



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

The Asahi Glass Foundation (Chairman: Hiromichi Seya) has conducted a questionnaire since 1992 asking the opinions of environmental experts in the government and private sectors worldwide regarding various environmental problems and efforts to resolve them. The survey is supervised by Professor Akio Morishima, chair of the Institute for Global Environmental Strategies and a director of the Asahi Glass Foundation. We received 315 responses to the questionnaire from within Japan, and 491 responses from 100 countries abroad, bringing the total to 806 respondents. This represents the greatest number of respondents to date to the questionnaire, the results of which are as follows.

Summary of Questionnaire Results

- **Environmental Doomsday Clock (Perception of the Crisis Facing Human Survival)**
 - The average time expressed by all respondents 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 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.
 - The average time for overseas respondents progressed by twenty-one minutes to 9:12, a result comparable to the year before last.
 - As for main environmental condition for selecting the time, in developed regions, “Global warming,” was most often indicated, whereas in the developing regions, “Deforestation, desertification, loss of biodiversity” was most often cited.
- **Changes in Environmental Awareness and Media Coverage of Environmental Issues**
 - 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.
 - The main reason selected by respondents from both overseas and Japan was “Environmental protection activities by NPOs/citizens/communities.”
 - The categories of environmental issues that are being publicized varied between regions. The most commonly cited category in Japan was “Garbage, hazardous wastes, chemicals,” and from overseas respondents as a whole was “Energy, urban and traffic problems.”
 - Respondents in developed regions including Japan identified “Global warming” as the environmental problem that media should prioritize. In developing regions and Oceania the category was “Deforestation, desertification, loss of biodiversity.”
- **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.”
 - **Kyoto Mechanisms**
 - Respondents from both overseas and Japan most often chose “Developed nations should prioritize reduction strategies.”
- **Development Costs for Alternative Energy Sources and Strategies for Cost Reduction**
 - The respondents from developed regions including Japan most cited “Governments should subsidize development expenses,” whereas respondents from developing regions indicated “An international endowment fund should be established” as the first choice.
 - All regions excluding Japan and Western Europe cited “Provide incentives for using energy from alternative sources” as most important measures to promote alternative energy sources even if their costs are higher than fossil fuels. Among respondents from Japan and Western Europe, the measure most cited was “Increase fossil fuel energy costs by imposing environmental taxes.”

- **Evaluation of the Johannesburg Summit**

- Fifty one percent of Japanese respondents evaluated the Summit favorably, whereas a smaller percentage of respondents, 42%, expressed opposition. 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.

- Reasons for favorable responses: In Japan, the main reason for favorable responses was “Countries that have ratified the Kyoto Protocol should strongly press other countries to do so.” The most popular response from overseas respondents was “By 2015 cut in half the percentage of people suffering from poverty and starvation and insecure access to safe water.”

- Reasons for unfavorable responses: The main reason for opposition from all regions excluding Eastern Europe and the former Soviet Union but including Japan was “Failure to overcome obstacles to implementation of the Agenda 21 action plan.”

- **Progress toward Agenda 21 Goals**

Japanese and overseas respondents expressed progress in two categories “Promotion of environmental education” and “Activities by local governments and citizens’ groups.” However, the responses stating that progress occurred in the categories of “Population/poverty problems” and “Lifestyle alteration” were low. This tendency is similar as the previous years.

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, and 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 (101 countries)

Response rate: 18.0%

Breakdown of respondents by region, gender and occupational affiliation:

Region	Number of responses	Percent of total
Japan	315	39.1
North America (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
No response	2	0.3
(Overseas Total)	(491)	(60.9)
Total	806	100.0

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

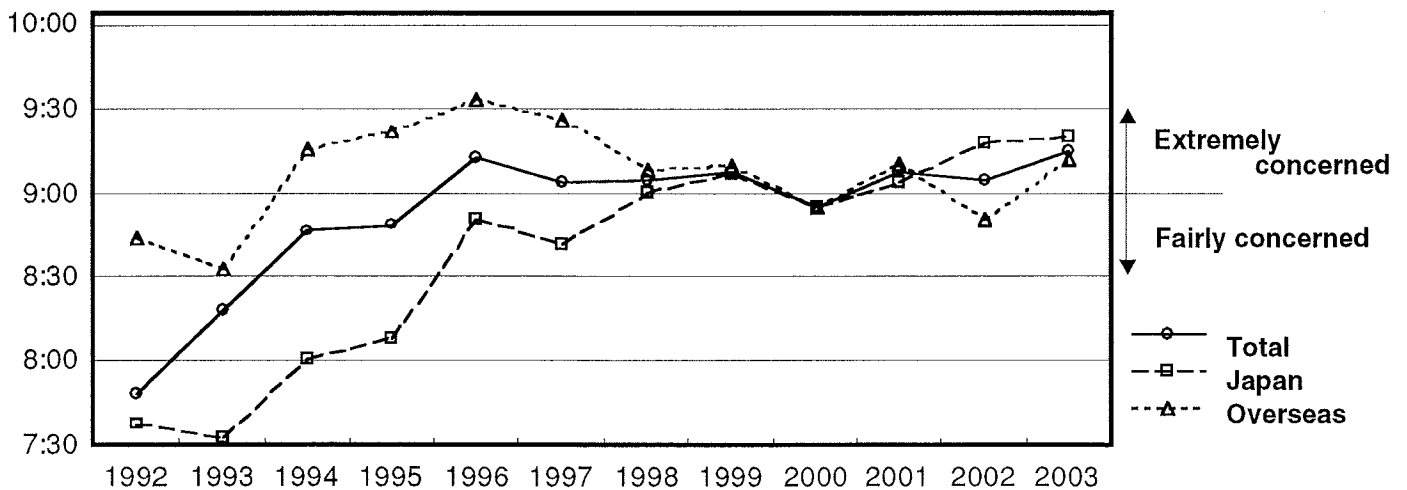
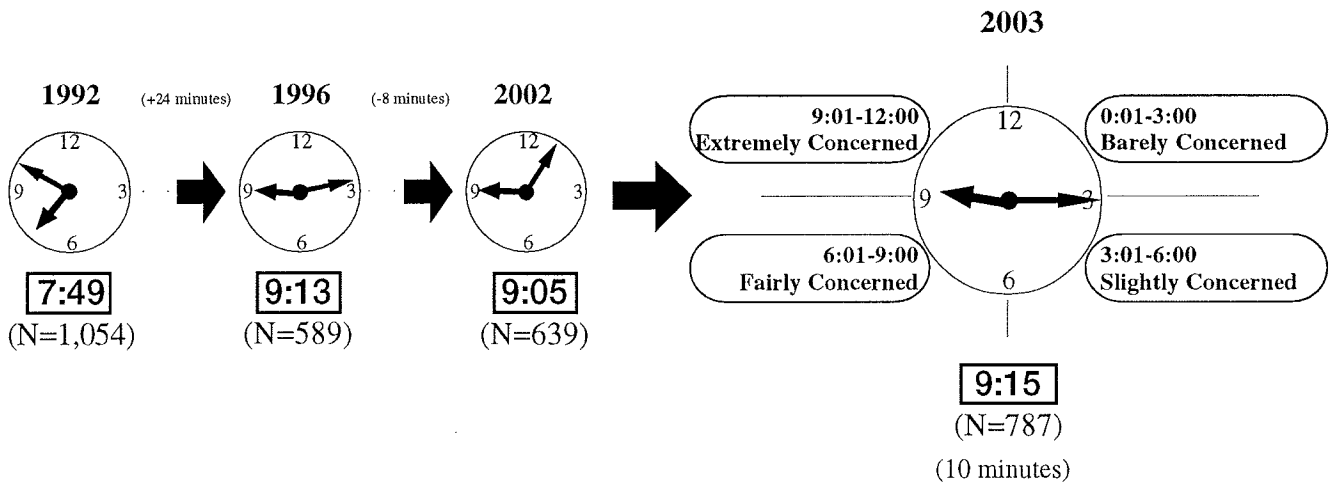
Occupational affiliation	Number of responses	Percent of total
National government	119	14.8
Local government	87	10.8
University or research institution	182	22.6
Nongovernmental organization	170	21.1
Corporation	102	12.7
Other	135	16.7
No response	11	1.3
Total	639	100.0

Environmental Doomsday Clock-The Perception of the Crisis Facing Human Survival

(See page 5-7 in the Questionnaire Report for details)

- The average time expressed by all respondents 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 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.
- The average time for overseas respondents progressed by twenty-one minutes to 9:12, a result comparable to the year before last.
- 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.

Changes in the Environmental Doomsday Clock over Time



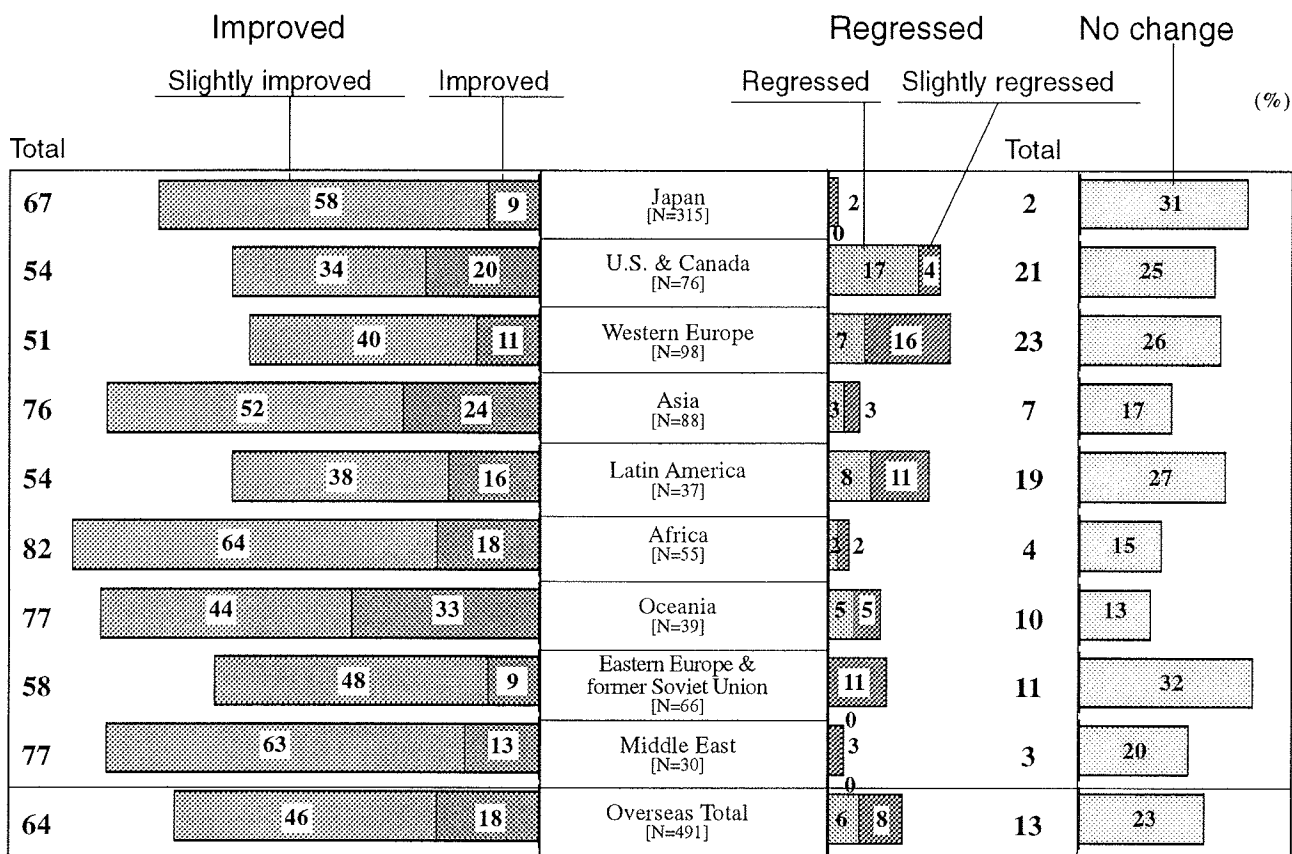
I. Main Focus of the Current Year's Questionnaire

(See page 8, 9 in the Questionnaire Report for details)

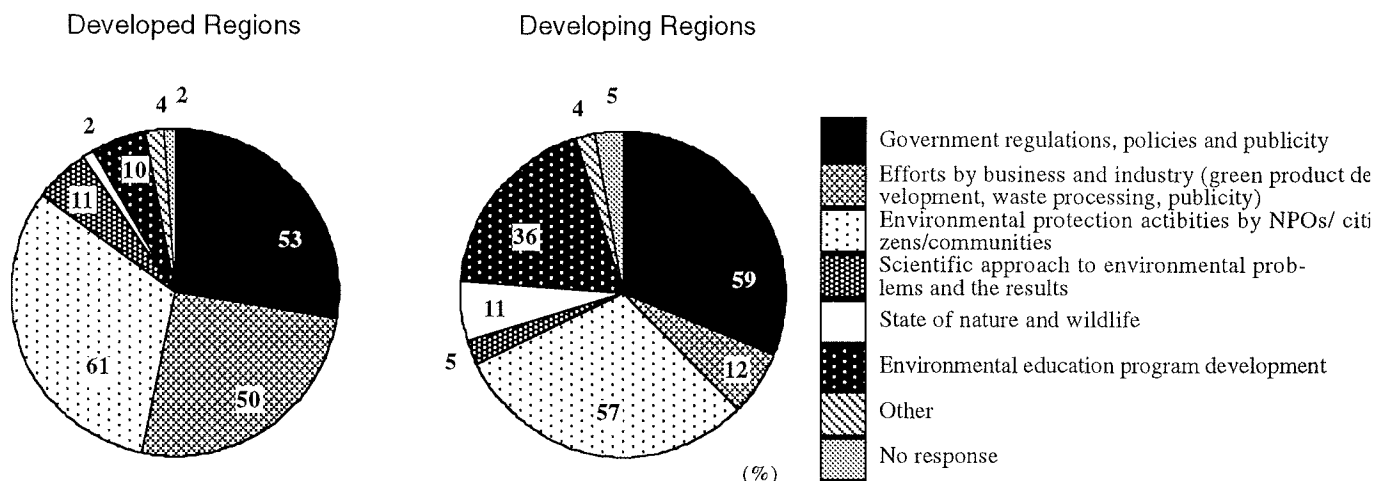
1. Changes in Environmental Awareness and Media Coverage of Environmental Issues

1) 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.



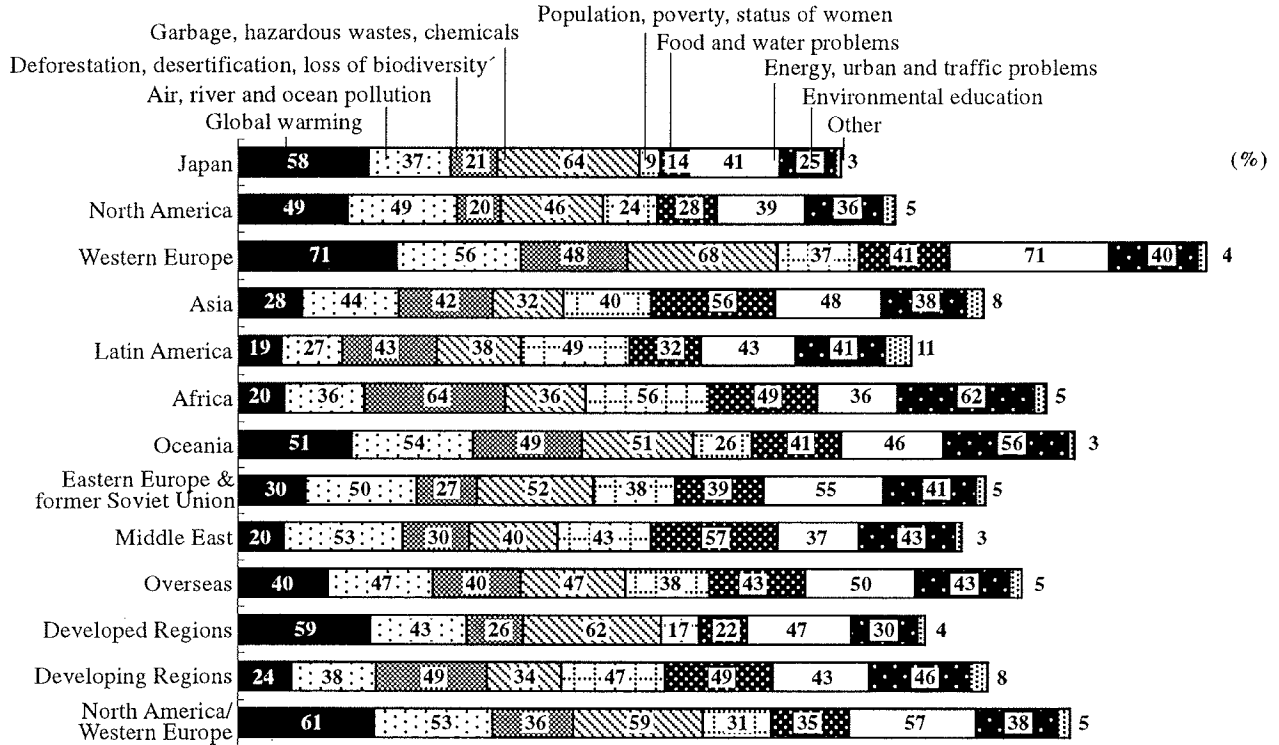
- Reason for assessment: The main reason selected by respondents from both overseas and Japan was “Environmental protection activities by NPOs/citizens/communities” followed by “Government regulations, policies and publicity.” The respondents from developing regions identified the same reasons, but in reverse order.



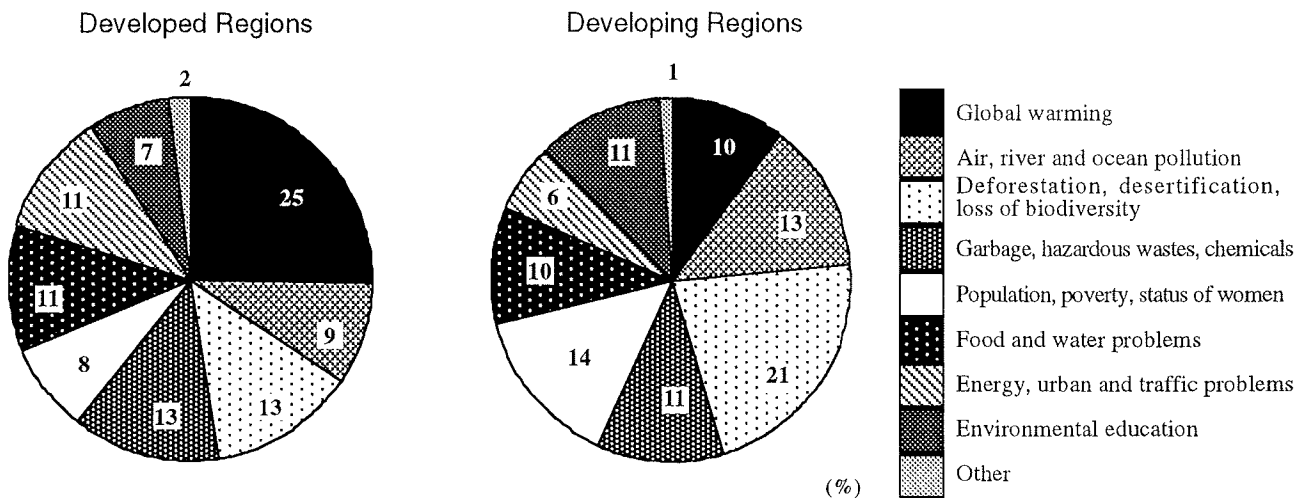
2) Media Coverage of Environmental Issues

(See page 10, 11 in the Questionnaire Report for details)

- Most commonly cited categories:** The categories of environmental issues that are being publicized varied between regions. The most commonly cited category in Japan was “Global warming” followed by “Garbage, hazardous wastes, chemicals.” These were also the same categories selected by North America and Western Europe; 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 including Japan identified “Global warming” as the environmental problem that media should prioritize. In developing regions and Oceania the most cited category was “Deforestation, desertification, loss of biodiversity.”

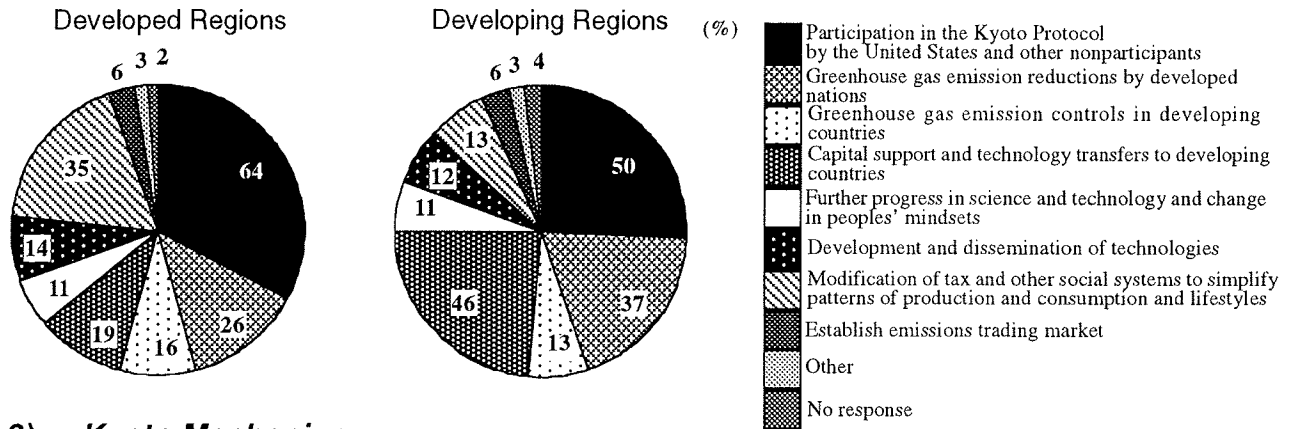


2. Global Warming Countermeasures

1) Conditions for Global Warming Countermeasures to be Effective

(See page 12 in the Questionnaire Report for details)

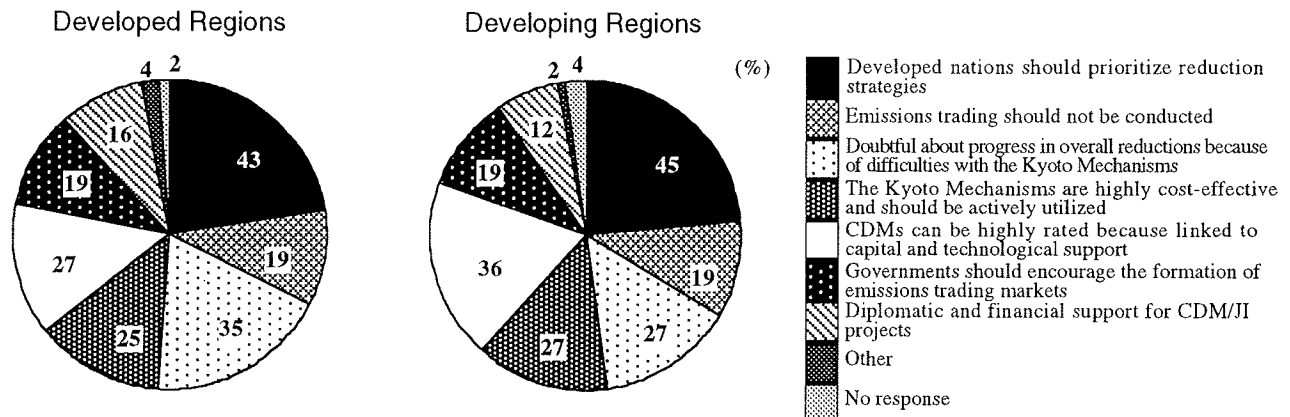
- Among all regions, excluding Asia but including Japan, the most frequently cited condition for global warming countermeasures to be effective was "Participation in the Kyoto Protocol by the United States and other nonparticipants."



2) Kyoto Mechanisms

(See page 13 in the Questionnaire Report for details)

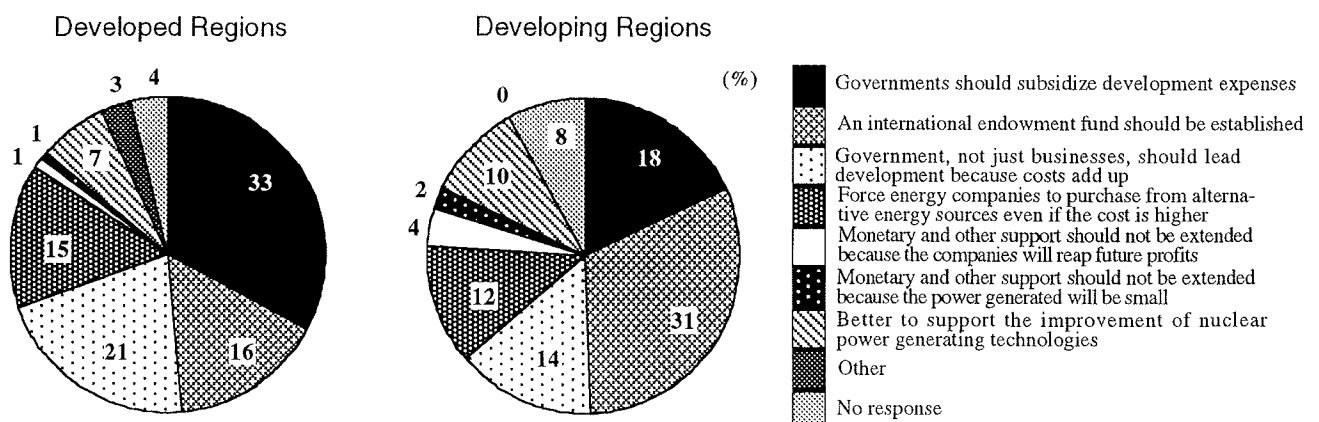
- Respondents from both overseas and Japan most often chose "Developed nations should prioritize reduction strategies."



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

(See page 14, 15 in the Questionnaire Report for details)

- Development Costs:** The respondents from developed regions including Japan cited "Governments should subsidize development expenses," whereas respondents from developing regions indicated "An international endowment fund should be established."

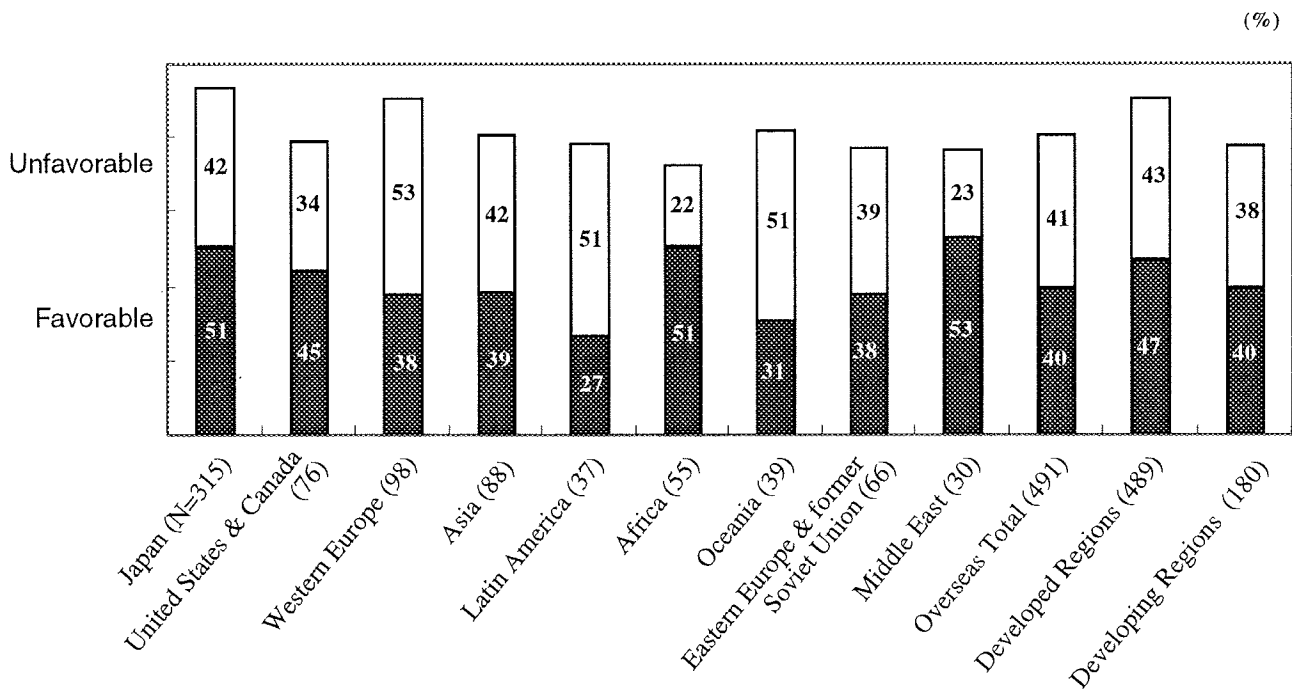


- Measures to promote alternative energy sources even if their costs are higher than fossil fuels: All regions excluding Japan and Western Europe cited “Provide incentives for using energy from alternative sources” as most important. Among respondents from Japan and Western Europe, the measure most cited was “Increase fossil fuel energy costs by imposing environmental taxes.”

4. Evaluation of the Johannesburg Summit

(See page 16, 17 in the Questionnaire Report for details)

- Evaluation: Fifty one percent of Japanese respondents evaluated the Summit favorably, whereas a smaller percentage of respondents, 42%, expressed opposition. 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.
- Reasons for favorable responses: In Japan, the main reason for favorable responses was “Countries that have ratified the Kyoto Protocol should strongly press other countries to do so.” 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.”
- 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.”



II. Repeat Topics

1. Progress Toward Agenda 21 Goals

(See page 18, 19 in the Questionnaire Report for details)

- Among Japanese respondents, the responses indicating progress were high for five categories, ranging from 71% to 62%. The categories were “Promotion of environmental education,” “Formation of recycling systems,” “Activities by local governments and citizens’ groups,” “Scientific/technological contributions,” and “Environmental measures by industry.” However, responses stating that progress occurred in the categories of “Countermeasures for global warming,” “Conservation of forest resources,” “Lifestyle alteration,” “Conservation of biodiversity,” and “Population/poverty problems” were low, ranging from 28% to 7%.
- For overseas respondents, the five top items were the same as the Japanese. Additionally, over 50% of overseas respondents expressed progress in the “Conservation of forest resources.” The responses were low for the remaining four categories, ranging from 46% to 15%, but were not as low as the responses by their Japanese counterparts.

