



**For Immediate Release**

September 8, 2015

## The Asahi Glass Foundation Announces Results of the 24<sup>th</sup> Annual “Questionnaire on Environmental Problems and the Survival of Humankind”

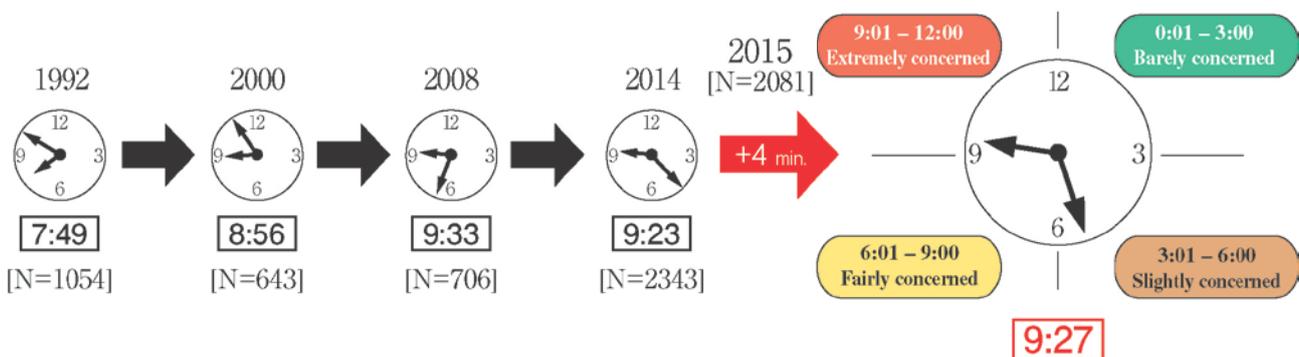
- Overall, the time on the Environmental Doomsday Clock advanced 4 minutes from last year to 9:27, marking the third most advanced time since the inception of the survey.
- Respondents in all 10 regions surveyed, except those from Eastern Europe and the former Soviet Union, marked times in the “Extremely Concerned” quadrant of the Environmental Doomsday Clock.
- Similar to last year, respondents overall most frequently selected “climate change” as the environmental condition of concern in determining the time on the Environmental Doomsday Clock.
- On the other hand, when indicating the Environmental Doomsday Clock time by category, respondents assigned the most advanced times to “biodiversity” and “population” of 9:36, a more advanced time than the 9:26 they gave “climate change.”
- When analyzing the shifts in the Environmental Doomsday Clock time from 2011 to 2015 by respondent age, respondents over the age of 60 reported a higher sense of crisis than those under 60 every year.

The Asahi Glass Foundation (Chairman: Kazuhiko Ishimura) has conducted surveys with environmental experts around the world each year since 1992. This year, the Foundation received 2,081 responses from 152 countries. The following are the major findings of the survey.

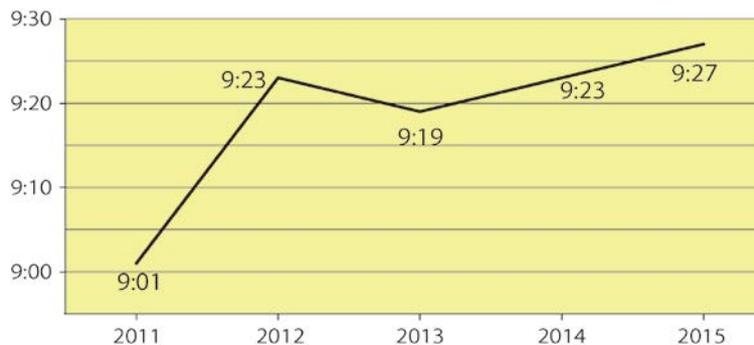
### 1. Awareness of the Crisis Facing Human Survival - The Environmental Doomsday Clock

#### 1-1 Environmental Doomsday Clock

The average time on the Environmental Doomsday Clock for all respondents advanced 4 minutes to 9:27. This marks the third most advanced time since the inception of the survey in 1992, following 9:31 in 2007 and 9:33 in 2008.



**Change over the years in the Environmental Doomsday Clock**

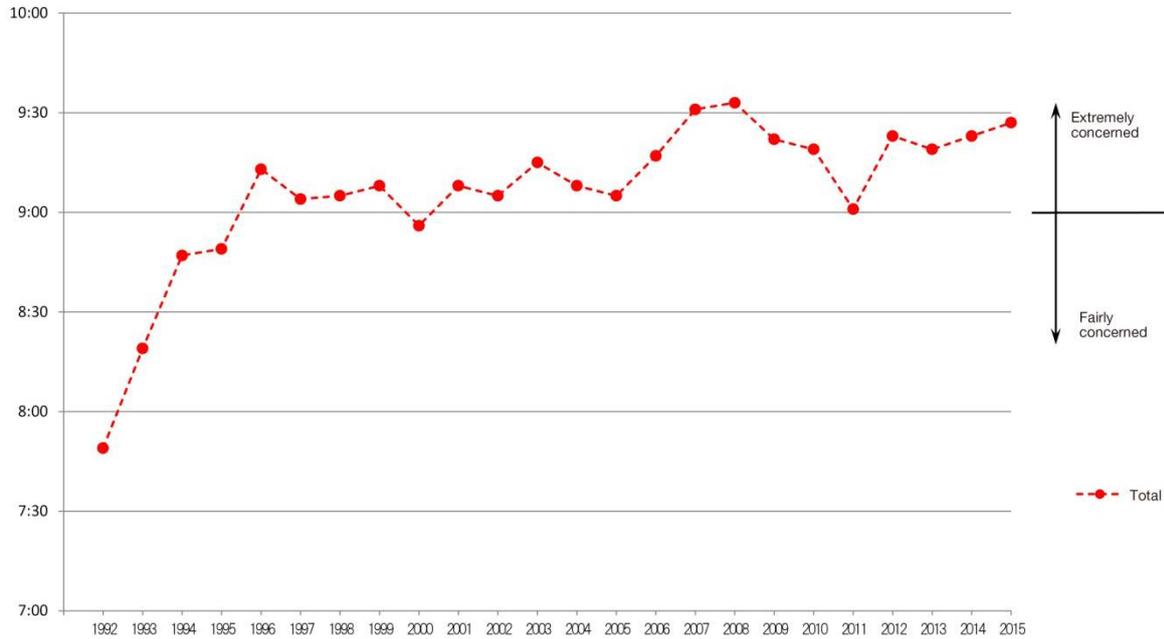


**The trend in the Environmental Doomsday Clock (2011 – 2015)**

1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
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

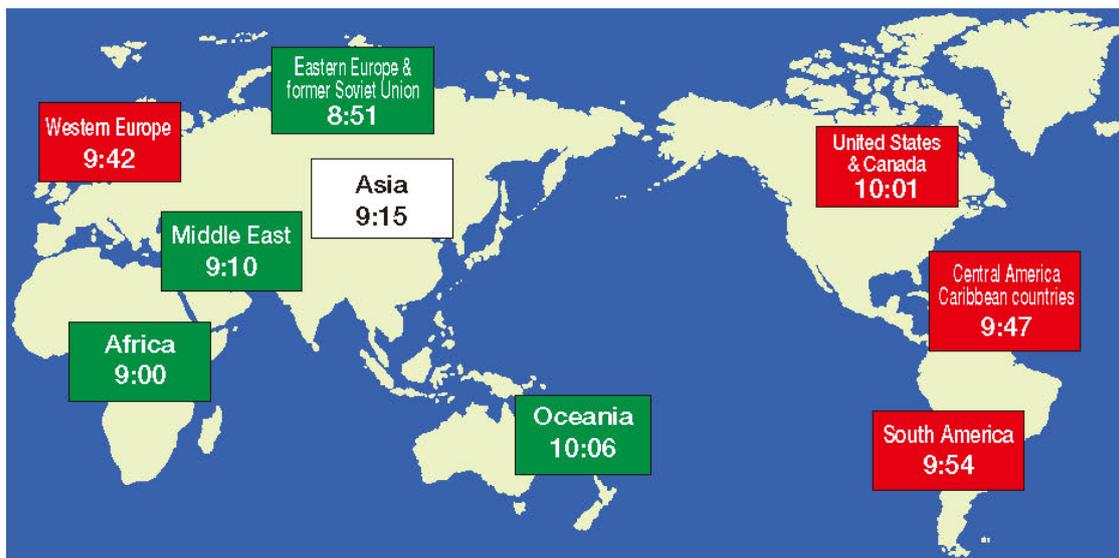
Since the inception of the survey, ■ represents the lowest sense of crisis, while ■ represents the highest.

### Changes in the Environmental Doomsday Clock



### Changes in the Environmental Doomsday Clock

- Of the 9 regions surveyed, the needle on the Environmental Doomsday Clock advanced in four regions (Western Europe, United States and Canada, Central America, South America). This is a significant increase from last year, when it was seen in only three regions.
- The needle advanced the most in Central America (9:12 to 9:47), followed by South America (9:23 to 9:54).
- By contrast, the needle retreated the most in the Middle East (9:21 to 9:10), followed by Africa (9:09 to 9:00).
- As with last year, Eastern Europe and the former Soviet Union was the only region of the 10 surveyed with a time on the Environmental Doomsday Clock in the 8 o'clock range (the “fairly concerned” quadrant), whereas all other regions were in the “extremely concerned” quadrant.
- Respondents in Asia marked the same time as last year, of 9:15.



■ represents regions/countries where the time advanced from last year  
 ■ represents regions/countries where the time retreated from last year  
 □ represents regions/countries where the time remained the same

### Regional Times

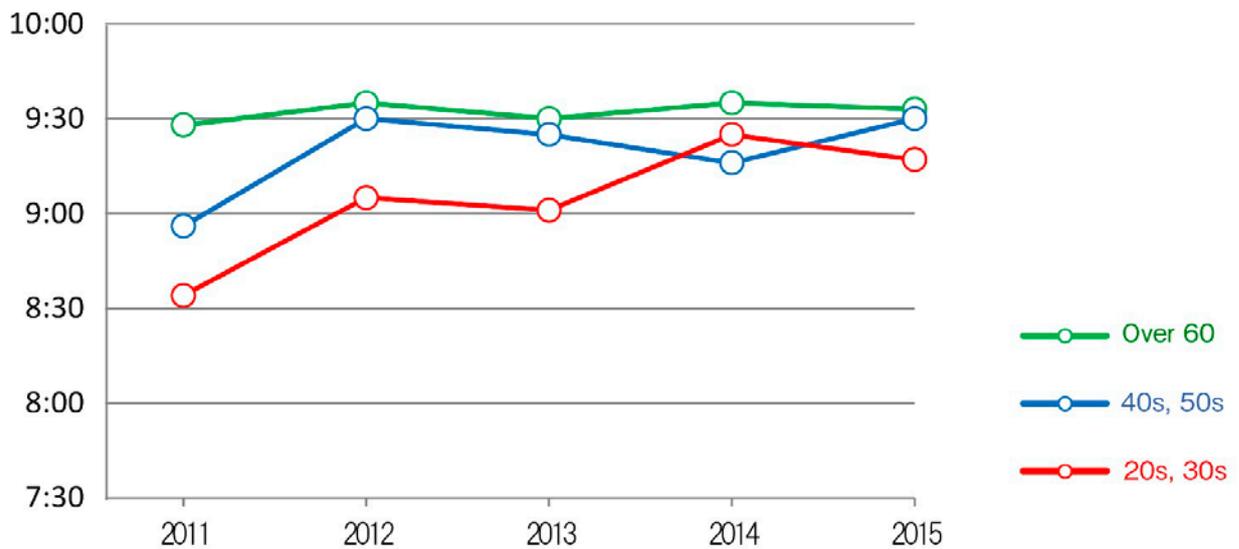
## 1-2. Shifts in the Environmental Doomsday Clock Based on Respondent Age (2011 – 2015)

For the first time since the inception of the survey about the Environmental Doomsday Clock in 1992, shifts in the time by respondent age is analyzed this year, examining the five years from 2011 to 2015.

- In all years between 2011 to 2015, respondents over the age of 60 reported a more advanced time on the Environmental Doomsday Clock than respondents under the age of 60.
- The time on the Environmental Doomsday Clock for respondents over the age of 60 is fairly stable, ranging from 9:28 to 9:35. Accordingly, the shifts in the Environmental Doomsday Clock over the last five years can largely be attributed to respondents under the age of 60.
- Examining the shifts in the Environmental Doomsday Clock in the past five years reveals that the sense of crisis is on an upward trajectory for all age groups, “20s to 30s,” “40s to 50s,” and “over 60.”

**Shifts in the Environmental Doomsday Clock by Generation**

	2011	2012	2013	2014	2015
Average Time	9:01	9:23	9:19	9:23	9:27
Over 60	9:28	9:35	9:30	9:35	9:33
40s, 50s	8:56	9:30	9:25	9:16	9:30
20s, 30s	8:34	9:05	9:01	9:25	9:17



## 2. Environmental Conditions of Concern 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 11 categories of environmental problems the most pressing issues in the country or region where they lived, ranking the problems from 1 to 3. (See Questionnaire Report for further details.)

### Environmental Conditions of Concern:

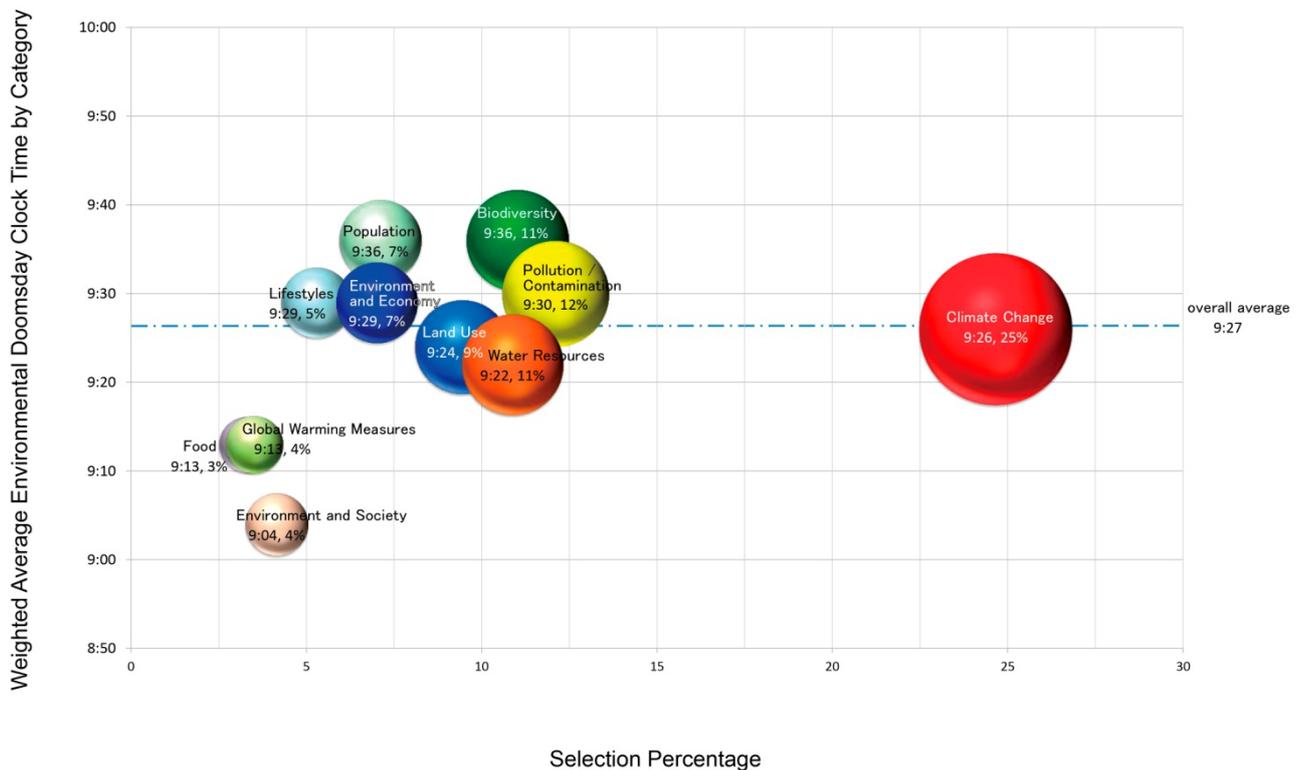
1. Climate Change; 2. Biodiversity; 3. Land Use; 4. Pollution/Contamination;
5. Water Resources; 6. Population; 7. Food; 8. Lifestyles; 9. Global Warming Measures;
10. Environment and Economy; 11. Environment and Society

### 2-1. Selection Rates for Environmental Conditions of Concern

- Similar to last year, respondents overall most frequently selected “climate change” as the environmental condition they were most concerned about in selecting a time on the Environmental Doomsday Clock, at 25%. This was followed by “pollution/contamination” at 12%, and “water resources” and “biodiversity” at 11% each.

### 2-2. Ranking of Time on the Environmental Doomsday Clock for Environmental Conditions of Concern

- When ranking the Environmental Doomsday Clock time for the Environmental Conditions of Concern in descending order, “biodiversity” and “population” continued from last year to have the most advanced times at 9:36.
- All 11 categories fell in the “Extremely Concerned” quadrant including the category with the lowest sense of crisis, “environment and society,” which had a time of 9:04.



### 2-3. Regional Trends in the Selection of Environmental Conditions of Concern

- Overall, “climate change” was the most frequently selected category in most regions, at 25%. This was followed by “pollution/contamination” (12%), “water resources” and “biodiversity” at 11%.
- In contrast, respondents in China most frequently selected “pollution/contamination.” “Land use” was the highest choice in South America, “water resources” in India and the Middle East, and “climate change” and “biodiversity” in Oceania except Australia.

	1.Climate Change	2.Biodiversity	3.Land use	4.Pollution/Contamination	5.Water resources	6.Population	7.Food	8.Lifestyle	9.Global warming measures	10.Environment and economy	11.Environment and Society
Total	25%	11%	9%	12%	11%	7%	3%	5%	4%	7%	4%
Oceania	28%	18%	8%	6%	8%	10%	0%	3%	3%	8%	4%
Australia	31%	19%	9%	4%	8%	11%	0%	2%	3%	6%	4%
Oceania (except Australia)	18%	18%	7%	11%	10%	6%	2%	4%	1%	15%	2%
United States & Canada	33%	11%	8%	6%	11%	10%	1%	5%	2%	7%	4%
USA	33%	11%	8%	6%	11%	11%	1%	5%	3%	6%	4%
Canada	32%	13%	9%	7%	9%	8%	1%	4%	2%	11%	3%
Central America, Caribbean countries	21%	11%	12%	8%	18%	5%	3%	6%	3%	7%	3%
South America	17%	18%	23%	8%	12%	3%	2%	5%	1%	7%	3%
Western Europe	23%	16%	13%	8%	7%	8%	1%	10%	2%	8%	3%
UK	26%	14%	12%	6%	5%	8%	1%	11%	2%	11%	4%
Western Europe (except UK)	22%	17%	13%	9%	8%	8%	1%	9%	2%	8%	3%
Africa	23%	16%	18%	6%	13%	7%	5%	3%	1%	3%	5%
Middle East	16%	10%	13%	10%	30%	5%	2%	2%	3%	6%	2%
Eastern Europe & former Soviet Union	16%	14%	13%	11%	13%	4%	2%	5%	1%	11%	7%
Asia	25%	8%	6%	16%	10%	7%	5%	5%	5%	7%	4%
India	17%	15%	9%	15%	18%	17%	1%	2%	1%	2%	3%
China	15%	4%	5%	29%	14%	5%	6%	4%	5%	9%	3%
Taiwan	27%	3%	12%	22%	13%	2%	3%	3%	3%	5%	7%
Republic of Korea	32%	9%	2%	16%	5%	3%	2%	20%	1%	6%	3%
Japan	32%	9%	5%	8%	6%	8%	6%	6%	7%	7%	5%
Asia*	25%	16%	12%	10%	13%	9%	2%	1%	3%	4%	4%

■ represents the most frequently selected item in the region/country, ■ represents the second most frequently selected item in the region/country

\*With the exception of India, China, Taiwan, Korea, and Japan

### Selection Patterns for Environmental Conditions of Concern By Region

## 2-4. Regional Distribution of the Environmental Doomsday Clock Time for Environmental Condition of Concern

- Overall, respondents indicated the highest sense of crisis for “biodiversity” and “population,” assigning them the most advanced time of 9:36. This was followed by “pollution/contamination” at 9:30.
- While respondents overall most frequently selected “climate change” as the most pressing environmental condition of concern, the time they assigned to the issue, at 9:26, ranked in 6<sup>th</sup> place.
- Respondents in South America and Oceania had the greatest number of categories that surpassed the 10 o’clock hour on the Environmental Doomsday Clock. In Asia, all categories remained in the 9 o’clock hour.

	Total	1.Climate Change	2.Biodiversity	3.Land use	4.Pollution/Contamination	5.Water resources	6.Population	7.Food	8.Lifestyle	9.Global warming measures	10.Environment and economy	11.Environment and Society
Total	9:27	9:26	9:36	9:24	9:30	9:22	9:36	9:13	9:29	9:13	9:29	9:04
Oceania	10:06	10:13	10:19	9:30	10:47	9:55	10:22	-	10:21	-	9:58	8:31
Australia	10:01	10:17	10:26	9:13	10:35	9:43	10:18	-	10:04	-	10:14	8:20
Oceania (except Australia)	10:22	10:11	10:09	10:41	10:56	10:38	-	-	-	-	10:27	-
United States & Canada	10:01	10:09	9:59	9:43	10:03	9:42	10:13	8:48	9:50	9:59	9:56	9:21
USA	10:02	10:07	10:03	9:46	10:02	9:45	10:11	8:53	9:49	9:55	9:49	9:24
Canada	9:54	10:11	9:42	9:48	10:04	9:12	10:34	-	10:17	-	10:26	-
Central America, Carribean countries	9:47	10:03	10:14	9:23	8:59	9:45	9:47	-	10:10	-	9:31	9:19
South America	9:54	9:38	9:59	10:02	9:05	10:16	10:25	10:38	10:01	-	10:06	10:38
Western Europe	9:42	9:44	9:42	9:28	9:10	9:38	10:07	-	9:51	10:11	9:32	9:33
UK	9:49	9:37	10:06	9:35	8:46	8:53	10:26	-	9:58	10:13	9:51	-
Western Europe (except UK)	9:39	9:49	9:36	9:24	9:14	9:43	10:01	-	9:49	10:10	9:20	9:34
Africa	9:00	8:29	9:32	9:00	8:38	8:33	8:38	9:45	9:55	-	10:32	9:37
Middle East	9:10	8:47	9:07	9:43	8:17	9:42	10:10	-	-	8:51	-	10:18
Eastern Europe & former Soviet Union	8:51	9:01	8:56	9:04	8:46	8:15	-	-	7:42	-	8:59	8:43
Asia	9:15	9:13	9:16	9:14	9:32	9:14	9:16	9:07	9:16	9:03	9:15	8:54
India	9:22	8:35	8:53	9:29	9:53	9:14	9:49	-	-	-	-	9:33
China	9:29	9:14	8:46	9:27	9:53	9:32	9:12	9:13	9:00	9:00	9:32	9:33
Taiwan	8:29	8:39	9:56	8:39	8:50	8:25	8:32	-	8:41	-	8:07	8:01
Republic of Korea	9:19	9:26	9:47	-	9:05	7:51	-	-	9:23	-	9:46	-
Japan	9:09	9:16	9:23	8:59	9:05	8:46	9:11	8:58	9:28	9:03	9:00	8:45
Asia*	9:30	9:37	9:26	9:36	9:16	9:35	9:28	11:09	-	-	9:08	9:43

■ indicates the 11 o’clock hour, ■ indicates the 10 o’clock hour, ■ indicates the 9 o’clock hour, and ■ indicates the 8 o’clock hour

\*With the exception of India, China, Taiwan, Korea, and Japan

## Regional Distribution of the Environmental Doomsday Clock Time for Environmental Conditions of Concern

This year, the questionnaire also surveyed respondents on problems they thought were most closely related to the issue they ranked first in Question 1, as well as their selection rationale. Please see the Questionnaire Report for further details.

The survey includes a Comments section in which respondents are invited to write about environmental problems in their countries, their opinions, and solutions along with the comments for Question 2, 2-3. This year, we received a total of 919 respondents in 124 countries around the world as well as 276 respondents in Japan, for a total of 1,195. Respondents’ comments will be made also available on the Foundation’s web site (<http://www.af-info.or.jp>) on September 8<sup>th</sup> at 11 a.m.

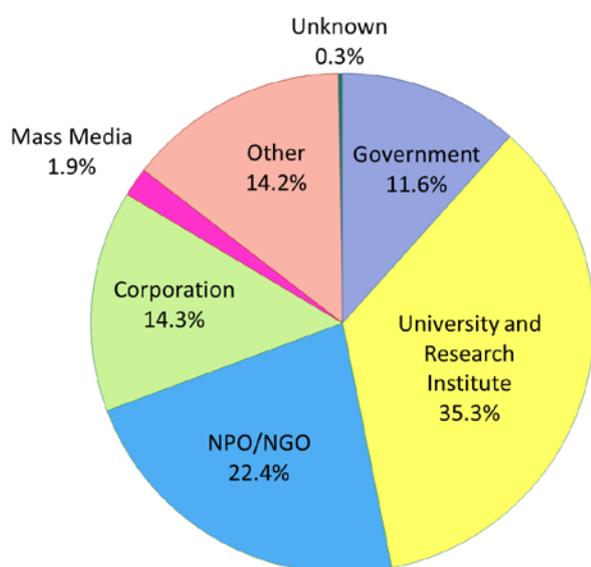
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 URL: <http://www.af-info.or.jp>

## 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 mass 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 report is available in five languages. The pie chart below shows the affiliation of the questionnaire respondents in descending order. The questionnaire was sent to respondents in 212 countries including Japan, with responses returning from 152 countries.



**Number of Countries Surveyed**

Regions	Countries
U.S.A & Canada	2
Central America, Caribbean countries	29
South America	12
Western Europe	27
Eastern Europe & former Soviet Union	28
Africa	57
Middle East	16
Asia	24
Oceania	16
Japan	1
<b>Total</b>	<b>212</b>

### • Facts about This Year’s Questionnaire

Survey period: Questionnaires were sent out in April 2015 with a return deadline of June 2015

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

Questionnaires mailed: 25,306 (24,070 to 212 countries and 1,236 within Japan)

Questionnaires returned: 2,081

Response rate: 8.2%

### Breakdown of respondents by region, gender, and occupational affiliation:

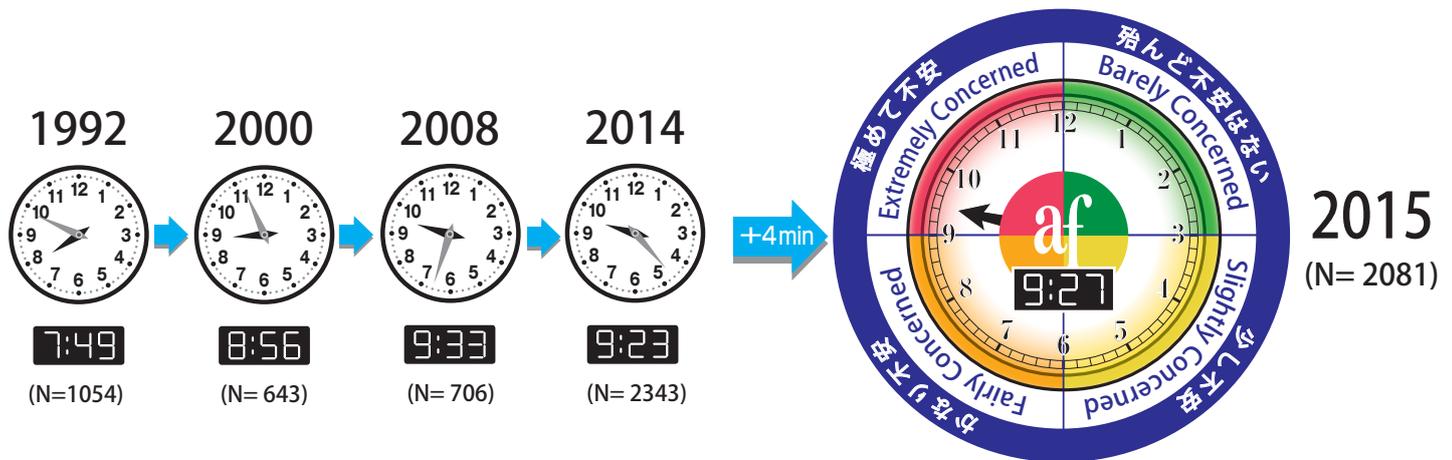
Region	Number of responses	Percent of total
Oceania	88	4.2
United States & Canada	238	11.4
Central America, Caribbean countries	51	2.5
South America	115	5.5
Western Europe	242	11.6
Africa	132	6.3
Middle East	41	2.0
Eastern Europe & former Soviet Union	58	2.8
Asia	1116	53.6
<b>Total (Including three area unknown responses)</b>	<b>2081</b>	<b>100.0</b>

# The Environmental Doomsday Clock

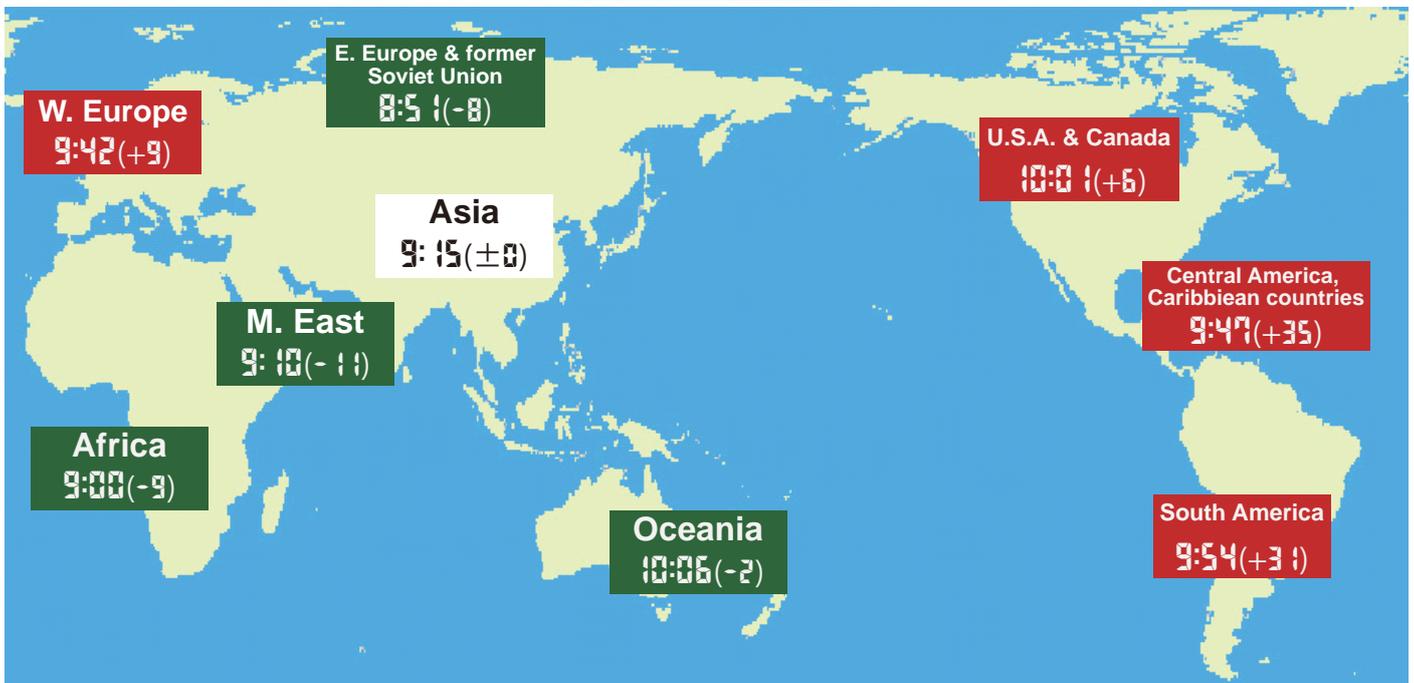
"Questionnaire on Environmental Problems and the Survival of Humankind"

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, □ represents regions/countries where the time remained the same