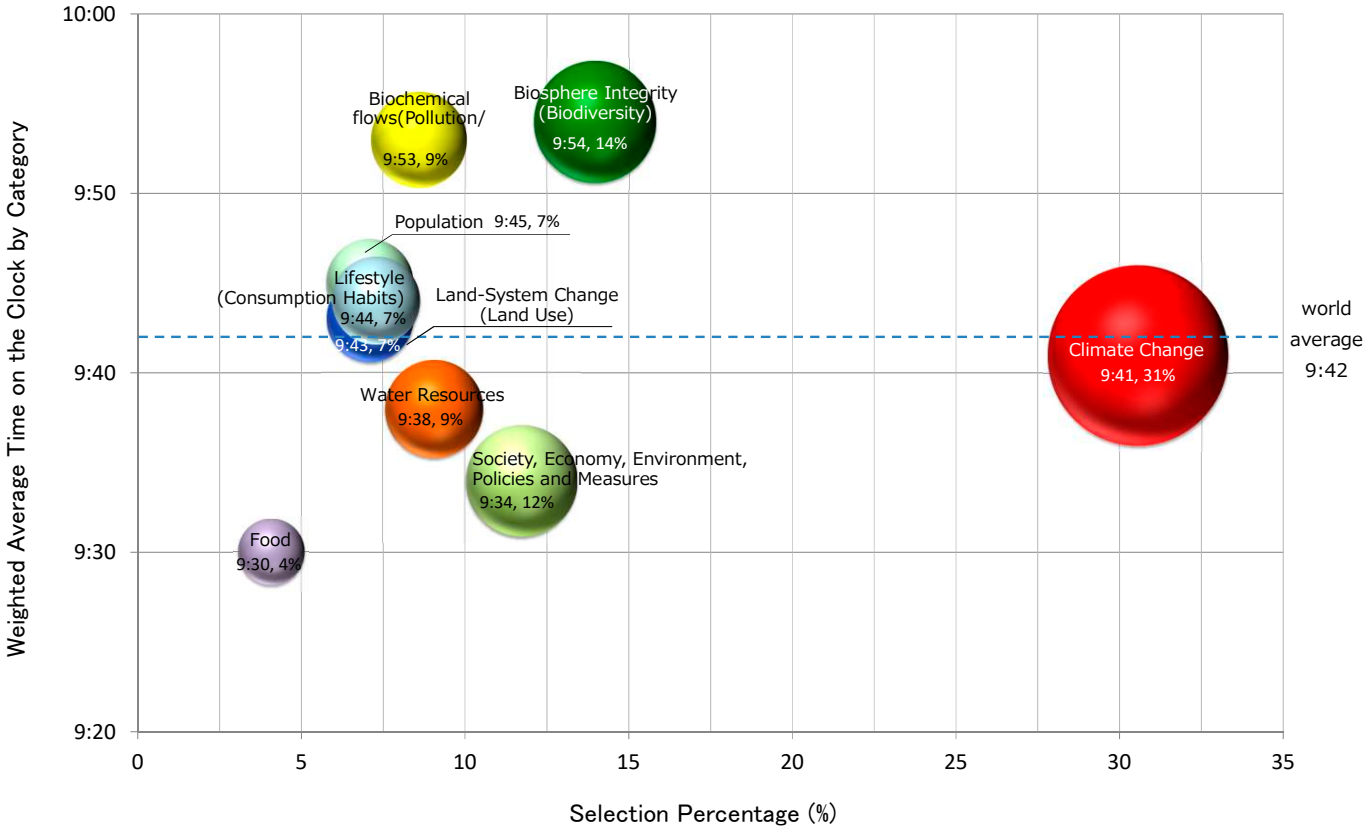


Fig. 6-2 2021 Distribution of the Environmental Issues,
Showing Selection Percentage of Respondent's 3 Most Pressing Issues and the Time on the Clock

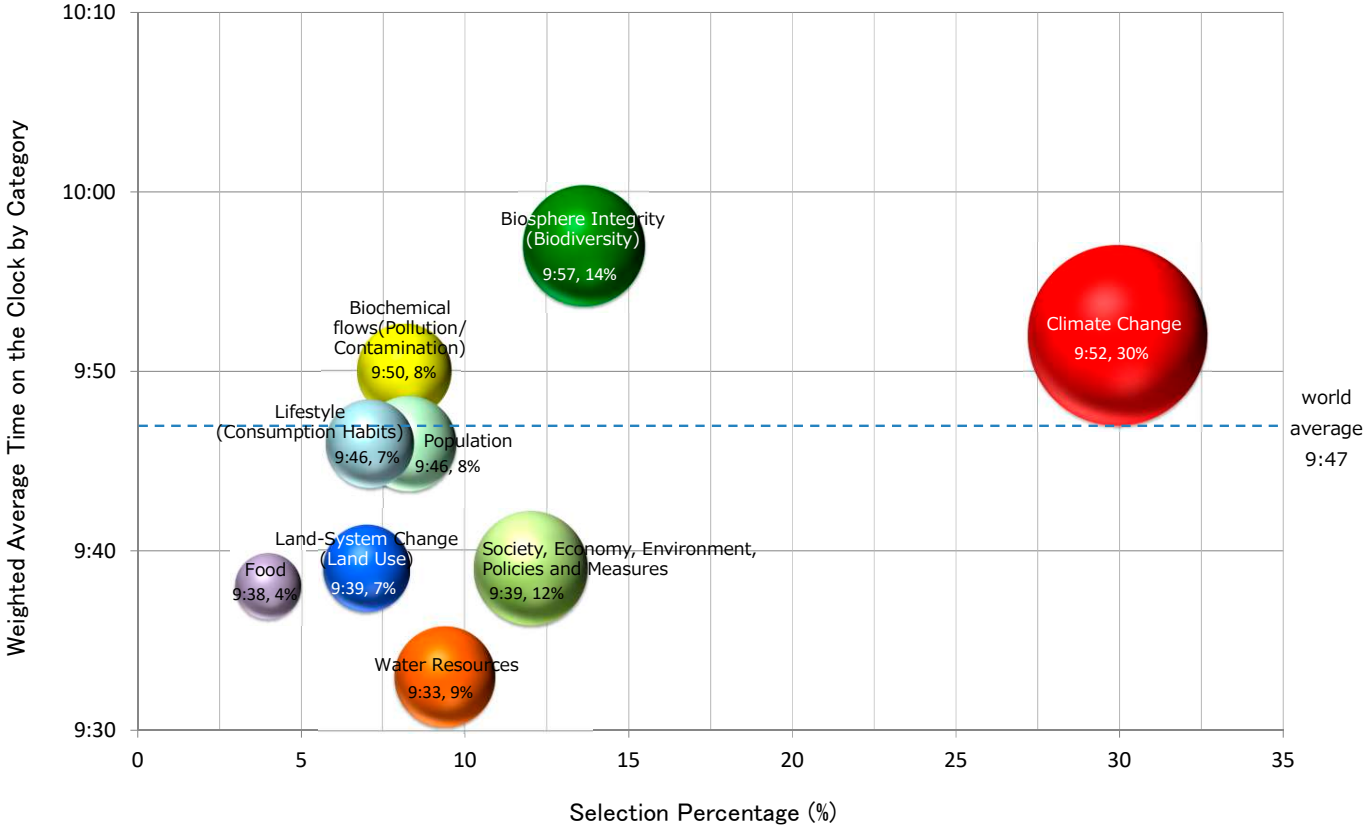
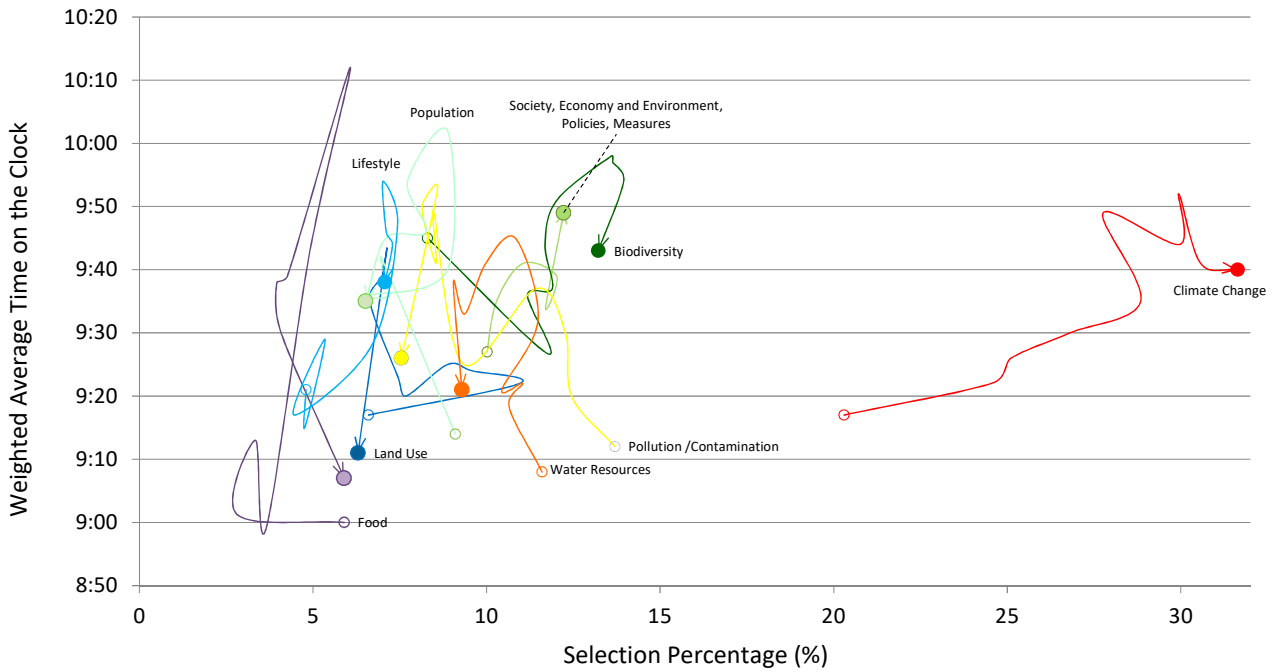


Fig. 6-3 2020 Distribution of the Environmental Issues to be Taken into Account,
Showing Selection Percentage of Respondent's 3 Most Pressing Issues and the Time on the Clock

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," and "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.

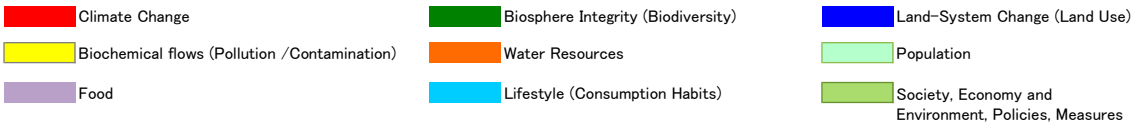


Fig. 7 Annual Change in the Distribution of the Times on the Clock and Selection Percentage (FY2012-2021)

- For the last decade, the selection percentage of "Climate Change" has shown an increasing trend, and the time on the Clock has mostly trended 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 (Polution/ Contamination)	5. Water Resources	6. Population	7. Food	8. Lifestyle (Consumption Habits)	9. Society, Economy and Environment, Policies, Measures
World	32%	13%	6%	8%	9%	7%	6%	7%	12%
Oceania	42%	22%	5%	4%	5%	8%	1%	4%	9%
Australia	42%	20%	7%	4%	4%	9%	0%	5%	10%
Oceania (except Australia)	44%	25%	2%	4%	10%	5%	3%	2%	6%
North America	39%	18%	5%	3%	6%	6%	1%	9%	11%
Canada	38%	19%	5%	3%	2%	6%	1%	13%	10%
USA	39%	18%	6%	3%	8%	6%	1%	8%	11%
Mexico, Central America, & the Caribbean	25%	17%	13%	4%	11%	4%	5%	10%	10%
South America	23%	20%	19%	2%	5%	5%	2%	7%	17%
Western Europe	30%	25%	8%	4%	6%	6%	0%	12%	10%
Western Europe (excl. UK)	32%	25%	8%	3%	7%	5%	0%	11%	9%
UK	26%	26%	6%	6%	3%	8%	1%	13%	12%
Africa	32%	14%	12%	5%	13%	6%	5%	2%	12%
Middle East	30%	11%	6%	4%	29%	4%	6%	4%	6%
Eastern Europe & former Soviet Unions	18%	12%	18%	5%	14%	4%	1%	9%	20%
Asia	32%	10%	4%	10%	10%	7%	8%	6%	13%
Japan	37%	10%	3%	6%	5%	5%	9%	8%	16%
India	26%	11%	9%	5%	11%	15%	1%	7%	13%
China	24%	8%	4%	12%	16%	11%	10%	5%	11%
Taiwan	38%	5%	5%	23%	11%	3%	2%	4%	9%
Korea	40%	20%	2%	6%	3%	4%	5%	10%	11%
Asia (excl. the above 5 nations)	34%	18%	14%	4%	8%	5%	3%	5%	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" (32%) 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)" (13%). 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, "Biosphere Integrity (Biodiversity)" in Korea, and "Society, Economy and Environment, Policies, Measures" in Japan.
- In South America as well, "Climate Change" became the most frequently selected category, although it was only the third most selected category last year.
- While "Climate Change" has the highest selection percentage in most regions of the world, respondents in Eastern Europe & former Soviet Union most often selected "Society, Economy and Environment, Policies, Measures," which was their second most selected issue last year.

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 (Polution/ Contamination)	5. Water Resources	6. Population	7. Food	8. Lifestyle (Consumption Habits)	9. Society, Economy and Environment, Policies, Measures
World	9:35	9:40	9:43	9:11	9:26	9:21	9:35	9:07	9:38	9:49
Oceania	10:08	9:43	9:26	10:05	-	-	10:50	-	-	9:38
Australia	10:31	10:51	11:08	10:10	-	-	10:46	-	9:22	9:50
Oceania (excl. Australia)	8:53	8:14	8:38	-	-	-	-	-	-	-
North America	10:17	10:24	10:08	10:05	9:02	10:33	10:25	-	9:33	10:42
Canada	10:05	10:25	10:20	9:17	-	-	10:50	-	10:50	11:06
USA	10:21	10:20	10:09	10:39	8:34	10:33	10:24	8:32	8:55	10:37
Mexico, Central America, & the Caribbean	9:32	8:51	10:08	9:36	-	9:52	-	-	9:23	9:31
South America	9:43	9:33	9:55	9:31	-	8:38	10:23	-	10:30	9:46
Western Europe	10:09	10:20	10:06	8:50	9:50	9:55	10:29	-	10:16	10:24
UK	10:29	11:00	10:26	9:47	9:35	-	11:00	-	10:12	10:13
Western Europe (excl. UK)	10:03	10:07	9:58	8:43	10:16	9:41	10:14	-	10:20	10:21
Africa	9:01	9:03	8:41	9:18	9:51	8:50	9:24	-	6:21	9:43
Middle East	9:35	9:38	9:33	-	-	9:39	-	-	-	-
Eastern Europe & former Soviet Unions	9:37	9:39	9:21	8:50	-	8:00	-	-	11:16	9:50
Asia	9:25	9:30	9:30	9:01	9:25	9:16	9:17	9:06	9:27	9:39
Japan	9:33	9:43	9:37	8:59	9:04	8:56	9:13	9:15	9:21	9:45
India	9:08	8:41	9:18	9:23	8:43	9:14	10:01	-	10:18	9:56
China	9:29	9:42	9:26	9:15	9:31	9:25	9:16	9:05	9:24	9:42
Taiwan	8:50	8:41	7:45	9:42	9:19	8:50	8:36	9:39	9:04	8:51
Korea	9:28	9:55	9:28	-	9:21	-	8:35	8:30	9:26	9:21
Asia (excl. the above 5 nations)	9:10	9:24	9:30	8:44	8:46	9:21	9:48	4:44	9:20	9:23

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 9:35. Three issues, namely "Climate Change" (9:40), "Biosphere Integrity (Biodiversity)" (9:43), and "Society, Economy and Environment, Policies, Measures" (9:49), are over 4 minutes ahead of the average time. The time on the Clock for "Biochemical Flows (Pollution/Contamination)" was 9:53 last year; but this year, the Clock went back by 27 minutes to 9:26.

- By region, a heightened sense of crisis is shown for "Population" in Oceania (10:50), "Society, Economy and Environment, Policies, Measures" in North America (10:42), and "Lifestyle (Consumption Habits)" in Eastern Europe & former Soviet Union (11:16).

- In Eastern Europe & former Soviet Union, the time on the Clock for "Lifestyle (Consumption Habits)" moved forward by two hours and two minutes from 9:14 last year, although for other issues the time moved forward from last year only within 15 minutes.

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

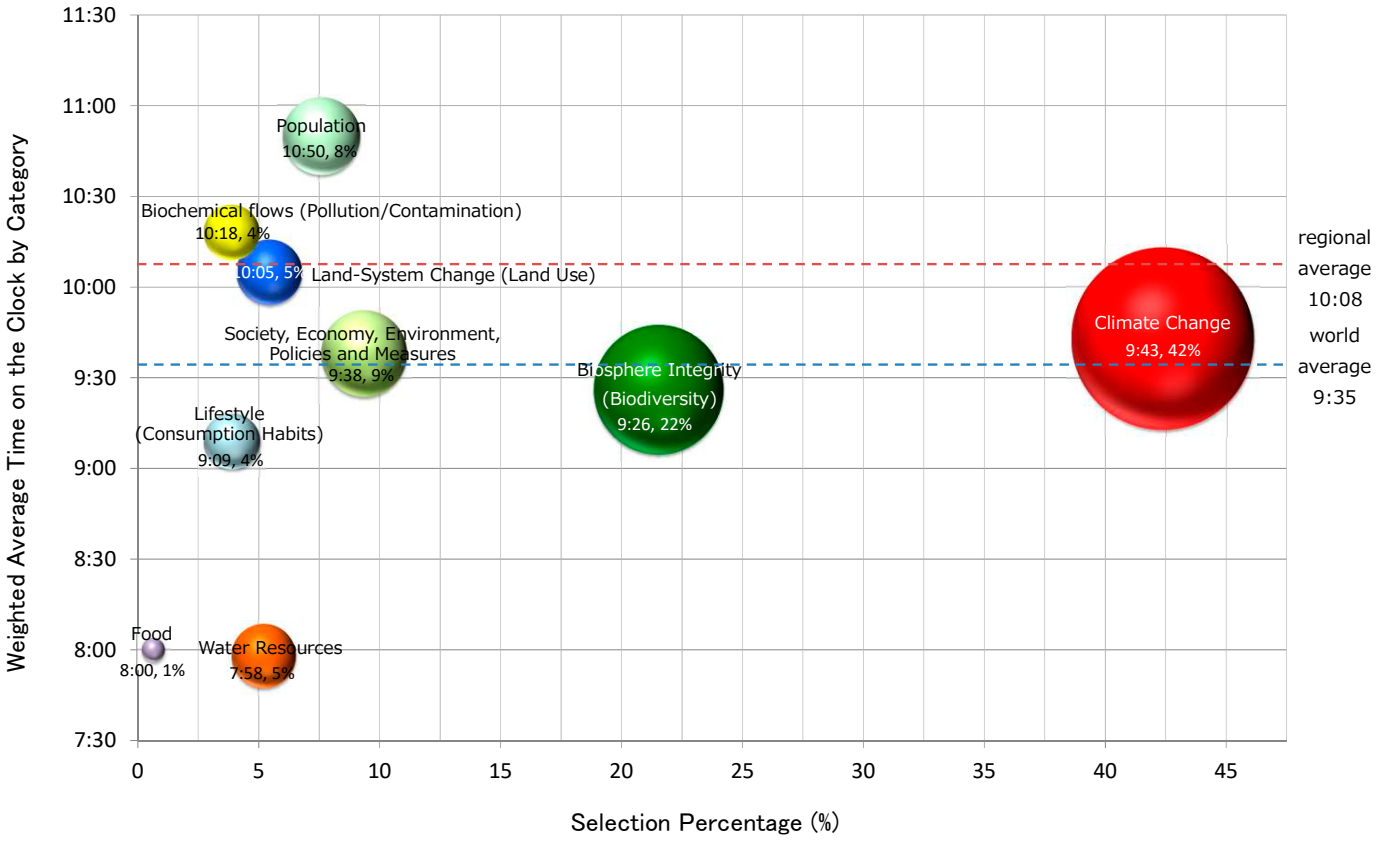


Fig. 8-1. Oceania

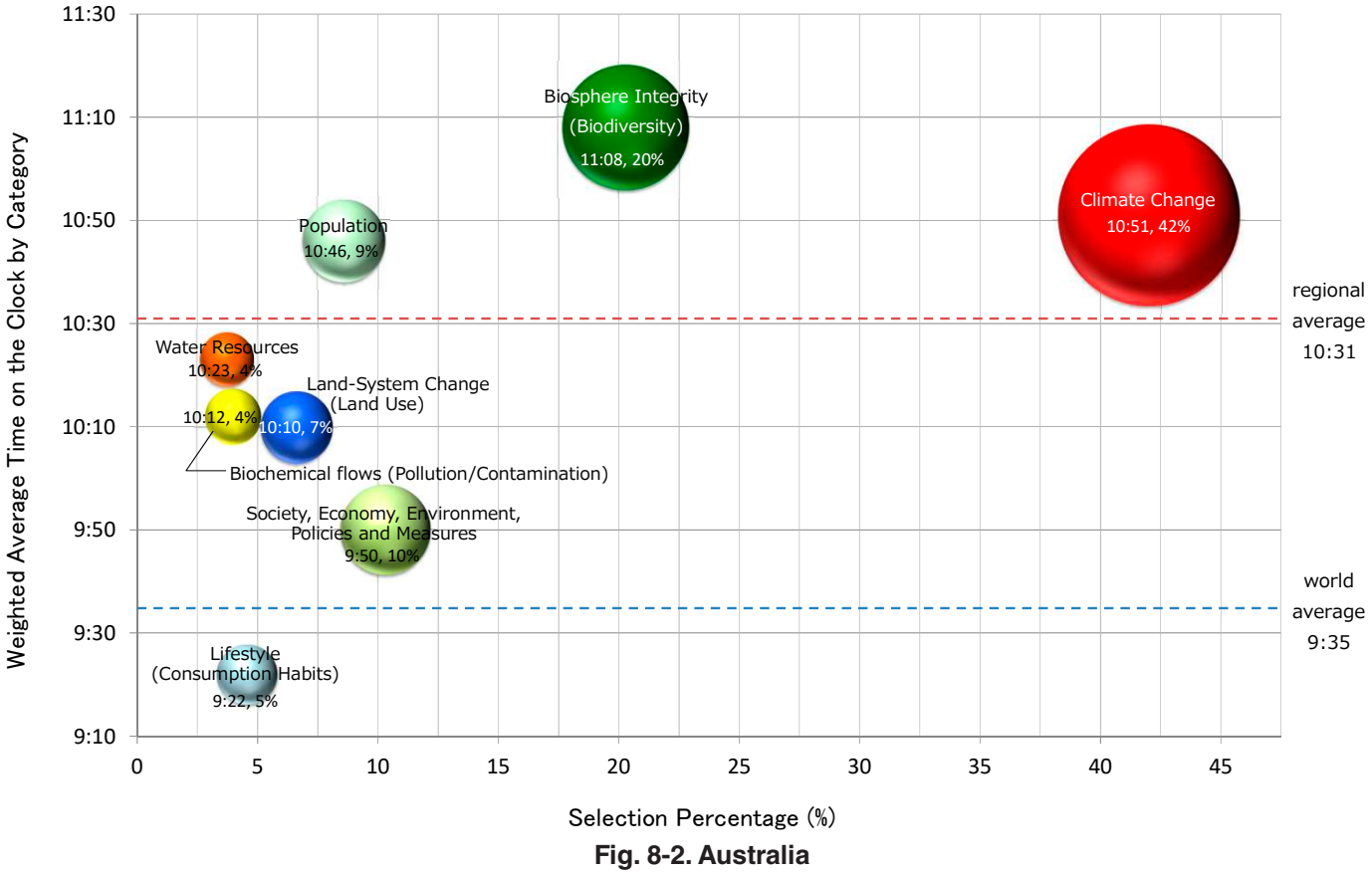


Fig. 8-2. Australia

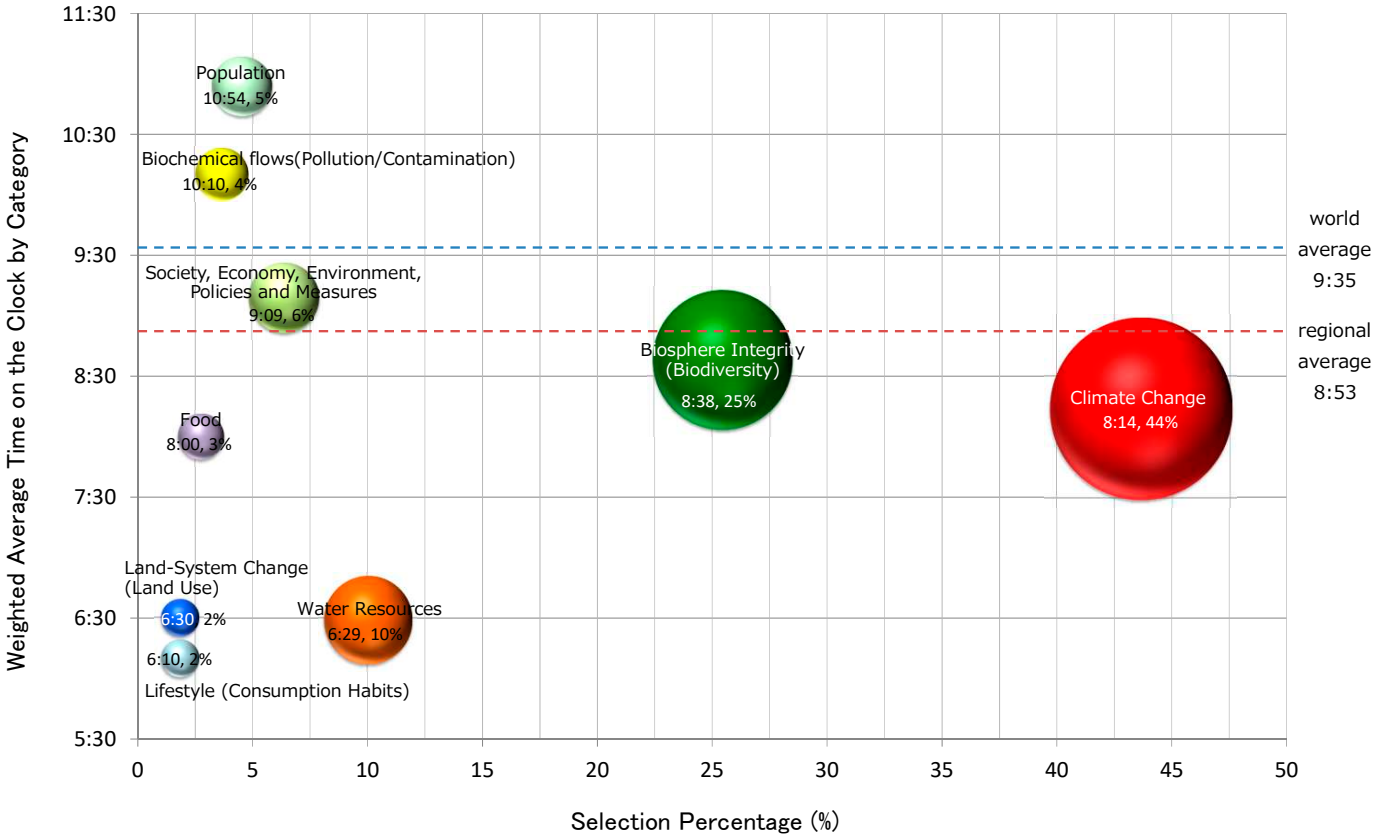


Fig. 8-3. Oseania (excl. Australia)

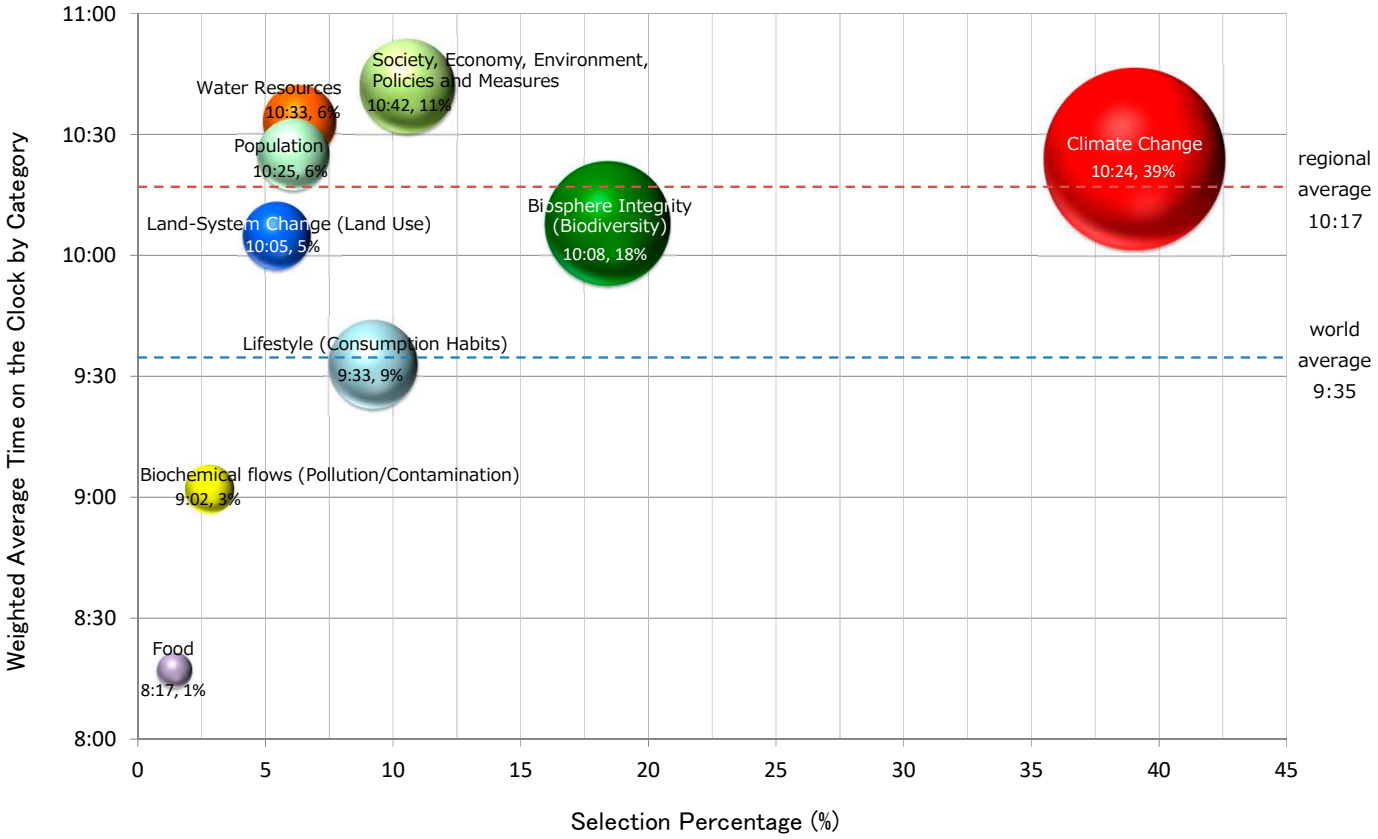


Fig. 9-1. North America

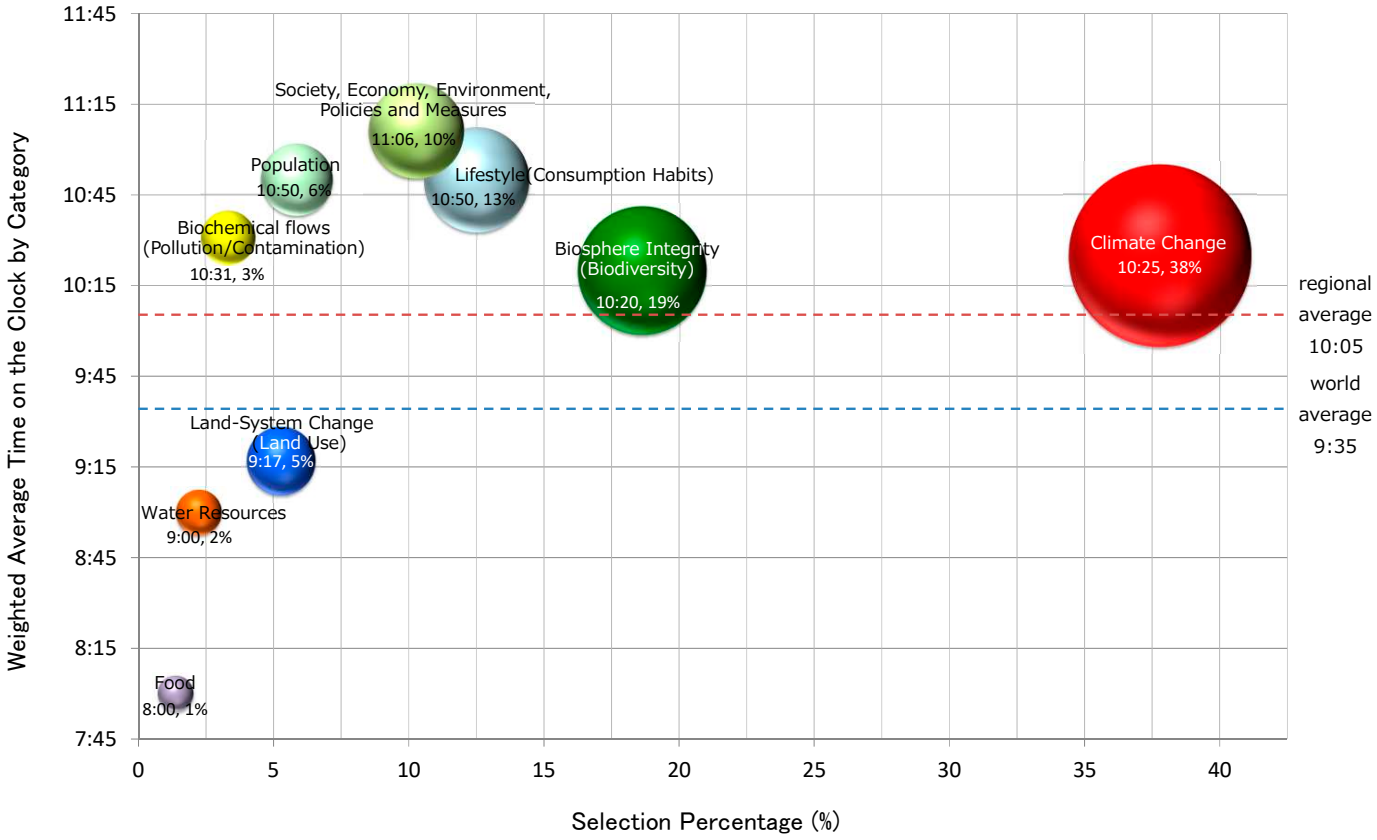


Fig. 9-2. Canada

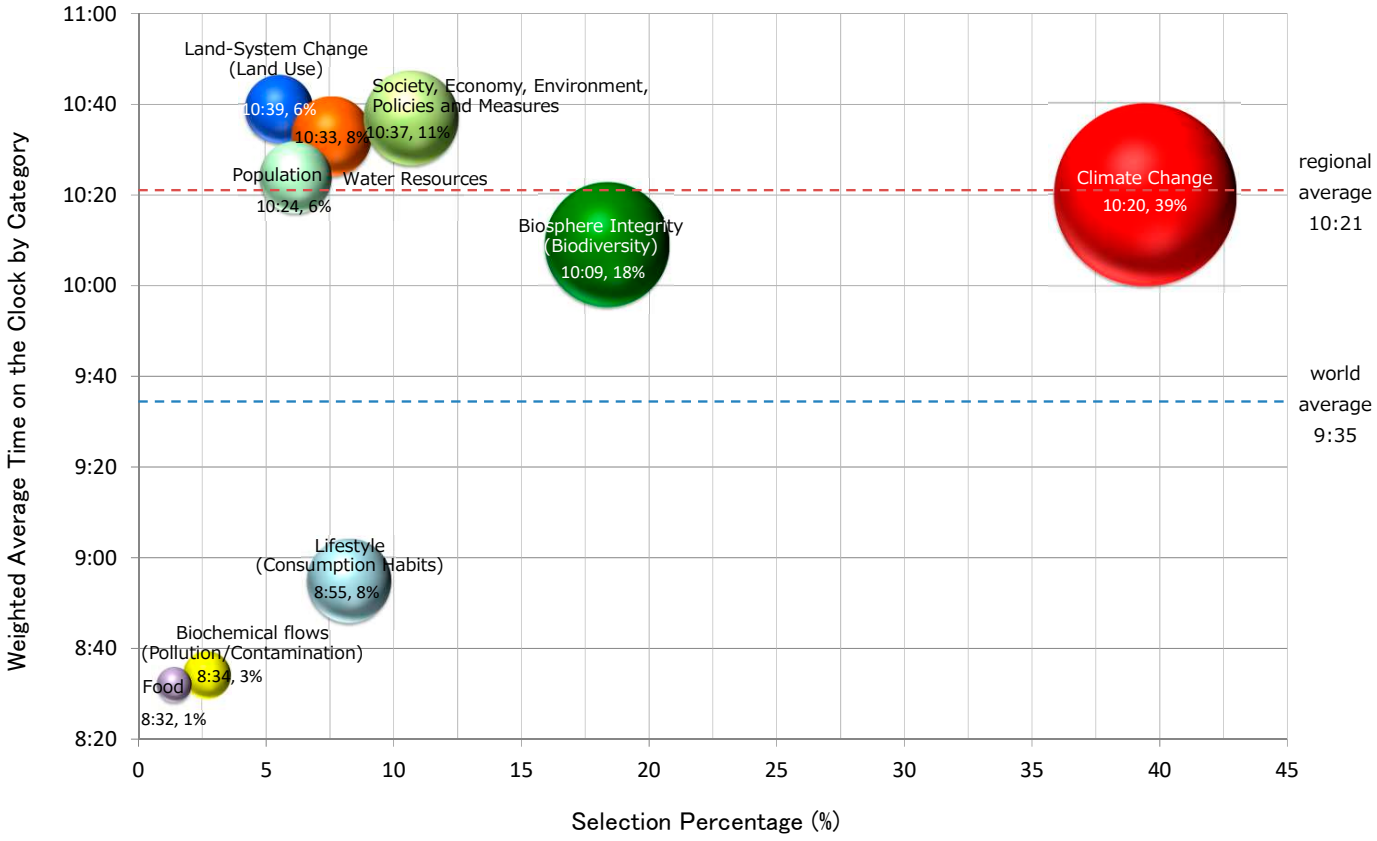


Fig. 9-3. USA

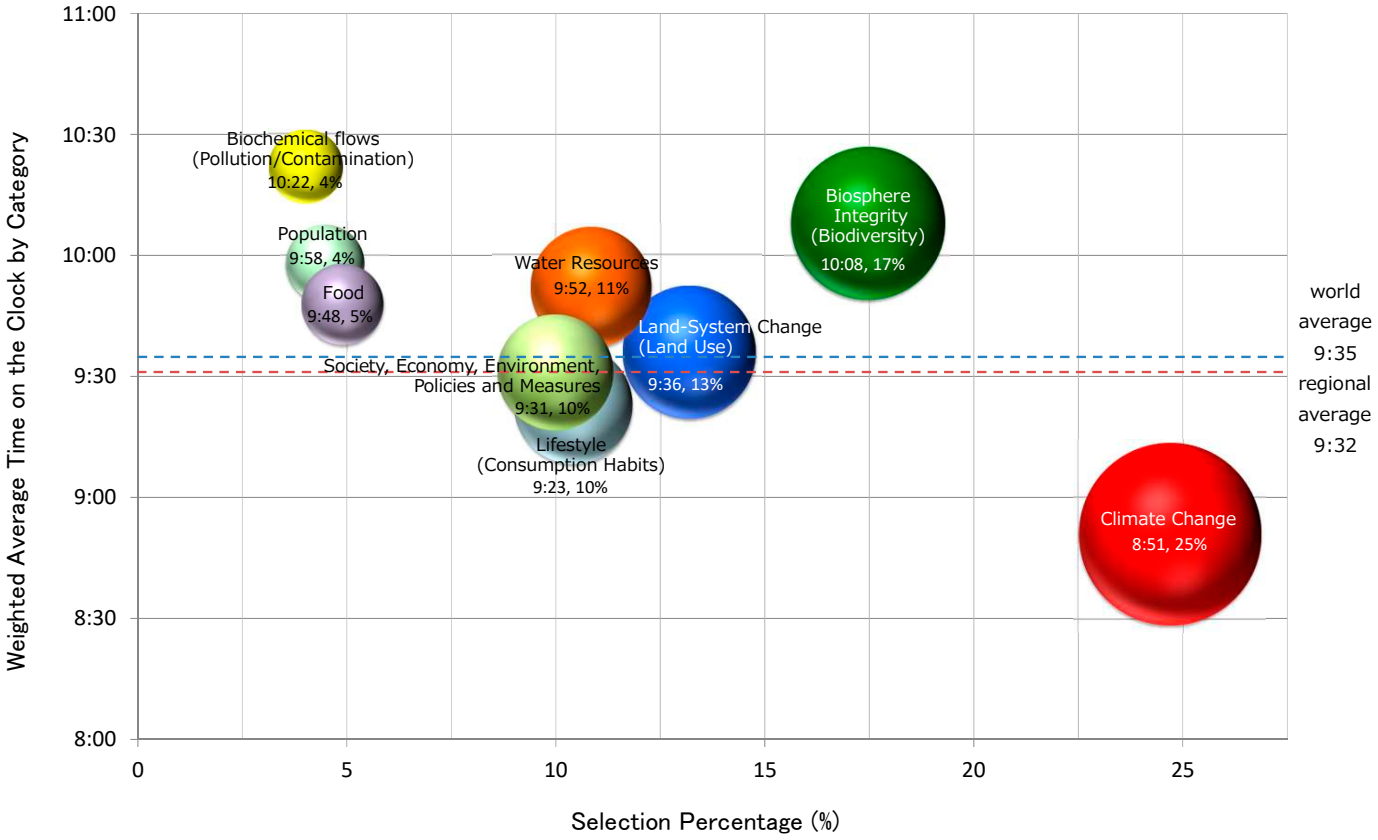


Fig. 10. Mexico, Central America & the Caribbean

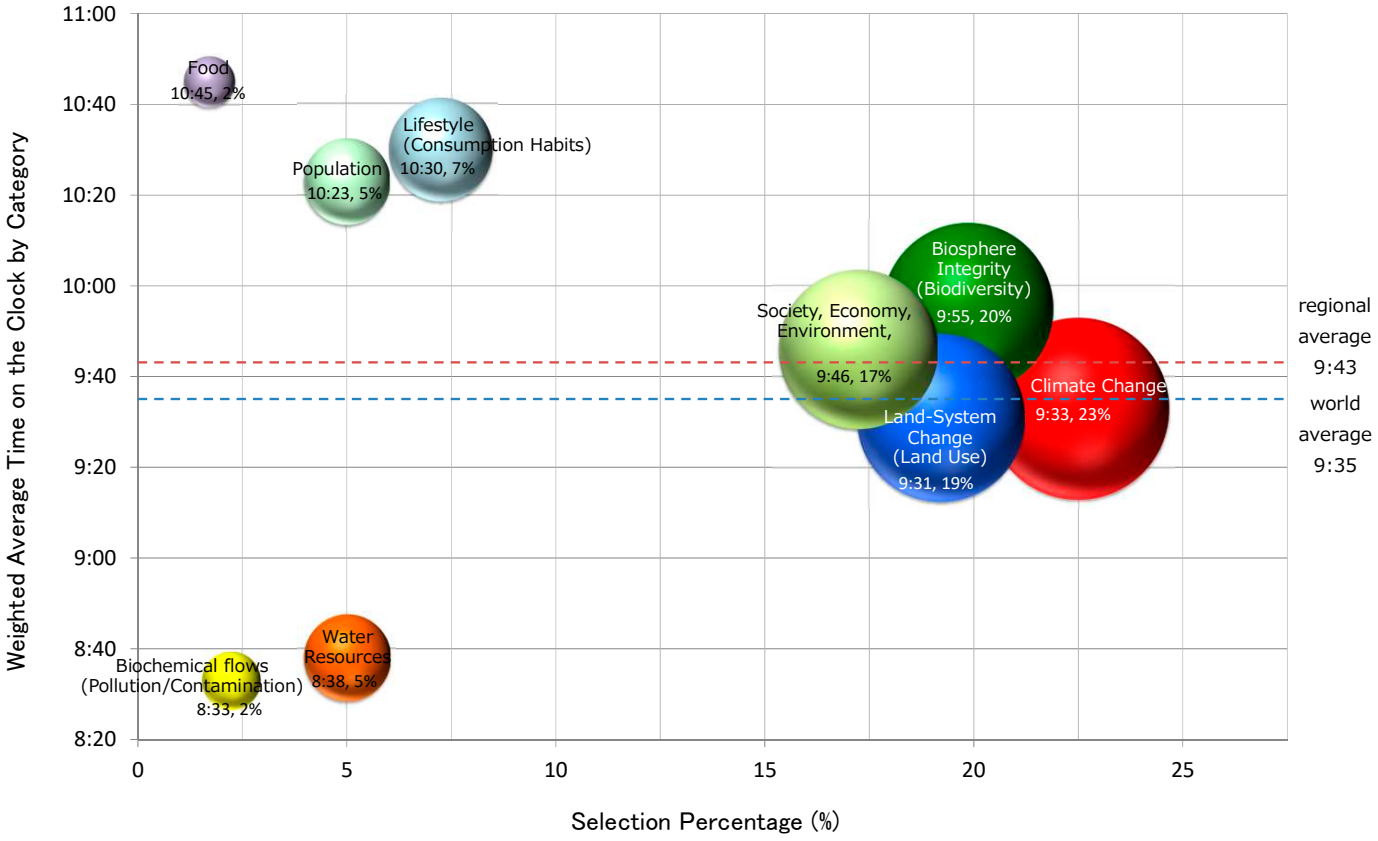


Fig. 11. South America

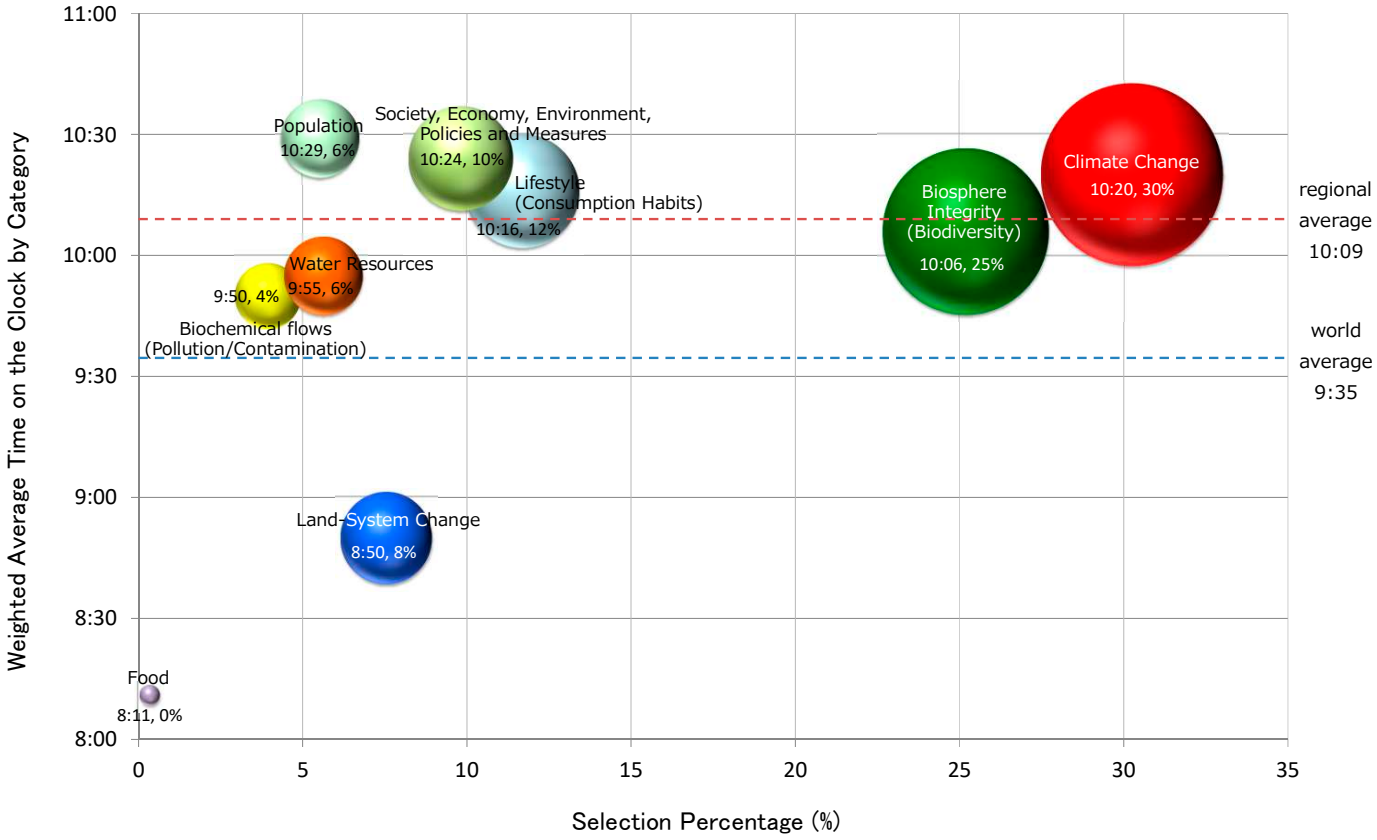


Fig. 12-1. Western Europe

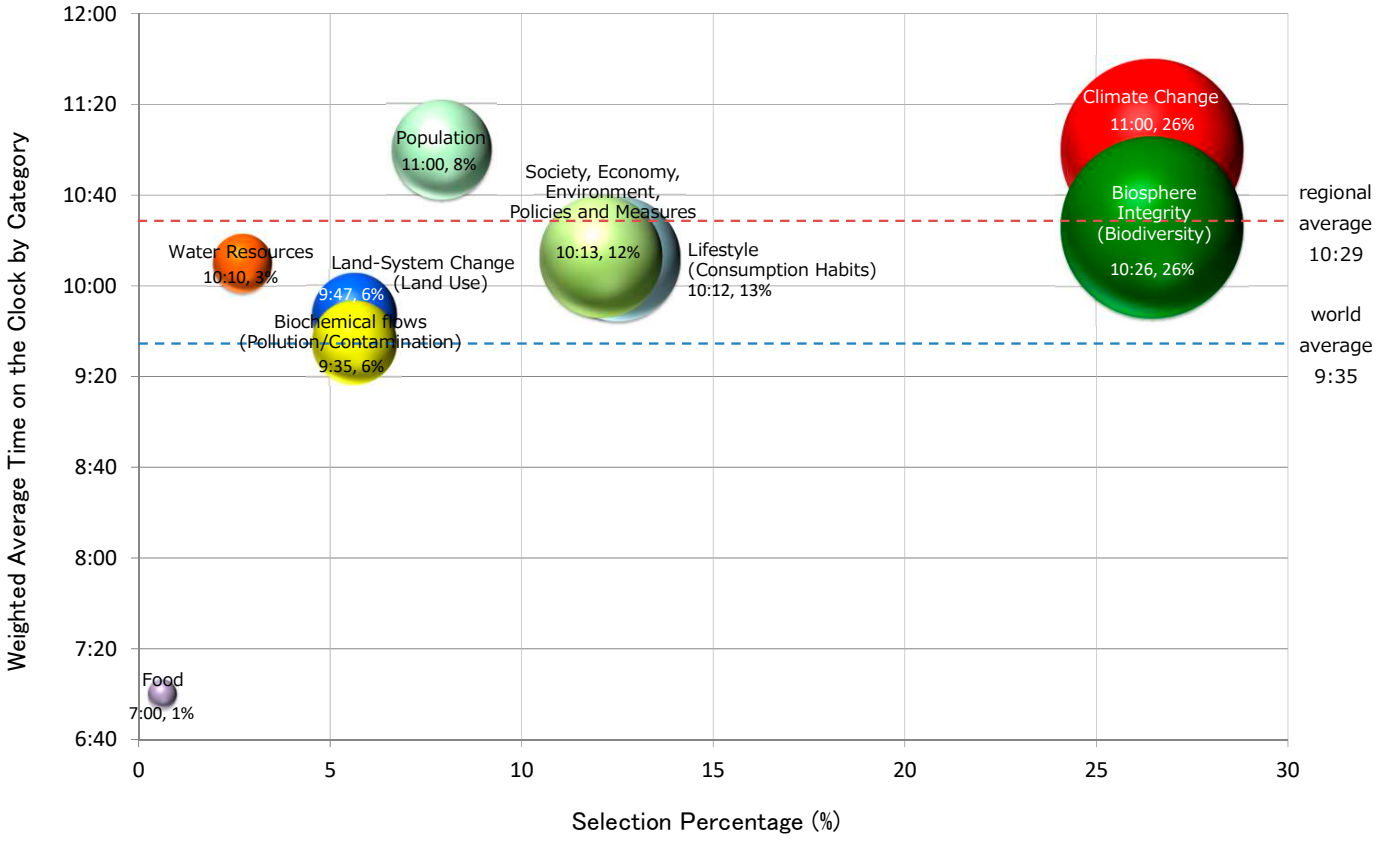


Fig. 12-2. UK

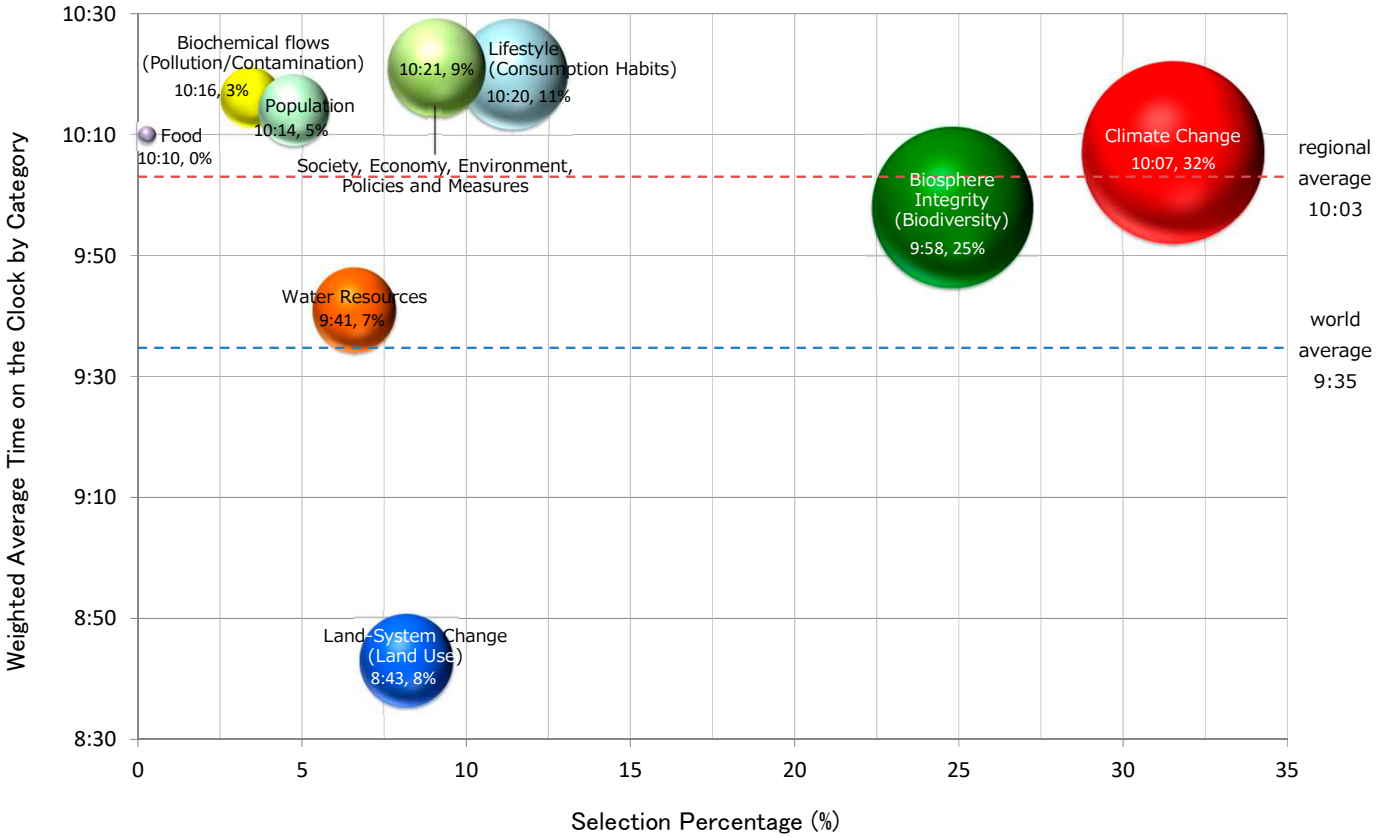


Fig. 12-3. Western Europe (excl. UK)

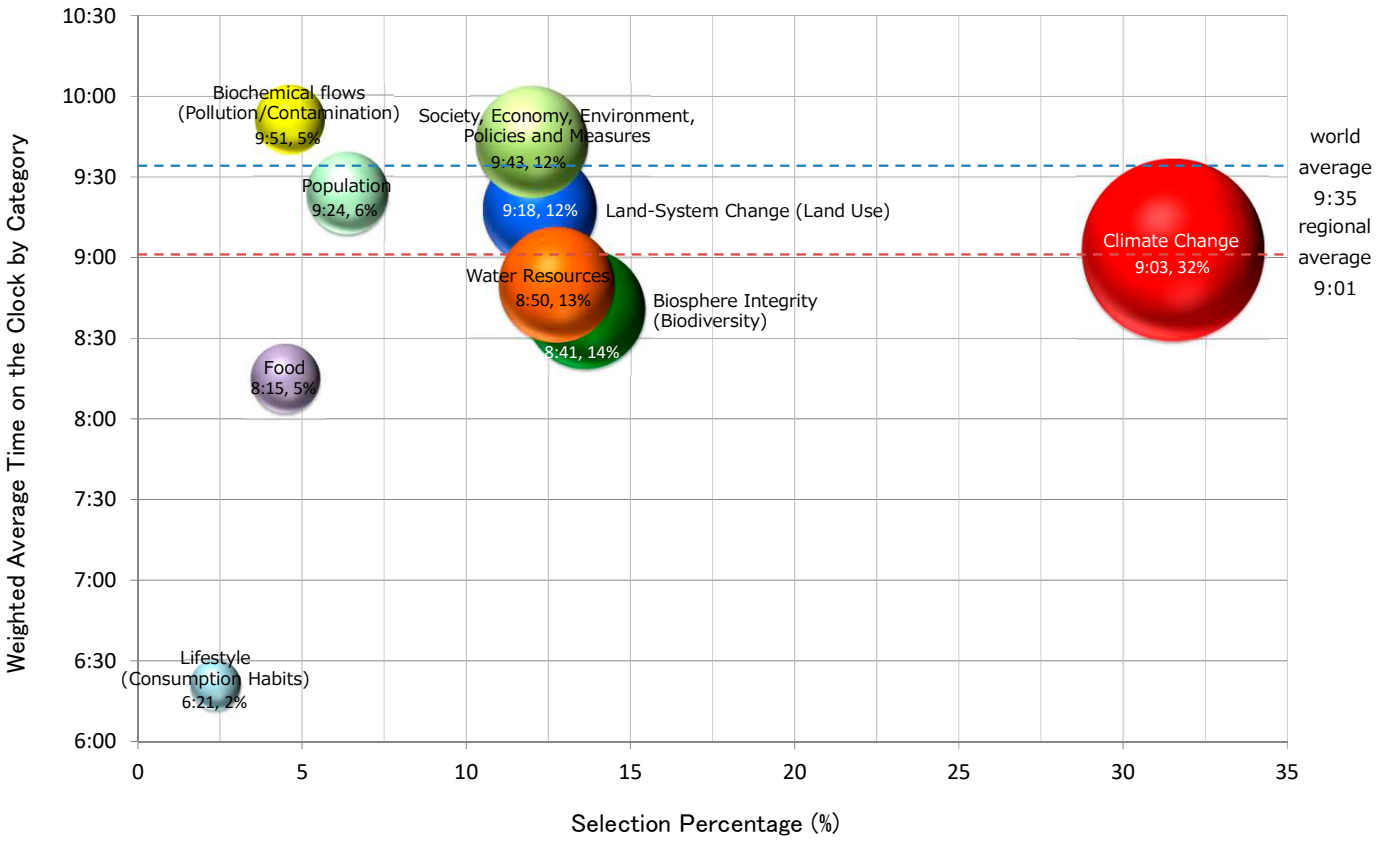


Fig. 13. Africa

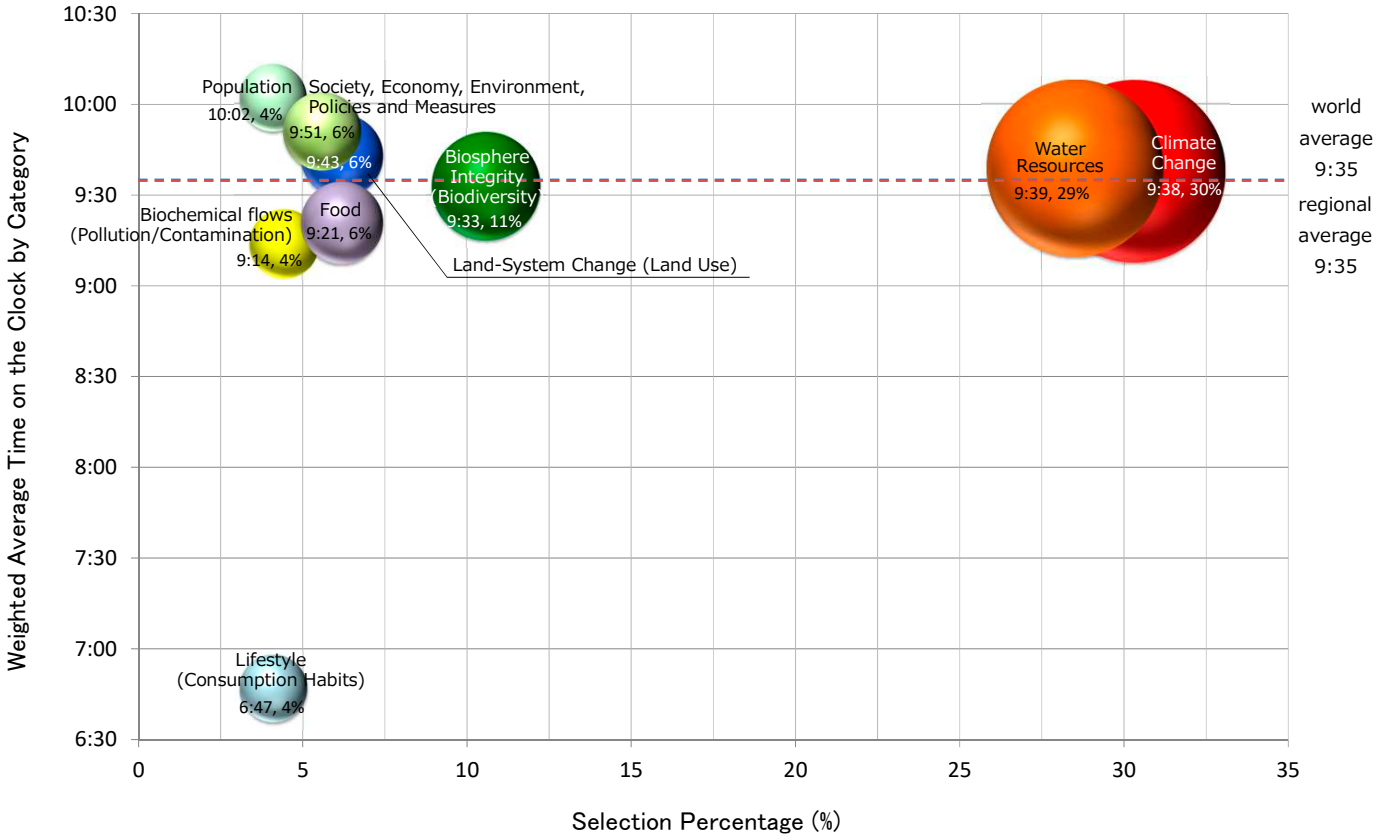


Fig. 14. Middle East

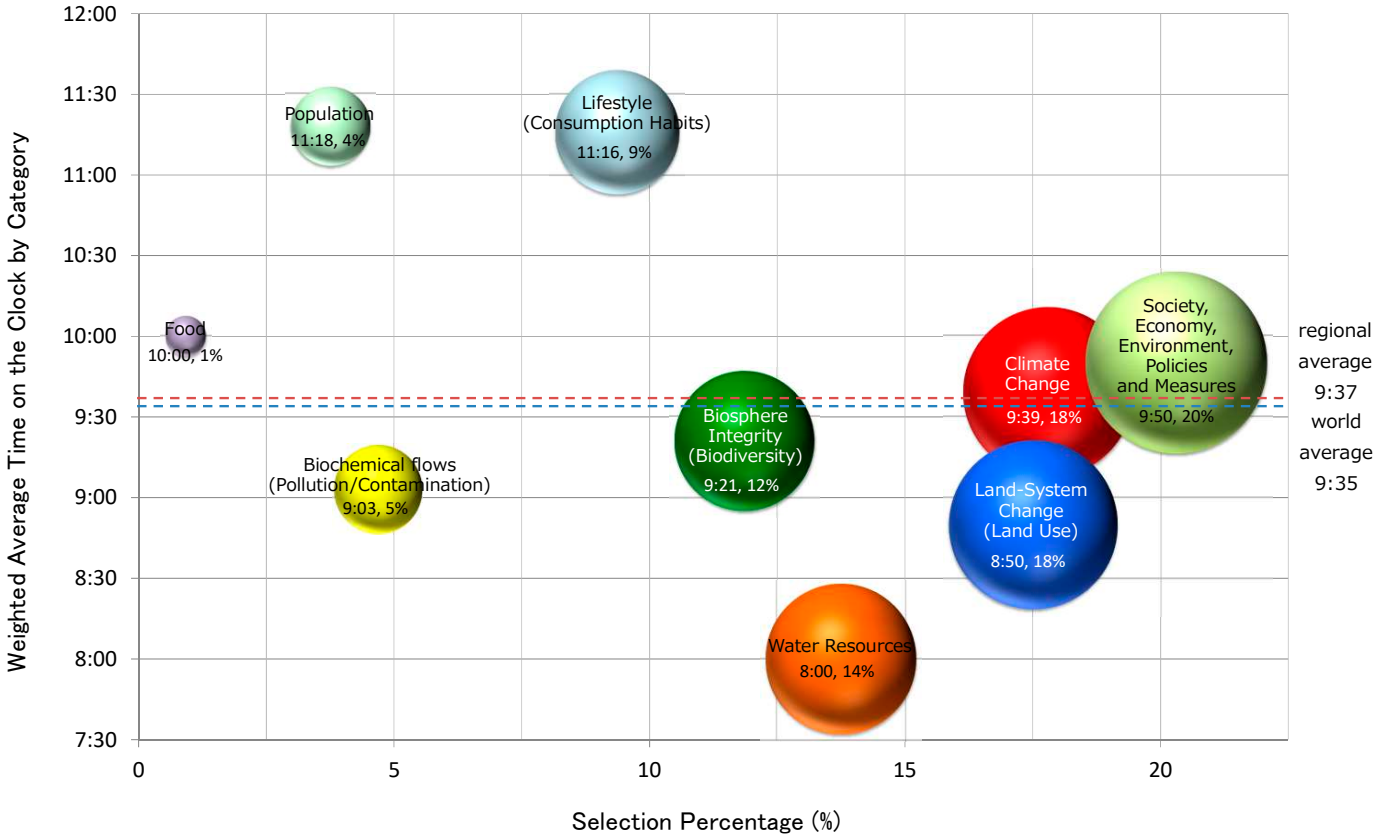


Fig. 15. Eastern Europe & former Soviet Union

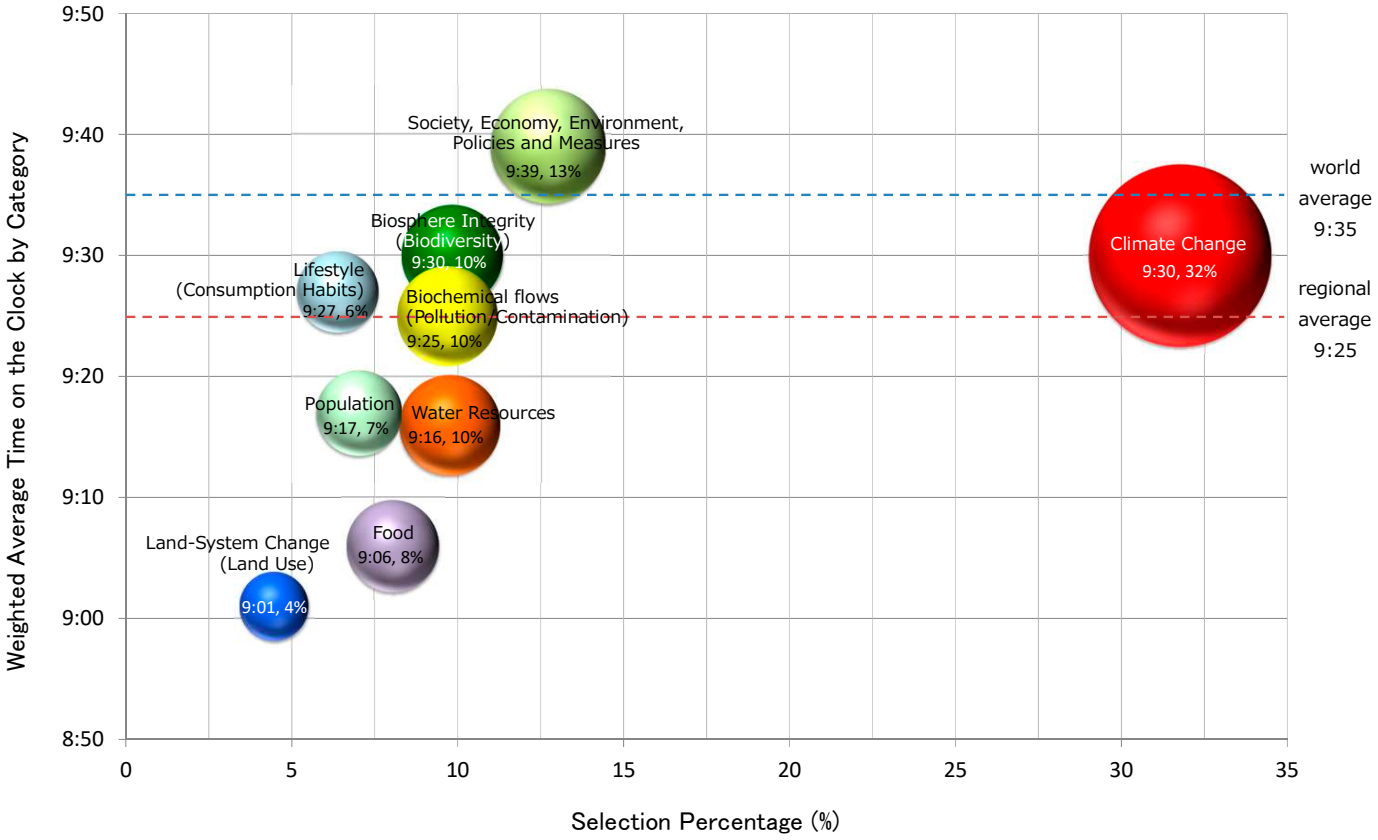


Fig. 16-1. Asia

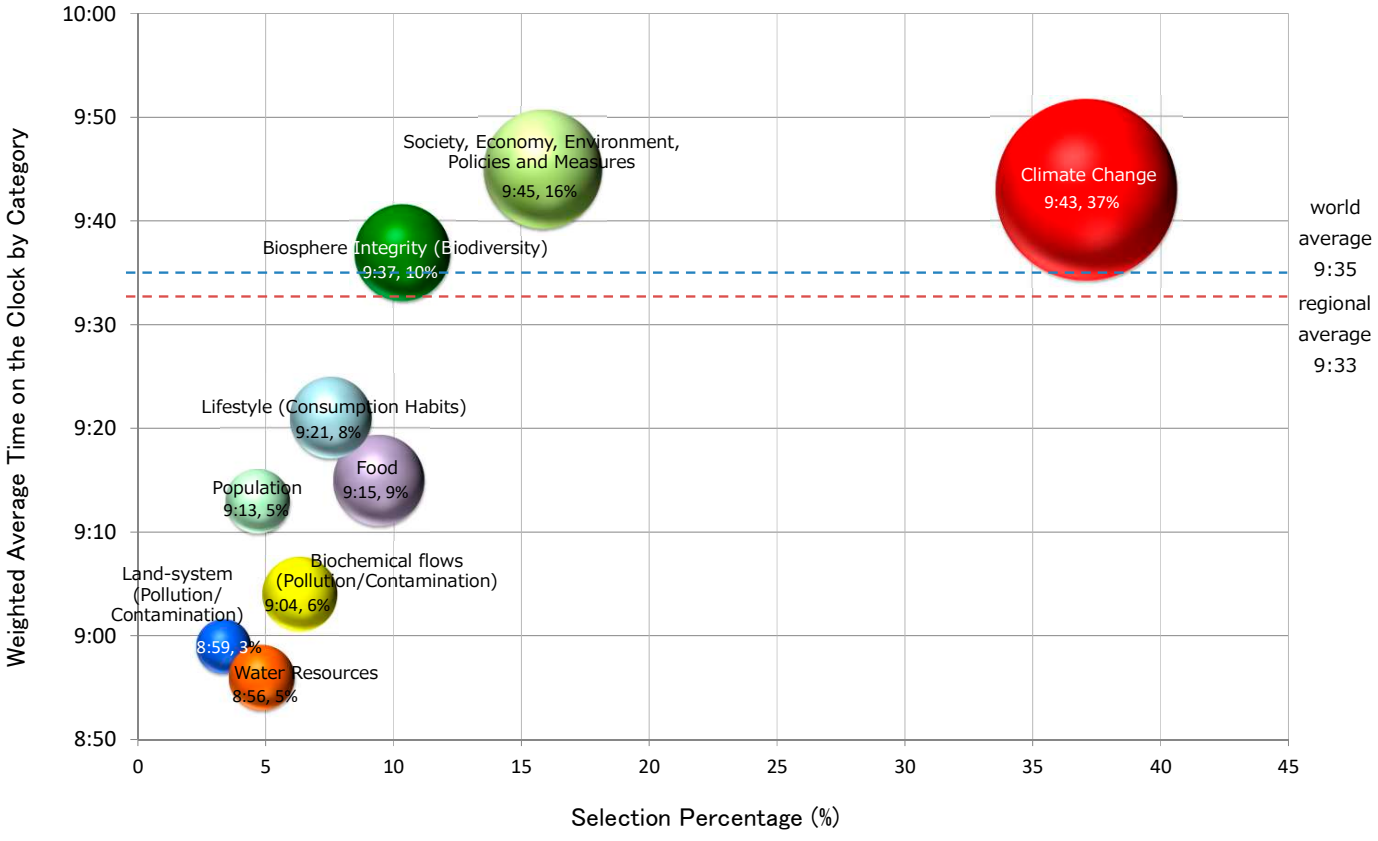


Fig. 16-2. Japan

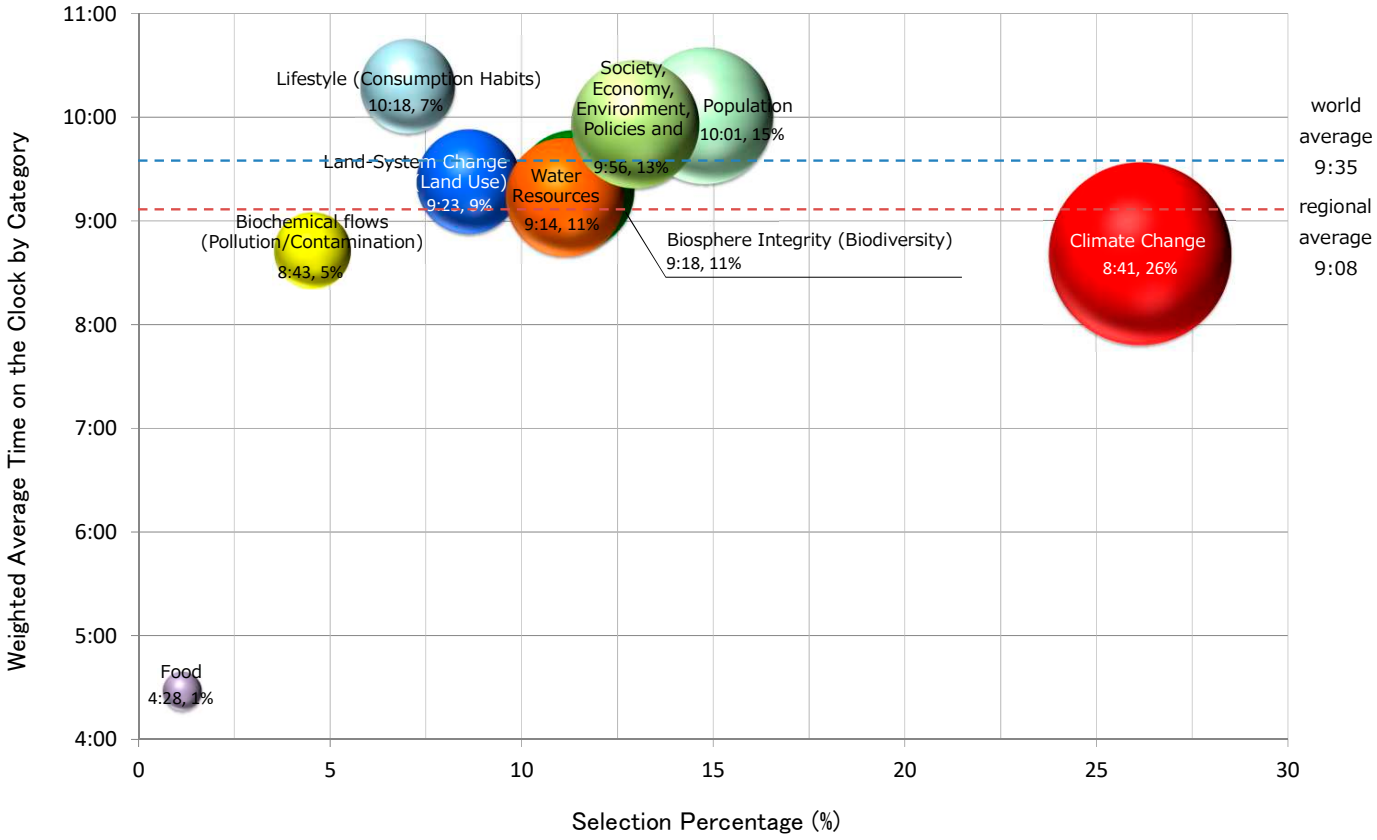


Fig. 16-3. India

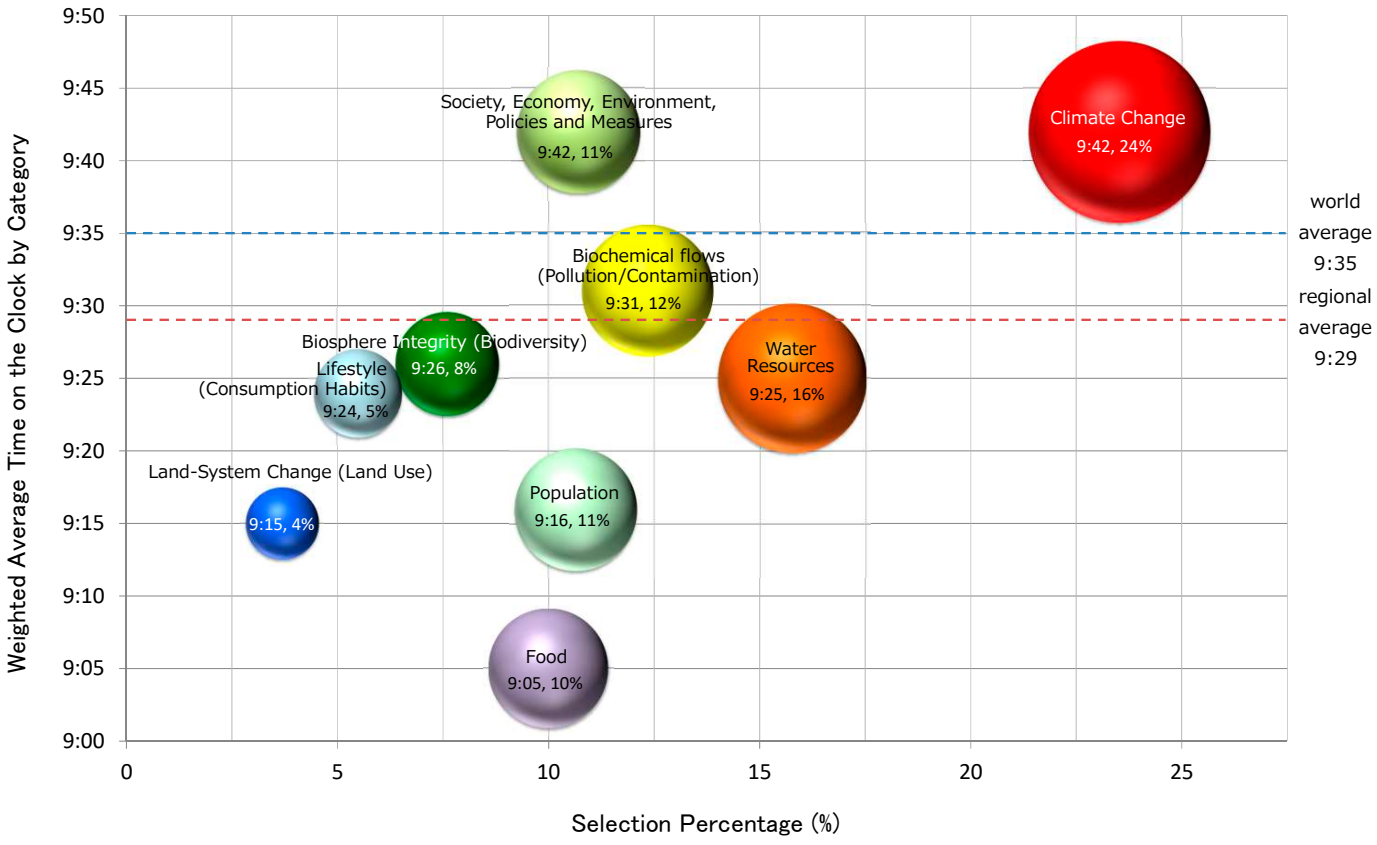


Fig. 16-4. China

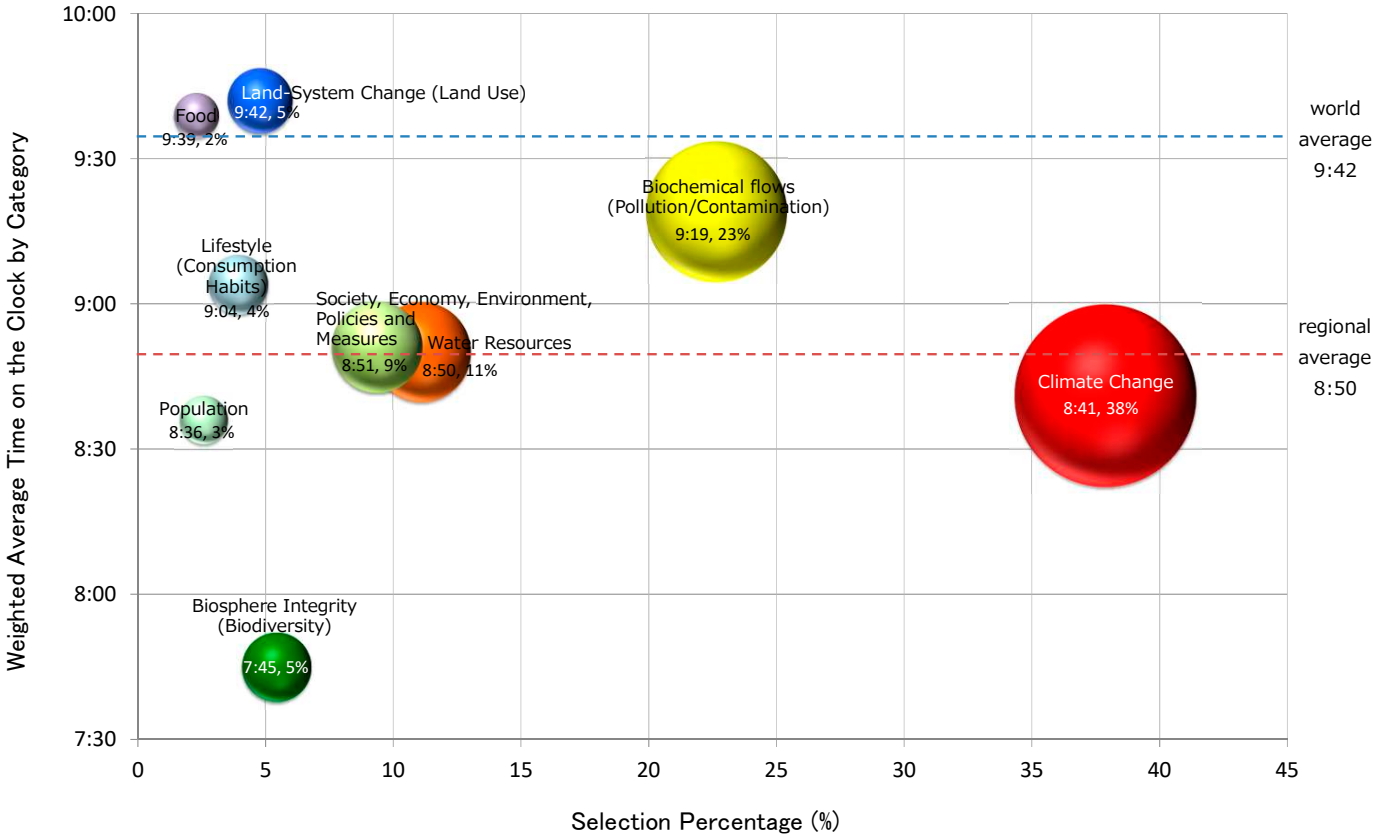


Fig. 16-5. Taiwan

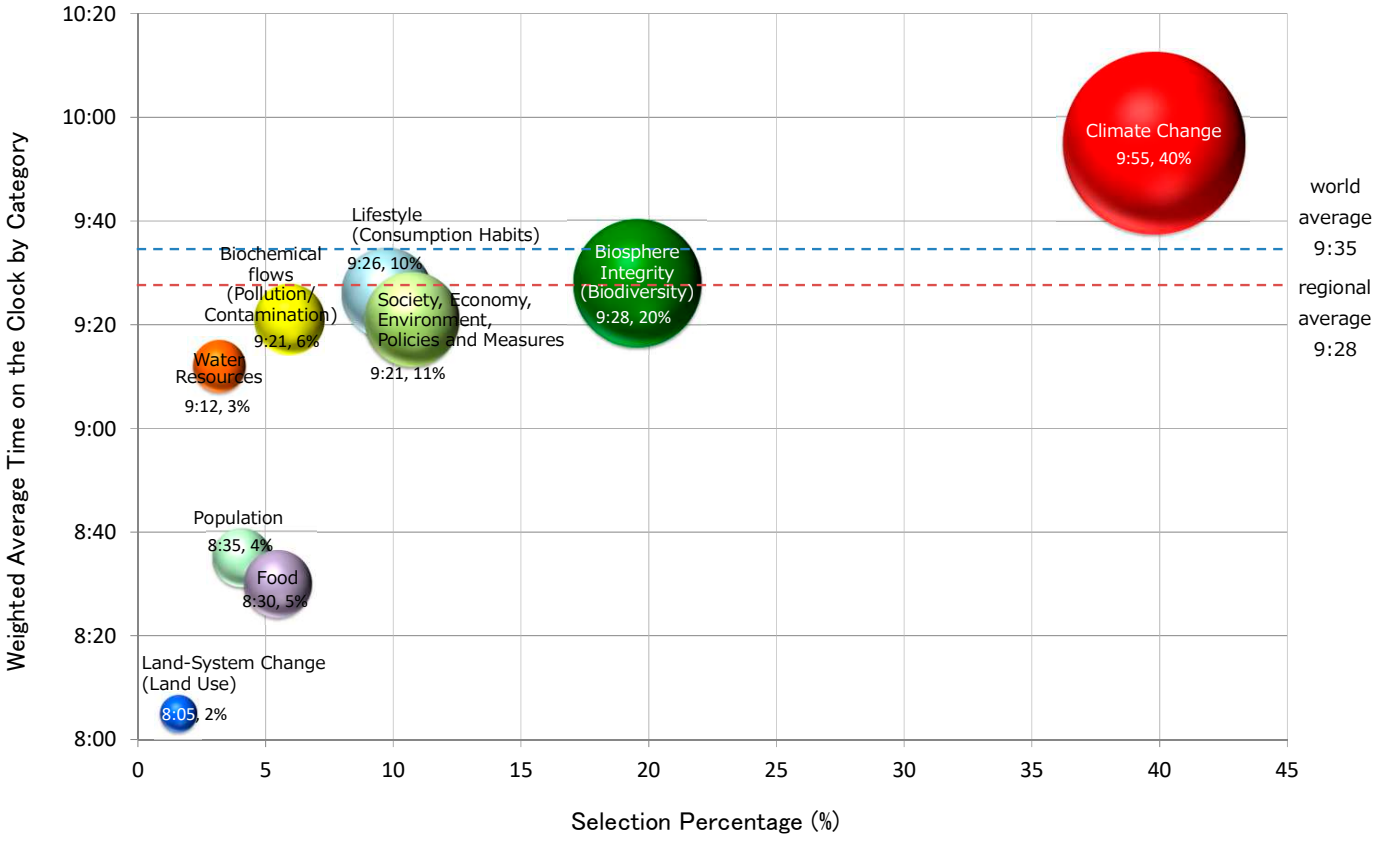


Fig. 16-6. Korea

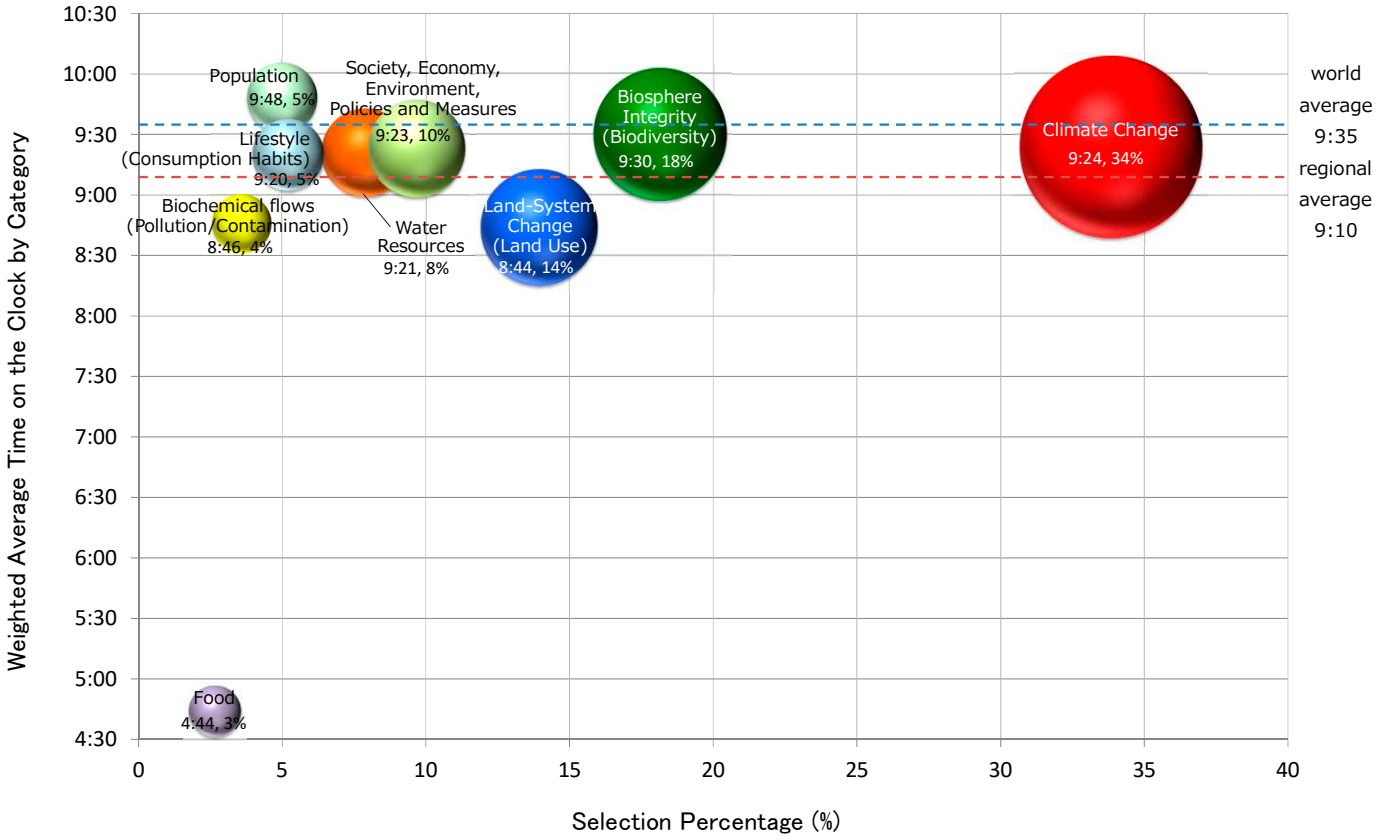


Fig. 16-7. Asia (excl. Japan, India, China, Taiwan, and Korea)

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

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.

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.

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

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: +0.81
- Policies and Legal System: +0.47
- Social Infrastructure (Funds, Human Resources, Technologies, and Facilities): +0.43

- 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."

- Table 8 shows that although many countries and regions had lower scores in all categories in 2022 than in 2021, only Japan, Korea, and the Middle East saw an increase in scores for three consecutive years, indicating that the respondents in the two countries and the region think that more progress has been made with respect to a decarbonized society.

- The scores for Public Awareness were generally considerably higher around the world than for Policies and Legal System, while in Asia there wasn't so much disparity between these two categories. In China and Taiwan though, over the past 3 years, the scores for Policies and Legal System were slightly higher than for Public Awareness. In particular, there was a big difference between the two viewpoints in Oceania, North America, and Western Europe. The results showed that progress in "Polices and Legal System" was significantly behind "Public Awareness." This trend has not changed for the past three years.

- 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. It can be said that this indicates that China's 14th Five-Year Plan (2021–2025) has been widely recognized by the public.

- For three consecutive years until last year, results from Korea showed that no progress had been made in any aspects. This year, however, the score for "Public Awareness" and "Policies and Legal System" turned to a positive number for the first time.

- In East Europe & former Soviet Union, the average score for "Social Infrastructure (Funds, Human Resources, Technologies, and Facilities)" decreased for three consecutive years from 2020 to 2022.

- 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 than other organizations did.

- By generation, the younger generation in their 20s and 30s, compared to other generations, considered 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.

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		
		2020	2021	2022	2020	2021	2022	2020	2021	2022
	World Average	0.61	0.75	0.81	0.29	0.49	0.47	0.36	0.45	0.43
Region	Oceania	1.00	1.27	1.26	0.00	0.27	0.26	0.53	0.49	0.43
	Austraia	1.00	1.36	1.43	-0.03	0.24	0.29	0.66	0.61	0.54
	North America	0.70	1.18	1.17	-0.32	0.26	0.13	0.20	0.56	0.47
	Canada	0.95	1.12	1.11	0.08	0.31	0.08	0.25	0.71	0.36
	USA	0.63	1.20	1.18	-0.43	0.24	0.14	0.18	0.51	0.50
	Mexico, Central America, & the Caribbean	0.28	0.46	0.43	0.11	0.11	-0.21	-0.01	-0.03	0.06
	South America	0.33	0.51	0.51	-0.18	-0.16	-0.16	0.06	0.09	0.04
	Western Europe	1.00	1.14	1.15	0.42	0.40	0.28	0.45	0.53	0.31
	UK	0.98	1.29	1.35	0.60	0.43	0.29	0.40	0.48	0.23
	Western Europe (excl. UK)	1.00	1.10	1.08	0.37	0.40	0.28	0.46	0.54	0.33
	Africa	0.41	0.54	0.45	0.31	0.16	0.39	0.40	-0.04	0.19
	Middle East	0.57	0.67	0.82	0.04	0.33	0.32	0.46	0.52	0.38
	Eastern Europe & former Soviet Unions	0.48	0.85	1.06	0.26	0.36	-0.03	0.50	0.13	-0.03
	Asia	0.57	0.64	0.74	0.46	0.68	0.65	0.41	0.52	0.51
	Japan	0.28	0.38	0.54	-0.16	0.25	0.28	0.06	0.20	0.23
	India	1.00	0.59	0.86	0.83	0.75	0.55	0.56	0.55	0.36
	China	0.87	1.02	1.10	1.07	1.27	1.18	0.84	0.97	1.01
	Taiwan	0.44	0.40	0.35	0.54	0.52	0.52	0.36	0.34	0.26
	Korea	-0.42	-0.03	0.30	-0.58	-0.17	0.07	-0.76	-0.40	-0.11
	Asia (excl. the above 5 nations)	0.61	0.88	0.73	0.29	0.67	0.50	0.30	0.70	0.28
Organi-zation	Central government	0.65	0.80	0.88	0.53	0.79	0.66	0.46	0.53	0.46
	Local government	0.51	0.61	0.63	0.47	0.56	0.50	0.29	0.39	0.50
	University/Research institution	0.54	0.67	0.74	0.14	0.38	0.29	0.22	0.34	0.28
	NGO/NPO	0.55	0.70	0.75	0.01	0.24	0.30	0.21	0.34	0.26
	Corporation	0.83	0.95	1.01	0.87	0.98	1.00	0.81	0.84	0.86
	Media	0.83	0.90	1.06	0.03	0.52	0.56	0.27	0.41	0.66
	Others	0.57	0.74	0.70	0.15	0.30	0.16	0.33	0.36	0.19
Gene-ration	20s, 30s	0.70	0.84	0.85	0.63	0.89	0.82	0.58	0.73	0.72
	40s, 50s	0.56	0.71	0.75	0.22	0.30	0.37	0.34	0.30	0.30
	60s and Over 60	0.55	0.68	0.82	-0.04	0.28	0.19	0.12	0.31	0.25

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

Question 2-2. Where do you see signs of improvement? Please choose one category from Table5, 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		
	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022
Signs of Improvement				1.12	1.15	1.07	0.71	0.80	0.72	0.71	0.69	0.64
Climate Change	27.3	27.7	30.0	1.28	1.33	1.28	0.59	0.81	0.75	0.75	0.72	0.71
Society, Economy and Environment, Policies,Measures	14.3	18.0	15.1	1.07	1.03	1.03	1.02	1.00	0.99	0.91	0.75	0.76
Lifestyle (Consumption Habits)	14.3	16.5	14.5	1.09	1.13	1.11	0.52	0.58	0.62	0.60	0.64	0.70
Biosphere Integrity (Biodiversity)	8.2	6.9	7.3	1.05	1.12	1.14	0.72	0.68	0.96	0.51	0.53	0.57
Biochemical Flows (Pollution/Contamination)	7.3	7.0	6.9	1.09	1.10	0.91	0.91	1.01	1.02	0.79	0.77	0.75
Water Resources	4.6	2.9	3.8	0.94	1.00	1.13	0.87	1.15	0.79	0.72	0.95	0.83
Population	2.6	2.8	3.1	0.96	0.66	0.93	0.50	0.40	0.72	0.42	0.43	0.62
Land-System Change (Land Use)	3.1	2.2	2.9	0.70	0.98	0.79	0.66	0.52	0.87	0.45	0.29	0.58
Food	2.2	1.8	1.9	1.33	1.23	0.83	0.85	0.71	0.36	0.90	0.80	0.69
No Sign of Improvement	16.1	14.1	14.6	-	-	-	-	-	-	-	-	-

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

- In 2022, the category most frequently selected for showing signs of improvement was "Climate Change" at 30.0%, showing a steadily increasing trend. This is followed by "Society, Economy and Environment, Policies, Measures" at 15.1%, and "Lifestyle (Consumption Habits)" at 14.5%; all have remained the same order since 2019. Of the respondents, 14.6 % selected the answer, "There are no improvements at all." The results (shown in Table 9) were quantified in the same manner as in Question 2-1.

- "Climate Change" was the most selected category in Question 1 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 Question 1 and whose time on the Clock is the closest to midnight of all the categories, it shows the fourth largest selectivity in terms of signs of improvement. In this category, the scores for signs of improvement have increased compared to last year in all the three aspects: "Public Awareness," "Policies and Legal System," and "Social Infrastructure (Funds, Human Resources, Technologies, and Facilities)."

Regarding the category "Climate Change," which was most frequently selected as a crucial environmental issue, the world's average scores and the average scores of each country/region with 15 or more samples are shown in Table 10.

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		
		2020	2021	2022	2020	2021	2022	2020	2021	2022
	World Average	1.28	1.33	1.28	0.59	0.81	0.75	0.75	0.72	0.71
Region	Oceania	1.45	1.56	1.79	0.60	0.63	0.58	0.70	0.50	0.63
	Australia	1.60	-	1.85	0.40	-	0.45	0.80	-	0.60
	North America	1.49	1.66	1.58	0.27	0.79	0.66	0.76	0.85	0.92
	Canada	1.47	1.70	1.65	0.24	0.83	0.95	0.59	0.83	0.90
	USA	1.49	1.64	1.56	0.28	0.77	0.56	0.80	0.86	0.93
	Mexico, Central America, & the Caribbean	1.19	1.29	0.76	0.40	0.47	0.47	0.48	0.71	0.41
	South America		1.26	1.25		0.52	0.17		0.52	0.58
	Western Europe	1.64	1.72	1.62	0.85	0.96	0.78	0.92	0.94	0.85
	UK	1.67	1.80	1.78	1.04	1.00	0.91	1.07	0.95	0.91
	Western Europe (excl. UK)	1.63	1.69	1.56	0.77	0.95	0.73	0.86	0.93	0.83
	Africa	0.95	1.33	0.96	0.62	0.75	1.11	0.52	0.22	0.52
	Asia	1.06	1.04	1.08	0.58	0.86	0.81	0.75	0.71	0.67
	Japan	0.97	0.87	0.96	0.15	0.61	0.62	0.50	0.60	0.58
	China	1.02	1.22	1.16	1.16	1.38	1.20	1.04	1.12	1.09
	Asia (excl. the above 5 nations)	1.38	1.45	1.46	0.65	1.03	0.92	1.27	0.74	0.69
Organi-zation	Central government	1.17	1.38	1.31	0.70	0.95	1.15	0.83	0.75	1.08
	Local government	1.11	1.15	0.87	0.85	0.69	0.87	0.70	0.50	0.78
	University/Research institution	1.32	1.30	1.28	0.64	0.81	0.63	0.78	0.75	0.70
	NGO/NPO	1.33	1.38	1.30	0.37	0.78	0.87	0.75	0.74	0.66
	Corporation	1.23	1.28	1.35	0.95	1.05	0.91	1.02	0.83	0.91
	Others	1.25	1.38	1.33	0.46	0.68	0.56	0.53	0.66	0.59
Gene-ration	20s, 30s	1.19	1.28	1.20	0.84	0.89	0.91	0.87	0.79	0.84
	40s, 50s	1.31	1.34	1.30	0.59	0.82	0.67	0.82	0.68	0.59
	60s and Over 60	1.31	1.36	1.32	0.39	0.73	0.71	0.60	0.72	0.75

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

- The world's average score for "Public Awareness" in 2022 is +1.28, back to the same level as in 2020. In 2022, as in the last year, Oceania, North America, and Western Europe show very high scores of over +1.5 for "Public Awareness."

- The world's average score for "Policies and Legal System" is +0.75 in 2022, but China's score of +1.20 far exceeds the scores of others.

- The world's average score for "Social Infrastructure (Funds, Human Resources, Technologies, and Facilities)" is +0.71 in 2022. Scores for China, North America, and Western Europe are higher than the average while scores for Oceania, Mexico, Central America & The Caribbean, South America, and Africa tended to be lower.

- Canada has shown signs of improvement in "Policies and Legal System" for three consecutive years from 2020 to 2022.

*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 in respondents' world view 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 (Respondents' World View) 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, Inovation 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	18. There are no goals with the highest level of realization in 2030
Average	6	11	12	15	17	16	21	11	26	8	14	13	23	3	4	5	19	22
Oceania	0	7	7	7	22	20	28	11	39	9	2	4	17	2	7	2	30	28
Australia	0	6	9	9	29	26	29	14	46	9	3	3	17	0	6	3	31	20
Oceania (except Australia)	0	9	0	0	0	0	27	0	18	9	0	9	18	9	9	0	27	55
North America	4	3	5	14	21	14	27	12	32	11	10	7	26	2	4	4	32	24
Canada	3	3	0	8	25	14	28	8	33	6	22	8	28	3	8	8	36	19
USA	5	3	7	16	20	14	27	13	32	13	7	7	25	2	3	3	31	25
Mexico, Central America, & the Caribbean	0	4	21	11	28	11	21	2	23	4	6	11	30	0	13	0	38	26
South America	1	3	9	7	32	4	22	3	26	3	8	8	28	3	7	4	36	33
Western Europe	5	6	7	12	18	8	22	6	27	8	15	6	28	1	4	5	32	30
UK	6	4	6	6	23	6	15	6	27	6	25	6	31	0	2	0	35	31
W. Europe (except UK)	4	6	8	14	17	9	24	6	26	9	12	6	26	1	4	6	31	30
Africa	4	8	8	15	29	19	11	5	18	10	8	8	34	5	4	10	29	26
Middle East	9	9	18	24	24	24	29	6	29	12	12	15	38	6	6	15	26	0
Eastern Europe & former Soviet Unions	9	9	19	22	9	6	22	3	16	3	9	28	28	3	6	13	19	25
Asia	8	14	14	15	14	18	20	14	25	7	16	16	21	4	4	5	13	19
Japan	5	10	4	12	15	13	13	8	25	3	15	18	14	3	2	3	11	42
India	7	14	16	18	23	16	36	11	32	5	11	16	25	5	5	11	23	9
China	11	23	18	16	11	25	27	14	27	13	18	11	24	4	4	5	8	0
Taiwan	6	6	27	16	17	17	23	39	21	6	19	27	28	9	4	8	24	1
Korea	2	14	36	36	16	14	20	16	30	9	9	25	23	0	2	9	20	2
Asia (excl. the above 5 nations)	10	8	21	26	17	14	12	10	19	8	14	3	30	3	9	8	20	22

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

- In respondents' world view, "9. Industry, Innovation, and Infrastructure" and "13. Climate Action" were selected by respondents in many countries as the top two goals that will have the highest level of realization in 2030, followed by "7. Affordable and Clean Energy."

- In Asian countries, "17. Partnerships for the Goals" was rarely selected; in contrast, this was a popular choice among other regions.

- In Korea and also in developing countries in Asia, "3. Good Health and Well-being" and "4. Quality Education" were commonly selected.

Table 12 (Respondents' World View) 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, Inovation 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	18. There are no goals with the lowest level of realization in 2030
Average	54	36	13	8	14	9	9	8	3	31	6	11	18	13	10	32	5	4
Oceania	52	37	11	2	17	11	11	7	0	28	9	20	30	13	17	20	2	4
Australia	54	43	9	0	23	9	14	6	0	29	6	23	29	11	20	26	0	0
Oceania (except Australia)	45	18	18	9	0	18	0	9	0	27	18	9	36	18	9	0	9	18
North America	63	47	10	3	11	9	4	6	1	31	4	18	23	15	12	31	1	4
Canada	78	44	6	3	11	8	3	3	0	36	0	19	28	11	14	28	0	3
USA	59	48	11	3	11	9	5	8	1	30	5	18	22	16	11	32	1	4
Mexico, Central America, & the Caribbean	70	55	17	4	6	11	6	15	2	26	4	6	21	15	6	19	2	4
South America	64	50	7	8	9	11	4	16	1	30	8	12	21	11	9	29	3	3
Western Europe	51	41	7	4	9	6	7	2	2	29	5	22	21	24	19	30	3	6
UK	48	35	6	4	2	4	10	0	2	29	8	27	19	33	19	33	0	6
W. Europe (except UK)	51	43	8	3	11	7	6	2	1	29	4	20	22	21	19	29	4	6
Africa	55	50	16	4	8	10	14	8	3	23	8	11	13	6	11	26	3	11
Middle East	53	32	12	6	15	12	0	12	9	29	15	6	12	12	9	41	0	9
Eastern Europe & former Soviet Unions	47	41	22	6	22	3	16	3	3	25	6	19	9	6	3	31	9	9
Asia	52	31	14	11	16	9	10	8	4	32	6	8	17	12	8	34	6	2
Japan	59	35	19	11	11	6	14	6	1	38	2	2	20	11	6	50	3	2
India	41	43	14	5	23	11	11	9	7	20	9	14	11	23	11	18	9	7
China	43	29	12	14	22	8	7	11	7	26	10	13	14	10	8	23	6	0
Taiwan	72	32	10	3	18	24	12	3	1	40	3	4	17	13	14	16	16	1
Korea	59	32	5	2	11	7	2	11	9	36	11	18	27	18	0	34	9	0
Asia (excl. the above 5 nations)	34	21	7	9	8	10	10	12	5	28	7	16	20	21	17	26	7	14

■: 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 "16. Peace, Justice and Strong Institutions." This is an indication that many people around the world believe these goals are difficult to achieve.

- Many respondents in Japan, Korea, Western Europe, the United States, Africa, the Middle East, and Eastern Europe & former Soviet Union 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, Inovation 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	18. There are no goals with the highest level of realization in 2030
Average	10	24	20	26	17	29	16	11	21	7	16	10	15	4	5	7	10	14
Oceania	0	17	33	15	24	28	24	28	24	9	11	4	13	9	2	13	7	13
Australia	0	14	37	17	26	31	26	37	31	11	11	0	9	9	0	14	9	6
Oceania (except Australia)	0	27	18	9	18	18	18	0	0	0	9	18	27	9	9	9	0	36
North America	3	4	12	26	26	22	30	24	35	10	10	6	19	3	3	6	19	14
Canada	6	3	25	25	39	28	19	22	25	11	22	6	14	6	11	17	14	3
USA	2	5	8	27	23	20	33	24	38	9	7	6	20	3	1	3	20	18
Mexico, Central America, & the Caribbean	0	15	2	9	23	19	15	2	19	2	2	6	28	4	21	0	30	34
South America	1	4	4	9	34	7	11	3	14	5	7	7	21	4	8	5	22	45
Western Europe	7	22	23	22	27	23	19	9	19	5	13	6	20	1	4	9	11	20
UK	4	8	17	13	27	19	15	8	23	8	15	2	23	0	8	4	13	31
W. Europe (except UK)	8	26	26	26	26	25	21	9	17	4	13	7	19	1	3	10	11	16
Africa	6	15	8	16	26	20	13	14	5	9	8	6	23	4	8	9	23	30
Middle East	9	9	21	18	12	44	21	0	24	6	9	9	32	6	3	6	12	21
Eastern Europe & former Soviet Unions	9	16	16	22	22	28	3	16	25	9	16	13	9	3	9	13	6	22
Asia	13	30	22	29	12	33	14	10	21	7	20	12	13	4	4	7	6	9
Japan	8	38	19	37	8	48	10	3	17	2	23	13	7	2	2	8	5	16
India	7	9	16	25	14	16	20	11	36	14	14	11	20	2	5	7	18	18
China	20	31	17	18	11	23	20	14	24	11	22	12	17	4	3	9	5	0
Taiwan	6	10	53	39	35	27	16	28	20	6	9	13	8	7	12	2	5	1
Korea	16	11	39	45	9	39	0	9	27	11	11	9	11	2	2	9	9	2
Asia (excl. the above 5 nations)	19	22	20	22	17	10	7	13	21	7	9	3	27	7	12	6	12	22

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

- In many countries and regions, "2. Zero Hunger," "4. Quality Education," and "6. Clean Water and Sanitation" were selected, on average, as goals that will have the highest level of realization in 2030.

- In 2021, "9. Industry, Innovation an Infrastructure" was selected in major Asian countries as the goal that will have the highest level of realization in 2030. Instead, in 2022, the number of countries that selected "2. No Hunger" increased.

- "13. Climate Action" was selected in most countries as a goal that will have the highest level of realization globally in 2030, but a very limited number of people think this goal will have the highest level of realization in their own country.

- On average, "4. Quality Education" was not selected in the top three highest level of realization in 2030, but in the respondents' own country or region, many people think this is one of the goals that will have a high level of realization in 2030, and it ranked 2nd in the top 3 goals.

- In most regions except Asia, "17. Partnerships for the Goals" was selected as a goal that will have the highest level of realization globally 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, Inovation 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	18. There are no goals with the lowest level of realization in 2030
Average	34	13	12	12	24	9	13	18	7	31	13	20	23	22	15	18	7	7
Oceania	30	4	11	0	11	2	7	11	4	33	28	37	41	24	20	9	2	9
Australia	31	6	9	0	6	0	6	9	3	34	29	46	46	26	23	9	3	6
Oceania (except Australia)	27	0	18	0	27	9	9	18	9	27	27	9	27	18	9	9	0	18
North America	42	21	10	4	3	6	8	4	3	32	14	45	37	17	13	21	6	5
Canada	25	11	3	0	0	3	19	0	0	31	25	58	47	25	19	8	8	6
USA	47	23	12	5	3	8	5	6	3	33	11	41	34	14	12	24	5	5
Mexico, Central America, & the Caribbean	55	34	17	17	9	9	11	17	2	32	6	11	15	15	11	15	6	6
South America	62	24	18	24	7	11	5	17	1	29	13	9	14	5	12	25	4	7
Western Europe	30	6	8	4	9	4	21	11	5	31	14	39	24	26	27	12	6	8
UK	31	8	19	6	4	2	23	8	0	31	17	35	25	21	19	15	4	10
W. Europe (except UK)	30	6	5	3	11	4	21	13	6	31	13	40	24	27	29	11	6	7
Africa	55	39	15	26	8	6	15	13	9	16	16	13	10	9	6	16	3	9
Middle East	35	9	6	18	24	9	24	12	3	35	3	26	12	18	3	38	0	9
Eastern Europe & former Soviet Unions	19	9	19	22	16	3	9	13	6	38	13	25	22	3	6	22	9	16
Asia	26	9	11	12	29	8	19	22	9	24	11	15	27	20	13	15	7	3
Japan	25	1	12	9	45	1	30	32	9	22	8	11	35	18	11	14	5	4
India	39	25	11	9	20	20	5	7	5	16	16	16	20	23	7	25	9	9
China	26	14	12	17	20	11	13	17	11	23	11	19	18	18	16	9	8	0
Taiwan	34	13	6	9	8	21	17	3	5	26	15	6	31	41	9	38	13	1
Korea	18	11	0	5	39	0	2	23	9	48	9	23	39	18	2	20	2	0
Asia (excl. the above 5 nations)	23	13	9	6	13	6	9	15	6	28	16	21	17	19	21	23	6	16

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

- In the respondents' own country or region, "1. No Poverty," "10. Reduced Inequalities" and "13. Climate Action" were most commonly selected as goals that will have the lowest level of realization in 2030. The first two goals were also most commonly considered to have the lowest level of realization on average, indicating that these are common major challenges worldwide.

- Looking at the world, as shown in Table 12, respondents in most countries selected "2. Zero Hunger" as the goal that will have the lowest level of realization in 2030. In the respondents' own country or region, however, respondents in India, Mexico, Central America and the Caribbean, and Africa selected the same goal for their own country, indicating that "2. Zero Hunger" is a major challenge for these regions.

- In Japan, China, and Korea, the number of respondents selecting "5. Gender Equality" over other issues in their own country as a goal difficult to achieve, was particularly pronounced.
- In the respondents' own country or region, "12. Responsible Consumption and Production" and "13. Climate Action" were selected by a large number of countries as goals that will have the lowest level of realization in 2030. On average, however, more people think that "1. No Poverty," "2. Zero Hunger," and "16. Peace, Justice and Strong Institutions" are the goals that will have the lower level of realization in 2030.

IV. Closing Comment

In 2021, the time on the Environmental Doomsday Clock for the world was 9:42, five minutes earlier than in 2020. In 2022, the clock was turned back by seven more minutes to 9:35, which is mainly due to the fact that the time on the Clock in China moved back by 38 minutes. In China, there were many respondents to this survey, nearly 90% of whom are in their 20s and 30s. Younger generations in the country seem to consider that environmental issues in China have improved due to the environmental measures taken by the Chinese government.

With regard to "Environmental Issues to be Taken into Account," which are used to decide the time on the Clock, an overwhelming 32% of the respondents selected "Climate Change." The selection percentage for this category has been on the rise since 2013, indicating that climate change is considered an issue of urgency.

As in the previous year, the survey asked the respondents if they saw any signs of improvement in comparison with the situation 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 2020.

With regard to the transition to a decarbonized society in Question 2-1, the world's average score improved in "Public Awareness" while somewhat lower scores than last year were reported in "Policies and Legal System" and "Social Infrastructure (Funds, Human Resources, Technologies, and Facilities).

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 30.0%, "Society, Economy and Environment, Policies, Measures" at 15.1%, and "Lifestyle (Consumption Habits)" at 14.5%. The selection percentage for "Climate Change" was the highest in the past three years, indicating a strong public interest in the "Climate Change" issue and the efforts to improve it.

This year, as last year, we asked 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 "2. Zero Hunger" as goals that will have the lowest level of realization. In 2021, "10. Reduced Inequalities" was selected as the third goal that will have the lowest level of realization; in 2022, however, it was replaced by "16. Peace, Justice and Strong Institutions," reflecting the current situation in the region where a war is going on.

This year as well, 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 2021 – March 2022)

Month/Year	World Event
Apr 2021	・Heavy rains due to a tropical depression caused a total of more than 260 deaths in Indonesia and Timor-Leste. (EM-DAT) ・US President Joe Biden convened the Leaders' Summit on Climate, in which more than 40 world leaders—representatives of central and local governments, organizations, and companies—participated to discuss efforts to reduce greenhouse gases.
May	・On May 22nd, Mount Nyiragongo in eastern Congo (former Zaire) erupted, causing more than 30 deaths.
Jun	・Record high temperatures continued to sweep the southwestern part of the US from around June 11th. The highest ever temperature in Salt Lake City, Utah reached 41.7 °C on June 15th, 47.8 °C in Phoenix, Arizona on June 17th, and 46.7 °C in Portland, Oregon on June 28th. (US National Oceanic and Atmospheric Administration) ・On June 23rd, the temperature in Moscow reached 34.8 °C, and on June 22nd, 36.5 °C in the east Russian city of Vilyuisk. ・On June 29th, the temperature in Lytton in western Canada reached 49.6 °C, the highest temperature ever recorded in the country. (Meteorological Service of Canada) ・Brazil suffered a water shortage for the first time in 100 years. This year, frost and low rainfall caused severe damage to coffee and corn crops.
Jul	・Massive floods caused by heavy rains in Germany and Belgium killed more than 200 people. ・In July, massive wildfires broke out in more than 100 locations in the southern islands of Sicily and Sardinia, in Italy, destroying tens of thousands of hectares of forests and olive farms. ・On July 20th, the highest temperature in the southeastern town of Cizre, Turkey reached 49.1 °C, the highest ever recorded in the country. (Turkish State Meteorological Service) ・In Hebei Province, China, the heaviest rainfall on record left many industrial plants temporarily unable to operate. In central China, torrential rains in mid-to-late July reportedly caused more than 300 deaths. (Chinese government) In Zhengzhou, Henan Province, precipitation in July reached 900 mm, 641% of the average for the month.
Aug	・On August 11th, the city of Floridia in the south of Sicily (Italy) recorded a high temperature of 48.8 °C. Major newspapers reported that it was the highest temperature in European history although it has not been officially confirmed yet. ・In the United States, Hurricane Ida, later downgraded to a tropical storm, caused a massive blackout that hit one million households. In the states of New York and New Jersey, a state of emergency was declared due to record heavy rainfall. Ida caused a great deal of damage, including floodwater's gushing into Manhattan subway stations, and severe flooding in Newark Airport. It also caused the death of more than 40 people. ・A magnitude 7.2 earthquake that hit the Caribbean country of Heiti on August 14th killed more than 2,000 people. ・In Makassar, in the island of Sulawesi, Indonesia, precipitation in August reached 133 mm, 689% of the average for the month.
Sep	・In China, the amount of precipitation in September was the third highest since 1961. (China Meteorological Administration) ・In the city of Jambi, in the island of Sumatra, Indonesia, precipitation in September reached 343 mm, 270% of the average for the month.
Oct	・The City of Davao, in the south of the Philippines (home town of President Rodrigo Duterte), suffered flood damage, forcing 850 households to evacuate.
Nov	・In and around South Asia, a total of more than 2,200 people were reported to have died as a result of heavy rains from May to November. (National governments, EM-DAT)
Dec	・From December 16th, Typhoon Rai (Odette) moved across the central and southern parts of the Philippines, reportedly causing more than 400 deaths. (Philippine government) ・On December 10th, tornadoes severely damaged the area around Kentucky (US), destroying a candle factory and killing more than 100 people. ・On December 26th, northern Canada recorded a temperature of – 50 °C. ・The annual average temperature of China in 2021 was the highest on record since 1961. (China Meteorological Administration)
Jan 2022	・In the western part of the US, the amount of precipitation in January was the lowest since 1895. (NOAA) ・Record-breaking heavy rain in New Delhi, India: Monthly rainfall 88 mm (4.40 times the average)
Feb	・The east part of Australia suffered from floods caused by record heavy rainfall. ・Beijing Winter Olympics (February 4th to 20th) ・On February 24th, Russia invaded Ukraine, and the Ukrainian government declared a state of emergency.
Mar	・The average March temperature was the highest in China since 1961 (CMA) and the scond highest in India since 1901 (IMD). ・Cyclone Gombe, which hit central and nothern Mozambique, killed more than 60 people.

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