



For Immediate Release

September 6, 2019

The Asahi Glass Foundation Announces Results of the 28th Annual “Questionnaire on Environmental Problems and the Survival of Humankind”

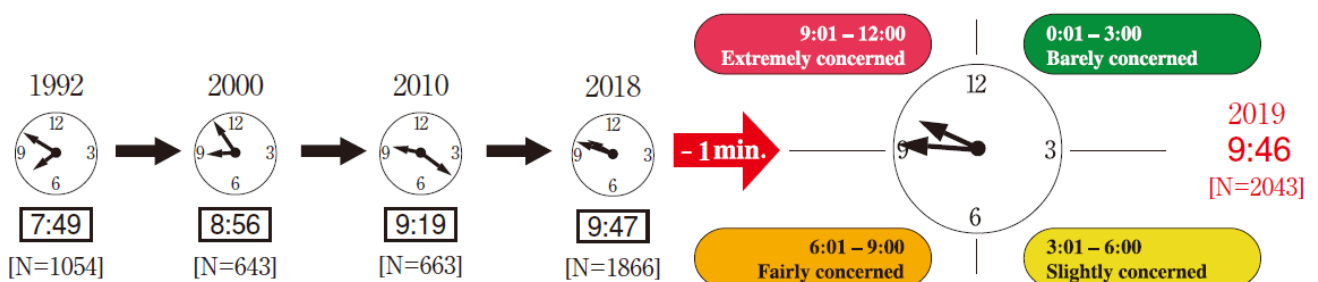
- The average time on the Environmental Doomsday Clock was 9:46, almost same level as last year, which showed the largest advancement since the inception of the survey.
- Similar to last year, respondents in three regions, including Oceania, USA & Canada and Western Europe, reported a higher sense of crisis. The time on the Environmental Doomsday Clock also advanced into the 9 o'clock range in Eastern Europe & former Soviet Union. Conversely, respondents in Africa reported the lowest sense of crisis and, unlike in any of the other regions, the Environmental Doomsday Clock time has remained in the 8 o'clock range there.
- By age, the Environmental Doomsday Clock time or sense of crisis was highest in respondents in over the age of 60.
- Respondents most frequently selected “Climate Change” as the environmental issues to be taken into account in selecting a time on the Environmental Doomsday Clock, consistent since 2011.
- Respondents most frequently selected “Biosphere Integrity” representing their sense of crisis about the environment in terms of time.
- A new question was added in this year: “Do you see any signs of improvement in the approach to global environmental issues?”
- Concerning the transition to a decarbonized society, improvements are recognizable overall, although they vary by region and are minor.
- Respondents most frequently selected “Climate Change” as showing a sign of improvement from efforts to solve environmental issues.

The Asahi Glass Foundation (Chairman: Kazuhiko Ishimura) has conducted surveys with environmental experts around the world each year since 1992. This year, the questionnaire was distributed to 205 countries around the world, and we received responses from 2,072 respondents in 143 countries. Below are the main points of this year’s questionnaire results. Further details are available in the “Survey Report of the 28th Annual Questionnaire on Environmental Problems and the Survival of Humankind,” or online at the Foundation’s web site starting 11 a.m. on September 6th.

1. Awareness of the Crisis Facing Human Survival - The Environmental Doomsday Clock

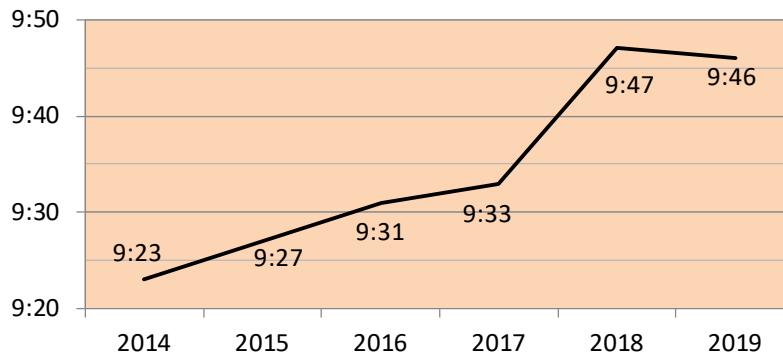
1-1 The Environmental Doomsday Clock

- The average time on the Environmental Doomsday Clock for all respondents retreated by one minute to 9:46 compared last year.



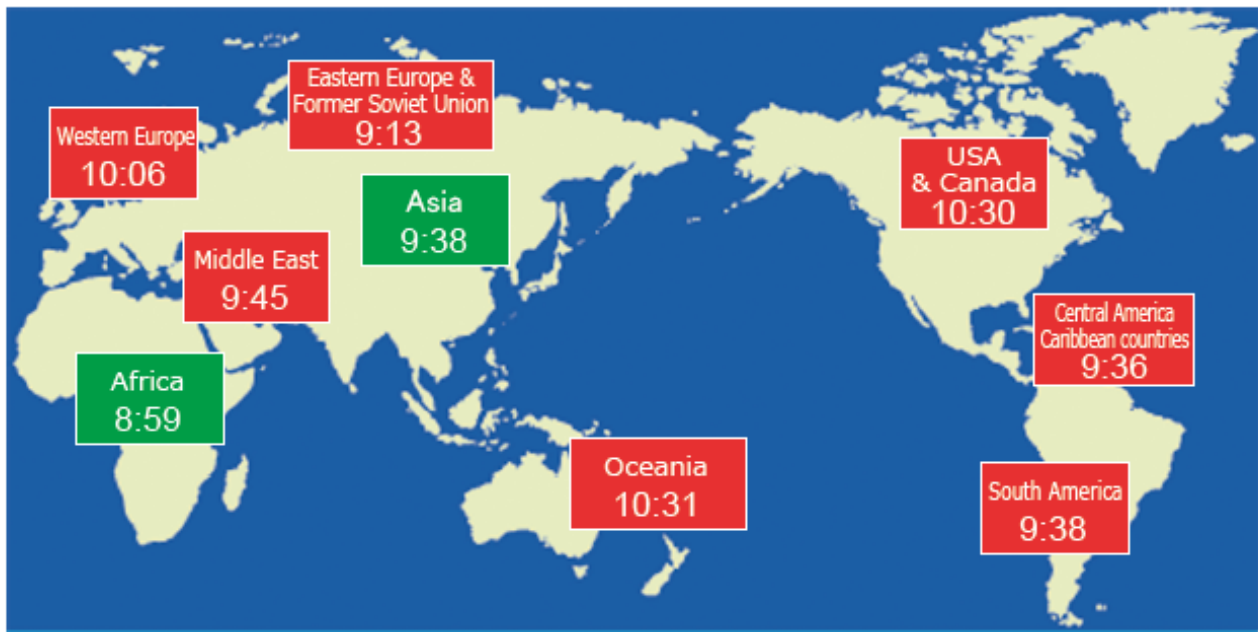
Change over the years in the Environmental Doomsday Clock (Overall)

- The respondents' sense of crisis has almost remained at a same level as last year, when the Environmental Doomsday Clock time was shown to have advanced the most since the inception of the survey in 1992.



The trend in the Environmental Doomsday Clock (2014-2019) (Overall)

- Of the 9 regions surveyed, the needle retreated in only two regions, including Asia (9:48 to 9:38) and Africa (9:28 to 8:59), whereas the needle advanced in all other regions.
- Asia was affected by the retreat of the Environmental Doomsday Clock time in China by 32 minutes (10:34 to 10:02).
- The Environmental Doomsday Clock time in Africa retreated by 29 minutes and is still before the 9 o'clock range.
- The advancement of the needle was largest in Eastern Europe & former Soviet Union, 31 minutes (8:42 to 9:13), and the Environmental Doomsday Clock time in these regions reached the 9 o'clock range, although it had remained in the 8 o'clock range since 2014.



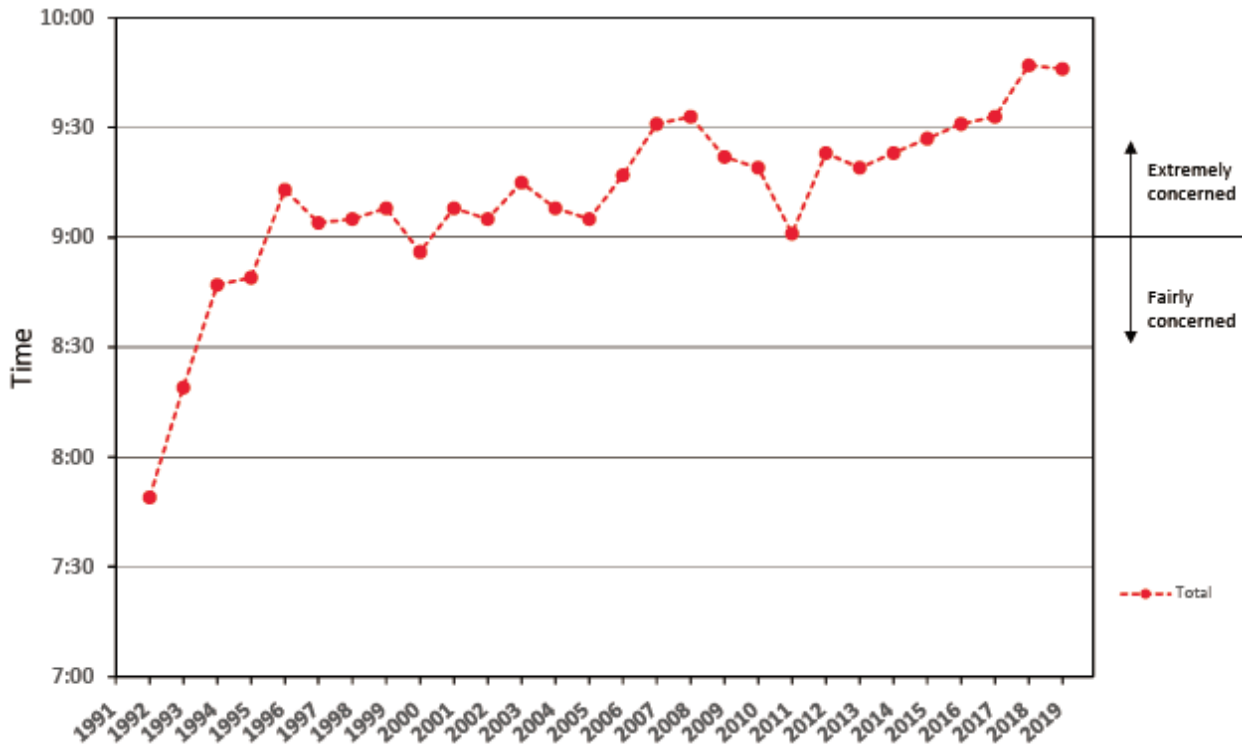
■ Represents regions/countries where the time advanced from last year
 ■ Represents regions/countries where the time retreated from last year

- In analyzing the changes in the Environmental Doomsday Clock since the inception of the survey, respondents have consistently indicated times in the “extremely concerned” quadrant in the 9 o'clock hour since 1996, with the exception of 2000.

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

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

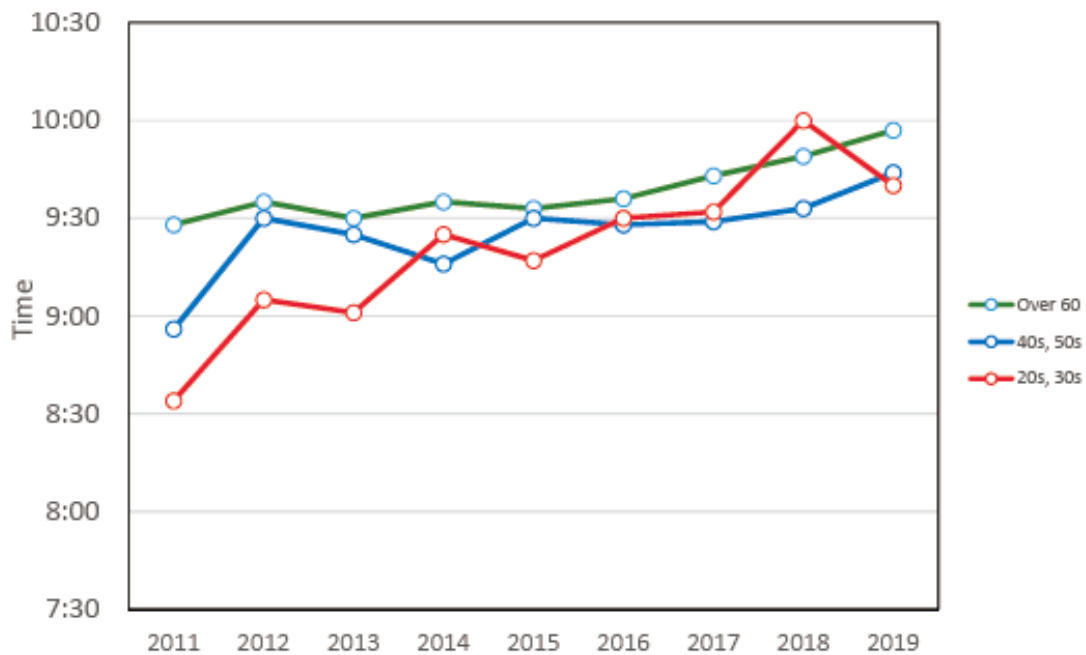
Changes in the Environmental Doomsday Clock



A Comparison of Annual Changes Since 1992

1-2 Shifts in the Environmental Domsday Clock Based on Respondent Age (2011 - 2019)

- The older the respondents, the higher their environmental awareness.
- Awareness about the environmental crisis among respondents in over the age of 60 is gently rising and is higher than among any other age groups.
- The Environmental Domsday Clock time for respondents in their 20s and 30s has significantly retreated this year by 20 minutes. Since the inception of the survey in 2011, however, the clock time has generally advanced every year (from 8:34 in 2011 to 9:40 in 2019).



Shifts in the Environmental Domsday Clock by Generation

2. “Environmental issues to be taken into account” in Determining the Time on the Environmental Doomsday Clock (Overall)

In determining the time on the Environmental Doomsday Clock, the questionnaire asked respondents to select, from the following nine categories of environmental problems, the most pressing issues in the country or region where they lived, ranking the problems from 1 to 3. (See the Questionnaire Report for further details.)

Environmental issues to be taken into account:

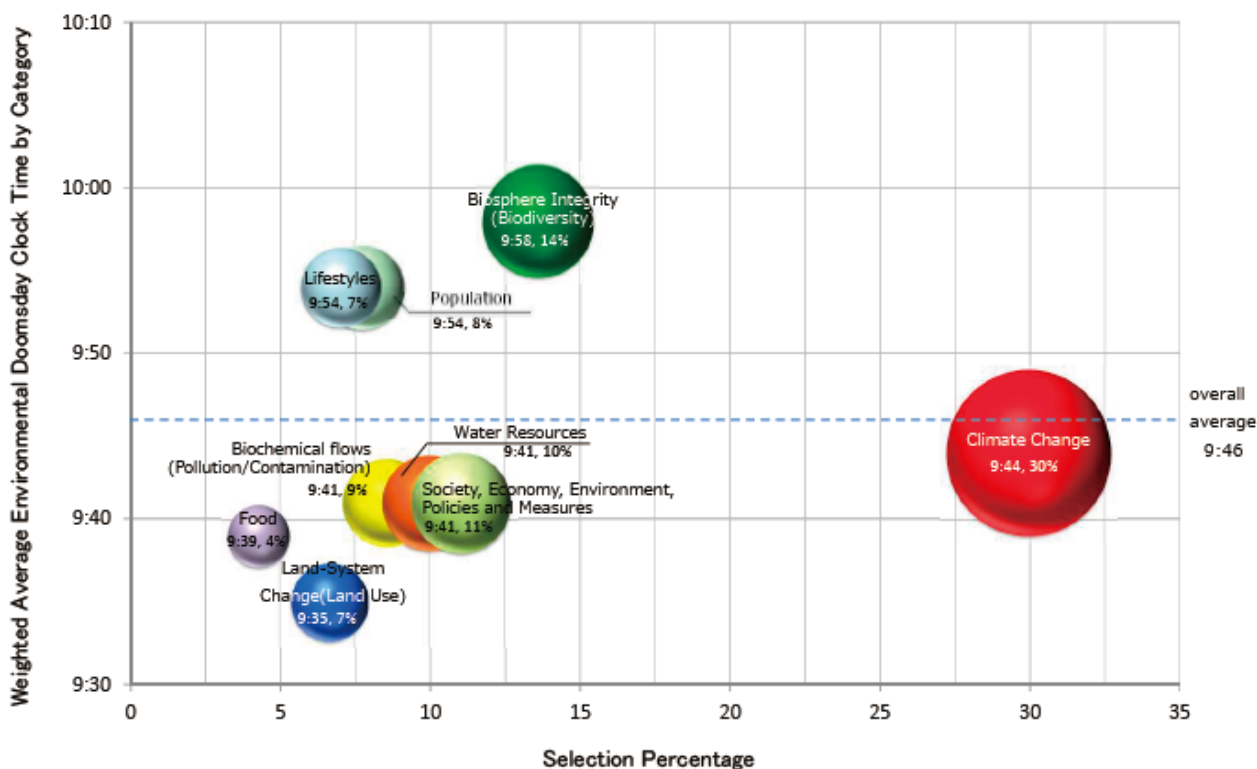
1. Climate Change; 2. Biosphere Integrity (Biodiversity); 3. Land-system Change (Land Use);
4. Biochemical Flows (Pollution/Contamination); 5. Water Resources; 6. Population; 7. Food;
8. Lifestyles (Consumption Habits); 9. Society, Economy and Environment, Policies, Measures

2-1 Selection Patterns for “Environmental issues to be taken into account” By Region

- The top two issues that the respondents selected and considered when writing the Environmental Doomsday Clock time remained unchanged from last year worldwide: “Climate Change” ranked first (30.0%), followed by “Biosphere Integrity (Biodiversity)” at 13.6%.

2-2 Ranking of Time on the Environmental Doomsday Clock for “Environmental issues to be taken into account”

- Meanwhile, the ranking in the Environmental Doomsday Clock time differed from last year. “Food” ranked first last year, but dropped to the seventh-ranked with the clock time retreating by 33 minutes (10:12 to 9:39), whereas “Biosphere Integrity (Biodiversity),” having ranked third last year, ranked first this year with the clock time at 9:58. “Population” ranked second, as it did last year.
- Last year, the clock time reached the 10 o’clock range for two issues, including “Food” and “Population,” whereas it remained in the 9 o’clock range for all issues this year. Nevertheless, the clock time is past 9:35 for all issues and is comparatively advanced overall.
- “Climate Change” ranked first in the selection rates for “Environmental issues to be taken into account,” but ranked third in terms of the Environmental Doomsday Clock.



Overall Analysis of “Environmental issues to be taken into account “ (selection of first to third ranks)

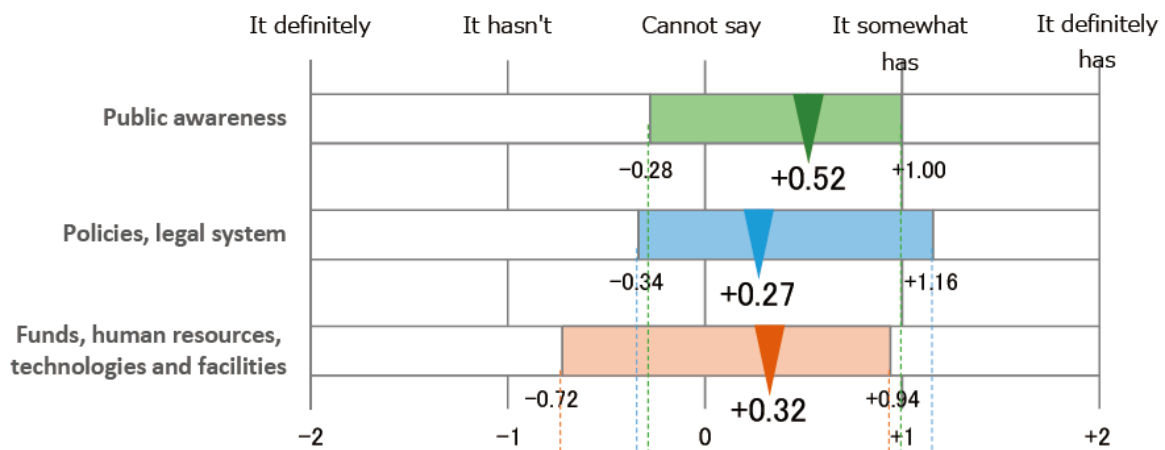
<The details regarding regional distribution of the Environmental Doomsday Clock time for “Environmental issues to be taken into account” are described in page 13 of the Report.>

3. Signs of Improvement in the Approach to Environmental Issues: Comparison with Prior to the Adoption of the Paris Agreement and the SDGs in 2015

- We asked about awareness of signs of improvement in the approach to environmental issues under the categories of transition to a decarbonized society and “Environmental issues to be taken into account,” from the three perspectives of “Public Awareness,” “Policies, Legal System,” and social infrastructure, “Funds, Human Resources, Technologies, and Facilities.”

3-1 Degree of transition to a decarbonized society

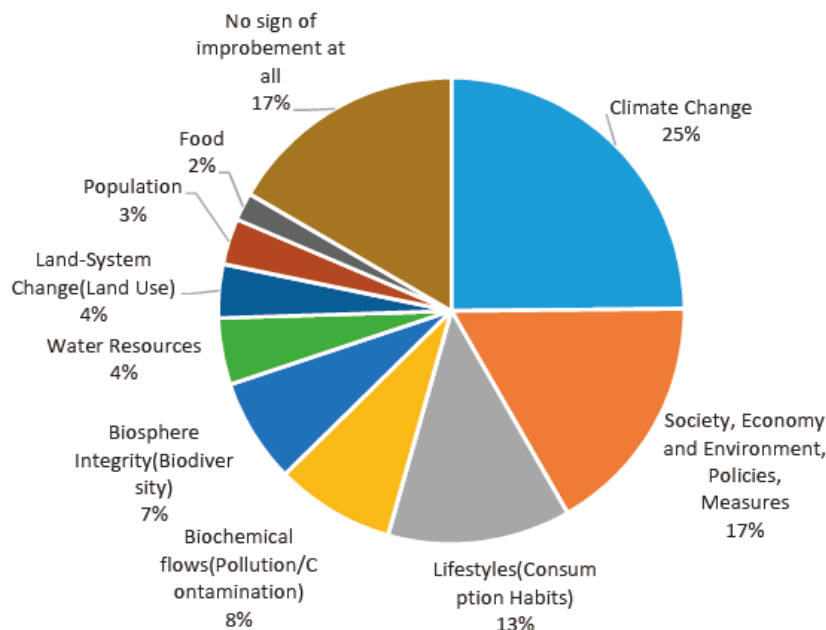
- Respondents said the transition is progressing overall, although to a minor degree.
- The only places where the value for “Policies, Legal System” was negative were Japan, Australia, USA, Canada, Middle East, Central America, and Western Europe (except UK), showing no improvements.
- By contrast, the responses from China and Taiwan showed that rather than “Public Awareness,” “Policies, Legal System” had advanced.



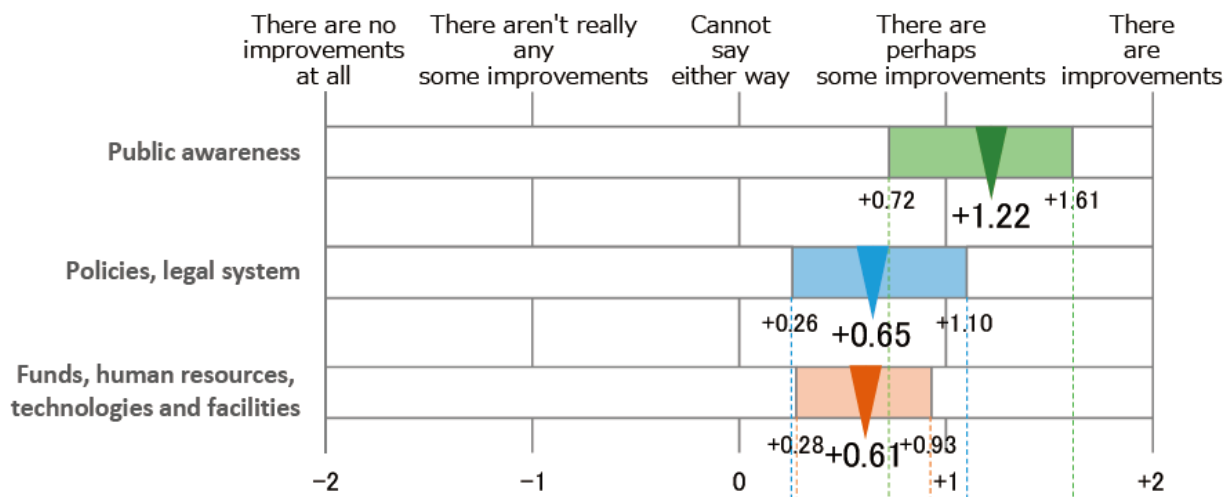
Degree of transition to a decarbonized society, Average of Total, Area and Attribution

3-2 Issues showing signs of improvement

- “Climate Change” was most commonly selected as the issue showing signs of improvement (25%), followed by “Society, Economy, Environment, Policies and Measures” (17%) and “Lifestyles” (13%). Seventeen percent of the respondents replied “No sign of improvement at all.”
- Concerning efforts against “Climate Change”, the respondents see more improvements in “Public Awareness” than in “Policies and Legal System” and “Funds, Human Resources, Technologies and Facilities.”



Signs of Improvement, Chosen Environmental Issues



Degree of Signs of Improvement of “Climate Change” in Environmental Issues,
Average of Total, Area and Attribution

<The details regarding the awareness of sign of improvements in the approach to environmental issues are described in page 25 and 26 of the Report.>

This survey includes a section where respondents are invited to provide their opinions and write about the environmental realities they face in their region of the world, as well as offer suggestions for improvement. This year, we received a total of 1,048 comments, including 771 from 119 countries abroad. These comments will be published on the Asahi Glass Foundation website on September 6th at 11 a.m.

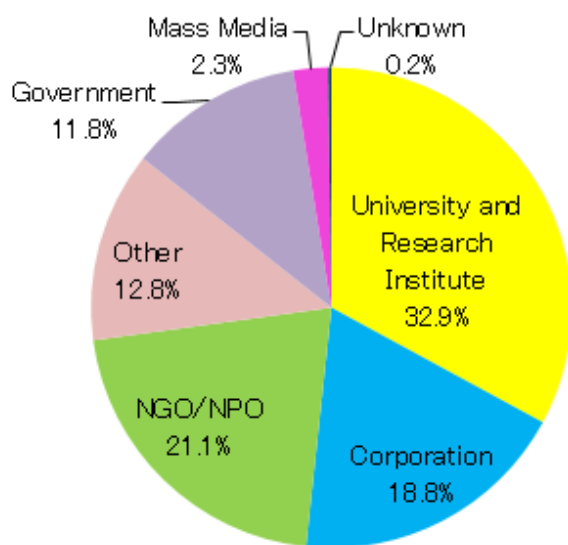
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Appendix

• About the “Questionnaire on Environmental Problems and the Survival of Humankind”

Since 1992, the Asahi Glass Foundation has conducted a survey each year with experts around the world who are knowledgeable and are involved in environmental issues. The respondent pool includes government officials and members of universities and research institutions, nongovernmental organizations, corporations and the media. These experts are queried about various endeavors to counter environmental problems. The questionnaires are produced in six languages (English, Chinese, French, Japanese, Korean, and Spanish) and are sent out around April each year, and collected by June. After the responses are compiled, compared, and analyzed, the survey results are announced in September. The questionnaire was sent to respondents in 205 countries including Japan, with responses returning from 143 countries. The highest respondent percentage by attribute is, University or research institution, Corporation, NGO/NPO, Central government, Local government, Media in descending order.



Number of Countries Surveyed

Regions	Countries
Asia	24
Oceania	16
USA & Canada	2
Central America, Caribbean countries	27
South America	13
Western Europe	22
Africa	55
Middle East	16
Eastern Europe & former Soviet Union	29
Japan	1
Total	205

• Facts about This Year’s Questionnaire

Survey period: Questionnaires were sent out in April 2019 with a return deadline of June 2019

Questionnaire respondent pool: Environmental experts selected from members of government organizations, NGOs, academic and research institutions, corporations, and the media (based on the Asahi Glass Foundation database).

Questionnaires mailed: 27,642 (more than 26,450 overseas and 1,192 in Japan)

Questionnaires returned: 2,072

Response rate: 7.5%

Breakdown of respondents by region:

[Region]	Number of responses	%
Japan	389	18.4
Overseas	1691	81.6
Overall total	2072	100.00
Asia (including Japan)	1156	55.8
Oceania	71	3.4
USA & Canada	232	11.2
Central America, Caribbean countries	64	3.1
South America	115	5.6
Western Europe	224	10.8
Africa	131	6.3
Middle East	40	1.9
Eastern Europe and former Soviet Union	39	1.9
Unknown area	0	0
Overall total	2072	100.00

The Environmental Doomsday Clock

"Questionnaire on Environmental Problems and the Survival of Humankind"

Each year the Foundation conducts a survey of the sense of crisis felt by respondents about the continuance of the human race as the global environment continues to deteriorate, gauging the responses with the time expressed on the hands of the Environmental Doomsday Clock created by the Foundation.

Time Changes in the Environmental Doomsday Clock over the Years

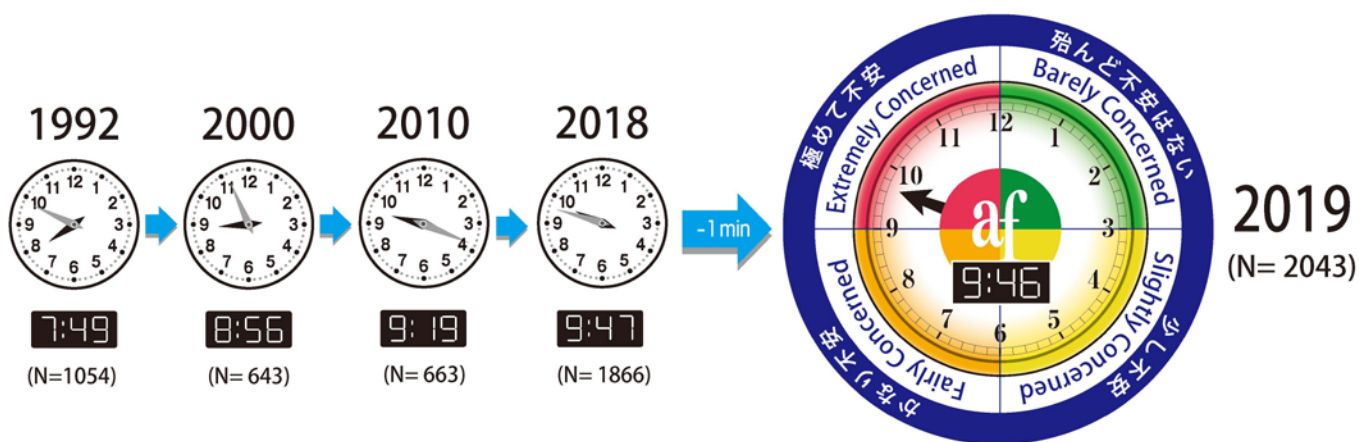
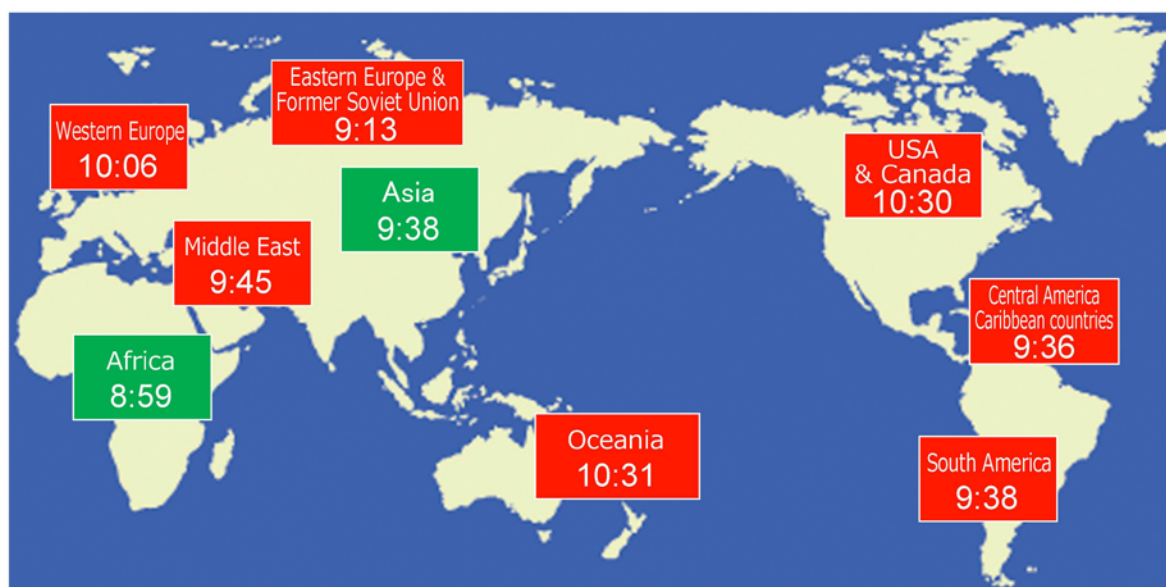


Fig.2 Regional Times



■ Represents regions/countries where the time advanced from last year
 ■ Represents regions/countries where the time retreated from last year