



For Immediate Release

September 7, 2018

The Asahi Glass Foundation Announces Results of the 27th Annual “Questionnaire on Environmental Problems and the Survival of Humankind”

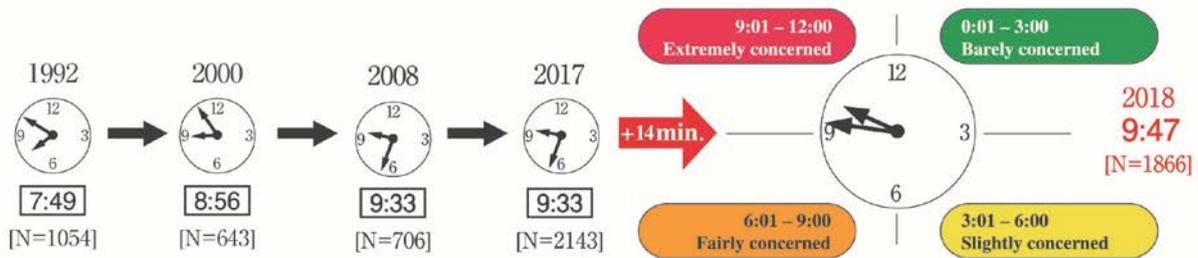
- The average time on the Environmental Doomsday Clock for all respondents was 9:47, the most advanced time since the inception of the survey in 1992.
- Respondents in United States & Canada reported the highest sense of crisis, followed by Western Europe and Oceania. Conversely, respondents in Eastern Europe and the former Soviet Union reported the lowest sense of crisis.
- The Environmental Doomsday Clock time for respondents in their 20s to 30s exceeded that for respondents in the other ages for the first time, reaching the 10 o’clock range, which was only seen in the respondents in their 20s to 30s.
- Respondents most frequently selected “climate change” as the environmental condition they took into account in selecting a time on the Environmental Doomsday Clock, a consistent response since 2011.
- Looking at the time that shows the sense of crisis regarding environment issues, “food” is the highest.

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 1,866 respondents in 139 countries. Below are the main points of this year’s questionnaire results. Further details are available in the “Survey Report of the 27th Annual Questionnaire on Environmental Problems and the Survival of Humankind,” or online at the Foundation’s web site starting 11 a.m. on September 7th.

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

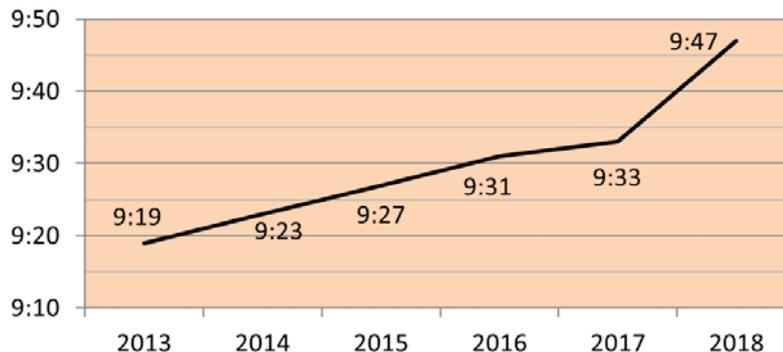
1-1 The Environmental Doomsday Clock

- The average time on the Environmental Doomsday Clock for all respondents advanced 14 minutes to 9:47. This marks the most advanced time since the inception of the survey in 1992.



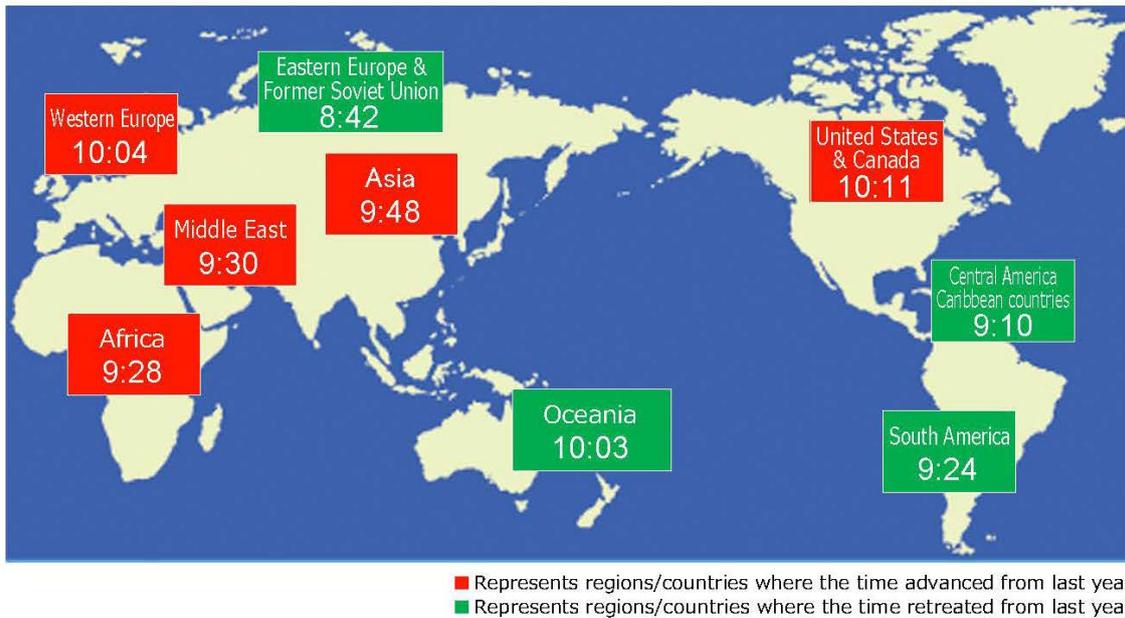
Change over the years in the Environmental Doomsday Clock (Overall)

- The time on the Environmental Doomsday Clock has advanced every year since 2013. This year’s time marks a 28-minute advancement from 2013.



The trend in the Environmental Doomsday Clock (2013-2018) (Overall)

- Of the 9 regions surveyed, the needle advanced in five regions (Asia, United States & Canada, Western Europe, Africa, Middle East). The time retreated in the remaining four regions (Oceania, South America, Central America, Eastern Europe and the former Soviet Union).
- In comparison to the Environmental Doomsday Clock time last year, the advancement of the time needles of Japan and China from which there were many responses was significant (from 9:11 to 9:31 and from 10:07 to 10:34, respectively), which showed an increase in the sense of crisis.
- The needle of Eastern Europe and the former Soviet Union retreated further than last year’s level. It was the only region that remained in the 8 o’clock range (the “fairly concerned” quadrant). The time retreated by about one hour compared to the time in 2013 (9:48).
- All the regions other than Eastern Europe and the former Soviet Union were in the “extremely concerned” quadrant. The sense of crisis was highest among respondents in the United States & Canada, Western Europe and Oceania, in the 10 o’clock range. Western Europe reached the 10 o’clock range for the first time since the inception of the survey.

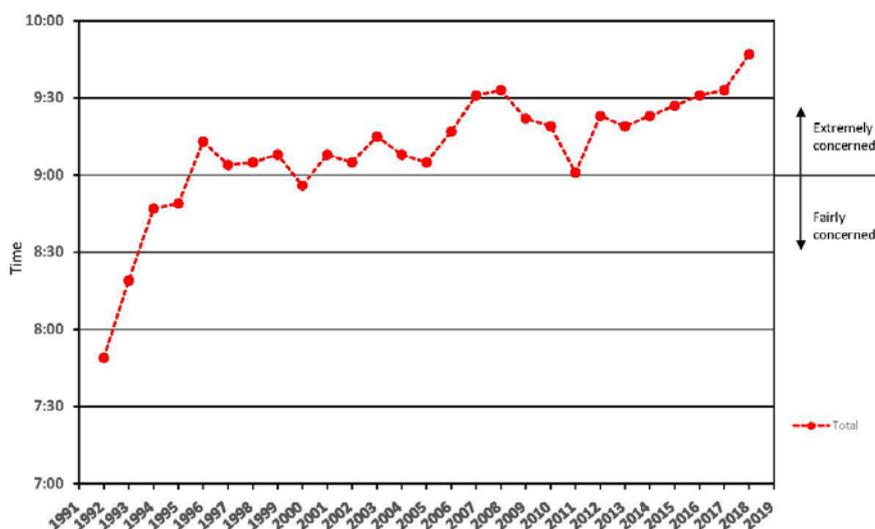


- In analyzing the changes in the Environmental Doomsday Clock since the inception of the survey, respondents have consistently indicated times in the “extremely concerned” quadrant in the 9 o’clock hour since 1996, with the exception of 2000.

| | | | | | | | | | | | | | | | | | | | (Overall) | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|------|------|------|------|------|------|------|
| 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 |
| 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 |

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

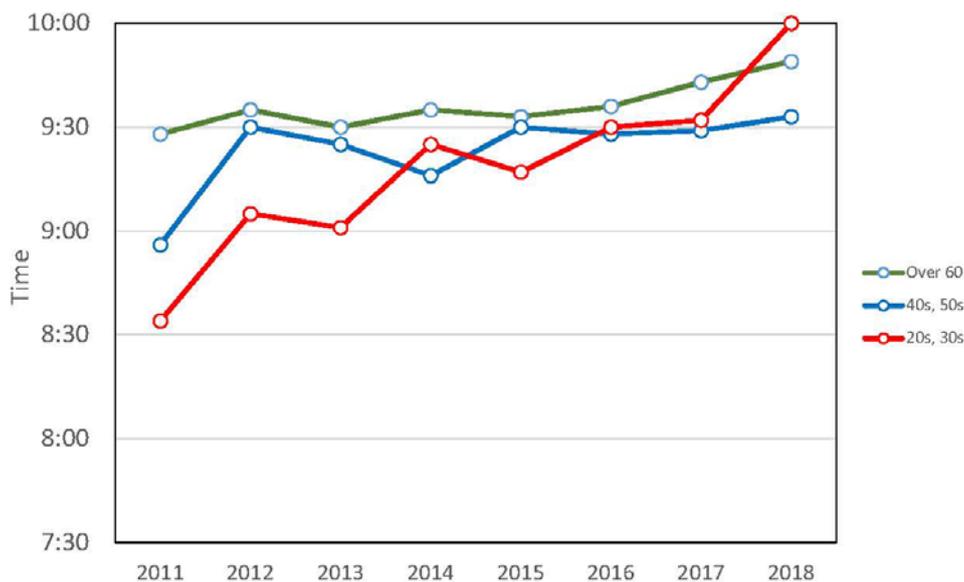
Changes in the Environmental Doomsday Clock



A Comparison of Annual Changes Since 1992

1-2 Shifts in the Environmental Doomsday Clock Based on Respondent Age (2011 - 2018)

- The Environmental Doomsday Clock time advanced in all age groups. At the same time, all age groups saw their respective needles advance more than any other year in the past.
- In all years from the inception of the survey in 2011 until last year, respondents over the age of 60 reported the most advanced time on the Environmental Doomsday Clock. This year, however, the advancement in time was greater for the younger generations of respondents in their 20s to 30s than for the respondents in their 60s for the first time, which showed growing awareness of environmental issues.
- The advancement in time was greater for respondents in their 20s to 30s. Their Environmental Doomsday Clock time reached 10 o'clock for the first time since the inception of the survey.



Shifts in the Environmental Doomsday Clock by Generation

2. Environmental Issues to be Taken into Account in Determining the Time on the Environmental Doomsday Clock (Overall)

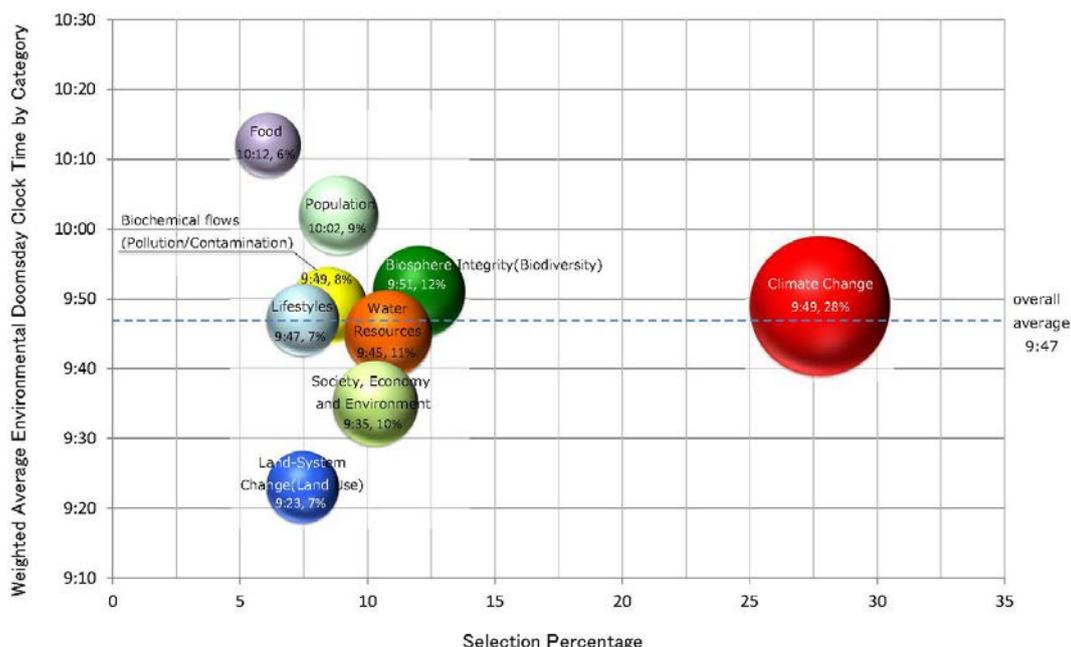
In determining the time on the Environmental Doomsday Clock, the questionnaire asked respondents to select, from the following nine categories of environmental problems, the most pressing issues in the country or region where they lived, ranking the problems from 1 to 3. (See the Questionnaire Report 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 (The category item of “Warming Measures” is deleted, while “Environment and Economy” and “Environment and Society” are integrated into “Society, Economy and Environment” from 2017.)

2-1 Ranking of Time on the Environmental Doomsday Clock for Environmental Issues to be Taken into Account

- The results of the ranking of the Environmental Doomsday Clock time for the Environmental Issues to be Taken into Account were different from those of last year. “Food,” which ranked second last year, was ranked top at 10:12, followed by the second-ranked “population” at 10:02 and the third-ranked “biosphere integrity (biodiversity)” at 9:51, which had the most advanced time last year.
- The Environmental Doomsday Clock time for the Environmental Issues to be Taken into Account reached 10 o'clock for the first time. (The survey by selection of the “first to third ranks” commenced in 2012.)
- “Food,” which ranked the lowest in 2016 and was the only category that remained in the 8 o'clock hour, saw its needle advance by more than one hour in the past two years, representing the greatest rise in the sense of crisis.
- “Climate change” ranked first in the selection rates for Environmental Issues to be Taken into Account, but its ranking of time on the Environmental Doomsday Clock for Environmental Issues to be Taken into Account was only fourth.



Distribution Map 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.>

2-2 Regional Trends in the Selection of Environmental Issues to be Taken into Account

- With respect to the top three ranked issues selected overall, “climate change” was the most frequently selected category in most regions, at 27.8%. This was followed by “biosphere integrity (biodiversity)” (12.0%) and “water resources” (10.8%).
- Meanwhile, the top-ranked issues were “water resources,” “land-system change (land use)” and “population” in the Middle East, South America and India, respectively, which reflected the actual situations of each region.

<The details regarding the trends in the selection of environmental issues to be taken into account are described on page 12 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 823 comments, including 526 from 105 countries abroad and 297 comments from Japan. These comments, along with comments on Question 2, will be published on the Asahi Glass Foundation website on September 7th at 11 a.m.

In addition, the website of the Foundation has been renewed so that it can be viewed more easily. Please take a look at it as well.

For more information, please contact:

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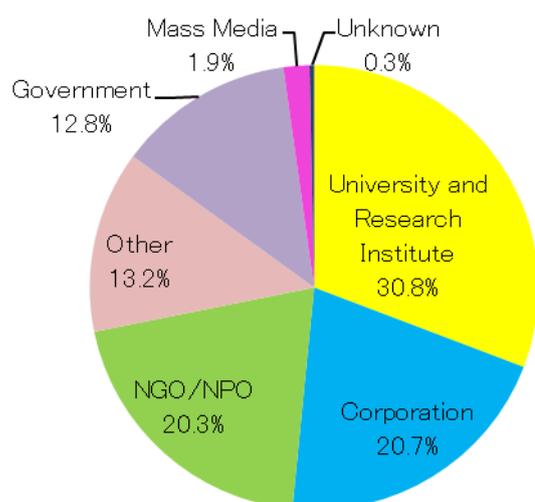
e-mail: post@af-info.or.jp

URL: <http://www.af-info.or.jp>

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 139 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 | 15 |
| U.S.A. & Canada | 2 |
| Central America, Caribbean countries | 22 |
| South America | 12 |
| Western Europe | 33 |
| Africa | 53 |
| Middle East | 15 |
| Eastern Europe & former Soviet Union | 28 |
| Japan | 1 |
| Total | 205 |

• Facts about This Year's Questionnaire

Survey period: Questionnaires were sent out in April 2018 with a return deadline of June 2018

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: 24,472 (more than 23,269 overseas and 1,203 in Japan)

Questionnaires returned: 1,866

Response rate: 7.6%

Breakdown of respondents by region:

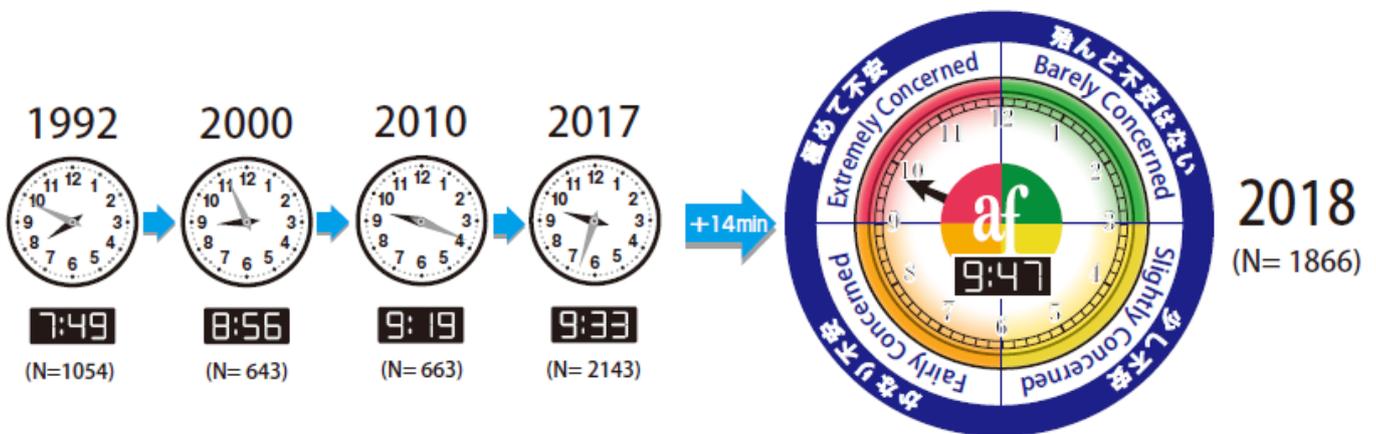
| [Region] | Number of responses | % |
|--|---------------------|---------------|
| Japan | 389 | 20.8 |
| Overseas | 1477 | 79.2 |
| Overall total | 1866 | 100.00 |
| Asia (including Japan) | 1138 | 61.0 |
| Oceania | 61 | 3.3 |
| United States & Canada | 184 | 9.9 |
| Central America, Caribbean countries | 38 | 2.0 |
| South America | 77 | 4.1 |
| Western Europe | 171 | 9.2 |
| Africa | 78 | 4.2 |
| Middle East | 38 | 2.0 |
| Eastern Europe and former Soviet Union | 60 | 3.2 |
| Unknown area | 21 | 1.1 |
| Overall total | 1866 | 100.00 |

The Environmental Doomsday Clock

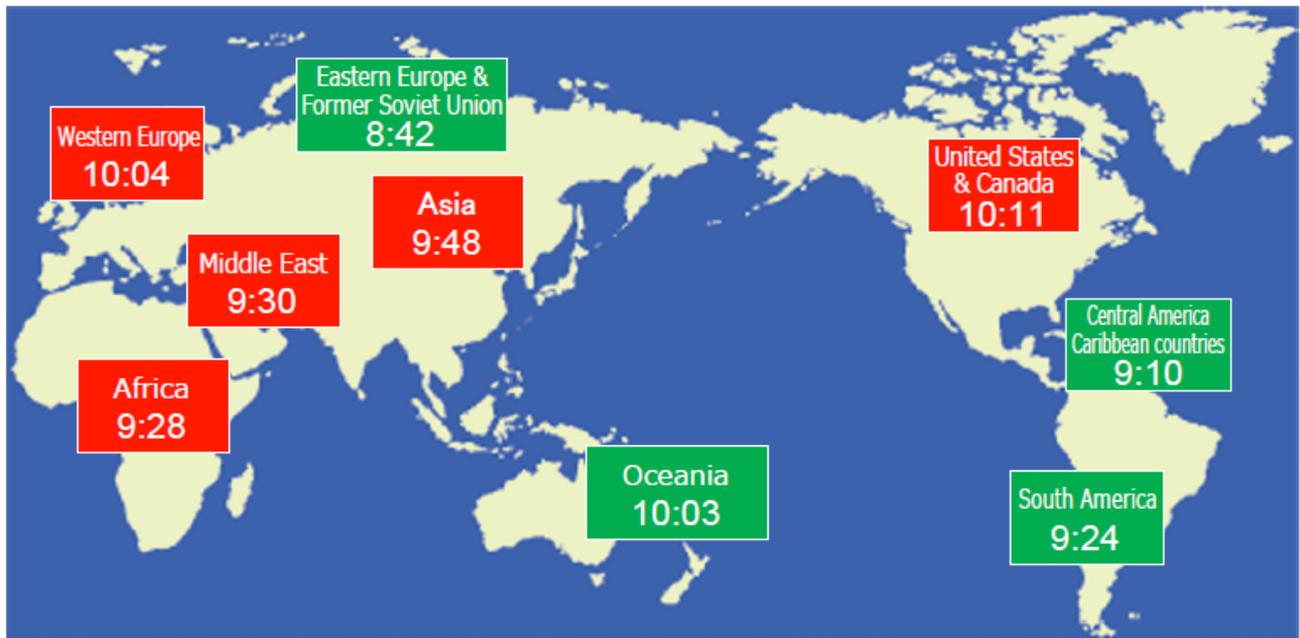
"Questionnaire on Environmental Problems and the Survival of Humankind"

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



Regional Times



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