

## The Asahi Glass Foundation Announces Results of the 16<sup>th</sup> Annual “Questionnaire on Environmental Problems and the Survival of Humankind”

- The average time on the Environmental Domsday Clock advanced to its furthest point since the survey started in 1992, placing the time past 9:30 for the first time.
- Seventy percent of respondents pointed to global warming as the reason for their response on the Environmental Domsday Clock.
- When considering a post-2012 regulatory framework, half of the respondents stated, “a new structure will be in place where in addition to developed countries including the United States and Australia, major developing countries will participate.”
- As a long-term global warming strategy, more than 90 percent of respondents stated the need to reduce greenhouse gas emissions by more than 50 percent from current levels.

The Asahi Glass Foundation (Chairman: Hiromichi Seya) has conducted surveys with environmental experts around the world each year since 1992. This year, the Foundation received 715 responses from 96 countries; the following are the major findings of the survey. (Please refer to the attached appendix for details on the survey and this year’s results.)

### 1. Awareness of the Crisis Facing Human Survival—The Environmental Domsday Clock

- The average time for all respondents was 9:31. This represents a 14-minute advancement from last year and the highest sense of crisis since the survey started.
- In Japan, the average time was 9:34, an advancement of 19 minutes from last year.
- The needle advanced in all regions except for the Middle East and Asia. The overseas time was 9:28, a 9-minute advancement from last year.

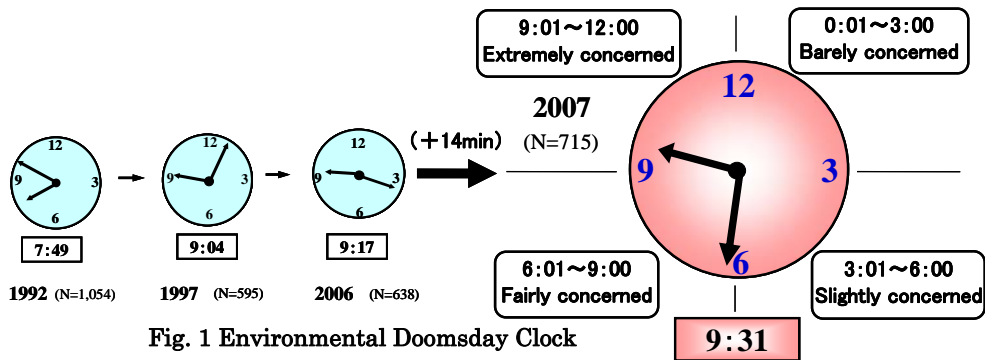


Fig. 1 Environmental Domsday Clock

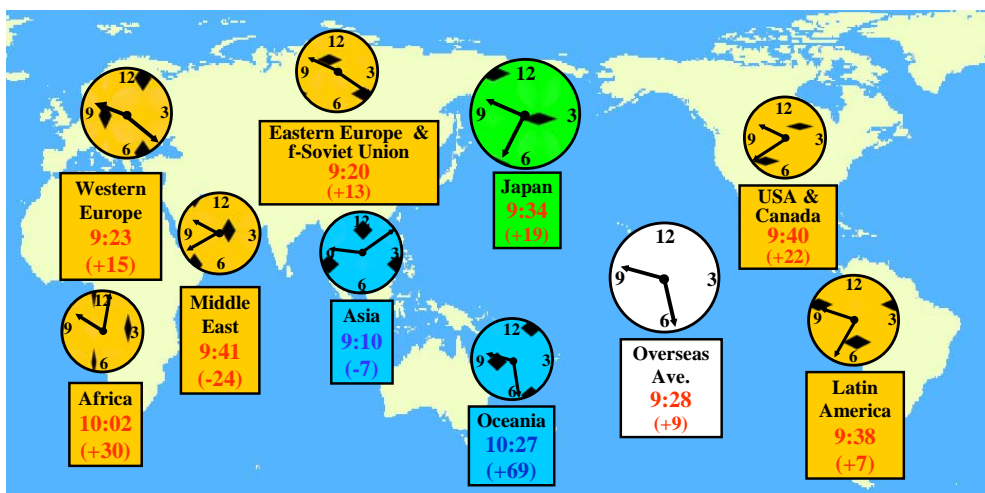


Fig. 2 Environmental Domsday Clock – by Region

- When marking the doomsday clock, “global warming” was the main environmental condition of concern cited most frequently by respondents overall.
- Compared to last year’s survey, “global warming” rose by six points in Japan, and eight points overseas, and seven points overall.
- Whereas the percentage of respondents who selected “global warming” reached 80 percent in developed regions (Japan, Western Europe, United States & Canada, Asian Four), the rate only reached 60 percent in developing regions (Latin America, Africa, Rest of Asia).

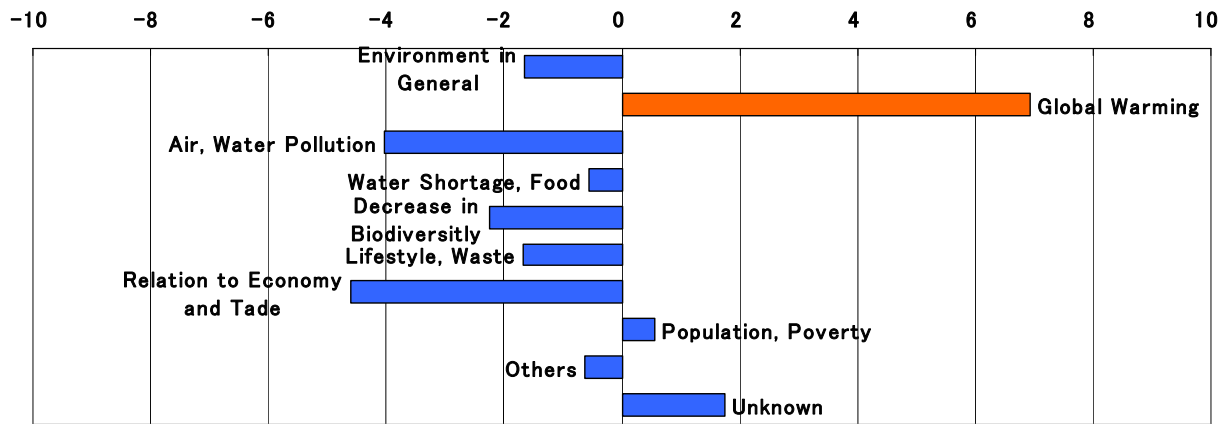


Fig.3 Items considered in deciding the time - Increase from last year(2007–2006)

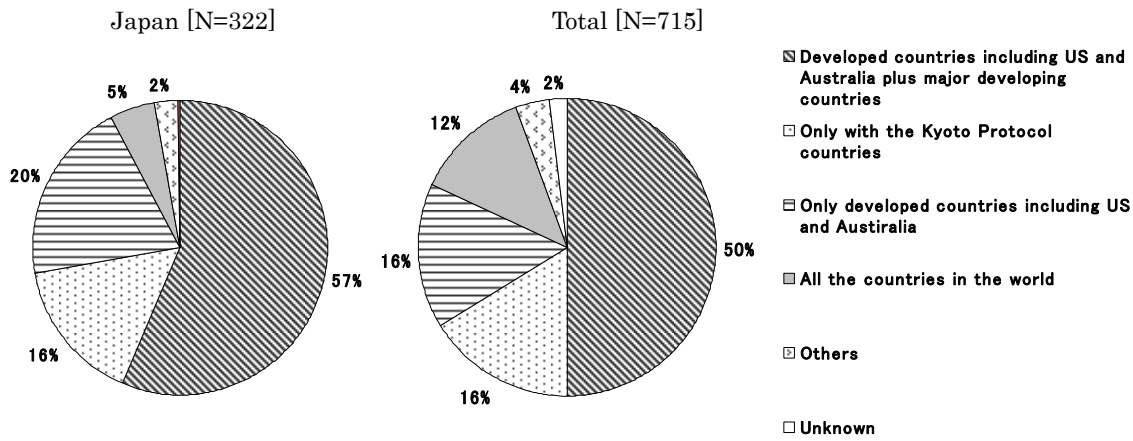
Table 1 Items considered in deciding the time

	Japan	United States & Canada	Western Europe	Asian Four	Rest of Asia	Latin America	Africa	Oceania	Eastern Europe & Former Soviet Union	Middle East	Overseas Total	Developed Region	Developing Region	Others	Total
Environmental Problem in General	29	17	21	9	25	17	20	6	30	29	20	25	22	23	24
Global Warming	(80)	(70)	(70)	(94)	(57)	(69)	(66)	(78)	(53)	(82)	(68)	(79)	(61)	(68)	(73)
Air, Water, River and Ocean Pollution	17	26	30	47	46	31	26	(44)	(57)	35	38	22	39	(48)	28
Water Shortage, Waste Problem	45	(51)	36	35	31	31	54	39	20	35	36	44	36	29	40
Deforestation, Desertification, Loss of Biodiversity	(49)	40	(44)	(71)	(49)	(47)	(57)	(44)	(53)	24	(49)	(49)	(50)	43	(49)
Lifestyle Change, Waste Problems	23	21	31	9	22	33	11	22	37	12	23	23	22	26	23
Environmental Problem in relation to Economy and Trade	13	9	19	9	13	22	3	6	30	0	13	13	13	15	13
Population and Poverty Problems	18	36	36	21	16	39	31	22	20	(59)	28	23	24	31	24
Others	5	19	4	3	4	0	0	11	0	6	5	6	2	5	5
Unknown	1	2	1	0	8	3	9	6	0	0	4	1	7	2	3

## 2. Global Warming

### Post-2012 Regulatory Framework

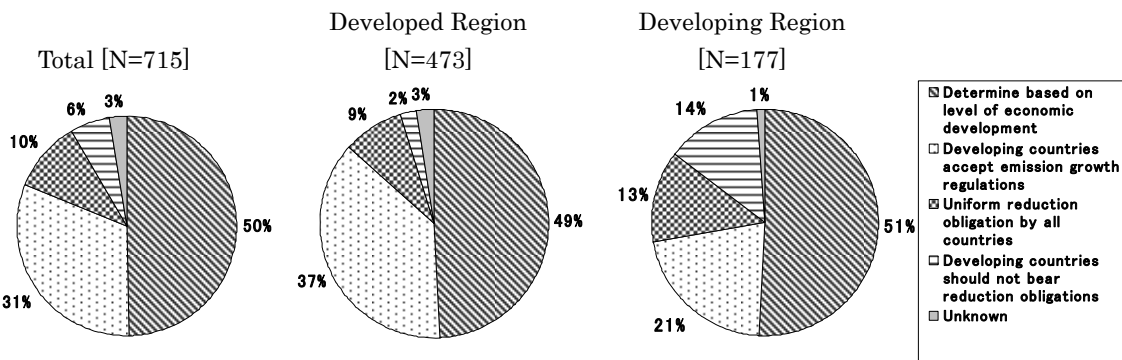
- In considering the post-2012 regulatory framework, half of the respondents, both from Japan and overall, stated, “a new structure will be in place where in addition to developed countries including the United States and Australia, major developing countries will participate.”
- While 12 percent of respondents overall selected “There will be a new regulatory framework in which all of the countries of the world will participate,” only 5 percent of Japanese respondents made this selection.



**Fig.4 Post-2012 Regulatory Framework**

**Consideration for Discrepancies between Developed and Developing Countries**

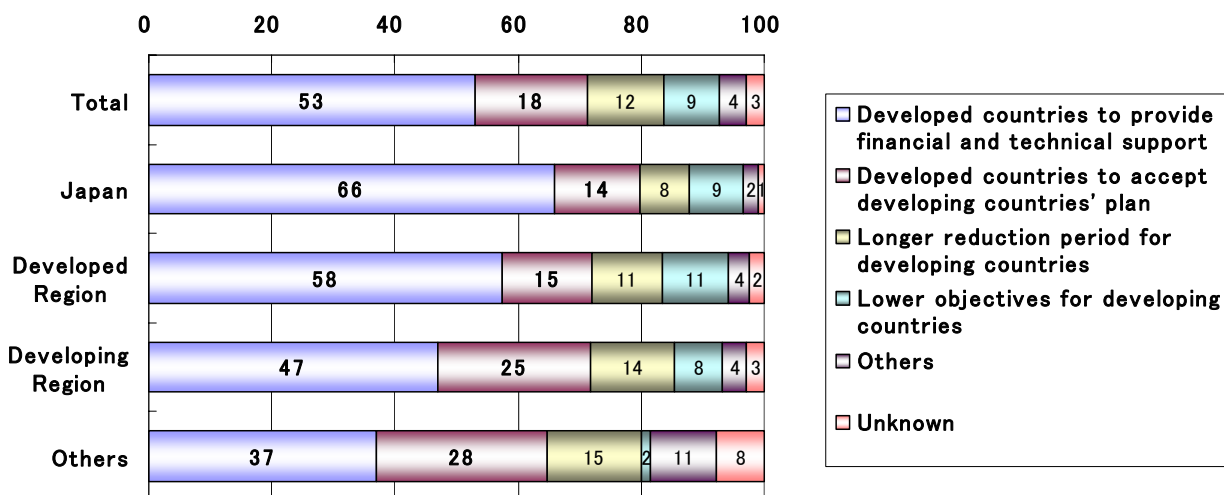
- When considering the discrepancies in economic development between developed and developing countries that should be reflected when creating a new framework, 50% of respondents, from developed, developing regions, and overall, stated “reduction obligations should be determined for each country with consideration to its level of economic development,” making this the most frequently cited response.
- Whereas 14 percent of respondents from developing regions stated, “developing countries should not bear reduction obligations,” only two percent of respondents from developed regions made this selection.



**Fig.5 Consideration for Discrepancies between Developed and Developing Countries**

**Conditions for Developing Countries to Accept Regulation**

- To enable developing countries to accept some level of regulation, “require developed countries to provide financial and technical support to enable developing countries to meet the regulations” was frequently cited, at 53%. In particular, 66% of Japanese respondents made this selection.



**Fig. 6 Conditions for Developing Countries to Accept Regulation**

### Considerations for a Framework Beyond the First Commitment Period for the Kyoto Protocol

- To make the post-2012 framework as effective as possible, respondents most frequently selected “create a system for technical and financial assistance to help enable developing countries to meet their regulatory objectives” at 63%. Responses from developed and developing regions were both consistent with this pattern.

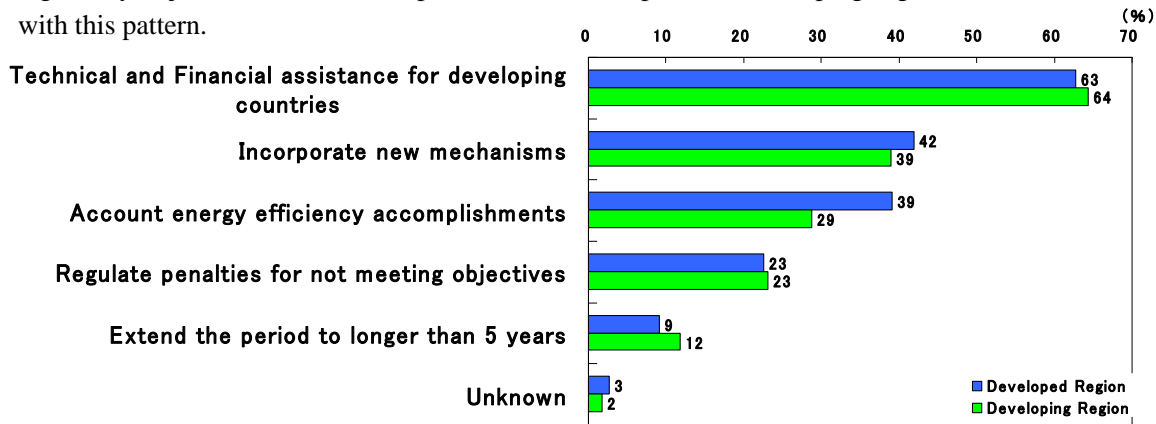


Fig. 7 Considerations for a Framework Beyond the First Commitment Period for the Kyoto Protocol

### There May Be a Need to Reduce Greenhouse Gas Emissions by More Than 50%

- A combined total of 92% of respondents selected either “such a reduction will unquestionably become necessary in the near future” or “it is possible that such a reduction will become necessary in the future,” revealing that an extremely high proportion of respondents feel the need to reduce greenhouse gas emissions by more than 50% from current levels.

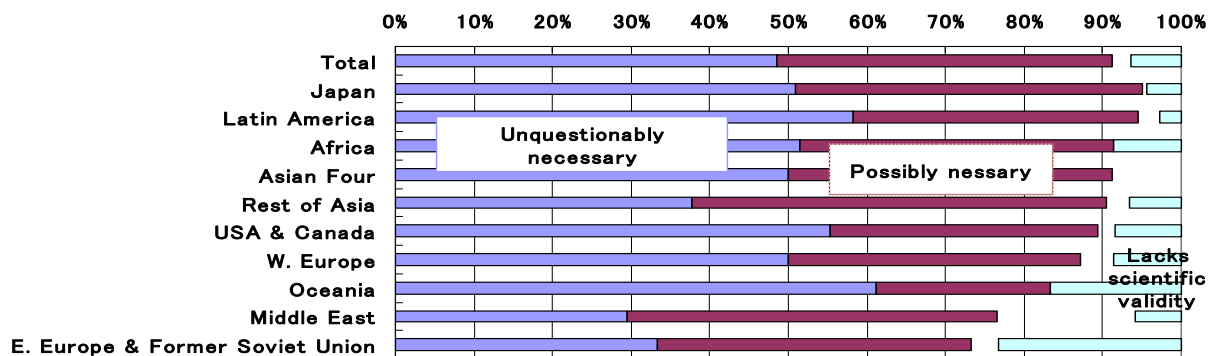


Fig. 8 There May Be a Need to Reduce Greenhouse Gas Emissions by More Than 50%

### Achieving a Substantial Reduction

- Responses from developed and developing regions revealed a difference of perspectives between the two regions. While 37 percent of respondents from developed regions selected “create a new economic structure that assigns a value to carbon,” surpassing the 29 percent who chose “create new reduction objectives within a framework like the Kyoto Protocol and make a concerted effort towards its attainment,” the priorities were reversed in developing regions. There, only 20 percent chose the former option, while 44 percent selected the latter.

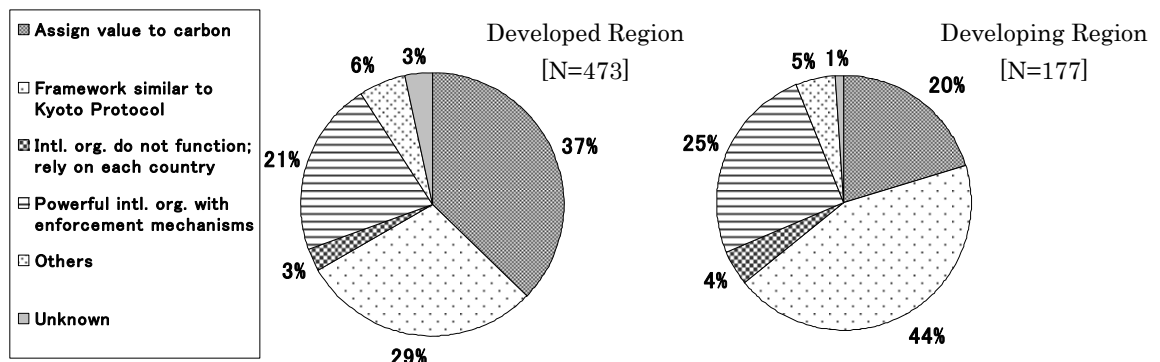


Fig. 9 Achieving a Substantial Reduction

### 3. Energy Problems

- Overall, the most frequently cited source of energy to compensate for energy needs was “solar power,” at 40 percent. In particular, 48 percent of respondents in Japan and more than 50 percent of respondents from Africa, Asian Four, and Oceania chose this energy source.

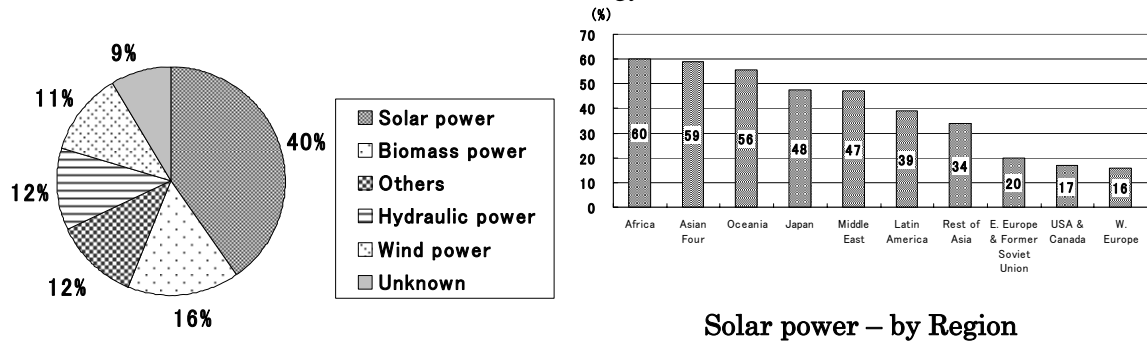


Fig. 10 Realistic Source of Energy to Compensate for Deficiencies

### 4. Progress Toward Agenda 21

- Similar to last year, the categories in which more than 50% of respondents from Japan and overseas reported progress included “promotion of environmental education,” “activities by local governments and citizens’ groups,” “scientific and technological contributions,” “formation of recycling systems,” and “environmental measures by industry.”
- As in previous years, the percentage of respondents who reported no progress surpassed those who reported progress in the five categories of “conservation of forest resources,” “greenhouse gas prevention measures,” “conservation of biodiversity,” “population and poverty problems,” and “lifestyle alteration.” Once again, “lifestyle alteration” was the only category this year in which responses indicating no progress exceeded 50%.

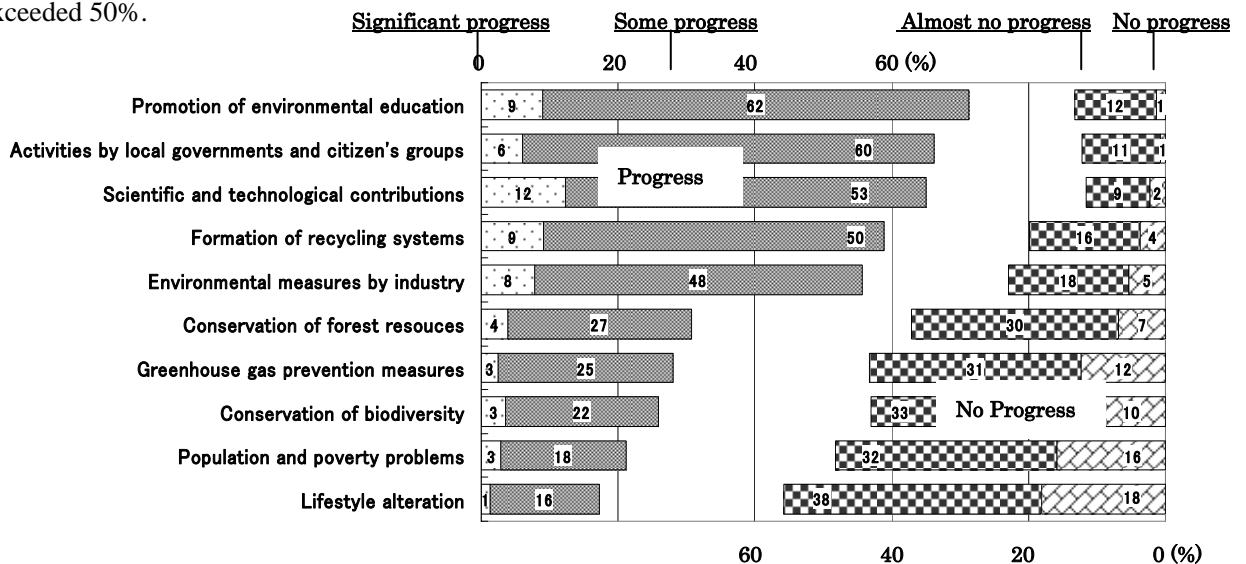
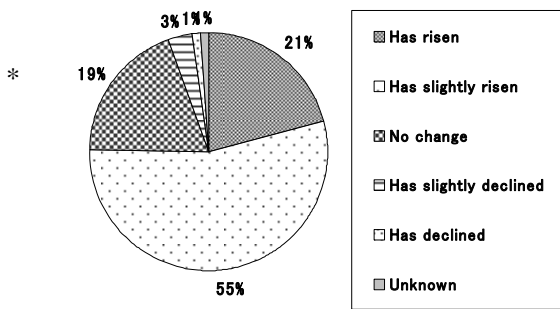


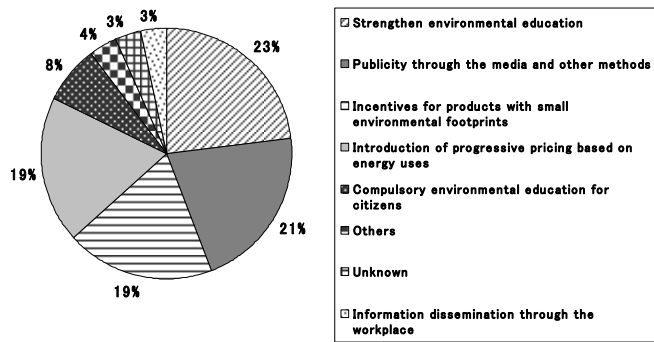
Fig. 11 Progress Toward Agenda 21

### 5. Lifestyle Alteration

- When comparing current public awareness towards environmental problems with that of three years ago, a majority of respondents indicated improvement, with a combined 75% selecting either “awareness has risen” or “awareness has slightly risen.”



**Fig.12 Public Awareness Towards Environmental Problems – A Three-year Comparison**



**Fig.13 Most Effective Way to Promote Transformations in Individual Awareness - Overall**

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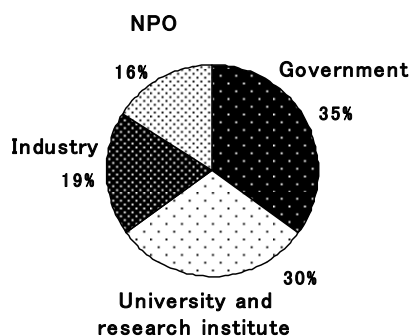
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## Appendix

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

Since 1992, the Asahi Glass Foundation has conducted surveys each year with experts around the world who are knowledgeable and are involved in environmental issues, including government officials and those in nongovernmental organizations, universities and research institutions, and within industry, about various endeavors to counter environmental problems. (The survey is supervised by Professor Akio Morishima, Special Research Advisor of the Institute for Global Environmental Strategies and board member of the Foundation.) The questionnaires are sent out to approximately 4,000 respondents every April and collected by end May. After the responses are compiled, compared, and analyzed, the survey results are announced in September. The pie chart below shows the affiliation of the questionnaire respondents in descending order. The questionnaire has been sent out to 199 countries (including Japan) since its inception in 1992, with responses returned from 156 countries.



	Number of countries surveyed	Number of countries responded
Asia	25	23
Africa	53	43
Oceania	15	9
Western Europe	24	19
Eastern Europe & former Soviet Union	27	20
Middle East	16	11
USA & Canada	2	2
Latin America	36	28
Total	198	155

### ● Topics Covered in This Year’s Questionnaire

Repeat topics: “Awareness of the Crisis Facing Human Survival—The Environmental Doomsday Clock,”  
Progress Toward “Agenda 21”

Main focus of this year’s questionnaire: global warming, energy problems, lifestyle alteration

### ● Facts about This Year’s Questionnaire

**Response period:** Questionnaires were sent out in April 2007 with a return deadline of May 2007.

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

**Questionnaires mailed:** 3,890

**Questionnaires returned:** 715

**Response rate:** 18.3%

### Breakdown of respondents by region:

	Number of responses	Percent of total
Japan	322	45.0
United States & Canada	47	6.6
Western Europe	70	9.8
Asian Four (South Korea, Hong Kong, Taiwan, and Singapore)	34	4.8
Developed Regions	473	66.2
Rest of Asia	106	14.8
Latin America	36	5.0
Africa	35	4.9
Developing Regions	177	24.7
Oceania	18	2.5

Eastern Europe & former Soviet Union	30	4.2
Middle East	17	2.4
Other	65	9.1
(Overseas Total)	(393)	(55.0)
Total	715	100.0