

Results of the Fourth Annual
“Questionnaire on Environmental Problems and the Survival of Humankind”
Progress on Environmental Issues since the Earth Summit

REPORT

THE ASAHI GLASS FOUNDATION

October 1995

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Foreword

This report contains the results of the fourth annual "Questionnaire on Environmental Problems and the Survival of Humankind" conducted by the Asahi Glass Foundation.

This is the fourth year since the United Nations Conference on Environment and Development, or Earth Summit, held in Rio de Janeiro in June 1992. Although international interest in and enthusiasm for environmental issues seem to have waned since then, we do believe that substantial and steady progress in protecting the environment has been made in many countries. In addition, we were able to obtain the enthusiastic participation of many informed respondents who answered our questionnaire.

This questionnaire was designed to gauge the perceptions of respondents, mainly specialists from both governmental organizations (GOs) and nongovernmental organizations (NGOs) concerned with global environmental problems, regarding the progress of efforts to conserve the environment since the Earth Summit. This year we are examining two additional topics: reactions to the International Conference on Population and Development (ICPD) held in Cairo in 1994, as well as the issue of global warming.

The Foundation would like to express its gratitude to the many members of GOs and NGOs throughout the world who took the time to respond. In addition, the Foundation thanks Professor Akio Morishima of Nagoya University's law department for again providing invaluable advice throughout the entire duration of the project.

In closing, we would request the advice and opinions of specialists from many fields of endeavor regarding the questionnaire, so that future surveys may yield even more comprehensive, relevant results.

October 1995

Asahi Glass Foundation

I. Facts about the Fourth Annual "Questionnaire on Environmental Problems and the Survival of Humankind"

Response period: Questionnaires were sent out in April 1995 with a return deadline of July 10, 1995.

Questionnaire respondent pool: Selected from members of GOs and NGOs in the United Nations Environment Program and Asahi Glass Foundation databases.

Questionnaires mailed: 2,656

Questionnaires returned: 576*

Response rate: 21.7%

*Questionnaires returned after July 10, 1995, are not reflected in these results.

Breakdown of respondents by region, sex, and occupational affiliation:

Region	Number of responses	(Percent of total)
Japan	248	(43.1)
Asia (outside Japan)	62	(10.8)
United States & Canada	25	(4.3)
Latin America	48	(8.3)
Western Europe	79	(13.7)
Eastern Europe & the former Soviet Union	14	(2.4)
Middle East	16	(2.8)
Africa	62	(10.8)
Oceania	22	(3.8)
Total	576	(100.0)

Sex	Number of responses	(Percent of total)
Male	444	(77.1)
Female	119	(20.7)
No response	13	(2.3)
Total	576	(100.0)

Occupational affiliation	Number of responses	(Percent of total)
Governmental organization	235	(40.8)
Nongovernmental organization	220	(38.2)
Other	115	(20.0)
No response	6	(1.0)
Total	576	(100.0)

Notes: 1) All percentages in this analysis were calculated based on the 576 replies received as of July 10, 1995.

2) All figures contained in the analysis sections of this report have been rounded to the nearest tenth.

II. Summary of Questionnaire Results

1. Humanity in Crisis—Today and 50 Years into the Future

Although the average level of concern for all respondents in 1995 was virtually unchanged from 1994, large changes within regions could be seen. In particular, Eastern Europe & the former Soviet Union and Oceania showed a heightened sense of crisis. On the other hand, the sense of crisis in Western Europe and the United States & Canada diminished. As in the previous year's results, Japan registered the lowest level of concern of all areas surveyed.

In general, respondents felt that the state of the global environment in 50 years would be worse than conditions today. However, responses from developing regions were optimistic. Despite the fact that Japanese respondents had the lowest level of concern about the current state of the environment, they had the most pessimistic view on the state of the global environment in 50 years.

2. Lifestyle Changes

Respondents from regions such as the United States & Canada, Latin America, and Western Europe show strong recognition of the need to adapt to a more frugal lifestyle, but in Japan such awareness remains at a low level.

3. Progress on Environmental Issues since the Earth Summit

This year, the accomplishments of NGOs and local governments and citizens' groups were again highly evaluated. However, measures to combat desertification and contend with overpopulation and other basic problems are perceived as inadequate. There has also been little progress made in changing economic systems to effect greater environmental conservation or in establishing the necessary capital-creating mechanisms for the preservation of the environment. Compared with last year, the gap in perceptions between respondents from GOs and NGOs narrowed considerably.

Large differences can be seen between respondents from developing and developed countries regarding what is most important for solving environmental problems. The former focused on overpopulation, agriculture, and education, while the latter focused on changes in lifestyles and economic systems.

4. Perceptions of Global Warming and Effective Countermeasures

The problem of global warming was regarded most seriously by Oceania, which includes many island nations, and least seriously by Japan.

The measure judged most effective in dealing with global warming was the development and promotion of recyclable energy resources. Among respondents from developed countries, support for systematic measures such as the introduction of environmental taxes was strong.

5. The International Conference on Population and Development (ICPD)

More than half of all respondents felt that this was an important conference, although significant regional differences of opinion were apparent.

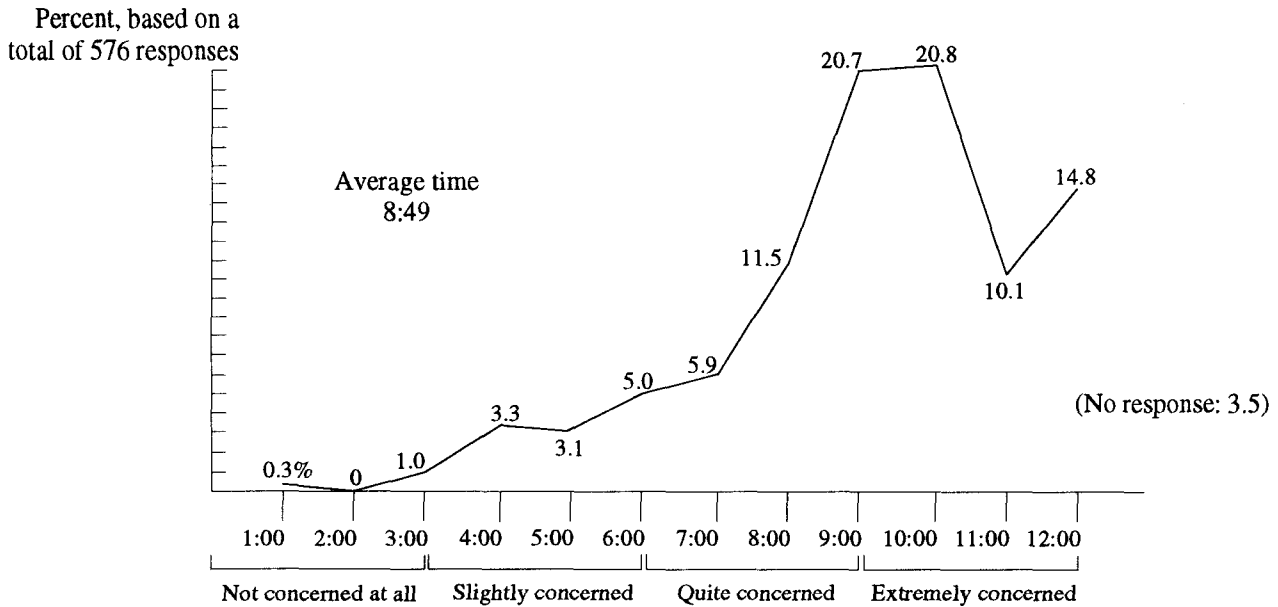
1. HUMANITY IN CRISIS—TODAY AND 50 YEARS INTO THE FUTURE

Question 1-1: Indicate with a time your concern about the survival prospects of humankind in light of the deterioration of the environment, taking into consideration the times and associated concern levels listed below.

0:01-3:00 Not concerned at all 3:01-6:00 Slightly concerned 6:01-9:00 Quite concerned 9:01-12:00 Extremely concerned

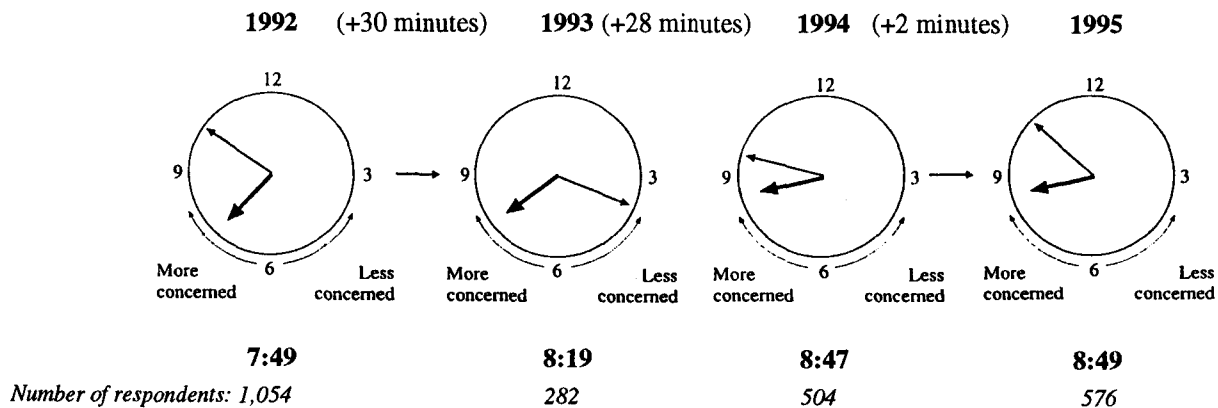
- (1) This year, the average time indicated by respondents was 8:49.
 The majority of responses about humankind's survival prospects were concentrated in the 8:00 to 10:00 range ("quite concerned" to "extremely concerned").

What Time Is It? Concern about the Survival Prospects of Humankind



- (2) Each year this questionnaire has been conducted, the average time indicated by respondents has grown later. The average response in 1993 was 30 minutes later than in 1992, while that in 1994 was 28 minutes later than in 1993. However, the response for 1995 was only two minutes later than in 1994.

Annual Changes in Time: Running Late



- (3) Looking at this year's results by region, recognition of the severity of global environmental deterioration is high in Asia, Latin America, Africa, and Oceania, and comparatively low in Japan, the United States & Canada, and Western Europe. Of all regions surveyed, the lowest average time was reported in Japan.
- (4) Between 1994 and 1995, the average time indicated grew later in Asia, Eastern Europe & the former Soviet Union, Africa, and Oceania, but earlier in the United States & Canada, Latin America, and Western Europe.
- (5) The average time indicated by Japanese respondents advanced slightly from 1994 to 1995, but as in 1994 awareness of the crisis remained the lowest of all regions surveyed.

Change in Responses by Region

	1994 → 1995	Time change
Japan	8:01 → 8:08	+7 minutes
Asia	9:16 → 9:41	+25 minutes
United States & Canada	9:07 → 8:52	-15 minutes
Latin America	9:37 → 9:23	-14 minutes
Western Europe	9:35 → 9:02	-33 minutes
Eastern Europe & the former Soviet Union	8:10 → 9:29	+79 minutes
Africa	9:14 → 9:33	+19 minutes
Oceania	8:53 → 9:44	+51 minutes
Middle East	— 9:09	
GOs	8:38 → 8:37	-1 minute
NGOs	9:01 → 9:04	+3 minutes

Note: Because in past years the number of responses from the Middle East was very small, a value is recorded here only for 1995.

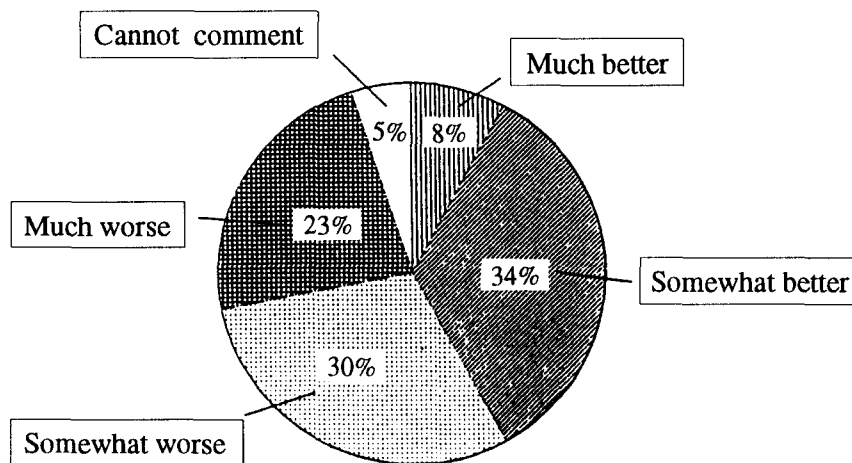
Comments

Although the average time for all respondents in 1995 was virtually unchanged from 1994, large changes within regions could be seen. In particular, Eastern Europe & the former Soviet Union and Oceania showed a heightened sense of crisis. On the other hand, the sense of crisis in Western Europe and the United States & Canada diminished. As in the previous year's results, Japan registered the lowest level of concern of all areas surveyed.

Question 1-2: Considering the state of the global environment as a whole *in 50 years*, will human action in the form of governmental, corporate, and nongovernmental efforts create environmental conditions that are better or worse than today? Choose the appropriate response.

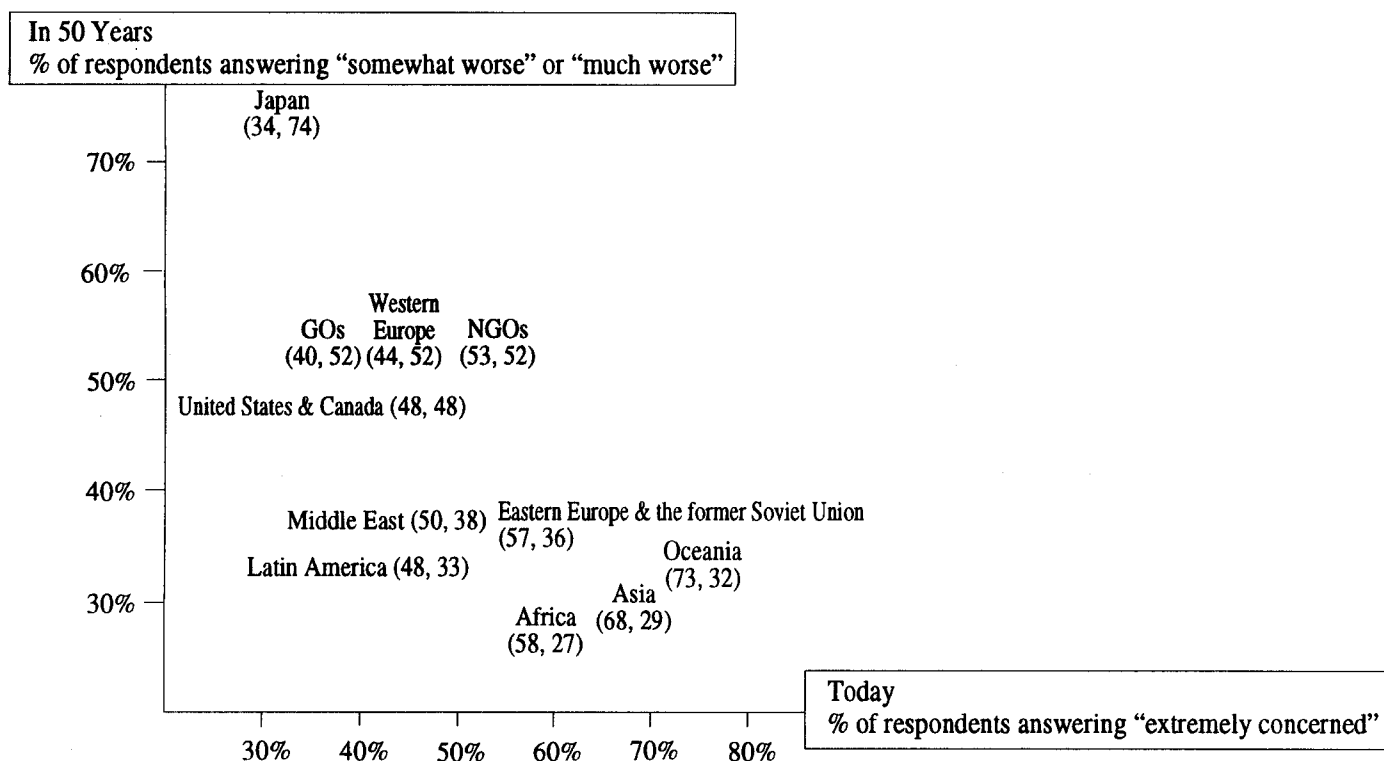
- (1) Forty-two percent of respondents were optimistic (choosing “much better” or “somewhat better”), while 53% of respondents were pessimistic (choosing “somewhat worse” or “much worse”).

**The State of the Global Environment 50 Years into the Future:
What Will Come of International, National, and Corporate Efforts?**



- (2) Comparing responses to questions 1-1 and 1-2, respondents from the regions with the strongest recognition of the global environmental crisis—Oceania, Asia, and Africa—had a fairly optimistic outlook regarding the future state of the environment. By contrast, Japanese respondents, with the weakest concern for the environment today, had the most pessimistic view of the future.
- (3) Comparing responses from members of GOs and NGOs, concern about the current state of the environment was stronger among members of NGOs, whose average time was 27 minutes later than the average time recorded by members of GOs. However, there was virtually no difference in responses between GOs and NGOs regarding the state of the global environment in 50 years.

Concern about the Environment Today and in 50 Years by Region



Note: The figures in parentheses indicate the percentage for each point on the graph. The left-hand figure corresponds to question 1-1, and the right-hand figure corresponds to question 1-2.

	Concern about the survival prospects of humankind (%)					The state of the global environment in 50 years (%)					
	Not concerned at all	Slightly concerned	Quite concerned	Extremely concerned	No response	Much better	Somewhat better	Somewhat worse	Much worse	Cannot comment	No response
Total (576)	1	12	38	46	4	8	34	30	23	4	1
Japan (248)	2	21	44	34	0.4	3	19	41	33	2	2
Asia (outside Japan) (62)	—	2	26	68	5	16	47	15	15	8	—
United States & Canada (25)	4	8	36	48	4	8	40	16	32	4	—
Latin America (48)	2	4	42	48	4	6	60	27	6	—	—
Western Europe (79)	—	8	42	44	6	3	41	32	20	4	1
Eastern Europe & the former Soviet Union (14)	—	7	29	57	7	29	29	29	7	7	—
Middle East (16)	—	—	50	50	—	19	44	13	25	—	—
Africa (62)	2	3	26	58	11	15	50	16	11	7	2
Oceania (22)	—	5	23	73	—	18	36	9	23	9	5
GOs (235)	1	15	41	40	3	8	36	32	20	3	2
NGOs (220)	2	8	33	53	5	8	35	29	23	5	1

Comments

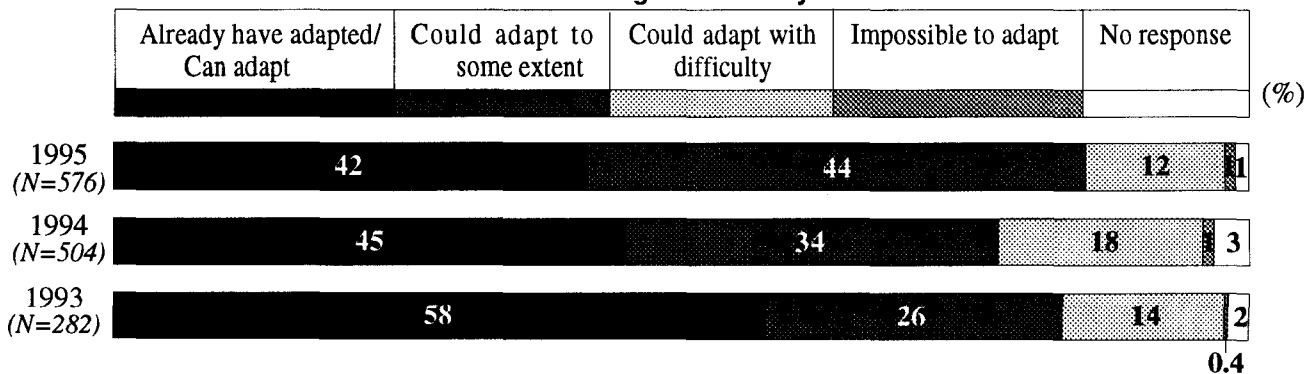
In general, respondents felt strongly that the state of the global environment in 50 years would be worse than conditions today. However, responses from developing regions were optimistic. Despite the fact that Japanese respondents had the lowest level of concern about the current state of the environment, they had the most pessimistic view on the state of the global environment in 50 years.

2. LIFESTYLE CHANGES

Question 2. Lately, there is a growing consensus that we should change our overconsumption-throwaway lifestyle. How do you feel about adapting to a more frugal lifestyle (e.g., using less electricity, purchasing products that are environmentally sound, reducing the amount of household garbage)? Choose the appropriate response.

- (1) This year, 42% of respondents answered that they could change or already have changed their overconsumption-throwaway lifestyle, down three percentage points from last year. However, the number of respondents who answered that they could adapt “to some extent” rose 10 percentage points.
- (2) By region, the percentage of respondents who answered “already have adapted/can adapt” was 92% in the United States & Canada, 75% in Latin America, and 63% in Western Europe. Thus, these regions exhibited strong positive attitudes about adapting to a more frugal lifestyle. In Japan and Eastern Europe & the former Soviet Union, the percentage of “already have adapted/can adapt” responses was low.
- (3) In Japan, 23% of respondents answered “already have adapted/can adapt,” down six percentage points from the previous year. However, the number of respondents who answered that they “could adapt to some extent” rose six percentage points.

Can We Change Our Lifestyles?



“Already Have Adapted/Can Adapt” Responses by Region

	Already have adapted/Can adapt	1995		1994		1993	
		(1)	(2)	(1)	(2)	(1)	(2)
Japan (248)	23	23	65	29	59	53	26
Asia (62)	53	53	34	58	9	61	30
United States & Canada (25)	92	92	8	83	4	82	9
Latin America (48)	75	75	15	53	25	65	19
Western Europe (79)	63	63	29	50	32	45	32
Eastern Europe & the former Soviet Union (14)	7	7	36	29	24	39	39
Middle East (16)	50	50	31	—	—	—	—
Africa (62)	39	39	36	45	17	55	25
Oceania (22)	46	46	41	73	14	86	14
GOs (235)	30	30	56	37	38	43	36
NGOs (220)	57	57	29	50	29	65	21

Note: Column (1) indicates percentage of “already have adapted/can adapt” responses. Column (2) indicates percentage of “could adapt to some extent” responses.

Comments

Respondents from regions such as the United States & Canada, Latin America, and Western Europe show strong recognition of the need to adapt to a more frugal lifestyle, but in Japan such awareness remains at a low level.

3. PROGRESS ON ENVIRONMENTAL ISSUES SINCE THE EARTH SUMMIT

Question 3-1: Since the Earth Summit held in Rio de Janeiro in June 1992, to what extent has progress been achieved in the areas described below? For each item, circle the best response, considering the situation *in your own country only*.

- (1) Responses in the categories of “significant progress” and “some progress” were high for such items as activities by nongovernmental organizations (69%), promotion of environmental education (64%), and activities by local governments and citizens’ groups (62%). On the other hand, very little progress was seen in areas related to changes in social systems such as changes in economic systems leading to greater conservation of the environment (15%) and efforts to establish the necessary capital-creating mechanisms for the preservation of the environment (20%).

Low progress was also seen in specific policies related to global environmental problems, such as combating desertification (20%), protecting the oceans (22%), reducing acid rain (25%), and countering global warming (26%). However, 52% of respondents said that “significant progress” or “some progress” was made in the area of protecting the ozone layer. The results detailed above show the same trends as in the previous year’s results.

- (2) Compared with last year, respondents evaluated progress in the area of policies for the disposal of hazardous wastes and substances and science and technology’s contributions toward solving environmental problems six percentage points higher. Conversely, respondents rated progress in the area of sustainable agricultural development and development of rural communities six percentage points lower and efforts to solve basic problems such as poverty and overpopulation five percentage points lower.

- (3) In developed regions such as the United States & Canada, Western Europe, and Oceania, progress has been highly evaluated in areas that require industrial sector participation, such as environmental protection policies of the industrial sector, hazardous waste disposal, recycling systems, and ozone layer protection.

Progress in areas such as poverty and overpopulation, NGO activities, forest conservation, desertification, and environmental education was rated more highly by respondents from developing regions such as Asia, Latin America, the Middle East, and Africa than by those from developed regions.

- (4) Among all respondents, those from Japan reported the least amount of progress in the areas of local GO and citizens’ group activities and NGO activities.

Evaluation of Progress in Environmental Issues

	(A) Significant progress	(B) Some progress	Cannot determine	Almost no progress	No progress	1995 (A)+(B)	1994 (A)+(B)
(%)							
1. International cooperative efforts	5	43	22	23	7	48	48
2. Poverty and overpopulation	2	23	17	40	18	25	30
3. Lifestyles and consumption patterns	1	21	19	38	20	23	22
4. Local GO and citizens' group activities	7	55	19	16	8	62	60
5. NGO activities	12	57	17	12	2	69	66
6. Industrial sector policies	7	42	19	24	8	49	48
7. Global warming	2	23	26	33	16	26	27
8. Ozone layer	7	45	19	19	10	52	49
9. Acid rain reduction	2	23	32	28	15	25	29
10. Forest conservation	6	31	23	31	10	37	40
11. Desertification	3	17	35	32	12	20	20
12. Agricultural and rural development	4	21	29	35	12	24	30
13. Biodiversity	4	29	26	32	10	32	35
14. Protection of oceans	2	20	32	33	13	22	24
15. Protection of fresh water	4	27	27	31	11	31	31
16. Hazardous waste disposal	4	39	22	26	10	42	36
17. Recycling systems	4	41	24	21	9	46	41
18. Contributions of science and technology	6	47	26	15	6	53	47
19. Environmental technology transfer	1	31	35	24	8	33	33
20. Capital-creating mechanisms	2	18	32	34	14	20	24
21. Environmental education	12	52	17	16	3	64	61
22. Government regulations	7	43	21	24	5	50	48
23. Changes in economic systems	14	28	35	23		15	19

0.3

Note: In cases where no answer has been indicated by a respondent, a response of "cannot determine" has been recorded.

Progress on Environmental Issues by Region

	Japan		Asia (outside Japan)		U.S. and Canada		Latin America		Western Europe		Eastern Europe and the former Soviet Union		Middle East		Africa		Oceania				
	1995 (248)	1994 (189)	1995 (62)	1994 (92)	1995 (25)	1994 (23)	1995 (48)	1994 (36)	1995 (79)	1994 (62)	1995 (14)	1994 (17)	1995 (16)	1995 (62)	1994 (53)	1995 (22)	1994 (22)				
1. International cooperative efforts	38	42	(58)	60	(60)	52	(54)	53	(51) >	32	36	>	24	44	(68) >	57	(50) <	73			
2. Poverty and overpopulation	15	12	(52)	51	20	<	35	29	25	17	24	21	18	19	45	53	41	<	55		
3. Lifestyles and consumption patterns	20	17	26	32	48	>	13	10	14	35	26	7	<	24	19	15	<	27	36	32	
4. Local GO and citizens' group activities	(54)	48	(69)	71	(68)	70	(67)	64	(67)	69	(57) >	41	(81)	(65)	59	(82)	86				
5. NGO activities	(55)	48	(84)	78	(76)	78	(92)	86	(75)	73	(71) >	59	(81)	(79)	81	(82)	77				
6. Industrial sector policies	(55)	55	47	45	(60)	57	31	39	(51)	50	(64) >	47	(81)	31	28	36	<	59			
7. Global warming	18	19	29	30	(60) >	48	25	>	14	33	37	29	24	19	27	28	36	<	46		
8. Ozone layer	(58)	58	40	35	(68) <	83	29	33	(68)	65	43	41	44	34	26	(50)	50				
9. Acid rain reduction	19	24	23	23	(52) <	65	21	>	11	47	55	(64)	59	25	7	15	23	23			
10. Forest conservation	19	17	(58)	54	(52) >	39	48	45	33	<	53	(50)	47	(56)	(63)	62	(55)	64			
11. Desertification	9	6	36	28	16	17	19	17	6	<	18	29	>	12	(63)	(55)	59	23	32		
12. Agricultural and rural development	7	7	44	46	20	22	31	39	27	<	39	36	29	38	(57)	55	41	<	73		
13. Biodiversity	11	17	47	48	40	39	(56) >	39	38	45	(50)	41	44	(53)	47	(68)	64				
14. Protection of oceans	14	11	29	32	36	>	22	23	22	24	32	21	18	31	24	23	(50) <	77			
15. Protection of fresh water	12	15	40	39	(56) >	44	23	28	42	42	(64) >	53	(69)	48	>	36	(68)	64			
16. Hazardous waste disposal	38	33	36	40	(60) >	26	23	17	(57)	50	29	<	47	(75)	40	>	21	(68)	64		
17. Recycling systems	45	40	40	35	(68)	65	31	>	17	(71)	68	29	35	(50)	21	25	(59)	64			
18. Contributions of science and technology	(57) >	43	(50)	52	(64)	61	42	>	31	(58)	65	(57) >	41	(50)	37	32	(50) <	64			
19. Environmental technology transfer	35	32	36	37	36	35	25	>	11	32	40	21	24	13	31	32	46	50			
20. Capital-creating mechanisms	13	22	29	27	24	30	31	31	17	<	29	43	>	12	19	26	>	11	18	<	41
21. Environmental education	49	42	(90) >	77	(72) >	52	(85) >	75	(56)	65	(57) <	71	(81)	(77)	74	(77)	86				
22. Government regulations	35	32	(71)	62	(68) >	52	(60) >	42	47	<	65	(64) >	47	(81)	(58)	55	(82) >	64			
23. Changes in economic systems	11	10	19	<	36	32	30	13	>	3	13	15	21	24	13	19	26	18	<	36	

Note: Where results for 1994 and 1995 differ by more than 10 percentage points, a greater than/less than sign has been included. Percentage figures for 1995 greater than 50% have been circled.

(5) In a comparison of GOs and NGOs, respondents from the former indicated greater progress in almost all areas, but particularly in hazardous waste disposal, ozone layer protection, and international cooperative efforts. Nevertheless, in general the gap in results between GO and NGO respondents shrank from 1994 to 1995. Conversely, progress in NGO activities was more highly evaluated (12.6 percentage points higher) by representatives of NGOs than those of GOs.

Progress since the Earth Summit: A Comparison of GOs and NGOs
(Responses indicating "significant progress" or "some progress")

(%)

	GOs (A)	NGOs (B)	Point differential (A-B)	Point differential in 1994
1. International cooperative efforts	54.9	42.7	12.2	(18.2)
2. Poverty and overpopulation	26.4	24.1	2.3	(13.1)
3. Lifestyles and consumption patterns	21.3	23.2	-1.9	(7.2)
4. Local GO and citizens' group activities	63.4	64.1	-0.7	(1.9)
5. NGO activities	64.7	77.3	-12.6	(-6.6)
6. Industrial sector policies	52.8	46.4	6.4	(16.3)
7. Global warming	28.1	22.3	5.8	(10.1)
8. Ozone layer	57.9	45.0	12.9	(20.6)
9. Acid rain reduction	24.7	26.8	-2.1	(6.2)
10. Forest conservation	37.9	35.5	2.4	(13.6)
11. Desertification	21.3	20.0	1.3	(1.1)
12. Agricultural and rural development	24.7	23.2	1.5	(5.3)
13. Biodiversity	36.6	30.9	5.7	(12.1)
14. Protection of oceans	23.4	20.0	3.4	(18.0)
15. Protection of fresh water	33.2	29.5	3.7	(16.6)
16. Hazardous waste disposal	49.4	35.9	13.5	(14.9)
17. Recycling systems	45.5	44.5	1.0	(-0.1)
18. Contributions of science and technology	54.5	53.2	1.3	(7.8)
19. Environmental technology transfer	37.0	30.5	6.5	(-0.9)
20. Capital-creating mechanisms	23.4	17.7	5.7	(2.5)
21. Environmental education	68.1	63.6	4.5	(4.9)
22. Government regulations	57.0	49.1	7.9	(19.7)
23. Changes in economic systems	16.2	14.1	2.1	(6.6)

Comments

This year, the accomplishments of NGOs and local governments and citizens' groups were again highly evaluated. However, measures to combat desertification and contend with overpopulation and other basic problems are perceived as inadequate. There has also been little progress made in changing economic systems to effect greater environmental conservation or in establishing the necessary capital-creating mechanisms for the preservation of the environment. Compared with last year, the gap in perceptions between respondents from GOs and NGOs narrowed considerably.

Question 3-2: From the 23 items mentioned, choose the three that are most important for solving environmental problems *in your own country only*.

- (1) Three items that were widely named by respondents from around the world were changes in lifestyles and consumption patterns, changes in economic systems, and environmental education.
- (2) Respondents from economically advanced regions generally regarded changes in lifestyles and consumption patterns and changes in economic systems as most important, while developing regions tended to emphasize efforts to solve overpopulation and poverty, sustainable agricultural and rural development, and environmental education.
- (3) Japanese respondents were unique in listing recycling systems as second most important, superceded only by lifestyle changes.

Areas Most Important in Respondents' Own Countries by Region

	Total	Japan	Asia (outside Japan)	U.S. and Canada	Latin America	Western Europe	Eastern Europe and the former Soviet Union	Middle East	Africa	Oceania
(%)	N=576	N=248	N=62	N=25	N=48	N=79	N=14	N=16	N=62	N=22
1. International cooperative efforts	13	17				10	21		18	18
2. Poverty and overpopulation	20		42	20	35	10	14	19	53	23
3. Lifestyles and consumption patterns	33	47	16	36	10	51		13		23
4. Local GO and citizens' group activities	10		15		13	13	14	19		14
5. NGO activities	5		11							14
6. Industrial sector policies	14	19		24		14				
7. Global warming	10	15				15		13		
8. Ozone layer	4									
9. Acid rain reduction	2						14			
10. Forest conservation	12		18	24	10		14		23	
11. Desertification	5							31	24	
12. Agricultural and rural development	19		29		38	20	21	19	45	18
13. Biodiversity	6		10	16				13		
14. Protection of oceans	4			20						
15. Protection of fresh water	6			12			14	19		14
16. Hazardous waste disposal	7						14	13		14
17. Recycling systems	18	35						13		
18. Contributions of science and technology	11	15	13			10				
19. Environmental technology transfer	10	14			10		21			
20. Capital-creating mechanisms	11		11		17	13	14	13	11	
21. Environmental education	30	23	40	12	42	29	14	50	47	36
22. Government regulations	16	12	19	24	19	18	29	13	15	27
23. Changes in economic systems	31	29	27	32	29	48	57	31	15	32

- Notes: 1) The above figures show the percentage of respondents who rated the item first, second, or third.
 2) Percentages of less than 10% are indicated by blank cells in the table.
 3) The circles indicate items with the top three percentage figures per region.

Comments

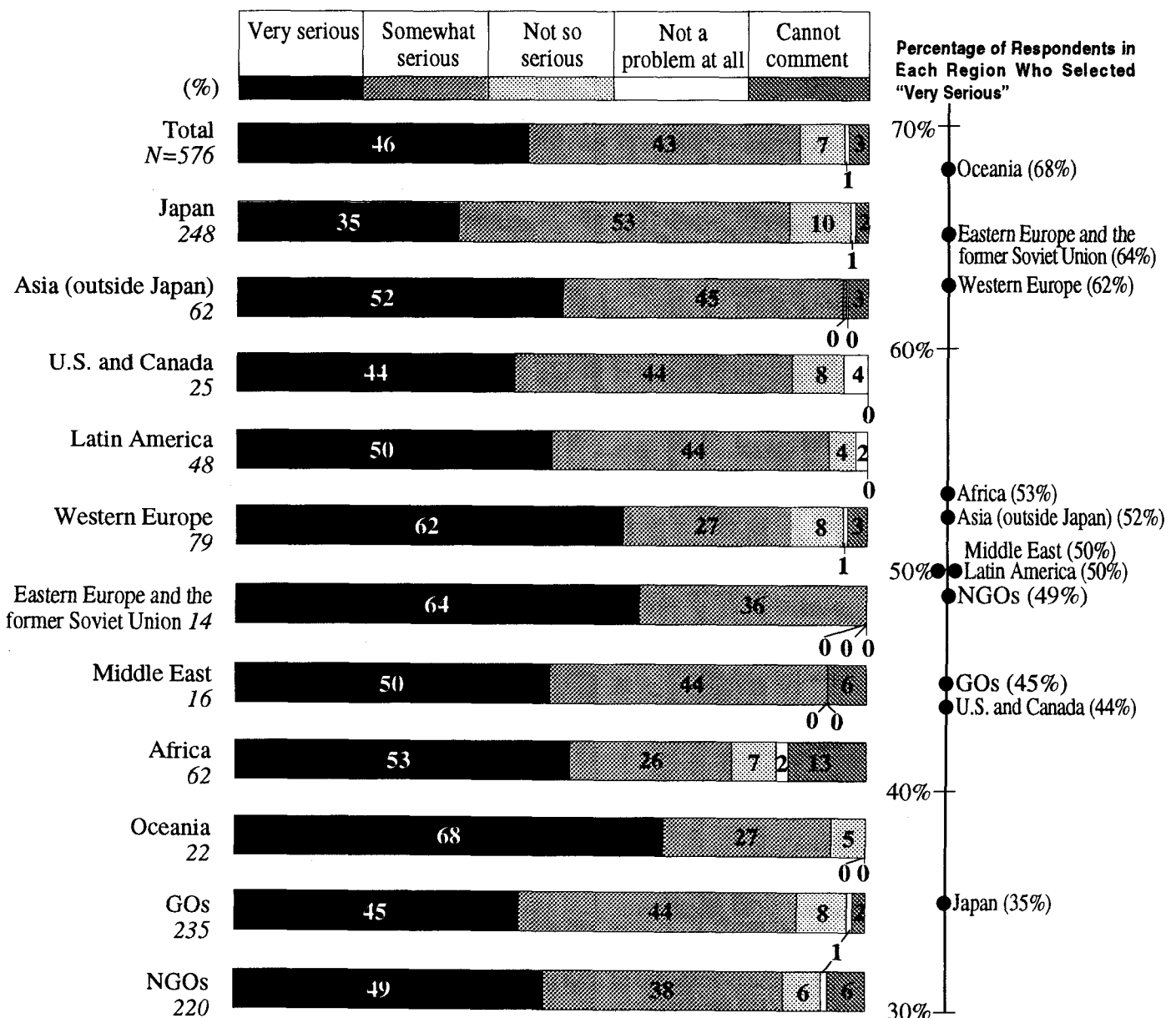
Large differences can be seen between respondents from developing and developed countries regarding what is most important for solving environmental problems. The former focus on overpopulation, agriculture, and education, while the latter focus on changes in lifestyles and economic systems.

4. PERCEPTIONS OF GLOBAL WARMING AND EFFECTIVE COUNTERMEASURES

Question 4-1: In your opinion, how serious a problem is global warming?

- (1) The percentage of respondents who viewed global warming as a serious problem (choosing either "very serious" or "somewhat serious") totaled 89%.
- (2) For nearly all regions, with the exceptions of Japan and the United States & Canada, 50% or more of respondents described global warming as "very serious," indicating strong recognition of the global warming crisis.
- (3) Regions with a particularly strong sense of crisis about global warming were Oceania (68% of respondents choosing "very serious"), Eastern Europe & the former Soviet Union (64%), and Western Europe (62%).

Perceptions of Global Warming



Comments

Oceania, which includes many island nations, regarded the problem of global warming most seriously, while Japan viewed it the least so.

Question 4-2: What will be the most effective measures in dealing with global warming? Choose three.

(1) Items rated most effective in dealing with global warming were the development and promotion of recyclable energy resources, expansion of tree-covered areas to absorb carbon dioxide, the introduction of environmental taxes such as a carbon tax, and increasing awareness about energy consumption on an individual level.

The development and promotion of recyclable energy resources was supported by respondents from all regions, with the exception of those from the Middle East. The expansion of tree-covered areas was given high marks by respondents from Africa, Asia, and Latin America. The introduction of environmental taxes such as a carbon tax was supported particularly by respondents from the developed regions of Western Europe, Oceania, the United States & Canada, and Japan.

Important Measures for Dealing with Global Warming

	(%)	Total	Japan	Asia (outside Japan)	U.S. and Canada	Latin America	Western Europe	Eastern Europe and the former Soviet Union	Middle East	Africa	Oceania	GOs	NGOs
1. Fuel and energy efficiency	29	29	16	26	(52)	(50)	(34)	(64)	(50)	27	(46)	28	(31)
2. Carbon dioxide fixation technology	15	15	21		12				31	23		18	13
3. Energy-efficient housing	12	12				19	14	19	27	23		11	13
4. Recyclable energy resources	58	58	(59)	(66)	(56)	(65)	(62)	(43)	19	(55)	(50)	(57)	(58)
5. Nuclear power	4	4											
6. Lower industrial energy use	22	22	23	23	20	23	22	(43)	25	18	18	20	22
7. Cogeneration systems	6	6						14					
8. Energy-efficient home appliances	4	4						21					
9. Environmental taxes	31	31	(32)	21	(36)	19	(58)	21	25	13	(41)	(33)	(31)
10. Public transportation	22	22	20	31	16	15	29	(44)	11	27		17	26
11. Limitations on use of cars	23	23	(33)	13	12	17	14	14	31	13	27	28	17
12. Expansion of tree cover	35	35	28	(47)	28	(44)	18	21	(38)	(66)	(41)	(37)	(36)
13. Methane gas recovery	3	3						13					
14. Individual energy conservation efforts	31	31	(32)	(34)	(36)	31	30		25	(32)	27	32	30
15. Other	5	5											

Notes: 1) Only percentages above 10% are recorded.
 2) The circles indicate items with the top three percentage figures per region.

Comments
 The measure judged most effective in dealing with global warming was the development and promotion of recyclable energy resources. Among respondents from developed countries, support for systematic measures such as the introduction of environmental taxes was strong.

5. THE INTERNATIONAL CONFERENCE ON POPULATION AND DEVELOPMENT (ICPD)

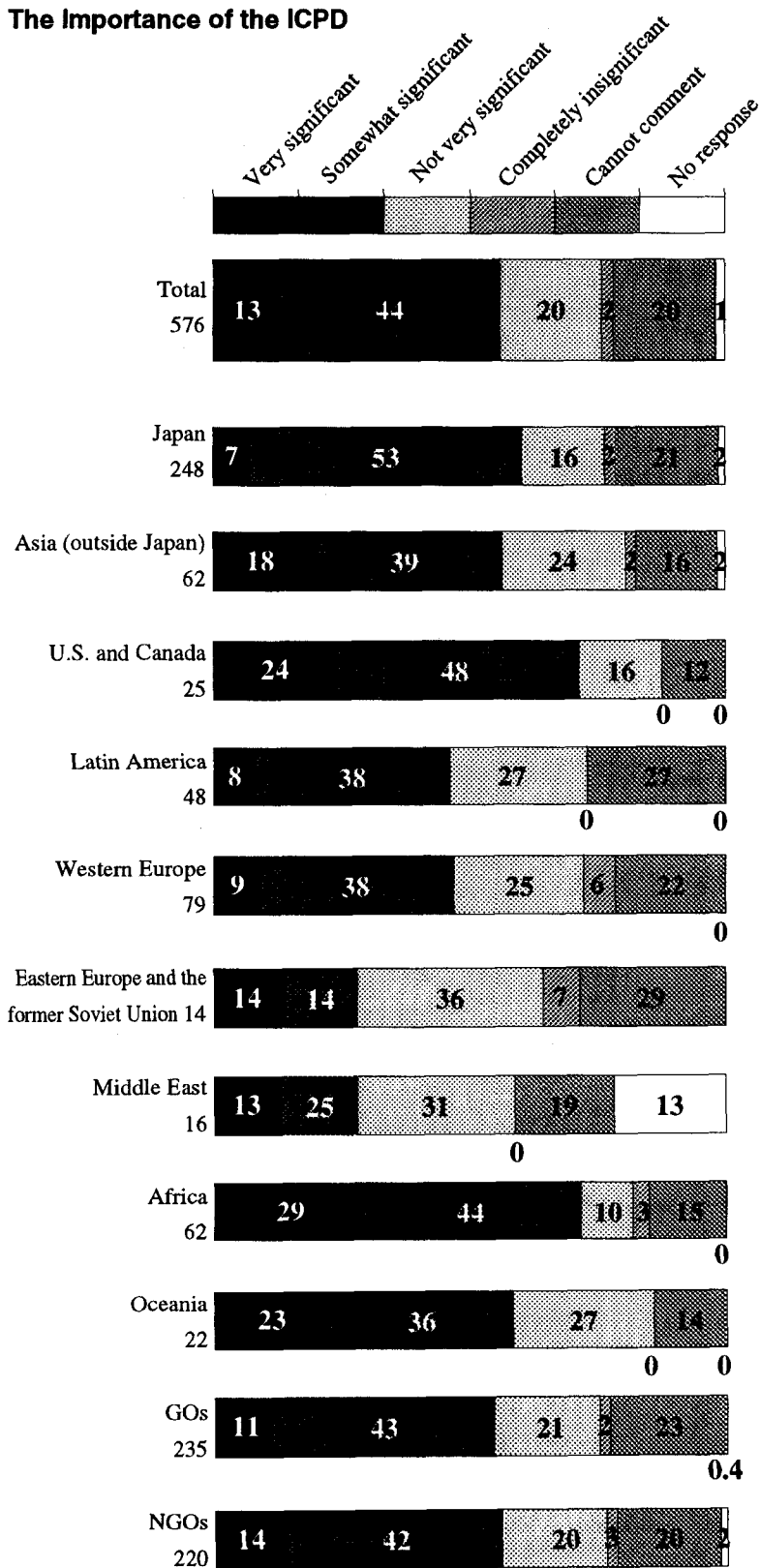
Question 5-1: The International Conference on Population and Development (ICPD), held in Cairo in September 1994, covered many subjects, including a woman's right to make her own reproductive choices and the relationship between overpopulation and environmental degradation. In your opinion, how significant was the 1994 ICPD compared with such conferences in the past?

Question 5-2: Since the 1994 ICPD in Cairo, has any concrete action been taken in your country with regard to overpopulation?

Question 5-3: If you answered yes to the previous question, then how much progress has this action engendered?

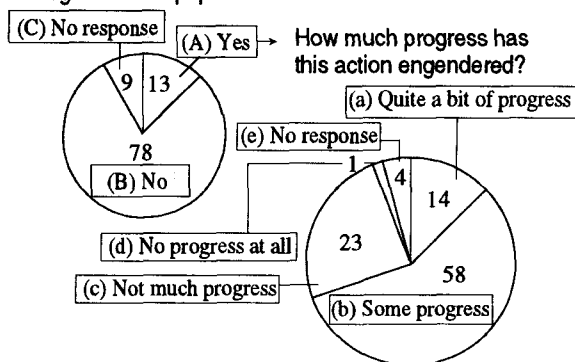
- (1) The 1994 ICPD in Cairo was rated "very significant, more effective than any in the past" by only 13% of all respondents. However, the conference was highly regarded by respondents from Africa (29%) and the United States & Canada (24%).
- (2) Regarding concrete action taken, 47% of respondents from Africa, 31% from Asia, and 23% from Oceania answered positively. However, most respondents from other regions reported that no concrete action had been taken.
- (3) In Asia, 79% of respondents answered that the concrete action taken in their countries engendered "some progress" or "quite a bit of progress."

The Importance of the ICPD



Concrete Action Taken since the ICPD

Has any concrete action been taken in your country with regard to overpopulation?



(A)	(B)	(C)	(a)	(b)	(c)	(d)	(e)
4%	85%	11%					

(N=19)

31%	60%	10%	21%	58%	16%	—	5%
-----	-----	-----	-----	-----	-----	---	----

8%	92%	—
----	-----	---

10%	78%	13%
-----	-----	-----

3%	86%	10%
----	-----	-----

7%	87%	7%
----	-----	----

—	88%	13%
---	-----	-----

(N=29)

47%	48%	5%	7%	59%	35%	—	—
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23%	77%	—
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12%	80%	8%
-----	-----	----

14%	77%	10%
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Comments

The response to the International Conference on Population and Development is not uniform, as differences by region show. While most respondents recognized the importance of the event, in many regions no concrete action has been taken following the conference. Regional and cultural differences complicate the difficulties of dealing with the problem of overpopulation.

6. EFFECTIVE MEASURES AND REGULATIONS AIMED AT SOLVING ENVIRONMENTAL PROBLEMS

Question 6: From among the following economic measures and regulations aimed at solving environmental problems, which would be most effective *in your country*? Choose four.

- (1) The creation of financial incentives and tax-reducing mechanisms to encourage environmentally friendly activities, regulations to limit industrial activities that harm the environment, and an environment tax or levy system to tax corporations producing particular pollutants were selected as the most effective economic measures to solve environmental problems.
- (2) Respondents from the developed regions of Japan, the United States & Canada, and Western Europe placed importance on an environment tax or levy system to tax corporations producing particular pollutants, while the developing regions of Latin America and Africa prioritized regulations to limit the ways land can be utilized.
- (3) Representatives of GOs showed strong support for recycling programs, while those of NGOs supported the creation of financial incentives and tax-reducing mechanisms to encourage environmentally friendly activities.

Economic Measures Aimed at Solving Environmental Problems

	1. Industrial regulations	2. Self-monitoring	3. Environmental taxes	4. Emission permit system	5. Financing for R&D strategies	6. Abolishing environmentally unsound aid	7. Financial incentives	8. Discriminatory pricing	9. Refund and recycling programs	10. Land utilization restrictions	11. Extending information disclosure	12. Other	(%)
Total (576)	49 ▲	23	49 ▲	9	25 ▲	30 ○	17 ▲	55 ○	27	42 ○	25	22 ○	6
Japan (248)	49 ▲	29	52 ▲	10	21 ▲	35 ○	12	47	16	58 ○	17	28	3
Asia (outside Japan) (62)	61 ○	29	39	8	23 ▲	29	18	55 ○	40 ○	23	24 ▲	26 ▲	7
United States & Canada (25)	52 ○	24 ○	64 ▲	8 ▲	12	-	20 ▲	60 ▲	40	36 ○	24	8	4
Latin America (48)	56 ○	8	31	6	35 ▲	29 ○	19 ▲	69 ○	31	38	40 ○	6	6
Western Europe (79)	47 ○	10	70 ○	13	15	19 ○	18	76 ○	43	22	24	10	10
Eastern Europe & the former Soviet Union (14)	36 ▲	14	86 ▲	7 ▲	50 ○	43 ▲	7 ▲	57 ○	14 ▲	57 ○	7 ▲	7	-
Middle East (16)	69 ○	38	19	13	25	25	19	44 ○	25	50 ○	44 ○	25	6
Africa (62)	36 ▲	16	31	5	45 ○	36	24 ▲	55 ○	29	32	42 ○	29 ○	7
Oceania (22)	46	18	36 ▲	5 ▲	32	23 ○	50 ○	50 ○	27	32	50 ○	14	14
GOs (235)	50 ▲	22	48	8	25	36	15	51 ○	26	51 ○	24	19	6
NGOs (220)	48 ○	19	51 ○	9	25 ▲	25	21	61 ○	28	35	28	25	5

Note: 1) Comparison with 1994 results is expressed in symbols: <In total> <By region>
 ▲: 5% or greater decrease ▲: 10% or greater decrease
 ○: 5% or greater increase ○: 10% or greater increase

2) The circles indicate items with the top three percentage figures per region.

Comments

Economic measure considered most effective in solving environmental problems was the creation of financial incentives and tax-reducing mechanisms to encourage environmentally friendly activities. Among respondents from developing regions, regulations to limit the way land can be utilized were regarded as very important.

III. Comments from Respondents

This section contains a selection of respondents' comments to questions one through seven. Each comment is accompanied by the respondent's name, organization, country, and office registration number. Where the respondent has requested anonymity, only his or her gender, if indicated, is denoted by an M or F.

1. Comments pertaining to question 1-2, which concerns the state of the global environment in 50 years

The long-time problems will become worse: ground, water, air, climate, ozone depletion.
Monika Ganseforth, Member of Parliament, GERMANY 008

Overpopulation always leads to poverty and poverty in turn leads to a greater dependence and utilization of our limited natural resources. In our part of the world, I think that the greatest factor which will deteriorate the state of the environment will be the population factor.

Tandin Dorji, National Environment Commission, BHUTAN 091

I believe people in general are more aware now than they were ten years ago. The "man in the street" is already sorting rubbish (glass/paper/tin etc.), using less aerosols, bleach, etc. But it is industry which is changing too slowly - their priority is profit - and it costs money to "green up".

F, WWF International, SWITZERLAND 099

Climate change causing sea level rise will worsen due to the failure of industrial countries to take necessary action now.
M, Dept. of Foreign Affairs and Trade, PAPUA NEW GUINEA 128

No doubts humankind will survive. The crucial question is the quality of life of the surviving individuals. I think the main aspects that will worsen are:

- The availability of high-quality drinking water.
- The biodiversity on earth as a whole.
- The availability of environmentally safe energy.

Lodewijk Lacroix, Ministry for the Environment, NETHERLANDS 131

Forest resources will be further depleted. Because rate of replanting is slower than the depletion rate especially in Africa. Desertification rate is high. Erosion of soil will also be high. High rate of human activities especially in agriculture due to high population growth. Depletion of fresh and brackish water bodies.

Andrews Kwesi Dzokoto, Mayday Rural Project, GHANA (WEST AFRICA) 183

Environmental performance in most developed countries will improve, but conditions in the third world, particularly in the cities, will get much worse: more garbage, more sewage, more diseases. The rain forest will be cut by more than half.

Global warming will occur, but its effect is hard to foresee.

Hugi Olafsson, Ministry for the Environment, ICELAND 186

Global warming will definitely worsen in the next 50 years. Land degradation and deforestation will most likely continue to damage the natural environment. However, there is hope in the increasing militancy of local communities in managing their immediate environment. This might just tilt the balance for developing countries.

M, Asian NGO Coalition, PHILIPPINES 202

The global climate will be getting worse since the main polluters are delaying their actions to reduce their greenhouse gases emission. As a small island country, Kiribati will be one of the frontliners to be hit by the consequences of climate change, namely, sea level rise.

F, Ministry of Environment & Social Development, KIRIBATI (CENTRAL PACIFIC) 310

Provided the current U.S. trends toward 'inward looking' are reversed. If not it is bad news.

Richard Sandbrook, IIED, U.K. 322

Economic activities, now under way around the world, focus on cost-cutting to encourage a free market, and aim to promote the race for short-term profits. Confirmation of the Earth Summit must be given clearer form.

Soki Oda, Worldwatch, JAPAN J001

Development of forested lands is inevitable, in view of population growth and the subsequent need for residential zones. Even though governments and nongovernmental organizations in each country get together to discuss the situation, the various conditions characteristic to one country differ from those of another. This factor is most evident among developed nations, where business ideals support an increase in the national coffers. Thus, the problem of trading forests for homes will likely worsen.

M, Nippon Ecology Network, JAPAN J008

I see two problems: (1) the proliferation of automobiles in such Asian countries as Indonesia and the People's Republic of China (PRC), and (2) the PRC's response to energy shortages with environmentally unfriendly coal-fired power.

Yoshiro Fujii, WEC Tokyo Congress Organizing Committee, JAPAN J018

Humans are racking their brains to come up with ways to restore the natural environment, but it is impossible. By Nature's rules, human existence will likely be in jeopardy in 50 years.

Kenko Minami, Rainforest Foundation, JAPAN J032

I think the population explosion and the north-south problem will worsen.

Katsuhiko Hayashi, NHK Enterprise 21, JAPAN J043

The first half of the 21st century, until about 2030, will be extremely bad. However, I would guess that in 50 year's time some improvements will have had to be made, considering the dismal initial forecast.

Saburo Kato, Research Institute for Environment and Society, JAPAN J044

Global warming will become an economic problem because no progress is being made on appropriate policies and because increasingly severe weather conditions—such as floods, typhoons, scorching heat, and early dry seasons—are affecting agricultural yields around the world. Agricultural produce may cease to be a commodity.

Tsunetoshi Yamamura, Professor, Kansei Gakuin University, JAPAN J049

Three of my concerns are human deformities, food additives, and water pollution.

M, International Center for Environmental Technology Transfer, JAPAN J079

All the international forums on the environment have their merits and travel along the roads of general agreement and disagreement. The scope of environmental problems has expanded to include such issues as population, poverty, and food. Thus, the problem is getting more and more complicated, with no all-encompassing solution in sight. However, rather than fall into despair or become pessimistic, we must go beyond ethnic, religious, economic, and cultural differences and become citizens of the world. It would be great if this lifestyle perspective could permeate the global population.

Hanako Hara, A SEED JAPAN, JAPAN J095

Some problems I see are the wider use of chemical substances and the development of the last remaining enclaves of nature, such as the Kamchatka Peninsula.

Tsuyoshi Mizuguchi, The Valdez Society, JAPAN J112

Following the downfall of the cold war structure, caused by the Soviet Union's breakup, there has been no pivotal dialogue toward finding international answers to environmental problems. I think it will be some time yet before the necessary dialogue, based on a new set of common values, can take place.

Akira Morishima, Japan Environment Corporation, J179

As forests and tropical regions are destroyed to provide land for food production, the use of pesticides and fertilizers expands to meet the need for more cultivation output. The original purpose of the land is lost. Global warming will continue unless something is done to halt the extravagant waste of energy and other resources.

M, World Wildlife Fund for Nature, JAPAN J232

One problem is air pollution, especially in regard to the depletion of the ozone layer. Another is biodiversity destruction. It is estimated that every 13 minutes one biological species becomes extinct. This is the fastest-paced destruction of living creatures since the disappearance of the dinosaurs.

F, Global Legislators Organization for a Balanced Environment, JAPAN J236

2. Comments pertaining to question 4-2, which concerns global warming

Global warming is likely to be a small signal when compared to naturally occurring decadal and longer-term fluctuations. We need to understand all climate change, and not just anthropogenic warming.

Robin D. Muench, Earth & Space Research, USA 071

Less cars, less electricity, more trees, and more public transportation. I think this could solve the problem.

M, Earth First! & Sea Shepherd, USA 084

Only long-term effective measure is strict limits on GHG emissions, eg. through use of tradable permits.
David Wallace, The Royal Institute of International Affairs, U.K. 087

Local generation of power supplies for local needs.
George E. Dent, Christian Ecology Link, U.K. 103

International environmental taxes or tradable permits may be useful but developing countries must be transferred the revenues for sustainable development.
M, Asian Development Bank, PHILIPPINES 159

Global warming is a distant phenomenon for people in the third world who are much more concerned with the everyday issues of poverty and hunger even though these may be related to the former. Therefore a key issue is awareness creation and popular understanding.
Wilfred Ebun-Cole, ORA, ETHIOPIA 181

In my country where the basic needs, i.e. food, shelter, etc. have not been met, I think the idea of global warming is abstract and of little concern to the average citizen.
Violet Matiru, Kenya Energy and Environment Organizations (KENGO), KENYA 199

In India new and renewable sources of energy (air, solar, wind, mini-microhydel power, and biomass energy) are being exploited in a planned manner. In fact power generation from wind farms interfacing with power grids is one of the most successful ventures in India.
Kalipada Chatterjee, Development Alternatives (DA), INDIA 258

More nuclear power plants will not solve the problem at all.
M, Bundesumwelt Ministerium, GERMANY 295

Alternatives to chemicals responsible for global warming, greenhouse effect, etc., alone will succeed as people cannot be coaxed to give up the use of private cars, ACs, fridges, etc.
Usha Subramaniam, Ministry of Environment & Forests, INDIA 329

The problem of global warming is actually an energy issue. Changes in the societies that currently consume substantially large amounts of energy are necessary, and the right course of action is certainly the promotion of energy conservation. It is a question of policy techniques, such as CO₂ limitations.
M, Agency of Industrial Science and Technology, Ministry of International Trade and Industry, JAPAN J003

Basically, I believe in technology, a carbon tax, and an infrastructure for environmental protection. It is better to avoid the direct introduction of environmental policy into the lives of individuals.
M, Economic Planning Agency, JAPAN J007

More effort in research and development is required. Emphasis must be placed on an overall reduction in energy usage, as well as the necessary structural and financial incentives to encourage such a reduction.
Tomoyuki Iwamoto, Kyoto University, JAPAN J042

The target of stricter emission rules should not be passenger cars but diesel trucks, and more attention should be directed toward tougher requirements on exhaust gas emissions. The escapist mentality of industry is highly dangerous. It is not just the issue of environmental problems but the need for positive results. A tax should be put on light fuels the same way it is on gasoline, and industry should step up its R&D on engines.
M, Economic Planning Agency, JAPAN J058

The economic benefits of energy conservation in reducing the price of energy have dwindled. Only Japan has reaped the merits of cooperative efforts to reduce CO₂.
Takuya Negami, Kobe Steel, LTD., JAPAN J060

We need an effective means to bolster promotion of a recycling system on two fronts. The framework must consider improvement of energy efficiency, from supply to use, and energy and resource conservation by industry and the public sector.
M, Central Research Institute of Electronic Power Industry, JAPAN J101

Renewable energy is an important topic, but it is unlikely to have much of an impact. Energy conservation and effective use of energy sources are certainly more promising options. Isn't it time that the community reconsiders nuclear power in the energy supply system?
M, Global Industrial and Social Progress Research Institute, JAPAN J103

In Japan, it appears difficult to create systems at individual and industry levels. Consequently, a top-down approach may be best to make changes forcibly. Discussion on measures to churn out economic results is the only thing to do.

F, Agency for Cultural Affairs, JAPAN J138

Two issues concern me. First, it would be a dire move to rush into construction of more nuclear-powered generating plants until the problems of safety and waste treatment are cleared. Second, a decrease in urban environmental impact, i.e., solving the problem of automotive emissions, would benefit the Earth.

M, Osaka City Office, JAPAN J141

Our automobile-oriented society has an incredible impact on environmental issues. There are myriad examples, from energy consumption to pollutants in emissions CO₂, NO_x and SO_x. The first priority should be public transportation.

Hajime Oshitani, Toyoko Group, JAPAN J196

The issue has come to the point where the topic is not just to reduce CO₂ emissions but to decide whether that reduction should be 100% or just 50%. If the level of emissions is not determined, the problem will continue to exist.

Hiroshi Suzuki, Japanese NGO Center for International Cooperation, JAPAN J207

I believe an effective means to control energy consumption would be through an economic measure: raise the price. Global warming policies are not the appropriate medicine to curb energy use. A broader spectrum of policies is necessary.

M, Environment Agency, JAPAN J225

3. Comments pertaining to question 5-2, which concerns the International Conference on Population and Development held in Cairo in 1994

The environmental recommendations of the 1994 Australian Population Carrying Capacity Report have been completely ignored by the Minister for Immigration, Nick Bolkus, who has increased immigration again. Since, with zero (net) migration our population would stabilize naturally, the impact of this cannot be discounted. This is especially so in the absence of any real progress in policy or practice to reduce per capita energy consumption in Australia.

Sheila Newman, Australians for an Ecologically Sustainable Population, AUSTRALIA 040

Birth control is strict as our population is Roman Catholic.

Antonio M. Claparols, Ecological Society of the Philippines, PHILIPPINES 093

Not regarded as a problem in Germany itself, and reluctance to tie aid to developing countries to population control efforts.

M, IUCN Environmental Law Centre, GERMANY 107

We have a good family planning unit which is part of our community health system and it's not the result of Cairo. We can see some increasingly tilting control of reproduction or a response to changing economic systems and rural improvement.

Robert S. Burrett, Greystone Park Natural Preserve and Geographical Association at Zimbabwe, ZIMBABWE 153

I would comment on the issue of a woman's reproductive choice: I would consider this callous in regard to third world countries. The majority of third world women in the face of sheer poverty take consolation from having children who they see as their riches; so I don't see how this issue can help to control population.

Wilfred Eburn-Cole, ORA, ETHIOPIA 181

The government of my country was absolutely against the 1994 ICPD, but my people are squeezed economically to consider overpopulation! Undeclared family planning!

Mohamed Ahmed Osman Karama, Environment Assessment Consultancy, SUDAN 185

An important theme for Japan in the cooperative agenda for global partnership is funding for programs.

M, Environment Agency, JAPAN J033

In Japan, there is a trend toward looking inward, keeping thoughts and actions close to home—perhaps the result of education. This may be a reason why Japan seems disinterested in the world population problem and the resulting famine and environmental problems associated with population growth.

Chieko Fujimori, NISSAN Science Foundation, JAPAN J097

In Japan, there are voices calling for an increase in the birth rate to combat falling demographic statistics. This is a great mistake. Japan's economy is sufficiently large. If, as some people claim, the economy can only grow if there are more people, then the birth rate would be in a state of perpetual increase. Instead, Japan must strive to lower the population to between 60 and 80 million.

M, Global Industrial and Social Progress Research Institute, JAPAN J152

In the area of international cooperation, the Ministry of Foreign Affairs has begun holding regular meetings with nongovernmental organizations. In domestic policymaking as well, the Ministry of Health and Welfare is strengthening lines of communication between nongovernmental organizations and women legislators.

F, Global Legislators Organization for a Balanced Environment, JAPAN J236

4. Comments pertaining to question six, which concerns economic measures and regulations aimed at solving environmental problems

To restrict traffic in condensed urban areas. Preferences to public transport.

Josef Tamir, Life & Environment (NGO Umbrella Organization in Israel), ISRAEL 002

I think 'ecological tax - reform' is the thing we have to do.

F, SLNP (Swiss League for Nature Protection), SWITZERLAND 019

In Malta we currently have a structure plan which regulates land use and development. This is becoming everyday more efficient. What we lack as yet is a good financial backup and the introduction of incentives, taxes, and an adequate system of bonds, although the latter have been used a couple of times. Due to the small size of the islands, some form of tradable system will have to be set up.

Adrian Mallia B. Sc., M. Sc., Planning Authority, MALTA 025

Regulatory process combined with financial incentive could make the difference for all levels of concerned found themselves.

Amadou Aboubacar, C/GRN S/C. Ministry of Agriculture/Livestock, NIGER (WEST AFRICA) 052

Governments should follow ecological principles rather than implementing industry's orders.

Noyan Ozkan, Izmir Bar Association, TURKEY 132

Though the financial incentives and tax-reducing mechanisms will attract people, desired results can be obtained only when people accept self-imposed restrictions and self-monitoring. Disclosure of official information will help build trust among each other.

Suresh Lakade, BAIF Development Research Foundation, INDIA 192

Efforts to establish more efficient control mechanisms to ensure that existing regulations will be kept.

Edith Lindner, Biohofliches Hilfswerk Misereor e. V., GERMANY 296

From the standpoint of cost vs. efficiency, this is the best time for overseas development aid to be applied to solving environmental problems. To effectively utilize financial assistance, a tradable emission permit system must quickly be established.

Yozo Takemura, The Energy Conservation Center, JAPAN J045

As much as possible, I hope methods that are implemented make effective use of market mechanisms and avoid using direct legislation. I also think we must devise ways to maximize the impact of international research aid, including regulatory frameworks and methods to keeping funds flowing smoothly.

M, Global Industrial and Social Progress Research Institute, JAPAN J103

Rules, based on emission standards to date, have been effective to a certain degree. It is therefore possible to effectively manage environmental issues through information dissemination and enhanced public awareness. Management of chemical substances has been especially effective.

M, The Society of Human and Environment, JAPAN J122

The Polluter Pays Principle rule should provide the basis for implementation of environmental taxes.

M, Fukuoka Prefectural Office, JAPAN J132

There is too much discussion by the government of its own systems. The government advocates environmental protection but, in reality, the rhetoric and actions of public servants show a complete lack of responsibility. Moreover, these same public servants have been seen to drag their feet on issues. It is quite a shame.

M, Ministry of International Trade and Industry, JAPAN J139

If politicians and political organizations do not start putting their heads together to implement some serious policies, there will be problems getting innovative policies working. If the Tokyo government doesn't take some responsibility, there will never be any dynamic policies of worth.

M, Environment Agency, JAPAN J227

5. Comments on related topics

Expecting people in the least developed countries to adopt a more frugal lifestyle would be a product of the wildest imagination: People in those countries need material, technical and financial aid from the international community.

Badjagou O. Pascal, Association Orukutuku, REPUBLIC OF BENIN (WEST AFRICA) 021

Deforestation and desertification: Our organization feels this is the most threatening environmental problem in Africa south of the Sahara. Every year there is more and more damage done to the forests and if no action is taken to curb this situation, the result will be drastic.

Dr. Gaoussou Fadiga, CePATA, GUINEA 053

Much should be done to develop a new environmental ethic which would incubate a love for the environment. This could be done by religions and revitalizing our own ancient cultural activities which are environmentally friendly.

M, National Council of YMCAs of Sri Lanka, SRI LANKA 088

The climate change conference in Berlin this year is a manifestation that the developed countries still refuse to directly address global warming.

Antonio M. Claparols, Ecological Society of the Philippines, PHILIPPINES 093

Reduction of international tension - reduction in pressure for military/nuclear expenditure/production - makes possible prioritisation of environmental protection. Developing countries need help to recognize and avoid the inherent environmental dangers in imported technology.

George E. Dent, Christian Ecology Link, U.K. 103

Crucial in Agenda 21 was the establishment of open communication on environmental problems by governmental organizations (including municipalities) with factories and citizens. Only together we can solve the problems.

Lodewijk Lacroix, Ministry for the Environment, NETHERLANDS 131

I would promote models of product leasing (pay for the service/use, not for ownership); sustainable agriculture; small-scale local economies; community services/economies.

Sebastian Buttner, Science Center Berlin, GERMANY 133

Citizens of industrial countries which import raw materials, including fossil fuels and export manufactures, particularly polluting ones, should be informed of their global environmental degradation on a country-to-country basis, eg. Japan's impact on Indonesia's environment including forests and seas.

Simon C. Downie, Namasagali College, UGANDA 246

The economic measures and regulations to solve environmental problems are not confined exclusively to governmental organizations. Only joining forces with governmental and nongovernmental organizations can we achieve this goal attacking the causes of poverty and disease. The ethics issue is the access to health education and quality of life.

Dr. Bertha R. Luz, MWIA (Medical Women International Association), BRAZIL 313

Sustainable land management is the major environmental problem here, but the role of chemical pollution in this is completely unrecognized by government.

F, Soil & Health Association of NZ, NEW ZEALAND 320

In the final analysis, a perceptible attitudinal change has to take place among all sections of a society, which is possible only when correct information is disseminated at the right time and continuously.

Usha Subramaniam, Ministry of Environment & Forests, INDIA 329

International cooperation, based on global partnerships, must be promoted strongly. We must seek not to contribute to global well-being through donations, but to seriously consider the world's problems as our own.

Hisakazu Kato, Japan Environment Corporation, JAPAN J010

It is vital to nurture nongovernmental organizations as well as think tanks which focus on environmental issues. Japan has been slow in introducing environmental topics into elementary, secondary, and post-secondary school curriculums.

Masashi Kotake, Japan Federation of Economic Organizations, JAPAN J028

Despite changes in the governments of Japan and the United States, economic measures, especially the introduction of environmental taxes, have not been implemented. Thus, there has not been much improvement in environmental issues. As the 21st century approaches, this serious situation is very likely to deteriorate further. Investigations must proceed, and concrete targets or scenarios must be created to help ascertain environmental damage.

M, Environment Agency, JAPAN J033

The value of underground resources and the creatures that depend on those resources must be recognized. People must discard the one-sided opinion that says expertise in science and technology gives developed countries the right to trumpet capitalistic ideals, i.e., commercialism, which devour consumable energy sources. It is important to realize the tremendous value that indigenous people have placed on the forest and trees and the benefits of living in harmony with natural surroundings. To leave trees standing is to create a factory of unlimited scope. Let's pay to keep it that way.
Michiko Imai, Le Verseau, JAPAN J035

I wonder where Japan is right now, with its sluggish economy and environmental issues. I would like the politicians and media to think about the Earth again. No one has played up any environmental topic since 1992.
Ryo Fujikura, Assistant Professor, Kyusyu University, JAPAN J040

Establish environmental ethics for the people of this finite Earth. It is important for the majority to share in this responsibility.
Saburo Kato, Research Institute for Environment and Society, JAPAN J044

The Earth will surely die without drastic changes in the lifestyles of individuals and major reforms to legal systems and social structures.
M, Niwano Peace Foundation, JAPAN J046

Economic growth in developing nations is certainly important. As a nation's ability to help itself grows, so too does its interest and efforts in the realm of environmental issues. Developed countries should not be stingy about providing technical aid to those countries in need.
Masahiro Yoshioka, UNEP-IETC, JAPAN J067

With more finely tuned measurements, systems to diagnose the environment can be achieved. We should expect more accurate perceptions of the current situation and future prospects.
M, Ministry of Foreign Affairs, JAPAN J130

Environmental awareness in today's children is quite advanced, and this gives us hope for a brighter future for the Earth. However, the current socioeconomic system leaves much to be desired and is in need of revision. Without such revision, the future will be dire.
Makoto Kobayashi, Yamagata Prefectural Office, JAPAN J134

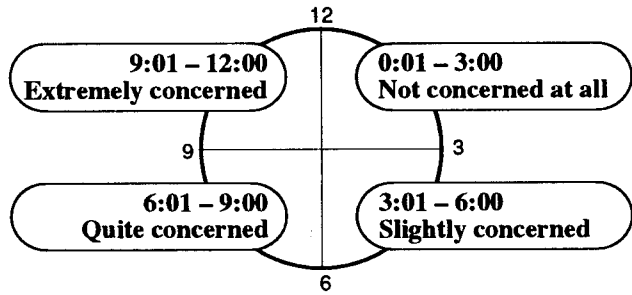
Awareness of environmental problems does not seem to have percolated through to the average citizen. The Diet must go beyond national interests to tackle this situation. The Americanization of lifestyles in Japan has reached its limits, and I feel the time has come for the people to pursue a lifestyle change.
Tetsuro Fukuyama, The Matsushita Institute of Government and Management, JAPAN J145

To provide Japan with international initiatives on environmental problems, the Environmental Agency simply must increase the number of skilled staff. Compared with other developed nations, it is crystal clear that Japan is weak in this area. Let's do something to investigate and remedy the situation!
M, Environment Agency, JAPAN J227

The words "no more large-scale consumption" were no sooner spoken and the nation was mired in a recession. Everyone was fascinated, their interest tweaked by the topic of unnecessary consumption. When it comes to the environment, people's reasoning is weak, and they concentrate only on their own situation. With the exception of problems related to wildlife, the solution to environmental problems will only appear when people have a deeper understanding of the issues involved.
Yasuhiko Ishida, Global Industrial and Social Progress Research Institute, JAPAN J248

IV. Questionnaire as Distributed to Respondents

1-1. Indicate with a time your concern about the survival prospects of humankind in light of the deterioration of the environment, taking into consideration the times and associated concern levels shown on the clock below.



Please write your time here.

:

(*Example :)

1-2. Considering the state of the global environment as a whole *in 50 years*, will human action in the form of governmental, corporate, and nongovernmental efforts create environmental conditions that are better or worse than today? Tick the appropriate response below.

- ⁽¹⁾ Much better
- ⁽²⁾ Somewhat better
- ⁽³⁾ Somewhat worse
- ⁽⁴⁾ Much worse
- ⁽⁵⁾ Cannot comment

Comment: (Please note any aspects of the environment that you believe will worsen in particular.)

2. Lately, there is a growing consensus that we should change our overconsumption–throwaway lifestyle. How do you feel about adapting a more frugal lifestyle (e.g., using less electricity, purchasing products that are environmentally sound, reducing the amount of household garbage)? Tick the appropriate response below.

- ⁽¹⁾ Already have adapted/Can adapt
- ⁽²⁾ Could adapt to some extent
- ⁽³⁾ Could adapt with difficulty
- ⁽⁴⁾ Impossible to adapt

3-1. Since the Earth Summit held in Rio de Janeiro in June 1992, to what extent has progress been achieved in the areas described in items (1) to (23) below? For each item, circle the best response from (a) to (e), considering the situation *in your own country only*.

Significant progress
Some progress
Cannot determine
Almost no progress
No progress

- | | | | | | |
|--|-----|-----|-----|-----|-----|
| (1) International cooperative efforts toward sustainable development in the developing countries | (a) | (b) | (c) | (d) | (e) |
| (2) Efforts to solve basic problems, such as poverty and overpopulation | (a) | (b) | (c) | (d) | (e) |
| (3) Efforts to alter lifestyles and consumption patterns | (a) | (b) | (c) | (d) | (e) |
| (4) Activities by local governments and citizens' groups | (a) | (b) | (c) | (d) | (e) |
| (5) Activities by nongovernmental organizations | (a) | (b) | (c) | (d) | (e) |
| (6) Environmental protection policies of the industrial sector | (a) | (b) | (c) | (d) | (e) |
| (7) Policies to counter global warming | (a) | (b) | (c) | (d) | (e) |
| (8) Policies to protect the ozone layer | (a) | (b) | (c) | (d) | (e) |

- | | |
|---|---------------------|
| (9) Policies to reduce acid rain | (a) (b) (c) (d) (e) |
| (10) Policies to conserve forests | (a) (b) (c) (d) (e) |
| (11) Policies to combat desertification | (a) (b) (c) (d) (e) |
| (12) Sustainable agricultural development and development of rural communities | (a) (b) (c) (d) (e) |
| (13) Policies to preserve the earth's biodiversity | (a) (b) (c) (d) (e) |
| (14) Policies to protect the oceans | (a) (b) (c) (d) (e) |
| (15) Policies to protect fresh water resources | (a) (b) (c) (d) (e) |
| (16) Policies for the disposal of hazardous wastes and substances | (a) (b) (c) (d) (e) |
| (17) Formation of recycling systems | (a) (b) (c) (d) (e) |
| (18) Science and technology's contributions toward solving environmental problems | (a) (b) (c) (d) (e) |
| (19) Efforts to transfer environmental-conservation technology | (a) (b) (c) (d) (e) |
| (20) Efforts to establish the necessary capital-creating mechanisms for the preservation of the environment | (a) (b) (c) (d) (e) |
| (21) Promotion of environmental education | (a) (b) (c) (d) (e) |
| (22) Introduction of government regulations to conserve the environment | (a) (b) (c) (d) (e) |
| (23) Changes to economic systems leading to greater conservation of the environment | (a) (b) (c) (d) (e) |

3-2. From the above 23 items, choose the three that are most important for solving environmental problems *in your own country only*. Write the item numbers, in any order, in the spaces below.

() () ()

4-1. In your opinion, how serious a problem is global warming? Tick one of the following.

- | | |
|--|--|
| <input type="checkbox"/> ⁽¹⁾ Very serious | <input type="checkbox"/> ⁽⁴⁾ Not a problem at all |
| <input type="checkbox"/> ⁽²⁾ Somewhat serious | <input type="checkbox"/> ⁽⁵⁾ Cannot comment |
| <input type="checkbox"/> ⁽³⁾ Not so serious | |

4-2. From items (1) to (15) below, which will be the most effective measures in dealing with global warming? Tick three.

- ⁽¹⁾ Improvements in the fuel efficiency of cars and other energy efficiency measures
- ⁽²⁾ Development of new carbon dioxide fixation technologies
- ⁽³⁾ Promotion of energy-efficient housing, e.g., solar panel-equipped houses in sunny regions
- ⁽⁴⁾ Development and promotion of recyclable energy resources, e.g., solar, wind, and biomass power
- ⁽⁵⁾ Increased support for nuclear power generation
- ⁽⁶⁾ Reduction of energy used by large-scale industry
- ⁽⁷⁾ Promotion of cogeneration (combined heat and power) systems
- ⁽⁸⁾ Improvements in the energy efficiency of electrical home appliances
- ⁽⁹⁾ Introduction of environmental taxes, e.g., a carbon tax
- ⁽¹⁰⁾ Promotion of public transportation such as trains or buses
- ⁽¹¹⁾ Stricter regulations in countries with many cars, e.g., limiting the number of cars on the road or creating car-free zones
- ⁽¹²⁾ Expansion of tree-covered areas to absorb carbon dioxide, e.g., through programs that promote tree-planting and the greening of cities
- ⁽¹³⁾ Recovery of methane gas from garbage dumps and reclaimed land sites
- ⁽¹⁴⁾ Increasing awareness about energy consumption on an individual level
- ⁽¹⁵⁾ Other (Please specify)

Comment:

5-1. The International Conference on Population and Development (ICPD), held in Cairo in September 1994, covered many subjects, including a woman's right to make her own reproductive choices and the relationship between overpopulation and environmental degradation. In your opinion, how significant was the 1994 ICPD compared with such conferences in the past?

- (1) Very significant, more effective than any in the past
- (2) Somewhat significant

- (3) Not very significant
- (4) Completely insignificant
- (5) Cannot comment

5-2. Since the 1994 ICPD in Cairo, has any concrete action been taken in your country with regard to overpopulation?

- (1) Yes
- (2) No

Comment: (In particular, specify what kind of action is being taken in your country with regard to overpopulation.)

5-3. If you answered yes to the previous question, then how much progress has this action engendered?

- (1) Quite a bit of progress
- (2) Some progress

- (3) Not much progress
- (4) No progress at all

6. From among the following economic measures and regulations aimed at solving environmental problems, which would be most effective *in your country*? Tick four.

- (1) Regulations to limit industrial activities that harm the environment, e.g., emission controls
- (2) Self-imposed restrictions and self-monitoring by corporations and industry
- (3) An environment tax or levy system to tax corporations producing particular pollutants, such as carbon dioxide, and to charge for the amount of waste produced
- (4) Establishment of an emission permit system and a market where these permits can be traded
- (5) Financing to support the formulation of strategies for technological development
- (6) Provision of international technological aid
- (7) Abolishment of aid programs that exacerbate environmental problems
- (8) Creation of financial incentives and tax-reducing mechanisms to encourage environmentally friendly activities
- (9) Introduction of discriminatory pricing that will lead to purchases of more environmentally friendly products
- (10) Creation of deposit refund and recycling programs
- (11) Regulations to limit the ways land can be utilized
- (12) Extension of the official information disclosure system
- (13) Other (Please specify)

Comment:

7. Feel free to write comments on any related topic.

Results of the Fourth Annual
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Progress on Environmental Issues since the Earth Summit

REPORT

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Bank of Tokyo Building 12F., 1-4-2, Marunouchi,
Chiyoda-ku, Tokyo 100, Japan
Phone +81 3 3285 0591
Fax +81 3 3285 0592

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*If you have inquiries regarding this questionnaire,
please contact Mr. Nakamura at the Asahi Glass Foundation.*

af **THE ASAHI GLASS FOUNDATION**
Bank of Tokyo Bldg. 12F., 1-4-2, Marunouchi,
Chiyoda-ku, Tokyo 100, Japan
Phone +81 3 3285 0591 Fax +81 3 3285 0592

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