

**Results of the 12th Annual  
“Questionnaire on Environmental Problems and the Survival of Humankind”**

**REPORT**

**THE ASAHI GLASS FOUNDATION**

September 2003

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## Foreword

This report summarizes the results of this year's "Questionnaire on Environmental Problems and the Survival of Humankind," a survey conducted annually by the Asahi Glass Foundation since 1992.

Eleven years have already passed since the United Nations Conference on Environment and Development, or Earth Summit, was held in Rio de Janeiro, and with each year the severity of global environmental problems and the urgency of finding solutions grow ever greater. In 2002, the World Summit on Sustainable Development, or Johannesburg Summit, was held from August to September, where debate about global environment problems at large was conducted. Further, in November the Eighth Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP8) was held in Delhi, where timely implementation of the Kyoto Protocol was strongly advocated. In March 2003, against the backdrop of the World Water Forum held in Kyoto, where problems of water crisis management were deliberated, major events, such as the Iraq War, set back progress in environmental preservation. Although environmental problems, including the North/South controversy and other major issues, remain severe, progress is being achieved toward the development of new energy sources and of automobiles with less environmental impacts and in the reduction of waste materials and recycling, leading us to believe that awareness about environmental conservation is rising worldwide.

In this year's survey, the 12th, the questionnaire was designed to gauge the perceptions of respondents, mainly environmental experts from both governmental and private-sector organizations, regarding the progress of environmental conservation efforts and to highlight regional differences in opinion. In addition to the issues addressed in previous surveys—including queries about the Environmental Doomsday Clock and Agenda 21—the main questions on this year's questionnaire asked about changes in environmental consciousness and in perceptions of environmental problems, global warming countermeasures and related evaluation of the Kyoto Mechanisms, development costs for alternate energy sources and cost countermeasures, and evaluation of the Johannesburg Summit.

Once again, the Foundation would like to thank the many environmentally conscious experts around the world that took the time to respond so carefully to the survey. In addition, we would like to express our profound appreciation to Professor Akio Morishima, chair of the Institute for Global Environmental Strategies, for continuing to provide invaluable assistance at all stages of the project from the initial survey design to the final analysis.

In closing, we appeal to anyone reading this report for advice on how to enhance the survey so that it can be made more comprehensive and relevant in future.

Hikomichi Seya  
Chairman  
Asahi Glass Foundation  
September 2003

# I. Facts about the 12th Annual "Questionnaire on Environmental Problems and the Survival of Humankind"

**Response period:** Questionnaires were sent out in April 2003 with a return deadline of June 2003.

**Questionnaire respondent pool:** Selected from members of GOs, NGOs, academic and industrial organizations in the databases of the United Nations Environment Program, the United Nations Commission on Sustainable Development and the Asahi Glass Foundation.

**Questionnaires mailed:** 4,479

**Questionnaires returned:** 806

**Response rate:** 18.0%

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

Region	Number of responses	Percent of total
Japan	315	39.1
United States & Canada	76	9.4
Western Europe	98	12.2
Asia (outside Japan)	88	10.9
Latin America	37	4.6
Africa	55	6.8
Oceania	39	4.8
Eastern Europe & former Soviet Union	66	8.2
Middle East	30	3.7
Region of respondents unknown	2	0.3
(Overseas Total)	(491)	(60.9)
<b>Total</b>	<b>806</b>	<b>100.0</b>

Gender	Number of responses	Percent of total
Male	658	81.6
Female	119	14.8
No response	29	3.6
<b>Total</b>	<b>806</b>	<b>100.0</b>

Occupational affiliation	Number of responses	Percent of total
National government	119	14.8
Local government	87	10.8
University or research institution	182	22.6
Nongovernmental organization	170	21.1
Corporation	102	12.7
Other	135	16.7
No response	11	1.3
<b>Total</b>	<b>806</b>	<b>100.0</b>

- Notes:
1. This report used the 806 responses as the basis for calculating percentages, which were rounded up from the first or second decimal place.
  2. Since the responses that were not attributable to a particular region were written on the overseas version (English) of the questionnaire, they were included in the "overseas total."
  3. Please note that where it is marked "Percentages are based on the total number of responses," the total number of responses refers to the total number of responses to that question, not to the total number of respondents to the survey.

## II. Summary of Questionnaire Results

### • Awareness of the Crisis Facing Human Survival

#### Environmental Doomsday Clock

- The average time expressed by all respondents for the Environmental Doomsday Clock was 9:15, a ten-minute advance from the previous year. This marked the greatest progression of the clock, indicating the highest degree of perceived environmental crisis since the inception of this questionnaire.
- The average time for overseas respondents progressed by twenty-one minutes to 9:12, a result comparable to the year before last.
- The sense of crisis among Japanese respondents advanced as the average time moved two minutes ahead to 9:20, representing the highest level of perceived environmental crisis yet.
- Main environmental condition for selecting the time: In developed regions including Japan, North America, and Western Europe, “Global warming,” was most often indicated, whereas in the developing regions of Asia, Central and South America, and Africa, “Deforestation, desertification, loss of biodiversity” was most often cited.

### 1. Main Focus of the Current Year’s Questionnaire

#### 1. Changes in Environmental Awareness and Media Coverage of Environmental Issues

##### Changes in Environmental Awareness

- Comparison with 2000 results: In assessing the change in awareness, a high percentage of respondents, including 64% of overseas and 67% of Japanese respondents, indicated that it has improved since three years ago.
- Reason for assessment: The main reason selected by respondents from both overseas and Japan was “Environmental protection activities by NPOs/citizens/communities” followed by “Government regulations, policies and publicity.” The respondents from developing regions identified the same reasons, but in reverse order.

##### Media Coverage of Environmental Issues

- Most commonly cited categories: The categories of environmental issues that are being publicized varied between regions. The most commonly cited category in North America and Western Europe was “Global warming” followed by “Garbage, hazardous wastes, chemicals.” These were also the same categories selected by Japanese respondents; however, the order was reversed. In developing regions, “Food and water problems” and “Deforestation, desertification, loss of biodiversity” shared the most frequent response, whereas the most common response from overseas respondents as a whole was “Energy, urban and traffic problems.”
- Categories to be prioritized: Respondents in developed regions identified “Global warming” as the environmental problem that media should prioritize. In developing regions and Oceania the category was “Deforestation, desertification, loss of biodiversity,” while respondents in Eastern Europe, the former Soviet Union, and the Middle East, cited “Air, river, and ocean pollution.”

### 2. Global Warming Countermeasures

#### Conditions for Global Warming Countermeasures to be Effective

- Among all regions, excluding Asia but including Japan, the most frequently cited condition for global warming countermeasures to be effective was “Participation in the Kyoto Protocol by the United States and other nonparticipants.” From developed regions, this was followed by “Modification of tax and other social systems to simplify patterns of production and consumption and lifestyles.” The second ranked response from developing regions was “Capital support and technology transfers to developing countries.”

## **Kyoto Mechanisms**

- Respondents from both overseas and Japan most often chose “Developed nations should prioritize reduction strategies.” Respondents from developed regions as well as Eastern Europe, the former Soviet Union, and the Middle East then cited “Doubtful about progress in overall reductions because of difficulties with the Kyoto Mechanisms.” The second most popular response from developing regions was “CDMs can be highly rated because linked to capital and technological support.”

## **3. Development Costs for Alternative Energy Sources and Strategies for Cost Reduction**

- Development Costs: The respondents from developed regions cited “Governments should subsidize development expenses,” whereas respondents from developing regions indicated “An international endowment fund should be established.”
- Measures to promote alternative energy sources even if their costs are higher than fossil fuels: All regions excluding Japan and Western Europe cited “Provide incentives for using energy from alternative sources” as most important. Among respondents from Japan and Western Europe, the measure most cited was “Increase fossil fuel energy costs by imposing environmental taxes.”

## **4. Evaluation of the Johannesburg Summit**

- Evaluation: Among overseas respondents, a comparable number of respondents evaluated the Johannesburg Summit favorably as those who did unfavorably, with 40% in favor and 41% in opposition. Fifty one percent of Japanese respondents evaluated the Summit favorably, whereas a smaller percentage of respondents, 42%, expressed opposition.
- Reasons for favorable responses: The most popular response by a wide margin from overseas respondents was “By 2015 cut in half the percentage of people suffering from poverty and starvation and insecure access to safe water.” In Japan, the main reason for favorable responses was “Countries that have ratified the Kyoto Protocol should strongly press other countries to do so.”
- Reasons for unfavorable responses: The main reason for opposition from all regions excluding Eastern Europe and the former Soviet Union was “Failure to overcome obstacles to implementation of the Agenda 21 action plan.” Among respondents from all regions the second ranked response was “Nothing concrete was decided about important issues”

## **II. Repeat Topics**

### **1. Progress Toward Agenda 21**

As in previous years, the questionnaire surveyed respondents in ten of categories of the action plans outlined in Agenda 21.

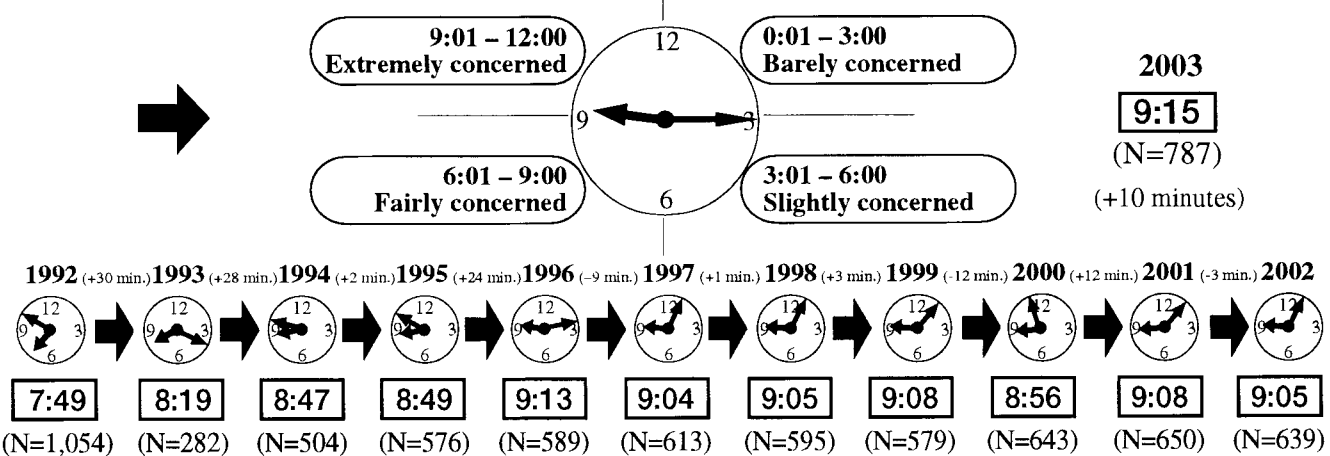
- For overseas respondents, over 50% of the respondents expressed progress in six categories: The categories were “Promotion of environmental education,” “Activities by local governments and citizens’ groups,” “Scientific/technological contributions,” “Environmental measures by industry,” “Formation of recycling systems,” and “Conservation of forest resources.” However, the responses stating that progress occurred in the categories of “Conservation of biodiversity,” “Countermeasures for global warming,” “Population/poverty problems” and “Lifestyle alteration” were low, ranging from 46% to 15%.
- For Japanese respondents, the five top items were the same as overseas respondents, ranging from 71% to 62%. The responses were low for the remaining five categories, ranging from 28% to 7%, figures much lower than the overseas responses.

### III. Questionnaire Results

• **AWARENESS OF THE CRISIS FACING HUMAN SURVIVAL  
— ENVIRONMENTAL DOOMSDAY CLOCK**

**Question (1):** To what extent do you feel that the current deterioration of the global environment has created a crisis that will affect the continuance of the human race? Write a time within the range 0:01 to 12:00 corresponding to the extent of your concern in the boxes below.

**Concern about Human Survival Prospects**

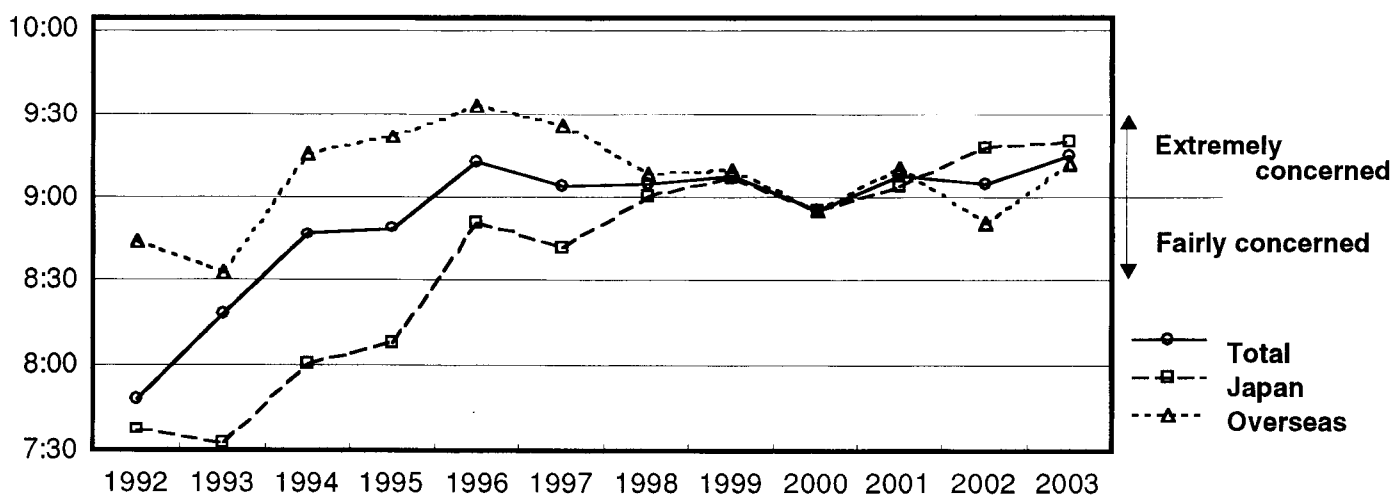


	Number of respondents (2003)	Changes in time from year to year			Changes in average time by region			
		1995	→	2002	→	2003	1995 → 2003	2002 → 2003
Total	787	8:49	→	9:05	→	9:15	+26	+10
Japan	311	8:08	→	9:18	→	9:20	+72	+2
United States & Canada	75	8:52	→	8:23	→	9:03	+11	+40
Western Europe	96	9:02	→	8:44	→	8:52	-10	+8
Asia	85	9:41	→	8:36	→	9:41	0	+65
Latin America	37	9:23	→	9:22	→	9:19	-4	-3
Africa	51	9:33	→	9:29	→	9:22	-11	-7
Oceania	37	9:44	→	9:22	→	9:37	-7	+15
Eastern Europe & former Soviet Union	65	9:29	→	9:28	→	9:02	-27	-26
Middle East	28	9:09	→	8:02	→	8:52	-17	+50
Overseas Total	476	9:22	→	8:51	→	9:12	-10	+21
Male	646	8:46	→	9:01	→	9:13	+27	+12
Female	113	8:57	→	9:24	→	9:35	+38	+11
Developed Regions	482	8:23	→	9:05	→	9:12	+49	+7
Developing Regions	173	9:33	→	9:00	→	9:31	-2	+31

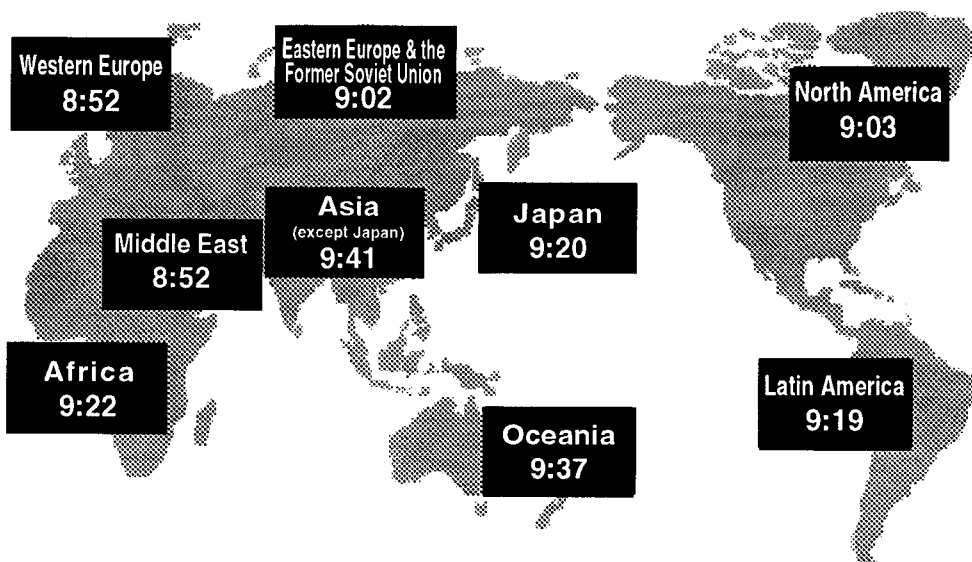
- The average time expressed by all respondents for the Environmental Doomsday Clock was 9:15, which placed it in the “Extremely Concerned” quadrant and constituted an advance of 10 minutes over the previous year’s results. This marked the greatest progression in the clock, indicating the highest degree of perceived environmental crisis since the inception of this questionnaire.
- The average time for overseas respondents progressed by twenty-one minutes to 9:12, a result comparable to the year before last.
- The sense of crisis for Japanese respondents advanced as the average time moved two minutes ahead to 9:20, representing the highest level of perceived environmental crisis since the inception of this questionnaire.
- In Asia and Oceania the sense of crisis was high, with average times surpassing 9:30. On the other hand, it was lower in Western Europe and the Middle East, where respondents indicated average times on either side of 8:50. The advancement in time was greater than the previous year in Asia and North America.
- The sense of crisis is higher in developing regions than developed regions. As in past years, female respondents tended to report a higher sense of crisis than males.

### Changes in the Environmental Doomsday Clock over Time

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
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
Japan	7:38	7:33	8:01	8:08	8:51	8:42	9:01	9:07	8:56	9:04	9:18	9:20
Overseas	8:44	8:33	9:16	9:22	9:34	9:27	9:09	9:10	8:56	9:11	8:51	9:12
Overseas - Japan (min.)	66	60	75	74	43	45	8	3	0	7	-27	-8



### Regional Times





**Question (2):** When you selected the time above, what were the main environmental conditions about which you were concerned? Please check up to three (3) of the following items of concern.

	Japan (N=315)	United States & Canada (76)	Western Europe (98)	Asia (88)	Latin America (37)	Africa (55)	Oceania (39)	Eastern Europe & former Soviet Union (66)	Middle East (30)	Overseas Total (491)	Developed Regions (489)	Developing Regions (180)
General environmental problems	35	14	20	17	24	15	26	41	27	22	29	18
Global warming	64	51	48	39	32	40	33	29	33	40	59	38
Air pollution, water contamination, river/ocean pollution	24	32	29	51	54	27	44	52	63	41	26	44
Water shortage, food problems	40	51	43	28	38	42	28	17	47	36	42	34
Deforestation, desertification, loss of biodiversity	44	36	41	61	54	69	54	36	43	48	42	62
Peoples' lifestyles, waste related problems	27	21	31	27	32	27	28	59	20	31	27	28
Environmental problems and economic/trade related activities	14	16	23	13	24	15	18	29	10	19	16	16
Population, poverty, status of women	20	46	44	41	22	51	36	15	37	38	29	40
Other	10	17	7	6	3	4	10	5	3	8	11	4
No response	1	3	2	6	5	4	8	3	0	4	1	5

Notes: Figures enclosed by a double circle represent the answer with the highest number of points.

A single circle is used for the answer with the second highest number of points.

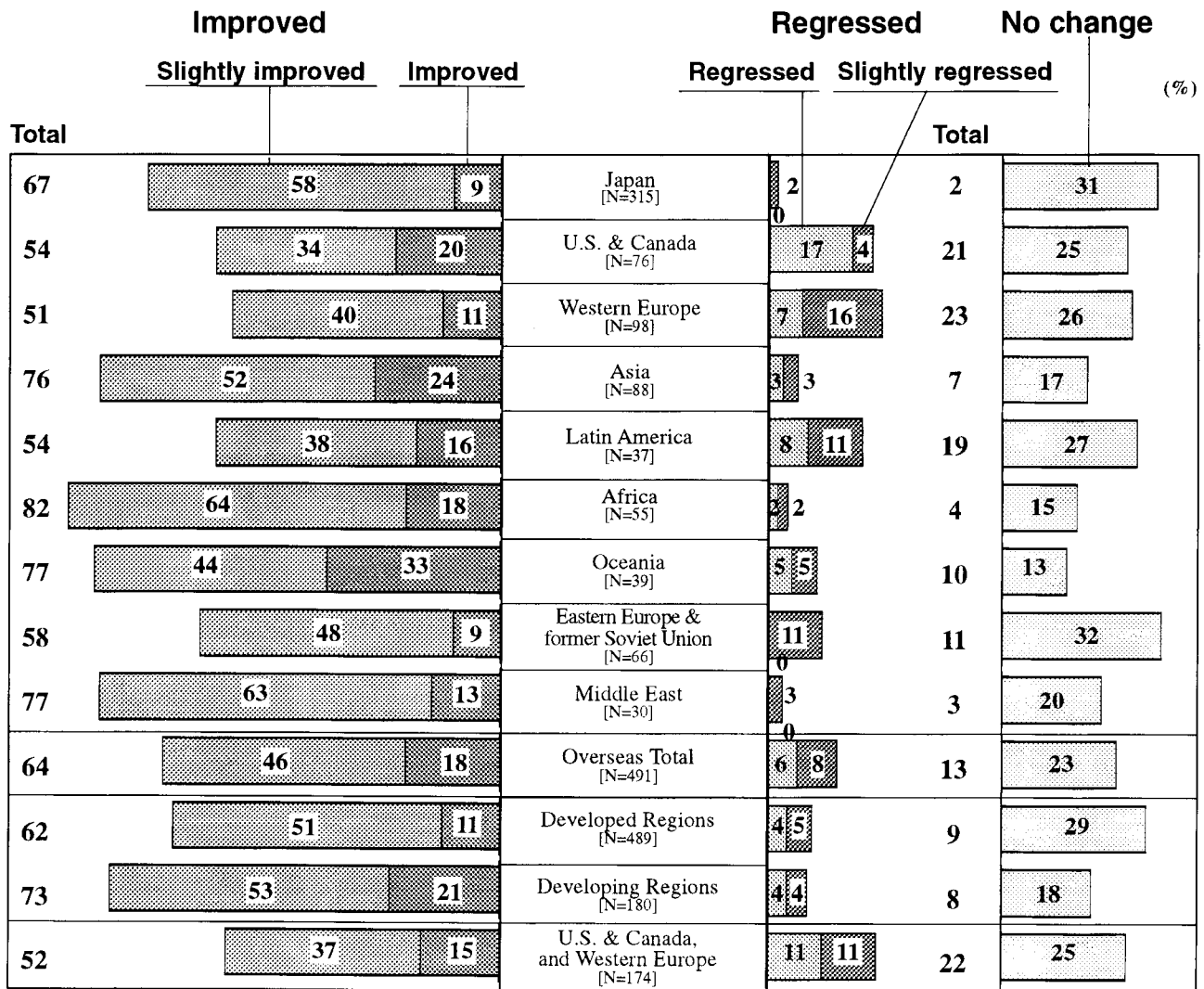
Please note that the totals for the various regions should add up to 300% since respondents were asked to select three items. However, some respondents marked less than three items, causing the aggregate total to be less than 300%.

- Respondents from developed regions most frequently cited “Global warming” as the main environmental condition that influenced their selection of time. This was followed by “Deforestation, desertification, loss of biodiversity” and “Water shortage, food problems.”
- In developing regions, respondents indicated “Deforestation, desertification, loss of biodiversity” as the main environmental condition, followed by “Air pollution, water contamination, river/ocean pollution” and “Population, poverty, status of women.”
- Over twice as many respondents in North America and Western Europe cited “Population, poverty, status of women” as a factor influencing their selection as respondents in Japan.

**I. MAIN FOCUS OF THE CURRENT YEAR'S QUESTIONNAIRE**

**1. CHANGES IN ENVIRONMENTAL AWARENESS AND MEDIA COVERAGE OF ENVIRONMENTAL ISSUES**

**Question (1):** To build sustainable societies, it is necessary to simplify peoples' lifestyles. To accomplish that, we must increase environmental awareness. In your country, has environmental awareness improved in comparison with three years ago? Please check one of the following items.



- In assessing the change in environmental awareness, a high percentage of respondents indicated, including 64% of overseas and 67% of Japanese respondents, that it has improved since three years ago. On the other hand, 23% of overseas and 31% of Japanese respondents indicated that there has been no change, while a small percentage of respondents, 13% from overseas and 2% from Japan, expressed that awareness had regressed.

**Question (2):** If you selected items “Improved” or “Slightly improved” in the previous question, please check two (2) of the main reasons for your selection from among the following.

	Japan (N=210)	United States & Canada (41)	Western Europe (50)	Asia (67)	Latin America (20)	Africa (45)	Oceania (30)	Eastern Europe & former Soviet Union (38)	Middle East (23)	Overseas Total (314)	Developed Regions (301)	Developing Regions (132)
Government regulations, policies and publicity	56	27	64	63	40	62	40	55	48	53	53	59
Efforts by business and industry (green product development, waste processing, publicity)	55	39	36	9	35	7	20	5	9	19	50	12
Environmental protection activities by NPOs/citizens/communities	62	68	52	61	50	53	50	47	83	58	61	57
Scientific approach to environmental problems and the results	10	12	16	7	0	4	10	18	22	11	11	5
State of nature and wildlife	2	2	4	13	15	4	17	16	4	9	2	11
Environmental education program development	9	20	8	30	45	42	30	39	30	29	10	36
Other	1	20	0	4	0	4	0	5	4	5	4	4
No response	1	2	4	3	5	9	17	3	0	5	2	5

Notes: Figures enclosed by a double circle represent the answer with the highest number of points.

A single circle is used for the answer with the second highest number of points.

Please note that the totals for the various regions should add up to 200% since respondents were asked to select two items. However, some respondents marked less than two items, causing the aggregate total to be less than 200%.

- The main reason selected by respondents from both overseas and Japan for the improvement in awareness was “Environmental protection activities by NPOs/citizens/communities” followed by “Government regulations, policies and publicity.” The respondents from developing regions identified the same reasons but in reverse order.
- As the secondary reason, respondents from North America cited “Efforts by business and industry” while “Environmental education program development” was reported by respondents from Latin America.

**Question (3):** The mass media, such as TV, newspapers and weekly publications, is thought to have an extremely large role in informing the public about individual environmental problems. In your country, to what extent do you think the following categories are being publicized? Please place a check mark beside one item for each category.

**Media Coverage of Environmental Issues (Combined percentage of 'Sufficiently' and 'Relatively Well' categories)**

	Japan (N=315)	United States & Canada (76)	Western Europe (98)	Asia (88)	Latin America (37)	Africa (55)	Oceania (39)	Eastern Europe & former Soviet Union (66)	Middle East (30)	Overseas Total (491)	Developed Regions (489)	Developing Regions (180)	U.S. & Canada & Western Europe (174)
Global warming	58	49	71	28	19	20	51	30	20	40	59	24	61
Air, river and ocean pollution	37	49	56	44	27	36	54	50	53	47	43	38	53
Deforestation, desertification, loss of biodiversity	21	20	48	42	43	64	49	27	30	40	26	49	36
Garbage, hazardous wastes, chemicals	64	46	68	32	38	36	51	52	40	47	62	34	59
Population, poverty, status of women	9	24	37	40	49	56	26	38	43	38	17	47	31
Food and water problems	14	28	41	56	32	49	41	39	57	43	22	49	35
Energy, urban and traffic problems	41	39	71	48	43	36	46	55	37	50	47	43	57
Environmental education	25	36	40	38	41	62	56	41	43	43	30	46	38
Other	3	5	4	8	11	5	3	5	3	5	4	8	5

Notes: Figures enclosed by a double circle represent the answer with the highest number of points. A single circle is used for the answer with the second highest number of points.

- The chart represents percentages of responses reporting high levels of media coverage for various environmental issues (by combining "Sufficiently" and "Relatively Well" responses) and shows that the results are inconsistent among the different regions.
- The most frequently cited response from overseas respondents was "Energy, urban and traffic problems" followed by "Air, river and ocean pollution" and "Garbage, hazardous wastes, chemicals" as the second most common. In contrast, in developing regions, "Food and water problems" and "Deforestation, desertification, loss of biodiversity" were the highest ranked responses.
- Among North America and Western European respondents, the top two issues that received high media coverage were "Garbage, hazardous wastes, chemicals" followed by "Global warming." These were also the same categories selected by Japanese respondents, but in reverse order.

**Question (4):** From the question above, select the three environmental problems to which priority should be given in publicizing them to the general public in order to protect the environment.

**Environmental Problems Media Should Prioritize**

Comparison using weighted average value  $= (1^{st}choice\% \times 3 + 2^{nd}choice\% \times 2 + 3^{rd}choice\% \times 1) / 6$

	Japan (N=315)	United States & Canada (76)	Western Europe (98)	Asia (88)	Latin America (37)	Africa (55)	Oceania (39)	Eastern Europe & former Soviet Union (66)	Middle East (30)	Overseas Total (491)	Developed Regions (489)	Developing Regions (180)	U.S. & Canada & Western Europe (174)
Global warming	27	22	19	10	13	8	14	11	14	14	25	10	20
Air, river and ocean pollution	9	11	9	13	17	10	12	18	19	13	9	13	10
Deforestation, desertification, loss of biodiversity	12	14	12	18	21	25	23	10	13	16	13	21	13
Garbage, hazardous wastes, chemicals	15	7	13	12	11	10	4	15	8	10	13	11	10
Population, poverty, status of women	6	15	10	13	11	18	13	10	9	12	8	14	12
Food and water problems	11	11	10	9	7	12	10	8	15	10	11	10	11
Energy, urban and traffic problems	12	10	11	9	6	2	8	8	7	8	11	6	11
Environmental education	7	5	10	10	14	10	10	12	11	10	7	11	8
Other	1	2	4	2	0	2	4	3	0	2	2	1	3

Notes: Figures enclosed by a double circle represent the answer with the highest number of points. A single circle is used for the answer with the second highest number of points.

- Respondents in developed regions identified “Global warming” as the environmental problem that needs to be most aggressively publicized. In developing regions and Oceania the category was “Deforestation, desertification, loss of biodiversity,” while respondents in Eastern Europe, the former Soviet Union, and the Middle East cited “Air, river and ocean pollution.”
- This was followed by “Garbage, hazardous waste, chemicals” in Japan, Western and Eastern Europe, and the former Soviet Union, “Population, poverty, status of women” in North America, Asia, and Africa, “Air, river, and ocean pollution” in Latin America, “Global warming” in Oceania, and “Food and water problems” in the Middle East.

## 2. GLOBAL WARMING COUNTERMEASURES

**Question (1):** As of March 2003, more than 100 countries had ratified the Kyoto Protocol, and it is expected to come into force by the time COP9 is held in Italy this December. Please check two of the following items that you think are necessary for global warming countermeasures to be effective under the United Nations Framework Convention on Climate Change and the Kyoto Protocol.

	Japan (N=315)	United States & Canada (76)	Western Europe (98)	Asia (88)	Latin America (37)	Africa (55)	Oceania (39)	Eastern Europe & former Soviet Union (66)	Middle East (30)	Overseas Total (491)	Developed Regions (489)	Developing Regions (180)
Participation in the Kyoto Protocol by the United States and other nonparticipants	70	55	53	39	78	49	72	50	50	53	64	50
Greenhouse gas emission reductions by developed nations	28	22	26	34	32	45	31	29	20	30	26	37
Greenhouse gas emission controls in developing countries	15	22	14	18	14	4	10	9	13	14	16	13
Capital support and technology transfers to developing countries	20	16	20	51	32	45	36	24	37	32	19	46
Further progress in science and technology and change in peoples' mindsets	7	21	17	11	14	7	8	14	20	14	11	11
Development and dissemination of technologies	14	13	15	11	8	16	13	21	27	15	14	12
Modification of tax and other social systems to simplify patterns of production and consumption and lifestyles	40	29	26	16	11	11	8	26	13	19	35	13
Establish emissions trading market	3	7	14	6	5	7	13	2	0	7	6	6
Other	1	8	5	6	0	0	0	5	0	4	3	3
No response	2	1	4	3	3	7	5	8	10	5	2	4

Notes: Figures enclosed by a double circle represent the answer with the highest number of points.

A single circle is used for the answer with the second highest number of points.

Please note that the totals for the various regions should add up to 200% since respondents were asked to select two items. However, some respondents marked less than two items, causing the aggregate total to be less than 200%.

- Among all regions, excluding Asia but including Japan, the countermeasure most anticipated as being most effective against global warming was "Participation in the Kyoto Protocol by the United States and other nonparticipants."
- This was followed by "Modification of tax and other social systems to simplify patterns of production and consumption and lifestyles" in developed regions. In developing regions, the second ranked response was "Capital support and technology transfers to developing countries." The third ranked response in both developed and developing regions was "Greenhouse gas emission reductions by developed nations."

**Question (2):** “Joint implementation (JI),” “clean development mechanisms (CDMs),” and “emissions trading” are among the “Kyoto Mechanisms” sanctioned in the Kyoto Protocol. What is your opinion regarding the utilization of the Kyoto Mechanisms? Please select and check two of the following items that apply the best.

Japan (N=315)  
 United States & Canada (76)  
 Western Europe (98)  
 Asia (88)  
 Latin America (37)  
 Africa (55)  
 Oceania (39)  
 Eastern Europe & former Soviet Union (66)  
 Middle East (30)  
 Overseas Total (491)  
 Developed Regions (489)  
 Developing Regions (180)  
 U.S. & Canada & Western Europe (174)

	Japan (N=315)	United States & Canada (76)	Western Europe (98)	Asia (88)	Latin America (37)	Africa (55)	Oceania (39)	Eastern Europe & former Soviet Union (66)	Middle East (30)	Overseas Total (491)	Developed Regions (489)	Developing Regions (180)	U.S. & Canada & Western Europe (174)	(%)
Developed nations should prioritize reduction strategies	49	29	36	43	65	35	46	47	37	41	43	45	33	
Emissions trading should not be conducted	18	17	26	22	14	20	36	20	7	21	19	19	22	
Doubtful about progress in overall reductions because of difficulties with the Kyoto Mechanisms	37	26	34	26	24	29	21	32	33	29	35	27	30	
The Kyoto Mechanisms are highly cost-effective and should be actively utilized	26	22	22	22	32	31	23	32	30	26	25	27	22	
CDMs can be highly rated because linked to capital and technological support	28	28	26	36	32	36	21	15	10	27	27	36	26	
Governments should encourage the formation of emissions trading markets	15	32	20	15	22	25	15	27	33	23	19	19	25	
Diplomatic and financial support for CDM/JI projects	16	20	14	14	5	13	13	9	7	13	16	12	17	
Other	4	3	3	3	0	2	8	3	0	3	4	2	3	
No response	0	8	6	7	0	4	3	2	20	6	2	4	7	

Notes: Figures enclosed by a double circle represent the answer with the highest number of points. A single circle is used for the answer with the second highest number of points. Please note that the totals for the various regions should add up to 200% since respondents were asked to select two items. However, some respondents marked less than two items, causing the aggregate total to be less than 200%.

- Concerning the implementation of Kyoto Mechanisms, respondents from both overseas and Japan most often cited “Developed nations should prioritize reduction strategies.” Secondly, respondents from developed regions including Japan as well as those in Eastern Europe, the former Soviet Union, and the Middle East indicated “Doubtful about progress in overall reductions because of difficulties with the Kyoto Mechanisms.” The second most popular response from developing regions was “CDMs can be highly rated because linked to capital and technological support.”
- North America and the Middle East had more respondents expressing “Governments should encourage the formation of emissions trading markets” than in other regions.

### 3. DEVELOPMENT COSTS FOR ALTERNATIVE ENERGY SOURCES AND STRATEGIES FOR COST REDUCTION

**Question (1):** In addition to being a source of greenhouse gases, there are limits to the amount of fossil fuels, such as oil and coal, in the ground, and countries worldwide are currently promoting the development of alternative energy sources other than nuclear energy. Developing alternative energy sources costs money and consumption costs may be higher than for fossil fuels. In the following question, check one (1) item that is closest to your opinion.

#### Development costs for alternative energy sources

	Japan (N=315)	United States & Canada (76)	Western Europe (98)	Asia (88)	Latin America (37)	Africa (55)	Oceania (39)	Eastern Europe & former Soviet Union (66)	Middle East (30)	Overseas Total (491)	Developed Regions (489)	Developing Regions (180)
Governments should subsidize development expenses	33	30	32	22	19	13	21	23	23	24	33	18
An international endowment fund should be established	18	18	6	25	38	35	18	21	17	21	16	31
Government, not just businesses, should lead development because costs add up	21	21	20	15	14	15	13	11	17	16	21	14
Force energy companies to purchase from alternative energy sources even if the cost is higher	15	8	17	11	16	11	23	18	20	15	15	12
Monetary and other support should not be extended because the companies will reap future profits	1	1	2	3	5	4	5	2	0	3	1	4
Monetary and other support should not be extended because the power generated will be small	0	1	1	0	3	5	0	2	7	2	1	2
Better to support the improvement of nuclear power generating technologies	6	8	10	15	0	9	8	11	7	9	7	10
Other	2	5	3	0	0	0	5	2	0	2	3	0
No response	2	7	8	9	5	9	8	12	10	9	4	8

Notes: Figures enclosed by a double circle represent the answer with the highest number of points.  
A single circle is used for the answer with the second highest number of points.

- Both overseas and Japanese respondents most often indicated that the “Governments should subsidize development expenses.” Among developed regions, “Governments should subsidize development expenses” is followed by “Government, not just businesses, should lead development because costs add up.” In contrast, respondents among developing regions pointed to “An international endowment fund should be established” followed by “Governments should subsidize development expenses.”
- Many respondents in Oceania and the Middle East expressed that “Force energy companies to purchase from alternative energy sources even if the cost is higher.”



**Measures to promote consumption of alternative energy sources even if their costs are higher than fossil fuels**

	Japan (N=315)	United States & Canada (76)	Western Europe (98)	Asia (88)	Latin America (37)	Africa (55)	Oceania (39)	Eastern Europe & former Soviet Union (66)	Middle East (30)	Overseas Total (491)	Developed Regions (489)	Developing Regions (180)
Lower the cost of power from alternative energy sources with government subsidies	8	5	11	14	8	20	18	23	13	14	8	14
Increase fossil fuel energy costs by imposing environmental taxes	41	28	40	20	8	4	31	15	23	23	39	13
Provide incentives for using energy from alternative sources	35	43	18	42	70	47	33	29	33	37	33	49
Force energy companies to purchase from alternative energy sources	8	5	7	8	8	5	5	8	17	7	7	7
Other	2	5	4	1	0	0	3	2	0	2	3	1
No response	6	13	19	15	5	24	10	24	13	17	10	16

Notes: Figures enclosed by a double circle represent the answer with the highest number of points. A single circle is used for the answer with the second highest number of points.

- Respondents from all regions excluding Japan and Western Europe most often cited “Provide incentives for using energy from alternative sources.” The second ranked response among overseas respondents was “Increase fossil fuel energy costs by imposing environmental taxes.”
- Among respondents from Japan and Western Europe, the measure most cited was “Increase fossil fuel energy costs by imposing environmental taxes” followed by “Provide incentives.”
- Among developing regions, “Provide incentives” was the most frequently cited response by a wide margin.

#### 4. EVALUATION OF THE JOHANNESBURG SUMMIT

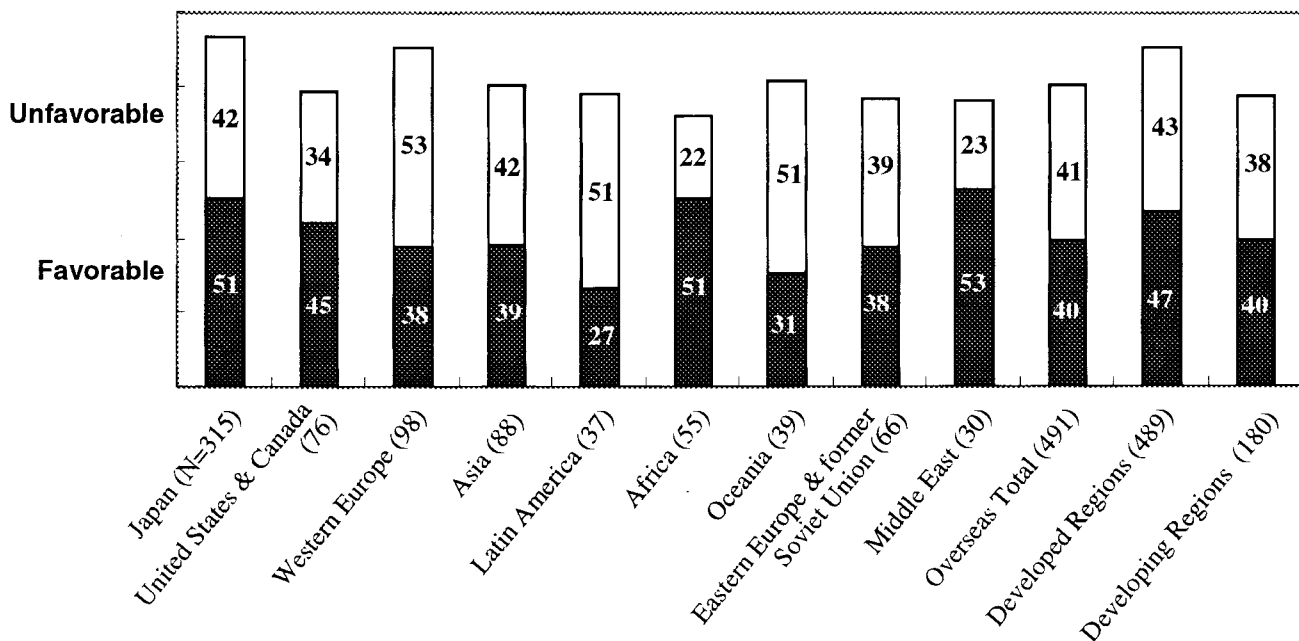
**Question:** How would you evaluate the World Summit on Sustainable Development held last year in Johannesburg, South Africa? After you have selected the "Favorable" or "Unfavorable" response, please check up to two (2) statements that best support your opinion of the Summit.

Japan (N=315)  
 United States & Canada (76)  
 Western Europe (98)  
 Asia (88)  
 Latin America (37)  
 Africa (55)  
 Oceania (39)  
 Eastern Europe & former Soviet Union (66)  
 Middle East (30)  
 Overseas Total (491)  
 Developed Regions (489)  
 Developing Regions (180)  
 U.S. & Canada & Western Europe (174)

Favorable	51	45	38	39	27	51	31	38	53	40	47	40	41	(%)
<b>Reason</b>	[N=161]	[34]	[37]	[34]	[10]	[28]	[12]	[25]	[16]	[196]	[232]	[72]	[71]	
Adopted the Johannesburg Declaration	17	21	38	18	30	32	25	44	25	29	21	25	27	
Countries that have ratified the Kyoto Protocol should strongly press other countries to do so	35	6	19	21	40	21	8	20	13	17	28	24	16	
By 2015 cut in half the percentage of people suffering from poverty and starvation and insecure access to safe water	31	53	43	53	70	50	67	24	50	48	36	54	45	
Promote plans and policies for shift to sustainable production and consumption models and increase consumption of renewable energy	29	29	22	41	10	21	58	32	44	31	28	29	26	
Developed nations to increase ODA to 0.7% of GDP to fund implementation	7	3	14	15	10	25	0	8	19	12	8	18	8	
Leaders from 190 countries gathered to debate environmental problems	32	38	19	29	20	25	8	28	19	26	31	26	29	
Held in Africa, where environmental problems are pressing, and the participants gained understanding	8	6	19	9	0	21	8	16	0	12	9	13	12	
Other	2	12	5	0	0	0	0	8	0	4	4	0	7	
No response for reason	0	0	0	0	0	0	0	4	0	1	0	0	0	
<b>Unfavorable</b>	42	34	53	42	51	22	51	39	23	41	43	38	45	
<b>Reason</b>	[N=133]	[26]	[52]	[37]	[19]	[12]	[20]	[26]	[7]	[200]	[211]	[68]	[78]	
Nothing concrete was decided about important issues	38	23	37	54	37	25	45	65	43	43	36	44	32	
Inadequate consideration of the concerns of major citizen-led groups	10	19	12	30	16	33	20	23	43	21	11	26	14	
Failure to overcome obstacles to implementation of the Agenda 21 action plan	73	85	63	68	63	58	60	35	57	62	72	65	71	
No debate on new sources of funding for sustainable development, such as a Tobin tax, or on setting up the World Environmental Organization	14	35	50	22	47	42	50	38	14	39	26	32	45	
Other	5	12	13	0	5	25	5	4	14	9	8	6	13	
No response for reason	2	0	0	8	5	8	0	0	0	3	1	7	0	
No response	7	21	9	19	22	27	18	23	23	19	9	22	14	

Notes: Figures enclosed by a double circle represent the answer with the highest number of points. A single circle is used for the answer with the second highest number of points. Please note that the totals for the various regions should add up to 200% since respondents were asked to select two items. However, some respondents marked less than two items, causing the aggregate total to be less than 200%.

(%)



- Among overseas respondents, a comparable number of respondents evaluated the Johannesburg Summit favorably as those who did unfavorably, with 40% in favor and 41% in opposition. In North America, Africa, and the Middle East, where those who responded favorably outnumber those who did not, the percentage hovered around 50%. Fifty one percent of Japanese respondents evaluated the Summit favorably, whereas a slightly smaller percentage of respondents, 42%, did not.
- The most popular response from overseas respondents for favoring the Summit by a wide margin was “By 2015 cut in half the percentage of people suffering from poverty and starvation and insecure access to safe water.” The second ranked response was “Promote plans and policies for shift to sustainable production and consumption models and increase consumption of renewable energy.”
- The main reason selected by Japanese respondents for favoring the Summit was “Countries that have ratified the Kyoto Protocol should strongly press other countries to do so” followed by “Leaders from 190 countries gathered to debate environmental problems.” These results marked a difference from those of overseas.
- The main reason for opposition from all regions excluding Eastern Europe and the former Soviet Union was “Failure to overcome obstacles to implementation of the Agenda 21 action plan.” Among respondents from all regions, the second ranked response was “Nothing concrete was decided about important issues.”
- “No debate on new sources of funding for sustainable development, such as a Tobin tax, or on setting up the World Environmental Organization” was raised significantly more frequently among overseas respondents led by North America and Western Europe than by Japanese respondents.

## II. REPEAT TOPICS

### 1. PROGRESS TOWARD AGENDA 21

**Question:** Eleven years have passed since Agenda 21 was adopted as an “action plan for the environment and development” at the Earth Summit in 1992. Please indicate the progress made *in your country* toward the following 10 categories taken from the Agenda 21 action plan by circling one (1) letter on the scale of (a) to (e) for each category.

**Comparison of Perceived Progress\* between 1998 and 2003**

	Japan		United States & Canada		Western Europe		Asia		Latin America		Africa		Oceania		Eastern Europe & former Soviet Union		Middle East		Overseas Total		Total (%)	
	2003	1998	2003	1998	2003	1998	2003	1998	2003	1998	2003	1998	2003	1998	2003	1998	2003	1998	2003	1998	2003	1998
Promotion of environmental education	71	56	76	76	80	77	77	78	78	76	82	76	87	90	74	83	77	87	78	78	76	68
Activities by local governments and citizens' groups	69	60	79	68	81	73	60	70	70	64	58	67	90	86	64	72	77	53	71	69	70	65
Scientific and technological contributions	65	48	78	73	72	62	39	41	46	39	42	29	67	71	52	44	60	53	58	52	61	50
Formation of recycling systems	70	45	70	81	65	65	45	35	32	18	27	27	72	76	27	22	53	33	50	48	58	47
Environmental measures by industry	62	61	62	55	73	63	36	57	43	36	36	47	51	57	41	44	57	47	51	53	56	57
Conservation of forest resources	16	10	39	37	66	45	45	54	38	39	58	73	56	71	44	33	40	27	50	49	37	31
Conservation of biodiversity	12	8	32	35	49	40	43	39	49	36	56	55	54	38	44	56	50	20	46	41	33	25
Greenhouse gas prevention measures	28	20	22	34	45	48	31	31	22	27	27	41	21	43	24	33	20	20	29	36	29	29
Population and poverty problems	7	8	17	10	31	8	39	54	22	36	42	59	26	14	18	17	40	33	29	29	20	19
Lifestyle alteration	15	5	7	16	18	10	22	28	8	12	15	22	23	10	11	11	17	20	15	17	15	11

Note: \*Progress is calculated as the combined total of the ‘Significant progress’ and ‘Some progress’ categories.

As in previous years, we surveyed respondents about 10 items from the Agenda 21 action plan, asking if progress had been made in the respondents’ countries. The results are arranged in order of the largest responses (“Significant progress” + “Some progress” in the chart.)

- Over 60% of respondents from all regions expressed progress in “Promotion of environmental education” and “Activities by local governments and citizens groups.”
- Over 60% of respondents from developed regions cited progress in “Scientific and technological contributions” “Formation of recycling systems” and “Environmental measures by industry.” However, among developing regions as well as Eastern Europe and the former Soviet Union, the responses were low, with the majority of them being under 50%.
- Whereas approximately 50% of overseas respondents thought progress had been achieved in “Conservation of forest resources and “Conservation of biodiversity,” Japanese responses indicating progress in these categories were under one third of their overseas counterparts.
- The categories towards the bottom, including “Greenhouse gas prevention measures,” “Population and poverty problems” and “Lifestyle alteration” received a low percentage of responses reporting progress, with both overseas and Japanese responses at well under 50%.

### Comparison of Differences between 1998 and 2003

	Japan	United States & Canada	Western Europe	Asia	Latin America	Africa	Oceania	Eastern Europe & former Soviet Union	Middle East	Overseas Total	Total	(%)
Promotion of environmental education	+16	+1	+3	-1	+3	+5	-3	-9	-10	+1	+8	
Activities by local governments and citizens' groups	+9	+11	+7	-10	+7	-8	+4	-9	+23	+2	+6	
Scientific and technological contributions	+17	+5	+11	-2	+7	+12	-5	+7	+7	+6	+11	
Formation of recycling systems	+25	-11	0	+10	+14	0	-4	+5	+20	+2	+11	
Environmental measures by industry	+1	+7	+10	-21	+7	-11	-6	-4	+10	-2	-1	
Conservation of forest resources	+6	+2	+21	-8	-2	-14	-15	+11	+13	+1	+6	
Conservation of biodiversity	+4	-4	+9	+4	+12	+1	+16	-12	+30	+5	+7	
Greenhouse gas prevention measures	+8	-12	-3	-1	-6	-14	-22	-9	0	-7	0	
Population and poverty problems	-1	+7	+22	-15	-15	-17	+11	+2	+7	0	+1	
Lifestyle alteration	+10	-10	+8	-6	-4	-7	+14	-1	-3	-1	+4	

Note: Differences are calculated to the first decimal place. Thus, the differences may differ from those in the previous page which are rounded to the nearest integer.

Further, the results were compared with responses from five years ago (1998).

- The categories that recorded increases in overseas responses reporting progress include “Scientific and technological contributions,” “Conservation of biodiversity,” “Activities by local governments and citizens’ groups,” “Formation of recycling systems,” “Promotion of environmental education,” and “Conservation of forest resources.” Of these, the first two are the only categories to have experienced increases of 5% or more, and the increases in the remaining categories are slight. On the other hand, “Greenhouse gas prevention measures” has gone through the most staggering decrease among overseas respondents recording -7% compared to five years ago.
- With the exception of “Population and poverty problems,” there has been an increase in Japanese respondents who reported progress across all categories. In particular, “Formation of recycling systems,” “Scientific and technological contributions,” and “Promotion of environmental education” recorded large increases of over 16%. Further, while responses indicating progress in “Lifestyle alteration” remains low, it has nonetheless experienced an increase from 5% to 15%.

## IV. Comments from Respondents

This year's questionnaire elicited a total of 258 free comments, including 140 from 58 countries outside Japan and 118 from Japan. The respondents kindly commented on the state of environmental problems in various regions worldwide and thought of policies and ideas for alleviating environmental problems. The themes touched upon in the comments varied widely. We attempted to group them according to topic, but this was difficult because some addressed more than one topic. Some comments also contained suggestions and requests for future survey questions, which we will gratefully take into consideration in designing the next questionnaire. Owing to space considerations, we are only able to list a portion of the comments, including 48 representing 37 countries and 22 from Japan. The name (excluding title), organization, country and processing number of the respondent is included with the comment. Comments from respondents requesting anonymity are marked with an M or F to denote male or female.

### Comments from overseas

Since the developed nations like U.S.A. and Japan are the highest contributors of climate change, unless they are committed to cut their pollutants the environment will continue to be degraded.

*M, Environmental Protection Authority, ETHIOPIA 299*

I believe that the Clean Development Mechanism contributes and gives us, the countries in the Southern Hemisphere, the chance to reach a sustainable development.

*Jimmy Andrade Ubilla, The Business Council for Sustainable Development Ecuador, ECUADOR 407*

Environmentalists must stop talking and start doing, even if it means starting small. Getting CDM underway will mean at least building the focus on emissions. Then the targets can be tightened and other mechanisms introduced. When the U.S. sees an active and efficient trading market it will come on board.

*F, Anglo American, SOUTH AFRICA 475*

Climate change is still an important long-term issue that needs continuous efforts in science and policy to find solutions of how greenhouse gas emissions can be reduced. However, there are more burning issues that demand our attention, because they need solutions within a much shorter period of time. These are "water and food security" and "sound management of fisheries."

*Alexander Zehnder, SWITZERLAND 039*

Regrettably most nations used Johannesburg to list their triumphs, however limited, rather than to develop new approaches or make commitments which would help them actually implement something when they got home. Much less public commitments were extracted, which will limit the political resolve to respond at home.

*Edward W. Manning, Tourisk Inc., CANADA 064*

The success on various meetings on our state of the environment must quickly address developing countries, particularly African countries and their political and economic infrastructures. The Johannesburg World Summit on Sustainable Development gave African leaders the right chance to portray Africa in its true nature. Africa, like other developing countries, cannot move in par with its northern counterparts, as her legs cannot touch the ground. I believe the northern/advanced countries should not only extend investment projects but also address her political and economic woes. With peace we will overcome and build a better environment.

*Brandford Kyere, Kindness Club of Africa, GHANA 448*

Without imaginative and effective programs to alleviate poverty, we cannot move forward in solving environmental problems in developing countries.

*David P. S. Wasawo, University of Nairobi, KENYA 222*

Very important for politicians to have greater awareness of environmental problems – this means environmental education must be a more important part of education curricula.

*A. D. Bradshaw, University of Liverpool, U.K. 087*

The impacts of fishing on marine invertebrate communities, seabirds and marine mammals and ecosystems is huge and needs addressing. Antarctic illegal fishing, tourism risks, and biosecurity are all major issues.

*Cath Wallace, Environment and Conservation Organisations of New Zealand, NEW ZEALAND 296*

Most of the environmental problems particularly in the developing world are of recent origin. These problems have been compounded both due to unplanned development efforts and also due to lack of developmental efforts. The impact of these will be felt more on the younger generation who will be the future active citizens of their countries. Hence, apart from developing technological solutions for the environmental problems, what is

more important is to sensitize and educate the younger generation to understand and adopt practices, which will be benign to the environment and ecology.

*M, M. S. Swaminathan Research Foundation, INDIA 115*

Lack of democracy in most developing countries suppress people to talk about the environmental problems in their countries.

*Dr. M. Sagar, Arab Fund, KUWAIT 318*

In the developing world water supplies, poverty and women's education are the principle BASIC causes of environmental neglect in the developed world. The problem is simply indifference by commercial/corporate interests.

*M, consultant, WESTERN EUROPE 219*

There should be adequate incentives for poor nations to implement environmental agreements.

*A. Oteng-Yeboah, CSIR, GHANA 346*

In many African countries, forests provide basic needs including building materials, wood energy and employment avenues for households/community income. Political leaders should understand that "poverty is the cause and effect of deforestation"; hence, environmental education/awareness programs should be accompanied by opportunities for income generating activities so that people stop looking at forests as the only viable source of livelihoods.

*M. E. Sizomu-Kagolo, Forestry Department, UGANDA 409*

Environmental problems related with biodiversity and freshwater should be prioritized in developing countries like Nepal and a lot of effort should be made to resolve this crisis with the support of developed countries.

*Asim Banskota, Centre for Rural Technology, NEPAL 443*

The developed countries should stop depending on raw materials from developing countries and instead invest in environmentally sustainable production systems in the latter.

*M, Federal Ministry of Environment, NIGERIA 334*

The issue of trade and environment is crucial for the further development of environmental integration and sustainable development. Obviously, the position of key countries such as the U.S. in particular, on Kyoto and other international agreements, is not helpful at all at the moment but highly counterproductive. It is therefore vital that other countries, for example, Japan and ASEAN countries, fill the gap to some extent and become environmental pioneers.

*M, Ministry of Agriculture, Forestry, Environment and Water Management, AUSTRIA 049*

Integration of environmentally sound management into economic and social development would be a milestone on the way towards a sustainable society.

*M, OGI International, UKRAINE 114*

Companies should understand more and more that environment management is not an overhead, but an opportunity to increase performance through eco-efficiency, decreasing costs at the same time they protect environment by reduction of natural resources.

*Jorge Marques dos Santos, Sona, PORTUGAL 242*

Biodiversity loss is a real issue which should be taken seriously. Developed countries should play their part forthfully and honestly to ensure the survival of the remaining biodiversity areas. Sustainable financial mechanisms should be established to support grass root initiatives.

*Gladman Chibememe, Chibememe Earth Healing Association, ZIMBABWE 470*

I live in the smallest floristic kingdom and a resident of the western cape in South Africa. The need to maintain biodiversity is essential if western cape residents are to uphold their Agenda 21 responsibilities. The lack of integrated planning is threatening the potential for human sustainability. The need for efficient transport systems is imperative if we hope to live in a sustainable city. Water over consumption and lack of responsible demand management mechanisms is changing human life styles in an unsustainable manner.

*M, D.E.F., SOUTH AFRICA 387*

In most South Asian countries water pollution by industries has become a big problem. Garbage (plastic and polethene) is another problem.

*W. A. Iresha Tharangani, Environmental Foundation Ltd., SRI LANKA 398*

Source water, solid waste management, absence of treatment plants, no cleaner technology are the problems.

*Zia-ud-din Khattar, Pakistan Environmental Protection Agency, PAKISTAN 110*

The shortage of freshwater resources available to mankind and the widespread land degradations are the biggest environmental problems.

*Mohamed Kassas, University of Cairo, EGYPT 134*

In my view the most important problems of the world are global warming and population growth. All the existing funds in developed countries should be devoted to solving these problems; otherwise there will be no future for any country in the world. The world has all the required means for coping with this situation, i.e., capital and technology. It should just be correctly distributed and this just needs a great will.

*Hamid Taravati, Taravat Bahar Institute, NGO, IRAN 241*

Continuing international conflict and issues of personal and national security have taken people's minds away from environmental issues – most do not see the relationships that exist between human conflict and diminishing resources.

*Carole Douglas, Greenline Group PI, AUSTRALIA 283*

It seems to me that with a war going on initiated by two states which should rather spend the resources used for the warfare to improve the environment, and with my own country, Denmark, participating with other European states in the coalition behind U.S.A. and U.K., there is, for the time being, not much hope for a better environment.

*Veit Koester, Roskilde University Center, DENMARK 113*

Survival of homo sapiens does not appear to be at stake, but ability to support a large number of people with a decent life is. Too little appreciation of deterioration of epidemiological environment; other critical issues include President George Bush's war on the environment and women, lack of equity, remaining potential for nuclear war – tied to U.S. attempt to build a global empire.

*Paul R. Ehrlich, Center for Conservation Biology, U.S.A. 096*

Pressure should be put on the U.S.A. which adopts most of the time a negative position in environmental matters.

*Ntahuga Laurent, ABO, BURUNDI 422*

The U.S. position regarding the Kyoto Protocol is a cause for concern and one hopes that allies of the U.S. will be able to persuade her to adopt a more positive, constructive and cooperative approach for the good of humanity. The need for closer cooperation between developed and developing countries and increased tangible financial and technical support to developing countries to build capacity and tackle the difficult problems we will all face is also a pressing concern.

*Milton O. Haughton, Caribbean Regional Fisheries Mechanism, BELIZE 268*

The Commonwealth Government recognizes that effective communication among Governments and local communities and educating the community about sustainable behaviour, are integral to the success of environmental policy and programs. Our communication and education activities aim to put environmental issues at the heart of mainstream policy and programs and seek to provide communities with the knowledge, values and skills to enable them to adopt behaviour that supports a sustainable environment.

*M, Department of the Environment and Heritage, AUSTRALIA 437*

Given the increased use of chemical substances and its relation with health problems and the environmental depletion, it is considered of extreme importance for Columbia that the qualified entity coordinates actions to develop the necessary instruments that allow to consolidate an effective system of prevention and control chemical risks.

*M, Grupo de Asuntos Internacionales, COLOMBIA 024*

International transfer of the flow of great Siberian rivers is potentially environmentally catastrophic.

*M, Institute of Ecology, RUSSIA 217*

Conflicts, desertification, drought and poverty have cursed rural people to migrate to the capital and other towns. People live in bad conditions, especially those in the slums. The lifestyle is deteriorating. We call for creating jobs, balanced development and environmental protection.

*Omer Osman Mahmond, Sudanese Red Crescent, SUDAN 331*

When Lithuania's independence was renewed, this country started to care about environmental protection. Now there are implanted some programs for young people in the spirit of honoring and developing environmental protection. Soviet times expropriated the return of people's property created a lot of trouble for environment. Lithuanian people, who retrieved the forest's areas, often sell them for the clearance. During the private property's returning, a lot of perfect forestry (in case and oakeries) were deforested. There are organized differ-



ent actions for the cleaning residential and natural nature's environment. I hope that over time, when the young generation grows up, Lithuania could retrieve the lost great-grandparents' love and reverence for nature!

*Dr. Ruta Jankauskiene, Institute of Ecology of Vilnius University, LITHUANIA 360*

The commercial building sector in the U.S. is awakening and beginning to implement sustainable design strategies. One of the most effective mechanisms in place is the U.S. Green Building Council's LEED Green Building Rating System.

*James E. Hartzfeld, Interface, U.S.A. 016*

We need to completely change the direction of humanity, towards an ecological and spiritual civilization. In order to accomplish this task we must re-educate and transform the next generation to live more simply and to create a new economy that is based on sustainability, sustainable jobs/livelihoods for a sustainable future.

*Hanne Strong, Manitou Foundation, U.S.A. 123*

We seem to have largely won the struggle to convince people and institutions that the environment is important, but we have barely begun the much harder struggle to convince them that people need to drastically change their way of life to achieve sustainability. We seem as a society to believe that a slight modification of Business As Usual will allow us to keep on consuming as much as we live for as long as we live; to use almost every conceivable part of the world as a resource; and to allow our populations and economies to grow ad infinitum. Nothing could be further from the truth.

*David Wanless, The Wilderness Society Inc., AUSTRALIA 284*

We need to stop labeling problems as "environmental" when virtually every problem we face has socioeconomic causes and biophysical effects that exacerbate socioeconomic problems. For example, deforestation is caused by socioeconomic activity – overharvesting trees and converting forestland to cropland and pasture for profit and to meet the needs of growing populations; once the forest is gone, we suffer socioeconomic effects – fewer recreational opportunities and degradation of water resources, among other losses.

*Dave Dougherty, Consulting and Audit Canada, CANADA 013*

In the first categories, I will put the problems of land degradation and desertification, which will be affecting majority of the population, and if you take Asia it is about 70 percent who are living rural areas. But the urban population is not out of this danger when you see the problems of sand and dust storms. By the year 2015 more than half of the Asian population will live in urban areas. The Kitakyushu Initiative for Clean Environment initiated by the Asian and Pacific ministers at their meeting in 2000 held in Kitakyushu should be mainstreamed in all the countries to tackle the urban environmental problems. Similar initiative should be undertaken for addressing the issues of desertification and land degradation in Asia.

*Rezaul Karim, United Nations Convention to Combat Desertification, GERMANY 026*

I have been participating in the Asahi Glass Foundation Survey since its inception. Over the years I have become more hopeful, while remaining concerned about the short-term views of political and governmental entities. The current U.S. political leadership, for example, is perhaps the most short-sighted and environmentally unaware over the past ten years. One wonders how the U.S. population could allow these kinds of views to prevail. I am more concerned today about the imbalance in global political power which reflects negatively on constructive measures to deal with global environmental issues.

*Gene M. Owens, Development Alternatives, Inc., U.S.A. 068*

Governments and businesses need to take the lead to make policies, provide incentives and opportunities for individuals and consumers to make sustainable choices. The world is on a very sustainable path and serious action much be taken. The developed world must help the developing world but safeguards must be put in place to stop dictators and corruption for aid to work and for constructive actions to be taken by all parties.

*Anne Copeland Chiu, consultant, PEOPLE'S REPUBLIC OF CHINA 159*

The environmental ethics should be developed to contain the spiritual elements in nature. The desire of domination and conquest of nature should be thrashed and an attitude of "living together" should replace it. Environmental ethics basically ensure living in "PEACE" and not in "PIECES."

*Dr. Laxmi Kant Dadhich, Paryavaran Parishad, INDIA 247*

Environment is the clean condition, which must affect our behaviour on the way of development. Our environment is our home and our school, as well as the area we play in. It is also the air we breathe, the water we drink and wash in, and the land in which we grow our food. To stay healthy, our food must be free of germs and our air and water clean. Therefore, we have to take care of our Environment. The problem of the environment is in our hands; it is our duty and responsibility.

*Felicien Ekima Mombelu, Religious Formation Fraternity, SOUTH AFRICA 255*

To improve our environment we should deal more with the root causes of the environmental problems in a more revolutionary and “radical” way. Curing the symptoms will not result in “sustainable” solutions.

*Tamas Lantos, Ormansag Foundation, HUNGARY 260*

It is most fundamental that better forms of collaboration between politicians, industrial leaders, environmental organizations and the public be further developed. Conflicts and wars are very destructive in themselves and they prevent cooperation to be developed. Finally, equity between countries and between groups of people within countries must be put much more in focus.

*Dr. Bert Bolin, climate research expert, SWEDEN 456*

I am thinking that the Persistent Organic Pollutants Problems (especially PCDD/F) need experts from all countries gathering under one roof.

*Ott Roots, Estonian Environmental Research Centre, ESTONIA 218*

Landscape policies must be taken into account in spatial development at the world level.

*F, Council of Europe, FRANCE 444*

### **Comments from Japan**

As global environmental problems have many dimensions, it is important that efforts for its improvement are sustained over long periods of time, each building on the other. Therefore, we should not be glad or sad at each turn, but rather take each step at a time and start with what we can.

*Keiichi Yokobori, Institute of Research and Innovation, JAPAN 079J*

With the growth in environmental awareness, problems may be understood intellectually, but has not been accompanied by actions. Actions by government, industry, citizens, and non-governmental organizations on its own as well as in partnership or as a network in the future are crucial.

*M, WWF Japan, JAPAN 029J*

Global environmental problems require transformations in individual lifestyles. It needs to be promoted under the leadership of the United Nations as well as individual governments, rather than at the individual or volunteer level.

*M, Environment, Health and Safety Department, Teijin Ltd., JAPAN 025J*

The Kyoto Protocol overestimates the amount of carbon that can be absorbed by forests. Because of this, there is a danger that carbon emission levels that should be reduced will not be carried out. There needs to be a rigorous study of the carbon absorption capabilities of forests.

*Hirokazu Yamamoto, Graduate School of Agricultural and Life Sciences, University of Tokyo, JAPAN 012J*

To improve and solve global environmental problems, a ‘World Environmental Organization’ with sufficient authority needs to be established. Ideally, such an organization would follow the lead of the world’s non-governmental organizations.

*Toshio Hiroi, Faculty of Contemporary Law, Tokyo Keizai University, JAPAN 135J*

Because global environmental problems are universal in nature, affecting all nations, it is a problem when there are countries that choose not to participate. There needs to be a international system of penalties including criticism and other forms of sanctions against non-participating countries under an umbrella of international cooperation.

*Mitsuo Saimoto, Department of Environmental Life, Yamaguchi Prefecture, JAPAN 201J*

A systematized approach to economic evaluations that take non-economic factors into account is urgently needed. In particular, priority needs to be given to fair economic activity based on the ground rules outlined by OECD on the responsibility of polluters.

*Masayuki Seto, Environmental and Natural Resource Science, Faculty of Agriculture, Tokyo University of Agriculture and Technology, JAPAN 035J*

As a nation heavily engaged in international trade, Japan has built its economic prosperity on the heels of globalization. In other words, far from following a model of self-sufficiency, the country is completely reliant on resources outside of its borders. As such, it has a large responsibility for global environmental problems, and needs to invest even more resources towards technological solutions to environmental problems. Technological contributions can be incorporated in such things as the use of wood materials in construction. While importing those resources may inspire economical efficiencies, it does not give birth to sustainable ideas in real life.

*M, International Business Department, Japan Forest Technology Association, JAPAN 002J*

We need to begin changing Japanese society by pressing forward with structural reforms and to reinvigorate the economy in a new direction through creating societal systems such that companies benefit from conducting

business in a way that is positive towards the environment.

*M, Forestry Agency, JAPAN 080J*

War is the greatest form of environmental destruction as well as being a wasteful use of resources. The time has come to raise militarization as an environmental problem, one that Japan should raise as a major international issue of the 21<sup>st</sup> century.

*Makoto Kobayashi, JAPAN 103J*

Strategies to counter global environmental problems need to be developed by continuously integrating issues arising at the country and regional levels, including pollution, local/regional environmental problems, agricultural policies, and energy and economic policies. We need to alter the current tactic of approaching each issue as separate entities.

*Fumio Shimizu, Energy Journal, JAPAN 194J*

I hope to emphasize the importance and the indispensability of rebuilding Japan's culture of food and agriculture through the standpoint of the global environment and sustainable use and reuse of materials.

*Hiroshi Hirata, JAPAN 225J*

The abandonment of forest resource management has become a problem in Japan. The neglecting of thinning out and pruning of forests have resulted in floods and the erosion of hillsides. A governmental policy is urgently needed.

*Tomoaki Fujii, Tokyu Environment Purification Foundation, JAPAN 254J*

1. Requesting a more continuous type of coverage by the media.
2. The formation of a partnership with European nations to develop a concerted world opinion reproaching the United States for abandoning the Kyoto Protocol as well as the necessity to appeal to think tanks, non-governmental organizations and the media within the United States.

*Tsutomu Yamaguchi, Japan Regional Development Corporation, JAPAN 044J*

It is crucial to determine how the media will continue to cover global warming and its countermeasures as the issue grows in complexity after the Kyoto Protocol.

*Hiroyuki Yokota, Yomiuri Shimbun, JAPAN 122J*

Television is the most effective and important medium for large numbers of people to easily obtain information. Mass media organizations and professionals need to re-recognize this importance, and communicate the realities and the themes that the global environment faces. The government should also make better utilization of this approach.

*Yasuharu Takagi, Department of Environmental Policy, Fujiidera Municipal Office, JAPAN 206J*

We should establish legal regulations, by which a system for environmental education would be put into place.

*M, Hyogo Prefecture of Industrial Waste Management Associations, JAPAN 062J*

Individuals and organizations should take advantage of every opportunity to educate one another to deepen their awareness that we live as a part of the natural and larger ecosystem of the Earth.

*Tsutomu Mizutani, Doshisha University, Doshisha Women's College of Liberal Arts, Otomon Gakuin University, JAPAN 269J*

We are moving into an era where companies are evaluated not only through traditional performance measures, but also based on whether or not they are good corporate citizens through their contributions towards society and the alleviation of environmental problems. In order to foster citizens with true environmental ethics, we need to make a greater effort to educate people starting in their childhood, in their homes and in schools.

*Michimasa Ogushi, Overseas Fishery Cooperation Foundation, JAPAN 273J*

The problem of fresh water shortage and the quantity of virtual water usage in Japan need to be more aggressively publicized. When countries around the world experience a water shortage, Japan will have a severe food problem.

*M, Environmental Affairs, Suntory Ltd., JAPAN 093J*

If the problem of global warming is related to deforestation, desertification, water resources, and food problems, efforts to substantiate their causal relationships should be given utmost priority. This would lead to countermeasures against global warming being taken seriously by people around the world.

*Tsuzuru Nuibe, The Energy Conservation Center Japan, JAPAN 261J*

Non-governmental organizations and companies should form more substantial partnerships to endeavor the development of a society that is truly sustainable.

*Kana Yamashita, Conservation International, JAPAN 278J*

## V. Questionnaire as Distributed to Respondents

1-1. To what extent do you feel that the current deterioration of the global environment has created a crisis that will affect the continuance of the human race? Write a time within the range 0:01 to 12:00 corresponding to the extent of your concern in the boxes below.

9:01 – 12:00 Extremely Concerned	0:01 – 3:00 Barely Concerned
6:01 – 9:00 Fairly Concerned	3:01 – 6:00 Slightly Concerned

Please write your time here.

	:	
--	---	--

(Example 

10
----

 : 

35
----

)

1-2. When you selected the time above, what were the main environmental conditions about which you were concerned? Please check up to three (3) of the following items of concern.

- |  |   |
|--|---|
| <input type="checkbox"/> <sup>(1)</sup> General environmental problems                               | <input type="checkbox"/> <sup>(2)</sup> Global warming                |
| <input type="checkbox"/> <sup>(3)</sup> Air pollution, water contamination, river/ocean pollution    | <input type="checkbox"/> <sup>(4)</sup> Water shortage, food problems |
| <input type="checkbox"/> <sup>(5)</sup> Deforestation, desertification, loss of biodiversity         |   |
| <input type="checkbox"/> <sup>(6)</sup> Peoples' lifestyles, waste related problems                  |   |
| <input type="checkbox"/> <sup>(7)</sup> Environmental problems and economic/trade related activities |   |
| <input type="checkbox"/> <sup>(8)</sup> Population, poverty, status of women                         |   |
| <input type="checkbox"/> <sup>(9)</sup> Other: _____   |   |

2. Eleven years have passed since Agenda 21 was adopted as an "action plan for the environment and development" at the Earth Summit in 1992. Please indicate the progress made in your country toward the following 10 categories taken from the Agenda 21 action plan by circling one (1) letter on the scale of (a) to (e) for each category.

- |  |     |     |     |     |     |
|--|-----|-----|-----|-----|-----|
| (1) Promotion of environmental education .....                 | (a) | (b) | (c) | (d) | (e) |
| (2) Activities by local governments and citizens' groups ..... | (a) | (b) | (c) | (d) | (e) |
| (3) Scientific/technological contributions .....               | (a) | (b) | (c) | (d) | (e) |
| (4) Formation of recycling systems .....                       | (a) | (b) | (c) | (d) | (e) |
| (5) Conservation of forest resources .....                     | (a) | (b) | (c) | (d) | (e) |
| (6) Conservation of biodiversity .....                         | (a) | (b) | (c) | (d) | (e) |
| (7) Greenhouse gas prevention measures .....                   | (a) | (b) | (c) | (d) | (e) |
| (8) Population/poverty problems .....                          | (a) | (b) | (c) | (d) | (e) |
| (9) Lifestyle alteration .....                                 | (a) | (b) | (c) | (d) | (e) |
| (10) Environmental measures by industry .....                  | (a) | (b) | (c) | (d) | (e) |

*Significant progress*  
*Some progress*  
*Cannot determine*  
*Almost no progress*  
*No progress*

3-1. To build sustainable societies, it is necessary to simplify peoples' lifestyles. To accomplish that, we must increase environmental awareness. In your country, has environmental awareness improved in comparison with three years ago? Please check one of the following items.

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> <sup>(1)</sup> Improved           | <input type="checkbox"/> <sup>(2)</sup> Slightly improved | <input type="checkbox"/> <sup>(3)</sup> No change |
| <input type="checkbox"/> <sup>(4)</sup> Slightly regressed | <input type="checkbox"/> <sup>(5)</sup> Regressed         |   |

3-2. If you selected items 1 or 2 in the previous question, please check two (2) of the main reasons for your selection from among the following.

- Reasons
- |   |
|---|
| <input type="checkbox"/> <sup>(1)</sup> Government regulations, policies and publicity  |
| <input type="checkbox"/> <sup>(2)</sup> Efforts by business and industry (green product development, waste processing, publicity) |
| <input type="checkbox"/> <sup>(3)</sup> Environmental protection activities by NPOs/citizens/communities                          |
| <input type="checkbox"/> <sup>(4)</sup> Scientific approach to environmental problems and the results                             |
| <input type="checkbox"/> <sup>(5)</sup> State of nature and wildlife  |
| <input type="checkbox"/> <sup>(6)</sup> Environmental education program development   |
| <input type="checkbox"/> <sup>(7)</sup> Other: _____  |

**3-3. The mass media, such as TV, newspapers and weekly publications, is thought to have an extremely large role in informing the public about individual environmental problems. In your country, to what extent do you think the following categories are being publicized? Please place a check mark beside one item for each category.**

1. Global warming (<sup>(1)</sup> sufficiently, <sup>(2)</sup> relatively well, <sup>(3)</sup> little, <sup>(4)</sup> too little)
2. Air, river and ocean pollution (<sup>(1)</sup> sufficiently, <sup>(2)</sup> relatively well, <sup>(3)</sup> little, <sup>(4)</sup> too little)
3. Deforestation, desertification, loss of biodiversity (<sup>(1)</sup> sufficiently, <sup>(2)</sup> relatively well, <sup>(3)</sup> little, <sup>(4)</sup> too little)
4. Garbage, hazardous wastes, chemicals (<sup>(1)</sup> sufficiently, <sup>(2)</sup> relatively well, <sup>(3)</sup> little, <sup>(4)</sup> too little)
5. Population, poverty, status of women (<sup>(1)</sup> sufficiently, <sup>(2)</sup> relatively well, <sup>(3)</sup> little, <sup>(4)</sup> too little)
6. Food and water problems (<sup>(1)</sup> sufficiently, <sup>(2)</sup> relatively well, <sup>(3)</sup> little, <sup>(4)</sup> too little)
7. Energy, urban and traffic problems (<sup>(1)</sup> sufficiently, <sup>(2)</sup> relatively well, <sup>(3)</sup> little, <sup>(4)</sup> too little)
8. Environmental education (<sup>(1)</sup> sufficiently, <sup>(2)</sup> relatively well, <sup>(3)</sup> little, <sup>(4)</sup> too little)
9. Other: \_\_\_\_\_ (<sup>(1)</sup> sufficiently, <sup>(2)</sup> relatively well, <sup>(3)</sup> little, <sup>(4)</sup> too little)

**3-4. From the question above, select the three environmental problems to which priority should be given in publicizing them to the general public in order to protect the environment.**

First \_\_\_\_\_ Second \_\_\_\_\_ Third \_\_\_\_\_

**4-1. As of March 2003, more than 100 countries had ratified the Kyoto Protocol, and it is expected to come into force by the time COP9 is held in Italy this December. Please check two of the following items that you think are necessary for global warming countermeasures to be effective under the United Nations Framework Convention on Climate Change and the Kyoto Protocol.**

- <sup>(1)</sup> To seek participation in the Kyoto Protocol by the United States and other current non-participants.
- <sup>(2)</sup> To seek concrete measures toward the greenhouse gas emission reductions promised by the developed nations participating in the Kyoto Protocol.
- <sup>(3)</sup> To seek implementation of greenhouse gas emission controls in developing countries since emissions continue to rise in these countries.
- <sup>(4)</sup> For developed nations to provide capital support and technology transfers to developing countries likely to be impacted by climate change and to support capacity building in these countries.
- <sup>(5)</sup> To seek progress in the science and technology related to climate change and to change peoples' mindsets.
- <sup>(6)</sup> To develop useful (revolutionary new) technologies, such as emissions controls for greenhouse gases, and to disseminate them worldwide.
- <sup>(7)</sup> To rework the tax system, subsidies and other social systems so that peoples' lifestyles and patterns of production and consumption are simplified.
- <sup>(8)</sup> To establish an emissions trading market so that the cost effectiveness of the countermeasures is raised worldwide.
- <sup>(9)</sup> Other: \_\_\_\_\_

**4-2. "Joint implementation (JI)," "clean development mechanisms (CDMs)," and "emissions trading" are among the "Kyoto Mechanisms" sanctioned in the Kyoto Protocol. What is your opinion regarding the utilization of the Kyoto Mechanisms? Please select and check two of the following items that apply the best.**

- <sup>(1)</sup> Developed nations should refrain from using the Kyoto Mechanisms as much as possible, and even if the reduction costs are high, they should prioritize reduction strategies in their own countries.
- <sup>(2)</sup> Emissions trading should not be conducted since emissions trading fails to be an actual reduction strategy.
- <sup>(3)</sup> It is doubtful whether any progress will be made in overall reductions since there are many technical difficulties with the Kyoto Mechanisms from an operating perspective, including issues of monitoring and verification.
- <sup>(4)</sup> The Kyoto Mechanisms are highly cost-effective in the world as a whole and should be actively utilized as an economic means of reducing emissions.
- <sup>(5)</sup> CDMs can be highly rated since they are linked to capital and technological support to the developing countries.
- <sup>(6)</sup> Governments in each country should encourage the formation of emissions trading markets since emissions trading will give rise to new markets and lead to industrial vitalization.
- <sup>(7)</sup> With CDM/JI projects, diplomatic and financial support for the involved business entities is required from governments since the recipient country response and credit costs pose large risks.
- <sup>(8)</sup> Other: \_\_\_\_\_

**5. In addition to being a source of greenhouse gases, there are limits to the amount of fossil fuels, such as oil and coal, in the ground, and countries worldwide are currently promoting the development of alternative energy sources**

**other than nuclear energy. Developing alternative energy sources costs money and consumption costs may be higher than for fossil fuels. In the following question, check one (1) item that is closest to your opinion.**

(Development costs for alternative energy sources)

- <sup>(1)</sup> Governments should subsidize a portion of development expenses.
- <sup>(2)</sup> An international endowment fund should be established to support their development.
- <sup>(3)</sup> Since development costs will mount up, the government, not just businesses, should lead their development.
- <sup>(4)</sup> Even if the cost of electric generation from alternative energy sources is a little higher, existing generating companies should be forced to purchase this power.
- <sup>(5)</sup> Monetary and other support should not be extended because the companies that develop alternative energy sources will reap future profits.
- <sup>(6)</sup> Monetary and other support should not be extended because the total volume of power generated from alternative energy sources will be relatively small into the future.
- <sup>(7)</sup> It would be better to support the improvement of nuclear power generating technologies because the total volume of power generated from alternative energy sources will be relatively small into the future.
- <sup>(8)</sup> Other: \_\_\_\_\_

(Countermeasures to promote consumption of alternative energy sources even if their costs are higher than fossil fuels)

- <sup>(1)</sup> Lower the cost of power from alternative energy sources with government subsidies.
- <sup>(2)</sup> Increase fossil fuel energy costs by imposing environmental taxes.
- <sup>(3)</sup> Provide incentives for using energy from alternative sources.
- <sup>(4)</sup> Force existing energy companies to purchase energy from alternative sources.
- <sup>(5)</sup> Other: \_\_\_\_\_

**6. How would you evaluate the World Summit on Sustainable Development held last year in Johannesburg, South Africa? After you have selected the "A" or "B" response, please check up to two (2) statements that best support your opinion of the Summit.**

A. Favorable

- <sup>(1)</sup> It adopted the Johannesburg Declaration (political declaration), which contained proposals for the realization of sustainable development.
- <sup>(2)</sup> It resolved that countries that had ratified the Kyoto Protocol should strongly press the other countries to do so.
- <sup>(3)</sup> It resolved to cut in half by 2015 the percentage of people suffering from poverty and starvation as well as insecure access to safe drinking water.
- <sup>(4)</sup> It resolved to promote plans and policies for shifting toward sustainable production and consumption models. As part of these plans, it also resolved to increase the proportion of renewable energy consumed.
- <sup>(5)</sup> It resolved that developed nations would pledge to increase their ODA to reach a target of 0.7% of GDP to fund implementation.
- <sup>(6)</sup> Leaders from 190 countries around the world gathered under one roof to debate environmental problems.
- <sup>(7)</sup> It was held in Africa, where environmental problems are some of the most pressing concerns, and the participants gained a greater understanding of Africa.
- <sup>(8)</sup> Other: \_\_\_\_\_

B. Unfavorable

- <sup>(1)</sup> Since many delegations from 190 countries participated, it took time and effort to harmonize views and nothing concrete was decided about important issues.
- <sup>(2)</sup> Although the principle of partnerships was accorded great importance, there was inadequate consideration of the concerns of major citizen-led groups.
- <sup>(3)</sup> It could not get any closer to the underlying causes of the failure to implement the Agenda 21 action plan adopted at the Rio Summit and failed to come up with a basic plan for its implementation.
- <sup>(4)</sup> There was no debate on revolutionary new sources of funding for sustainable development, such as a financial transactions tax (Tobin tax), or on setting up the World Environmental Organization.
- <sup>(5)</sup> Other: \_\_\_\_\_

**7. Feel free to write comments on any topic related to environmental problems. Use additional paper if required.**

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**Results of the 12th Annual  
"Questionnaire on Environmental Problems and the Survival of Humankind"**

**REPORT**

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*If you have inquiries regarding this questionnaire,  
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**af**

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