

September 8, 2016

**The Asahi Glass Foundation Announces Results of the 25<sup>th</sup> Annual  
 “Questionnaire on Environmental Problems and the Survival of Humankind”**

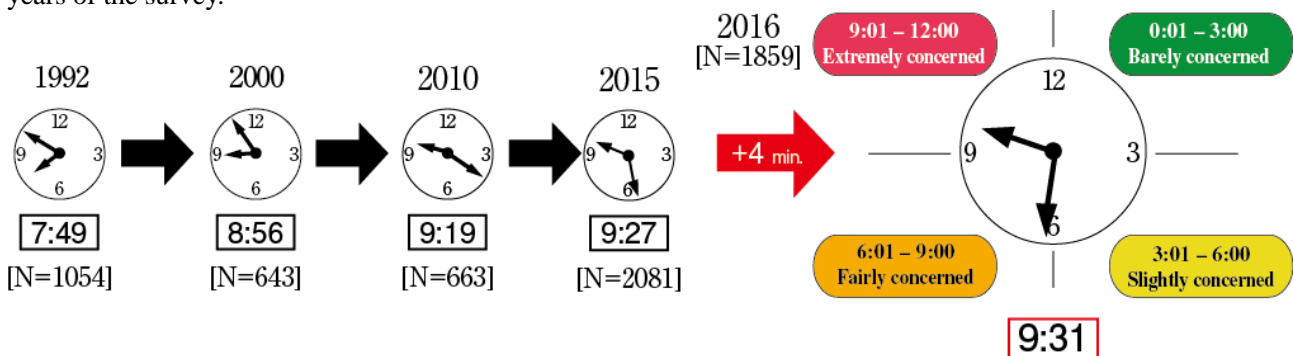
- Overall, the time on the Environmental Doomsday Clock was 9:31, the same level as 2007 and marking the second most advanced time since the inception of the survey.
- The highest sense of crisis was in the Middle East, with a time of 10:06. In contrast, the lowest was Eastern Europe and the former Soviet Union, with 8:51.
- As the age of the respondents rose, the time on the Environmental Doomsday Clock also tended to be more advanced.
- Respondents who selected “Extremely Concerned” have increased gradually from 48% in 1997 to 70% this year.
- Overall, respondents most frequently selected “climate change” as the environmental conditions of concern in determining the time on the Environmental Doomsday Clock. This has been consistent since 2011.
- By category, respondents assigned the most advanced Environmental Doomsday Clock times to “biodiversity” and “pollution/contamination,” surpassing “climate change.”

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 1,882 responses from 143 countries. The following are the major findings of the survey. (\*This press release and survey report may also be viewed on our web site at www.af-info.or.jp. from 11:00, September 8, 2016)

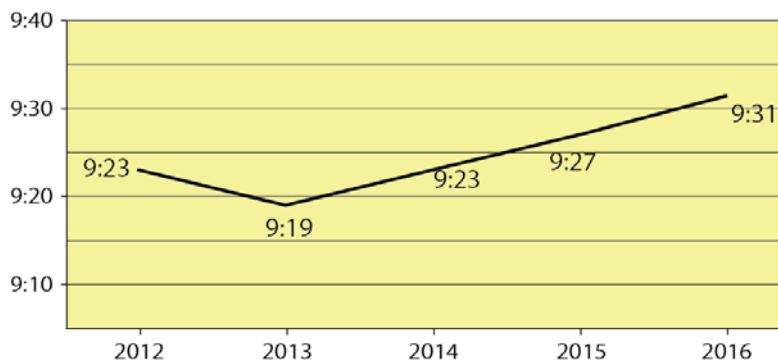
**1. Awareness of the Crisis Facing Human Survival - The Environmental Doomsday Clock**

**1-1 The Environmental Doomsday Clock**

The average time on the Environmental Doomsday Clock for all respondents advanced 4 minutes to 9:31, the same time as 2007. This marks the second most advanced time since the inception of the survey in 1992, following the highest, of 9:33 in 2008. This is the third time that the clock has advanced to past 9:30 in the 25 years of the survey.



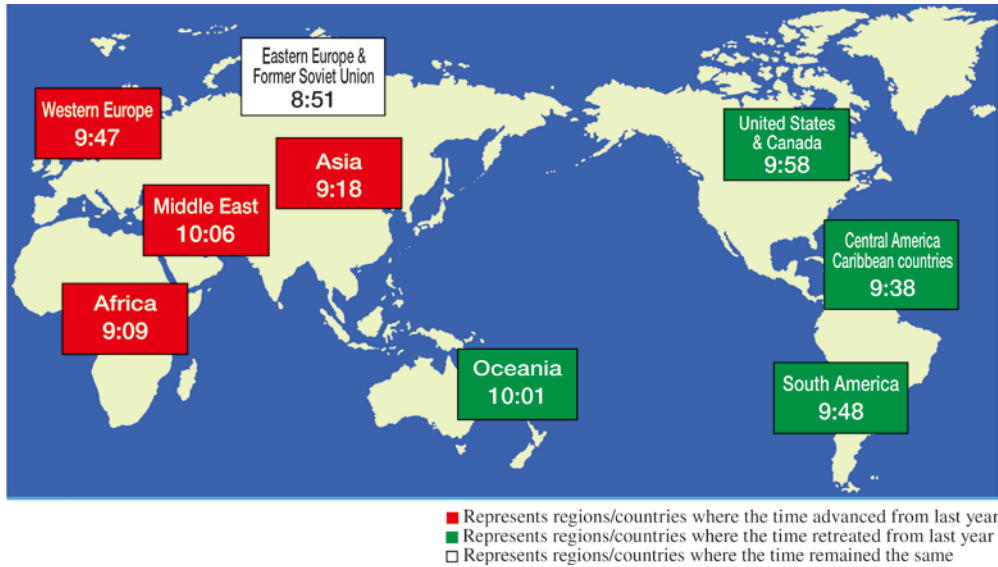
**Change over the years in the Environmental Doomsday Clock**



**The trend in the Environmental Doomsday Clock (2012 – 2016)**

- Of the 10 regions surveyed, the time advanced in four regions (the Middle East, Western Europe, Asia, Africa), while it retreated in five regions (Oceania, United States & Canada, South America, Central America, Caribbean countries).
- Among the four regions where the time advanced, respondents in the Middle East had the highest sense of crisis at 10:06, with an advancement of nearly an hour since last year (9:10 to 10:06). On the other hand, the change in time has been under 10 minutes in the three other regions where the time advanced and also the five regions where it retreated (See Report page 4).
- Similar to 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 “fairly concerned” quadrant. All other regions were in the “extremely concerned” quadrant.

**Regional Times**

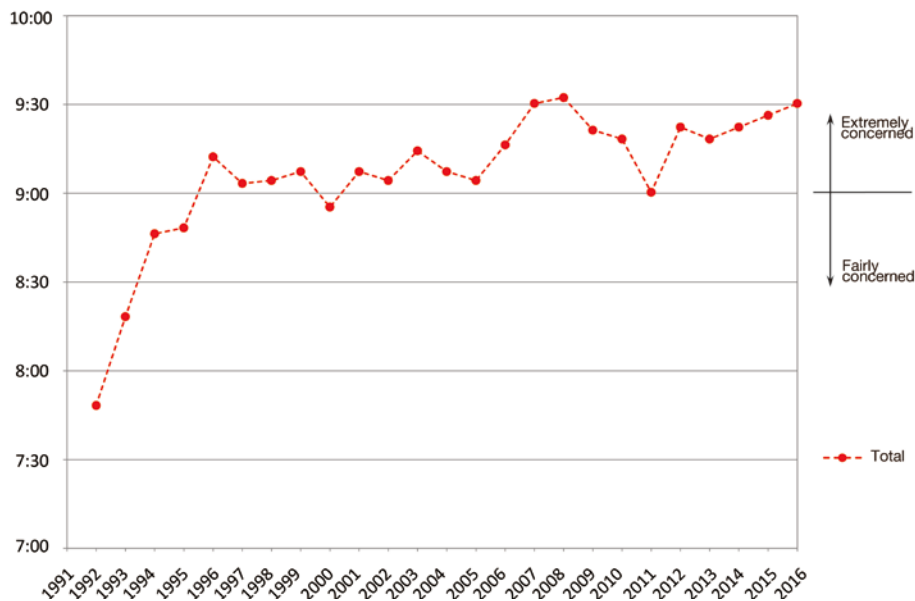


- In analyzing the changes in the Environmental Doomsday clock since the inception of the survey, overall, respondents have consistently indicated times in the “extremely concerned” quadrant of the 9:00 o’clock hour since 1996, with the exception of 2000.
- The clock retreated noticeably in 2011.
- Viewed in total, the needle has advanced approximately an hour and a half since the inception of the survey, with a higher sense of crisis.

**Changes in the Environmental Doomsday Clock**

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
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

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



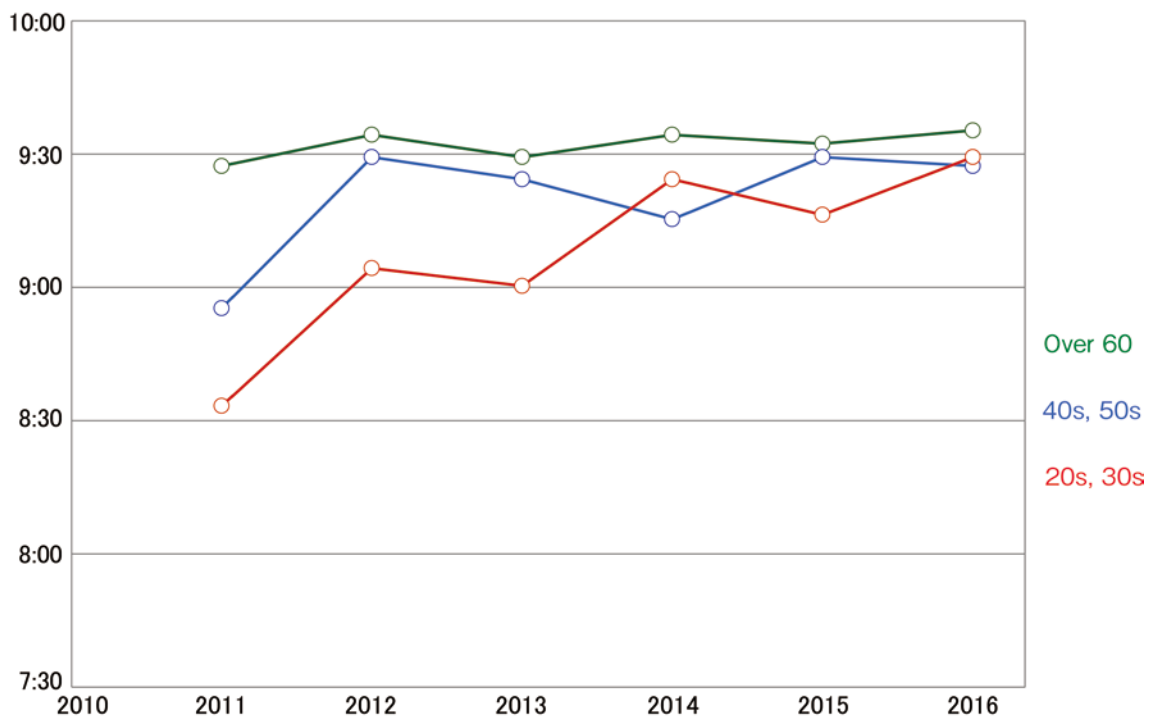
**1-2. Shifts in the Environmental Doomsday Clock Based on Respondent Age (2011 – 2016)**

As with last year, shifts in the time by respondent age were analyzed this year, examining the six years from 2011 to 2016.

- In all years, 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 selected by respondents over the age of 60 has remained fairly stable from 2011 till this year ranging from 9:28 to 9:36. On the other hand, respondents in their 20s and 30s, as well as those in their 40s and 50s had indicated times in the 8:00 o'clock hour in 2011, but have since chosen more advanced times. This year, all age groups chose times around 9:30.

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

	2011	2012	2013	2014	2015	2016
Average Time	9:01	9:23	9:19	9:23	9:27	9:31
Over 60	9:28	9:35	9:30	9:35	9:33	9:36
40s, 50s	8:56	9:30	9:25	9:16	9:30	9:28
20s, 30s	8:34	9:05	9:01	9:25	9:17	9:30

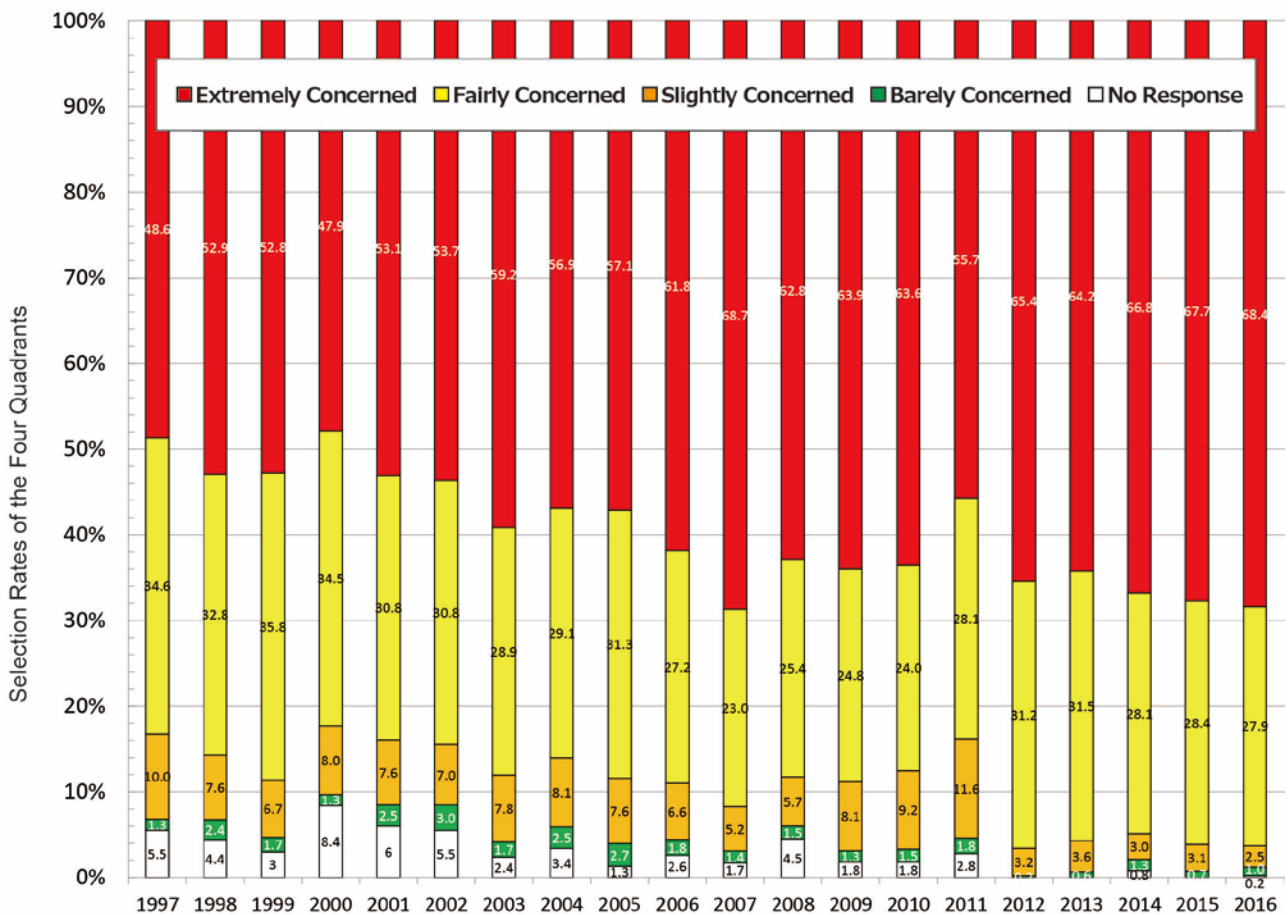


### 1-3 Changes in Selection Rates of the Four Quadrants (1997 – 2016)

For the first time this year, we analyzed the selection rates of the four quadrants (“barely concerned,” “slightly concerned,” “fairly concerned,” “extremely concerned”) and changes in the average Environmental Doomsday clock time within each quadrant.

- Respondents who selected “extremely concerned” have grown gradually from 48% in 1997, reaching 70% this year.
- Since 2012, the combined selection rate for “extremely concerned” and “fairly concerned” has surpassed 95%, revealing that a majority of respondents are feeling a sense of crisis.

**Changes in the Selection Rates of the Four Quadrants of the Environmental Doomsday Clock (%)**



## 2. Environmental Conditions of Concern in Determining the Time on the Environmental Doomsday Clock

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:

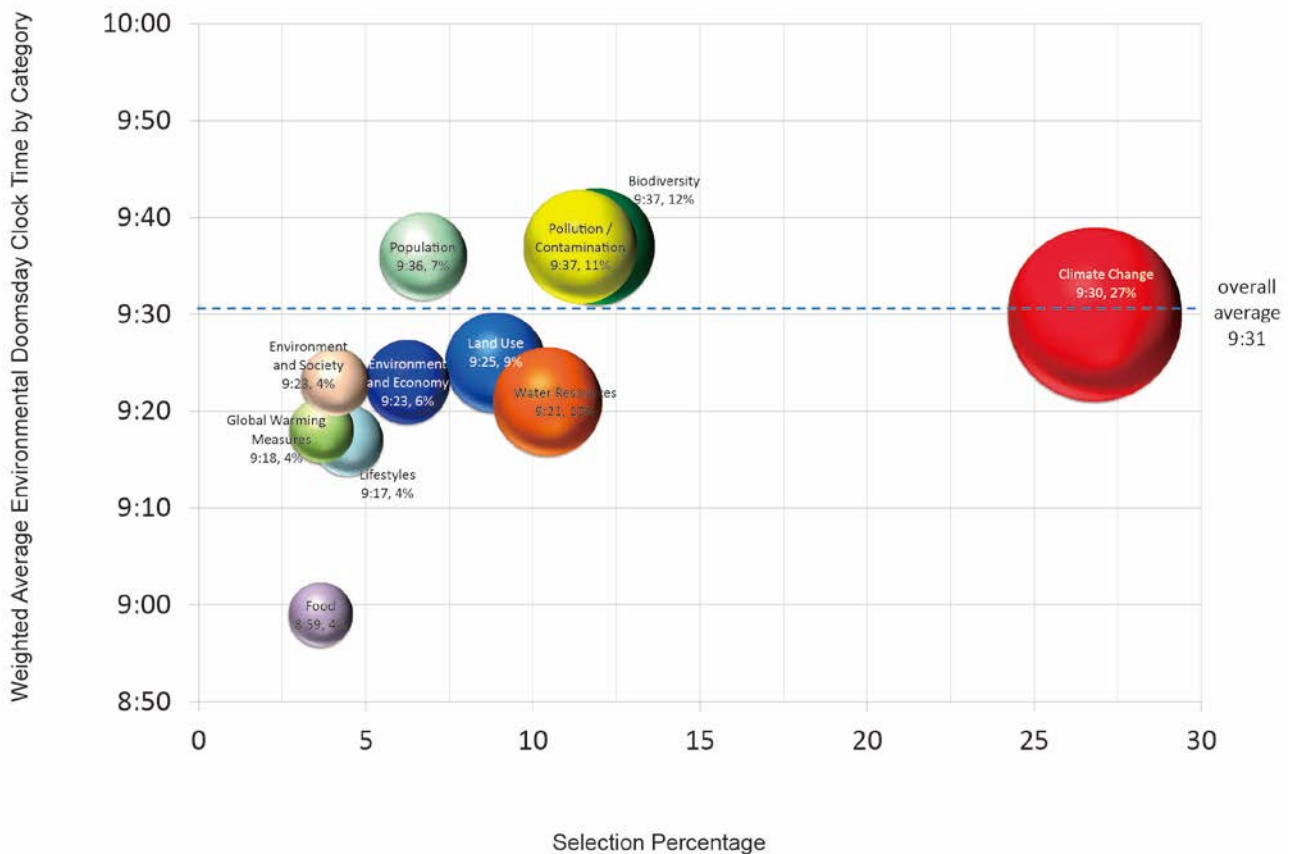
1. Climate Change; 2. Biodiversity; 3. Land Use; 4. Pollution/Contamination;
5. Water Resources; 6. Population; 7. Food; 8. Lifestyles; 9. Global Warming Measures;
10. Environment and Economy; 11. Environment and Society

### 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 27%. This was followed by “biodiversity” at 12%, and “pollution/contamination” at 11%.

### 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 “pollution/contamination” had the most advanced time at 9:37. “Population” trailed slightly behind at 9:36.
- While seven categories, including “climate change,” “land use,” “environment and society,” “environment and economy,” “water resources,” “global warming,” and “lifestyle” all had times after 9:17, “food” remained in the 8 o’clock hour, indicating the lowest sense of crisis for this issue among respondents.



### 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 27%. This was followed by “biodiversity” (12%) and “pollution/contamination” (11%).
- In contrast, similar to last year, respondents in China most frequently selected “pollution/contamination.” “Land use” was the highest choice in South America, whereas “water resources” was most frequently selected in the Middle East.
- Last year, respondents in India most frequently selected “water resources” while those in Oceania except Australia chose “biodiversity.” This year, both regions most frequently selected “climate change,” indicating a shift in awareness.

	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	27%	12%	9%	11%	10%	7%	4%	4%	4%	6%	4%
Oceania	31%	16%	7%	4%	11%	10%	2%	3%	2%	6%	6%
Australia	32%	13%	5%	4%	10%	14%	2%	3%	3%	6%	7%
Oceania (except Australia)	29%	21%	11%	6%	15%	1%	1%	0%	0%	7%	3%
United States & Canada	34%	12%	7%	6%	13%	11%	1%	4%	2%	7%	3%
USA	33%	12%	7%	6%	14%	12%	1%	3%	2%	6%	3%
Canada	38%	13%	7%	5%	8%	6%	1%	6%	3%	9%	3%
Central America, Caribbean countries	28%	13%	15%	5%	17%	6%	3%	4%	2%	3%	3%
South America	20%	18%	23%	5%	13%	3%	2%	2%	2%	5%	4%
Western Europe	26%	18%	15%	6%	5%	9%	1%	7%	1%	7%	4%
UK	26%	16%	14%	6%	2%	14%	1%	6%	2%	7%	5%
Western Europe (except UK)	25%	19%	15%	7%	7%	7%	1%	7%	1%	7%	4%
Africa	31%	16%	13%	8%	12%	5%	5%	1%	1%	3%	3%
Middle East	25%	17%	13%	3%	30%	4%	1%	3%	0%	3%	1%
Eastern Europe & former Soviet Union	14%	17%	14%	11%	12%	2%	2%	4%	1%	14%	8%
Asia	26%	9%	6%	16%	10%	6%	5%	5%	5%	6%	4%
India	21%	17%	12%	8%	15%	11%	2%	1%	2%	3%	6%
China	16%	3%	4%	29%	13%	4%	7%	5%	6%	7%	3%
Taiwan	25%	5%	13%	22%	10%	3%	4%	3%	6%	4%	4%
Republic of Korea	38%	16%	4%	10%	1%	5%	2%	16%	0%	6%	2%
Japan	33%	11%	4%	8%	5%	7%	6%	5%	7%	7%	6%
Asia*	26%	14%	13%	9%	17%	6%	3%	2%	3%	4%	3%

■ 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*

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 1,166 comments, including 931 from 118 countries abroad and 235 comments from Japan. These comments, along with comments on Question 2 will be published on the Asahi Glass Foundation website on September 8<sup>th</sup> at 11 a.m.

**For more information, please contact:**

Tetsuro Yasuda, Secretary General

The Asahi Glass Foundation

2<sup>nd</sup> Floor, Science Plaza 5-3 Yonbancho Chiyoda-ku Tokyo 102-0081 Japan

Phone: +81-3-5275-0620 Fax: +81-3-5275-0871 e-mail: [post@af-info.or.jp](mailto:post@af-info.or.jp)

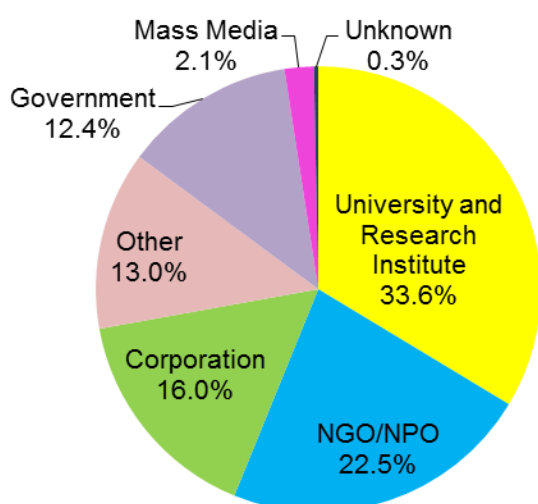
URL: <http://www.af-info.or.jp>



## 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 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 143 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	56
Middle East	16
Asia	24
Oceania	17
Japan	1
Total	212

### • Facts about This Year’s Questionnaire

Survey period: Questionnaires were sent out in April 2016 with a return deadline of June 2016

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: 26,690 (25,457 to 212 countries and 1,233 within Japan)

Questionnaires returned: 1,882

Response rate: 7.1%

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

Region	Number of responses	Percent of total
Oceania	76	4.0
United States & Canada	265	14.1
Central America, Caribbean countries	42	2.2
South America	70	3.7
Western Europe	235	12.5
Africa	91	4.8
Middle East	32	1.7
Eastern Europe & former Soviet Union	50	2.7
Asia	1021	54.3
Total (Including three area unknown responses)	1882	100.0