



Voices of Concern Raised over Global Environmental Problems
Results of the Eighth Annual
“Questionnaire on Environmental Problems and the Survival of Humankind”
Asahi Glass Foundation

The Asahi Glass Foundation, chaired by Jiro Furumoto, has again conducted its annual survey to gauge the perceptions of respondents regarding the progress of efforts to conserve the environment since the Earth Summit of 1992. The respondents are mainly specialists from public and nongovernmental organizations concerned with global environmental problems. This year's survey covers new topics such as the progress and prospects of COP4 as well as subjects closely related to stopping global warming, such as carbon taxes, recycling and bicycle use. The survey also includes items from past surveys, such as the Environmental Doomsday Clock measuring crisis perception and the items of Agenda 21. The Foundation would like to express its gratitude to Professor Akio Morishima of the Faculty of Law of Sophia University for again providing invaluable advice at all stages of the project.

A Summary of Questionnaire Results

Perception of the Immediacy of a Crisis Involving Human Survival (Environmental Doomsday Clock)

- The average time indicated by the respondents was 9:08, which was the fourth consecutive year in which the average has ventured into the "extremely urgent" quadrant. Compared with the previous year, the level of concern has risen in Japan, showing 9:07, on par with the level of concern overseas, which was 9:10.

I. This Year's Special Topics

- 1) Evaluation of the Outcome of the Fourth Session of the UNFCCC Conference of the Parties (COP4) in Buenos Aires
 - A majority of the respondents, 62% of overseas respondents and 51% of their Japanese counterparts, judged that COP4 was "unsuccessful," evaluating the outcome of COP4 rather harshly.
 - Regarding the pros and cons of emissions trading as a method of reducing greenhouse gases, 52% of overseas respondents thought that trading was not an effective means of emission reduction. A similar trend was in evidence in Japan, with 51% choosing the "not effective" response.
 - Regarding the question of "whether the reduction targets for the 2008-2012 period can be achieved if the COP4 process continues to advance at this pace," 63% of overseas respondents and 73% Japanese respondents answered "No," showing that the majority of respondents viewed the current process in a negative light.
- 2) Carbon Taxes
 - When asked for opinions about the imposition of carbon taxes, among all overseas regions, 62% of respondents approved of carbon taxes, while this number reached 79% in Japan.
- 3) Recycling of Waste Products
 - More than 50% of overseas and Japanese respondents recycle or reuse newspapers and magazines, glass bottles, metals cans and plastic products.
 - Among overseas respondents, 46% believed that the costs of recycling should be borne by "Consumers, Corporations & Governments." At 44%, the largest group of Japanese respondents selected "Consumers & Corporations."
 - Among respondents from Japan, North America and Western Europe, a majority thought that "Creation of a law-based recycling system" was the most critical condition. Respondents from other regions strongly supported "The introduction of a point-of-purchase deposit system."

4) Use of the Bicycle for Urban Transport

- Regarding proactive use of the bicycle, an overwhelming 90% of overseas and Japanese respondents alike approved of bicycle use for urban transport.
- Among overseas respondents, an overwhelming majority selected "To expand the infrastructure for the safe use of bicycles, such as bicycle-only road networks, etcetera" as the most necessary means of promoting bicycle usage. Japanese respondents shared this view.

II. Questions Continued from Past Surveys

1) Progress of the Agenda 21 Action Plan

- Compared with the results of four years ago, it is noteworthy that both overseas and Japanese respondents thought that the most progress had been made with regard to "Environmental measures by industry," "Promotion of environmental education," and "Scientific and technological contributions." Conversely, it is notable that, compared with four years ago, respondents from both overseas and Japan thought that little progress had been made with regard to "Lifestyle alteration" and "Conservation of forest resources."

2) Lifestyle Alteration

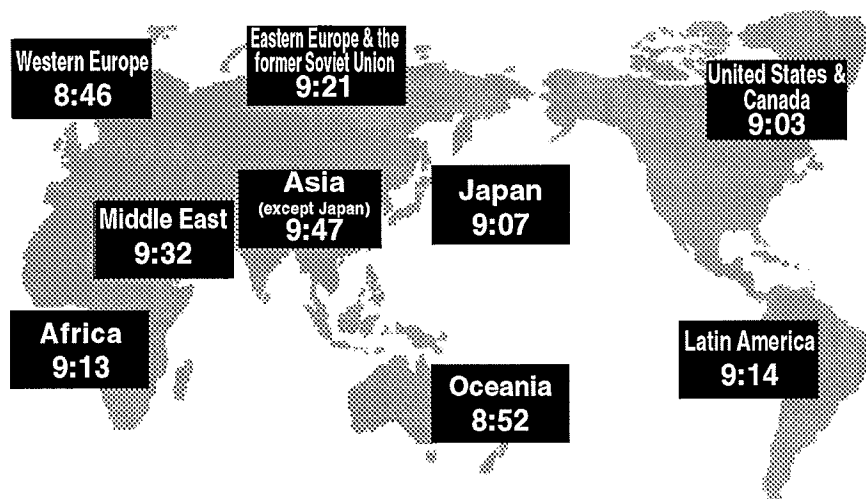
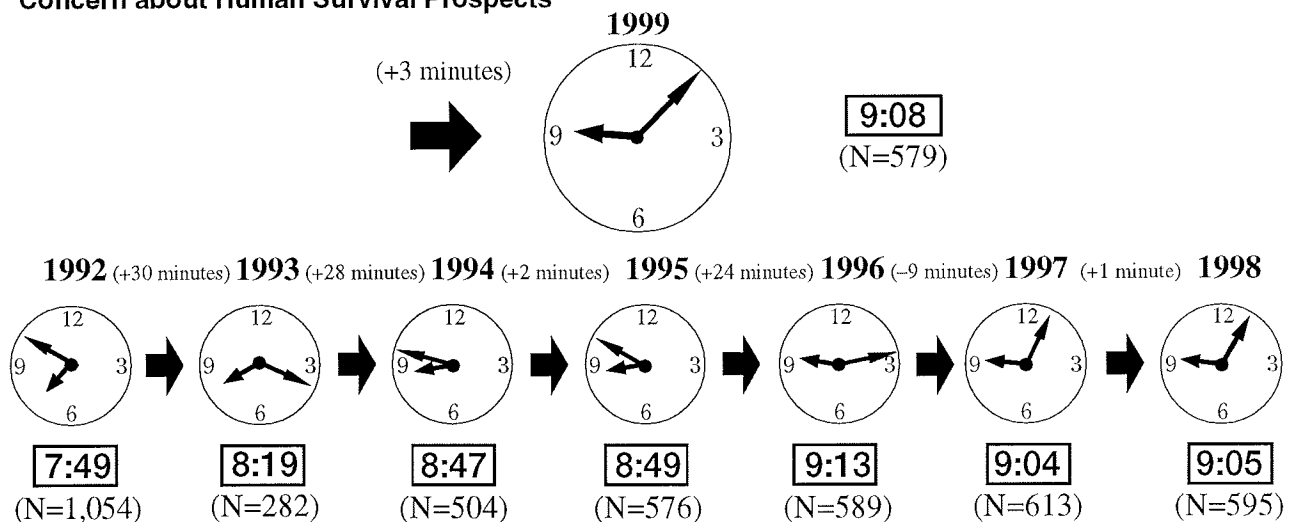
- Among overseas respondents, the majority thought that the largest obstacle to the alteration of lifestyles was "Environmental problems are not so impending as to be given precedence over comfort and efficiency." In Japan, the majority of respondents thought that "Although the importance of environmental issues is recognized, implementing solutions is bothersome."
- A large majority of overseas and Japanese respondents supported "Environmental education from kindergarten upward" as the most effective strategy to improve environmental awareness.

Perception of the Immediacy of a Crisis Involving Human Survival (Environmental Doomsday Clock)

The average time indicated by the respondents was 9:08, which was the fourth consecutive year in which the average has ventured into the "extremely urgent" quadrant. Compared with the previous year, the level of concern has risen in Japan, showing 9:07, on par with the level of concern overseas, which was 9:10.

The average time indicated by the respondents was 9:08. This is the fourth consecutive year in which the average has ventured into the "extremely urgent" quadrant (9:01-12:00). Nevertheless, it remains at the leading edge of the quadrant. The level of concern has risen in Japan from the previous year when it registered in the "extremely urgent" quadrant for the first time. This year's average in Japan was 9:07, on par with the level of concern overseas, which was 9:10. Asia and the Middle East indicated relatively high concern with times later than 9:30 while Western Europe and Oceania favored responses earlier than 9:00, indicating less concern.

Concern about Human Survival Prospects



	Number of Respondents	Changes Over Time			Changes in Average Time by Region	
		'95	'98	→ '99	1995 → 1999	1998 → 1999
Total	579	8:49	9:05	→ 9:08	19	3
Japan	288	8:08	9:01	→ 9:07	59	6
Overseas Total	291	9:22	9:09	→ 9:10	-12	1
Male	470	8:46	9:01	→ 9:01	15	0
Female	94	8:57	9:25	→ 9:35	38	10

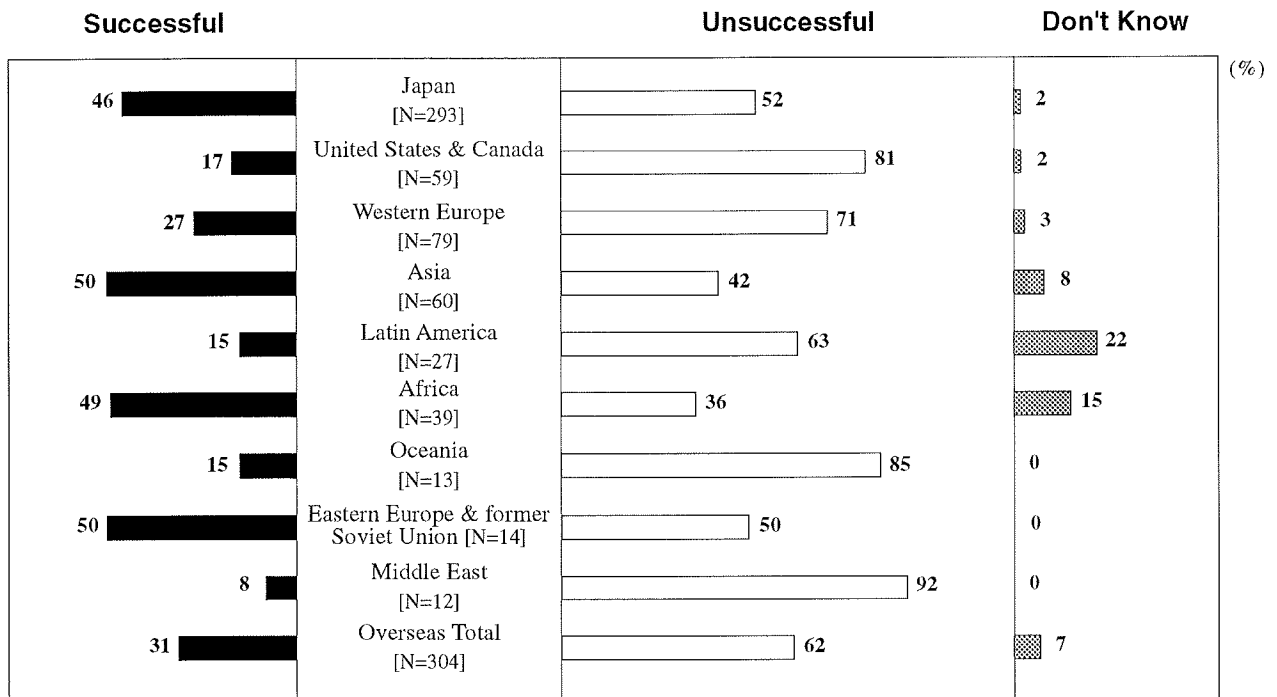
(Please see page 5 of the Questionnaire Report for more information.)

I. This Year's Special Topics

1) Evaluation of the Outcome of the Fourth Session of the UNFCCC Conference of the Parties (COP4) in Buenos Aires

A majority of the respondents, 62% of overseas respondents and 51% of their Japanese counterparts, judged that COP4 was "unsuccessful," evaluating the outcome of COP4 rather harshly.

As the above percentages indicate, respondents did not evaluate the outcome of COP4 very highly. Respondents from developed countries were more critical than respondents from developing countries. However, more Japanese respondents were of the opinion that it was "successful" than their North American and Western European counterparts.

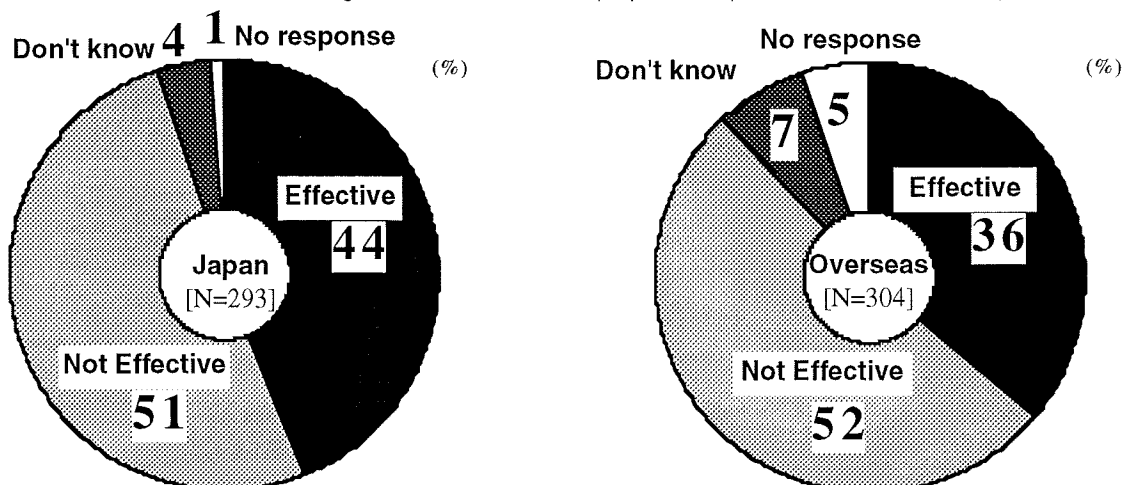


(Please see pages 6 and 7 of the Questionnaire Report for more information.)

Regarding the pros and cons of emissions trading as a method of reducing greenhouse gases, 52% of overseas respondents thought that trading was not an effective means of emission reduction. A similar trend was in evidence in Japan, with 51% choosing the "not effective" response.

The binding targets for emissions trading was the central issue at COP4. As the above result indicated, slightly over 50% of respondents from overseas and Japan answered that the emissions trading was not effective in reducing emissions.

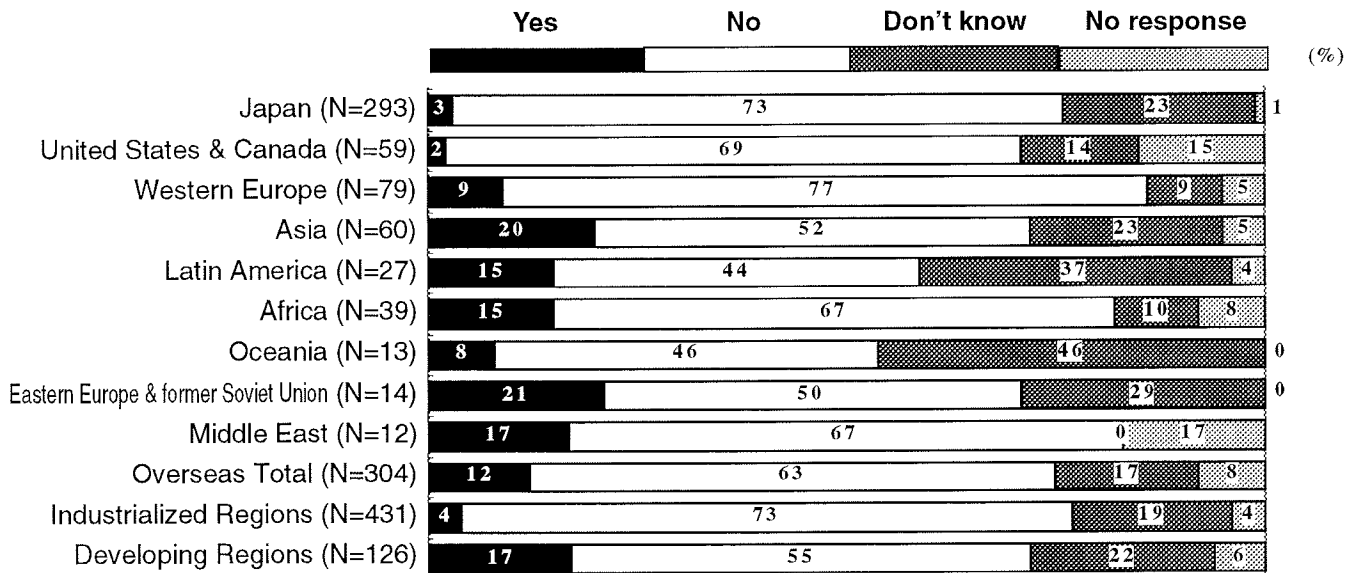
Is Emissions Trading an Effective Method? (Separate Japan and Overseas Totals)



(Please see pages 8 and 9 of the Questionnaire Report for more information.)

Regarding the question of "whether the reduction targets for the 2008-2012 period can be achieved if the COP4 process continues to advance at this pace," 63% of overseas respondents and 73% Japanese respondents answered "No," showing that the majority of respondents viewed the current process in a negative light.

Among respondents from developed countries in North America and Western Europe, 73% replied "No," while this number was only 55% for respondents from developing countries in Asia, Latin America and Africa, showing that respondents from developed countries view this issue with less latitude.



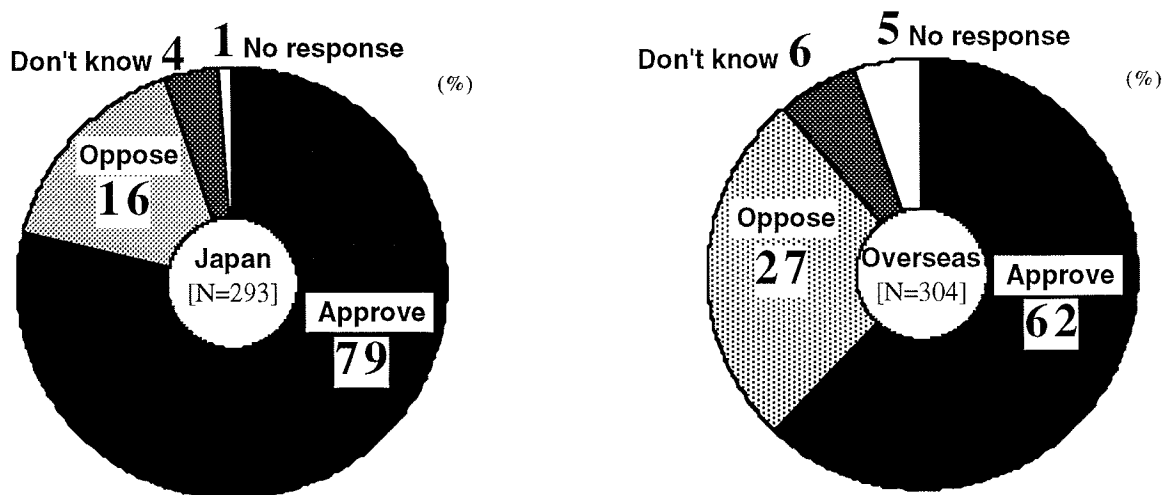
(Please see page 9 of the Questionnaire Report for more information.)

2) Carbon Taxes

When asked for opinions about the imposition of carbon taxes, among all overseas regions, 62% of respondents approved of carbon taxes, while this number reached 79% in Japan.

A majority of respondents from overseas approved carbon taxes. In Japan, this opinion was supported by a higher percentage of respondents.

Approval of Carbon Taxes (Separate Japan and Overseas Totals)

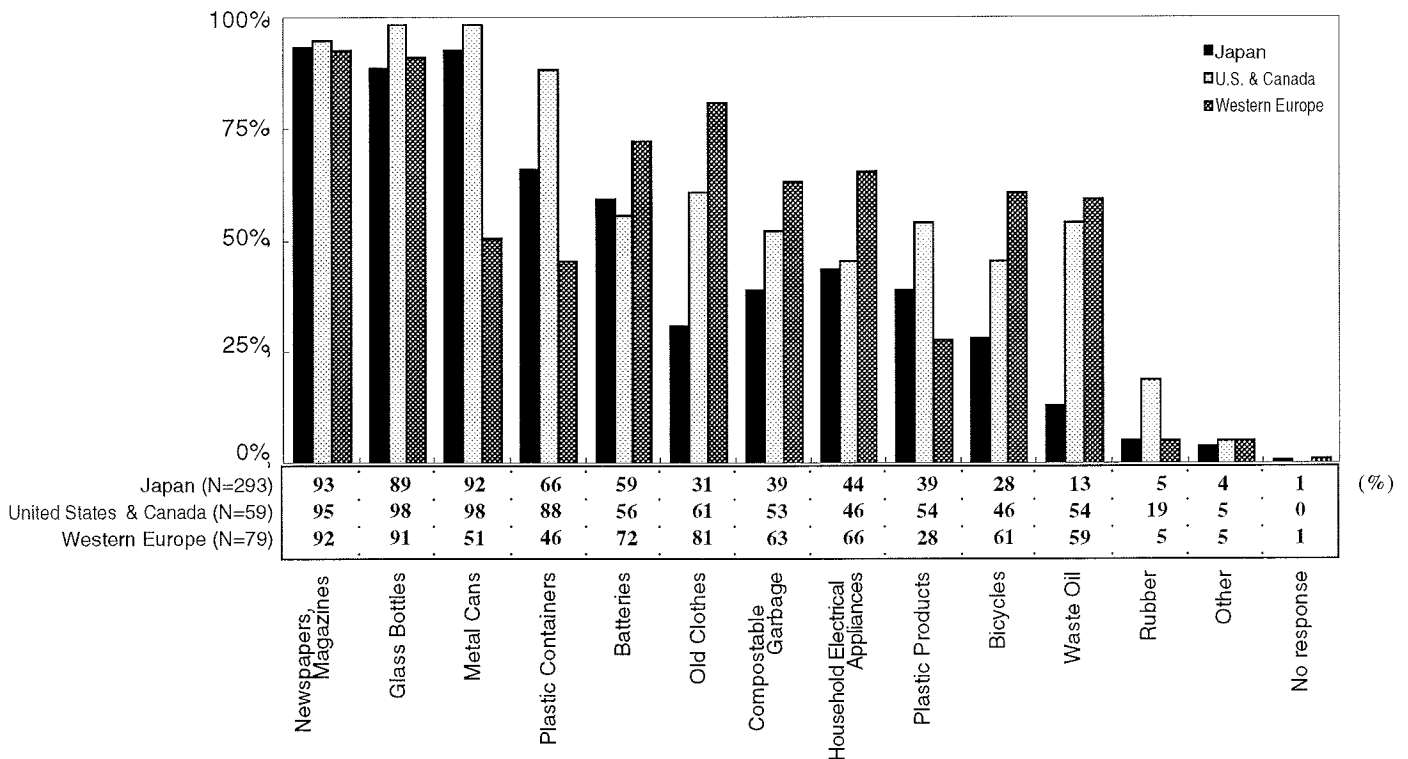
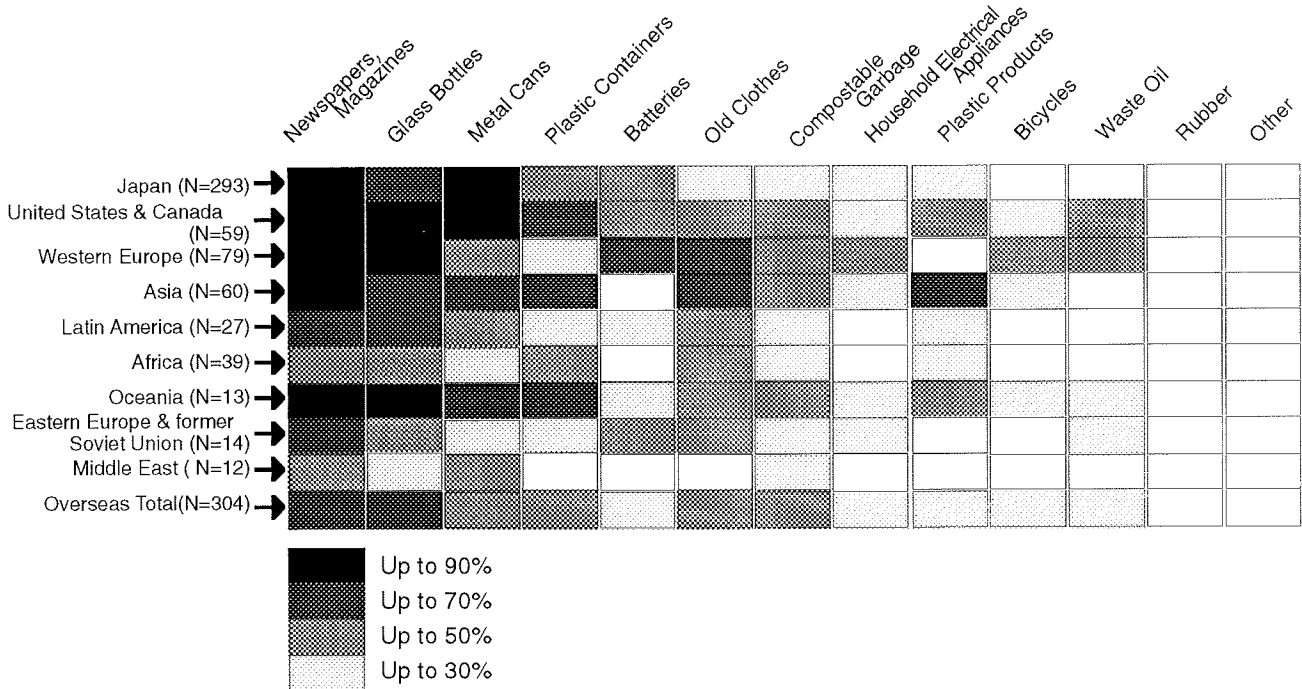


(Please see pages 10 and 11 of the Questionnaire Report for more information.)

3) Recycling of Waste Products

More than 50% of overseas and Japanese respondents recycle or reuse newspapers and magazines, glass bottles, metals cans and plastic products.

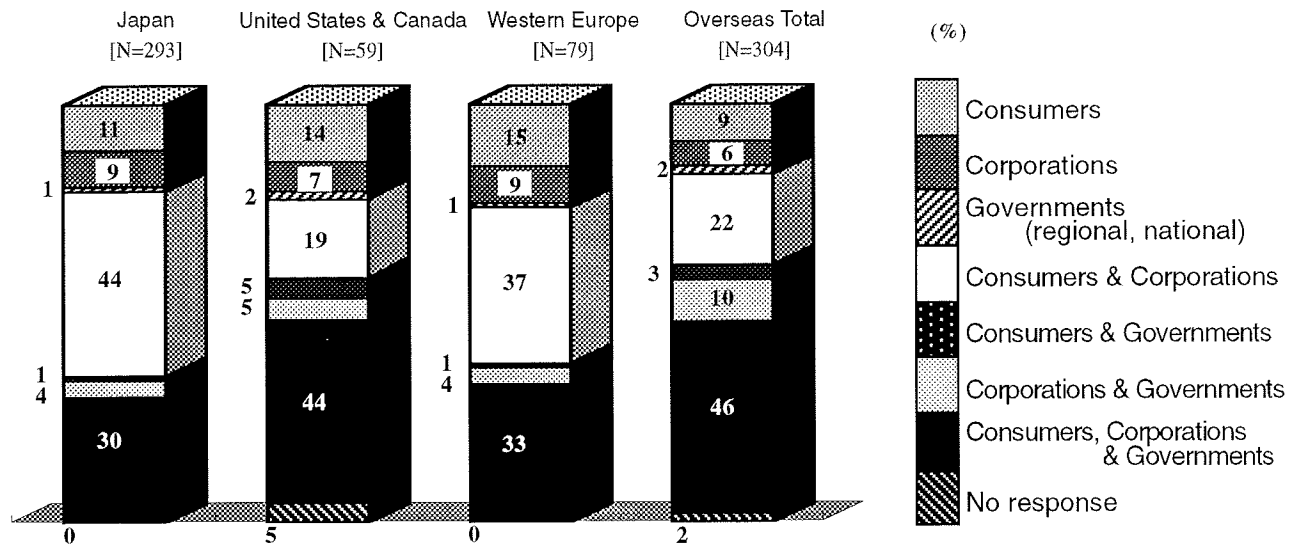
The recycling and reuse of waste products is increasingly regarded worldwide as important to preserve resources and energy. The above four items are recycled or reused by more than 60% of respondents in the developed and developing countries. Although recycling is slightly more advanced in developed countries than in developing countries, it is noteworthy that the recycling of old clothes, compostable garbage, waste oil and bicycles is significantly behind in Japan compared with North America and Western Europe.



(Please see page 12 of the Questionnaire Report for more information.)

Among overseas respondents, 46% believed that the costs of recycling should be borne by "Consumers, Corporations & Governments." At 44%, the largest group of Japanese respondents selected "Consumers & Corporations."

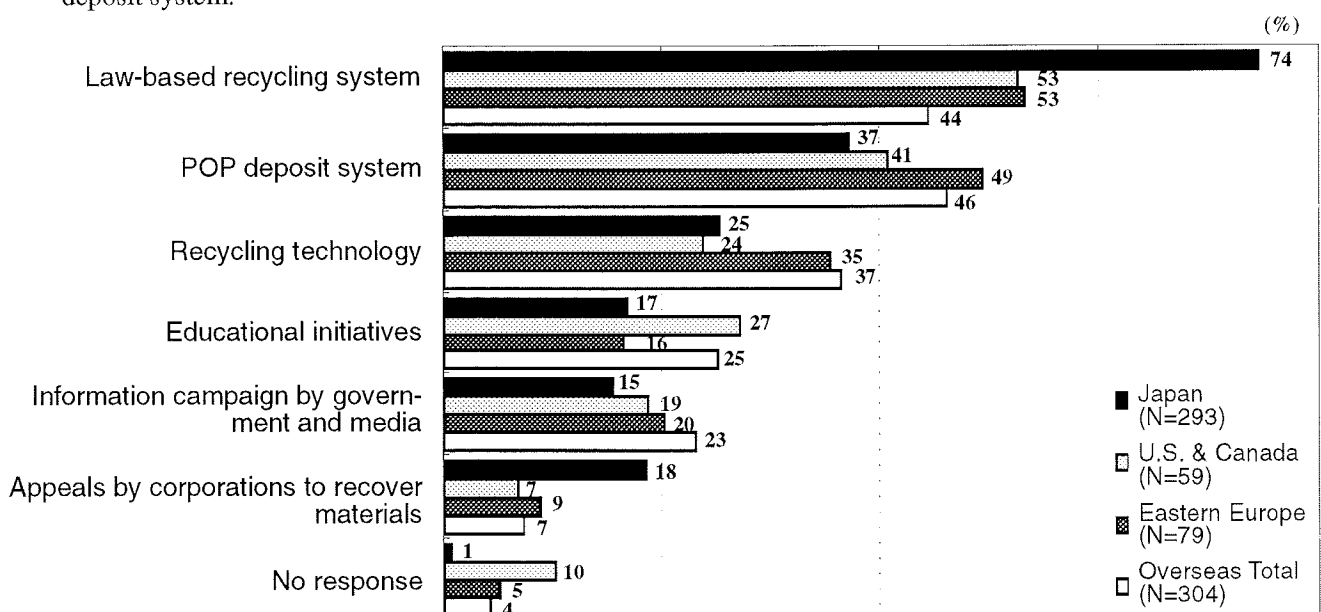
The second choice supported by overseas respondents was "Consumers and Corporations." However, these priorities were reversed among respondents from Western Europe and Japan.



(Please see page 13 of the Questionnaire Report for more information.)

Among respondents from Japan, North America and Western Europe, a majority thought that "Creation of a law-based recycling system" was the most critical condition. Respondents from other regions strongly supported "The introduction of a point-of-purchase deposit system."

Among overseas respondents, a majority selected "The introduction of a point-of-purchase deposit system," which was closely followed by "Creation of a law-based recycling system." Among Japanese respondents, twice as many chose the "Creation of a law-based recycling system," over "The introduction of a point-of-purchase deposit system."



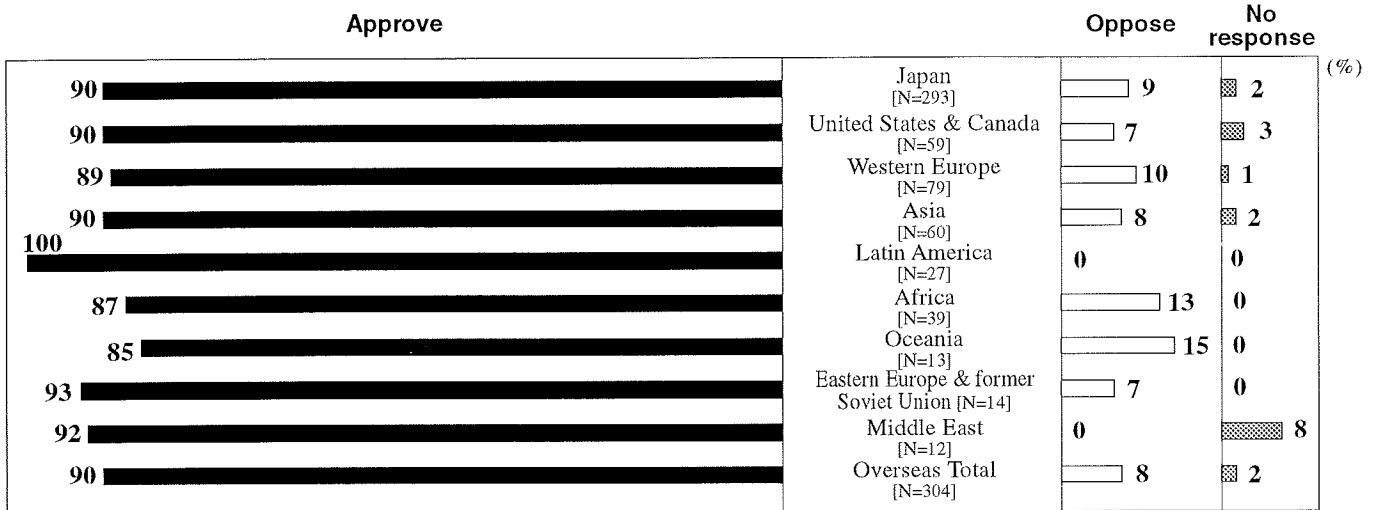
Note: Please note that the totals for the various regions should add up to 200% since respondents were asked to select two items. However, some respondents marked no items or only one item, causing the aggregate total to be less than 200%.

(Please see page 14 of the Questionnaire Report for more information.)

4) Use of the Bicycle for Urban Transport

Regarding proactive use of the bicycle, an overwhelming 90% of overseas and Japanese respondents alike approved of bicycle use for urban transport.

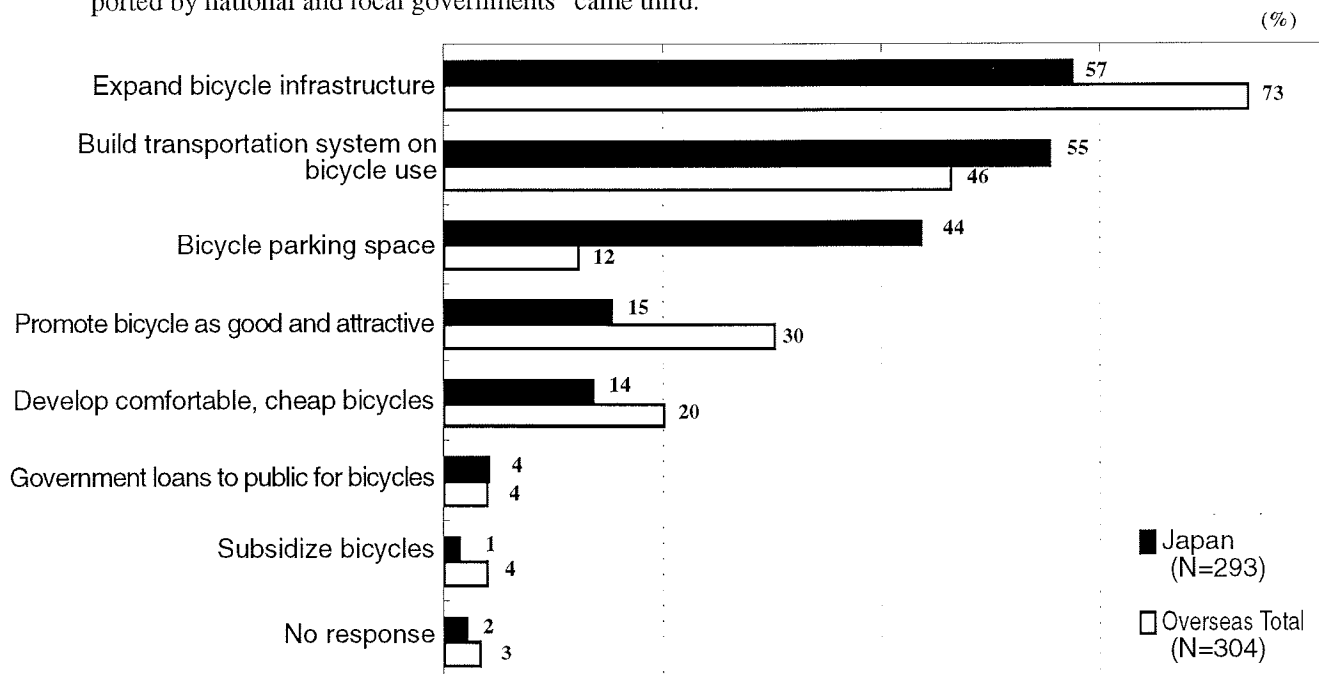
Automotive exhaust is a major contributor to air pollution and greenhouse gases. The use of bicycles for urban transport has been increasingly recognized as a countermeasure to this problem. As the survey result indicates, proactive use of the bicycle is expected.



(Please see page 15 of the Questionnaire Report for more information.)

Among overseas respondents, an overwhelming majority selected "To expand the infrastructure for the safe use of bicycles, such as bicycle-only road networks, etcetera" as the most necessary means of promoting bicycle usage. Japanese respondents shared this view.

Among overseas respondents, the second choice was "Creation of transport systems and infrastructure based on the assumption of widespread bicycle use," which was followed by "The idea that riding a bicycle is 'good' and 'attractive' should be spread among the public." Japanese respondents shared the first two priorities, but the difference between them was negligible, while "Sufficient bicycle parking space should be set aside and supported by national and local governments" came third.



Note: 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 no items or only one item, causing the aggregate total to be less than 200%.

(Please see page 15 of the Questionnaire Report for more information.)

II. Questions Continued from Past Surveys

1) Progress of the Agenda 21 Action Plan

Compared with the results of four years ago, it is noteworthy that both overseas and Japanese respondents thought that the most progress had been made with regard to "Environmental measures by industry," "Promotion of environmental education," and "Scientific and technological contributions." Conversely, it is notable that, compared with four years ago, respondents from both overseas and Japan thought that little progress had been made with regard to "Lifestyle alteration" and "Conservation of forest resources."

In this year's questionnaire, as in the last, we asked the extent of progress achieved in 10 categories, which were ranked in order of frequency and compared with the 1995 results from four years ago. Among the above three items, "Environmental measures by industry" were thought to have improved the most, rising 8 points above the prior results. Conversely, the two items labeled as "little progress had been made" fell between 8 and 12 points.

Comparison of Differences between 1995 and 1999

	Japan	United States & Canada	Western Europe	Asia	Latin America	Africa	Oceania	Eastern Europe & former Soviet Union	Middle East	Overseas Total	(%)
Promotion of environmental education	⊕7	+1	+25	-5	+8	+8	+8	+36	+11	⊕8	
Activities by local governments and citizens' groups	-1	+8	+15	+8	+11	+2	+3	+14	-6	+9	
Environmental measures by industry	⊕10	-11	+24	-5	+25	+15	+26	-35	-48	⊕8	
Scientific and technological contributions	⊕5	-5	+3	+8	+17	-1	+19	-14	-8	⊕6	
Formation of recycling systems	-5	+3	-9	0	-1	-10	+26	-15	-33	+4	
Conservation of biodiversity	+3	-3	-3	-7	-12	-2	-22	-7	+6	-7	
Conservation of forest resources	△9	-8	+1	-15	+4	-12	-9	-21	-14	△8	
Greenhouse gas prevention measures	+7	-40	+1	-6	-6	-6	+10	+21	-11	-5	
Measures to alleviate population and poverty problems	0	-8	-3	-19	+4	-7	-10	-14	+14	-10	
Lifestyle alteration	△11	-33	-27	-9	-3	0	-28	-7	+14	△12	

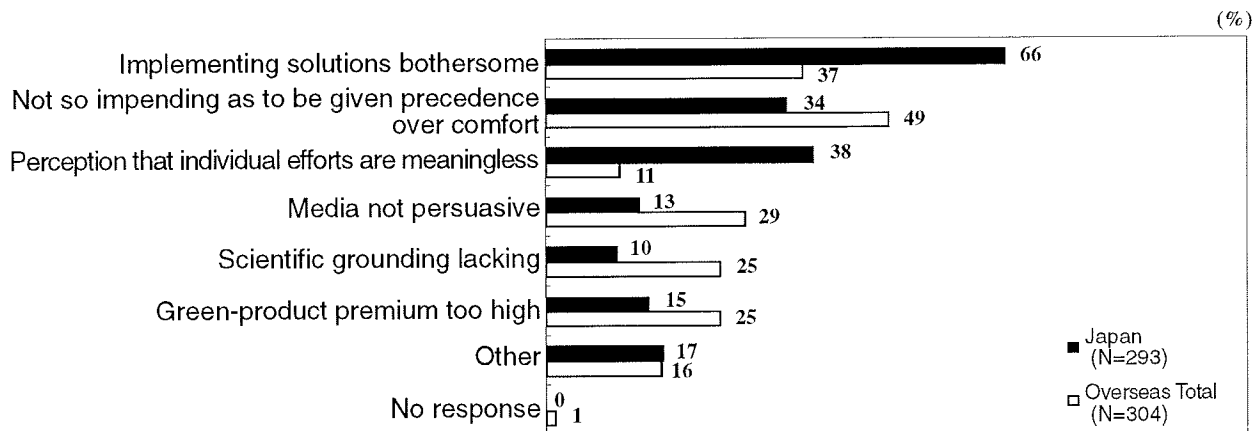
Note: The differences in points for 1999 and 1995 for both the Japan and overseas totals were treated the same. Positive differences of 5% or more were circled and negative differences of 5% or more were enclosed in triangles.

(Please see pages 16 and 17 of the Questionnaire Report for more information.)

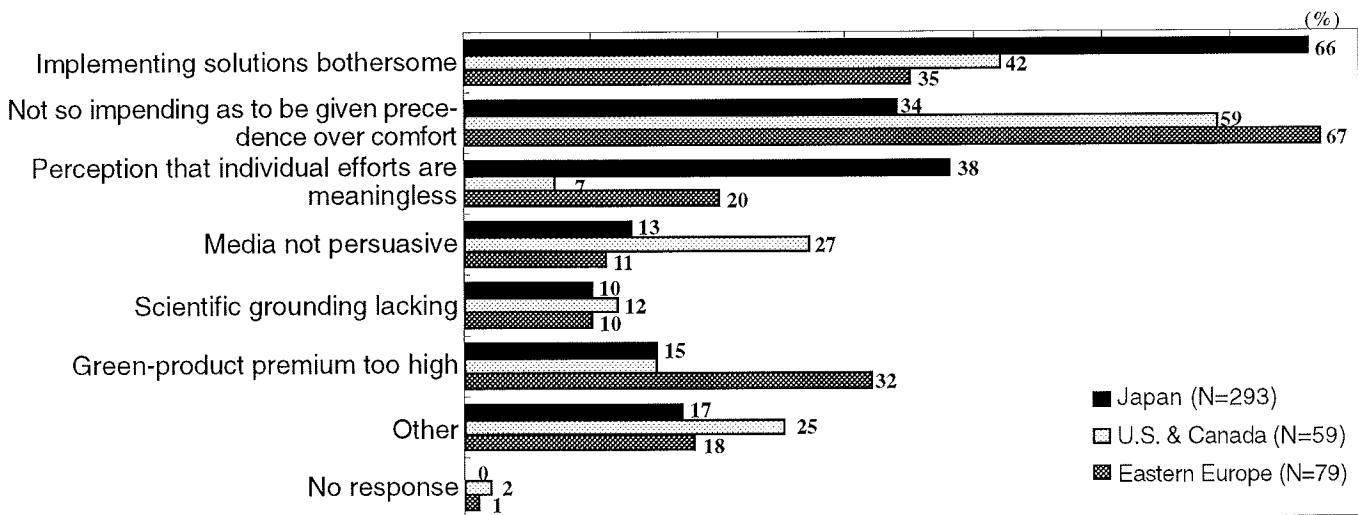
2) Lifestyle Alteration

Among overseas respondents, the majority thought that the largest obstacle to the alteration of lifestyles was "Environmental problems are not so impending as to be given precedence over comfort and efficiency." In Japan, the majority of respondents thought that "Although the importance of environmental issues is recognized, implementing solutions is bothersome."

According to the Agenda 21 section of this survey, which has been administered annually since 1993, there has been little progress made toward environmentally positive changes in peoples' lifestyles, which is important to the resolution of environmental problems. Regionally, North American and Western European respondents supported "Environmental problems are not so impending" the most, while "Media information on environmental problems is not persuasive" received the most support from respondents from developing countries. In Japan the second most selected was "Perception that individual efforts are meaningless."



Note: 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 no items or only one item, causing the aggregate total to be less than 200%.

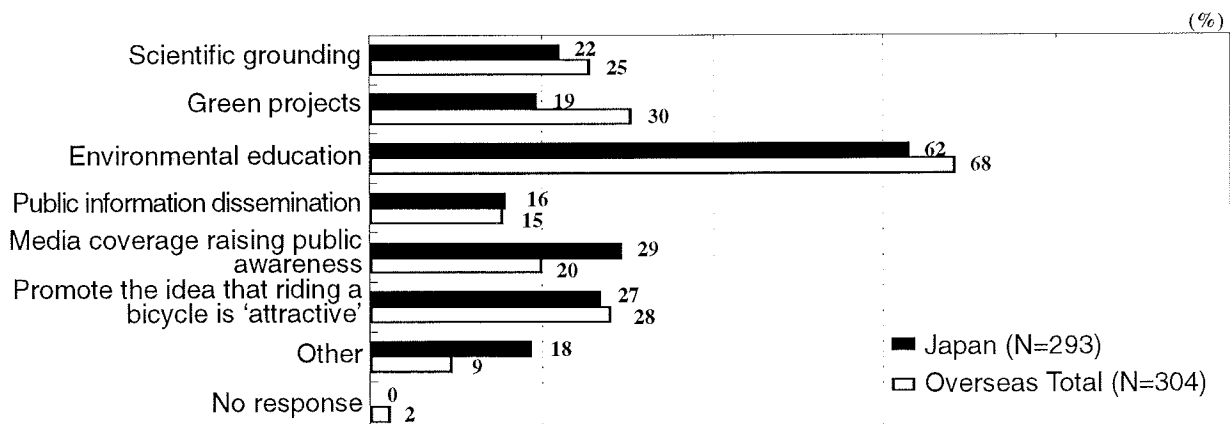


Note: Please note that the totals for the various regions should add up to 200% since respondents were asked to select two items. However, some respondents marked no items or only one item, causing the aggregate total to be less than 200%.

(Please see page 18 of the Questionnaire Report for more information.)

A large majority of overseas and Japanese respondents supported "Environmental education from kindergarten upward" as the most effective strategy to improve environmental awareness.

The second-ranked strategy was "Development of green products, such as electric cars, etcetera" for overseas respondents and "News from the media raising public awareness about the issues" for Japanese respondents.



Note: 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 no items or only one item, causing the aggregate total to be less than 200%.

(Please see page 19 of the Questionnaire Report for more information.)