

**Results of Second**  
**"Questionnaire on Environmental Problems and Survival of Humankind"**  
*Focus on Agenda 21*

**REPORT**

**ASAHI GLASS FOUNDATION**

**September 1993**

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### Results of second

#### "Questionnaire on Environmental Problems and Survival of Humankind"

##### *Focus on Agenda 21*

Time period: Questionnaires were sent out from May 6, 1993,  
and had to be returned by mail or fax by June 30, 1993.

Number of questionnaires mailed: 2,550 (187 countries and regions)

Number of questionnaires returned: 282 (82 countries and regions)

Rate of return: 11%

Questionnaire sample: Selected at random from members of governmental  
organizations and nongovernmental organizations who  
registered with UNCED held in June 1992.

**Breakdown of respondents  
by region, age, sex and profession**

<b>Region</b>	
Japan	61
Asia (excluding Japan)	43
North America	22
Latin America	37
Western Europe	38
Eastern Europe/former Soviet Union	13
Middle East	6
Africa	40
Oceania	22
<b>Total</b>	<b>282</b>

<b>Age</b>	
Less than 29 years old	17
30s	60
40s	83
50s	58
60s	18
Greater than 70 years old	2
No response	44
<b>Total</b>	<b>282</b>

<b>Sex</b>	
Male	195
Female	61
No response	26
<b>Total</b>	<b>282</b>

<b>Occupation</b>	
Central government employee	86
Regional government employee	12
Nongovernment organization	179
┌ Undertaking domestic activities	(72)
└ Undertaking international activities in a specific region	(18)
└ Undertaking international activities in a number of regions	(85)
└ No response	(4)
┌ Practical and aid activities	(34)
└ Awareness raising, educational or campaign activities	(69)
└ Survey, research or policy-making activities	(58)
└ Other	(13)
└ No response	(5)
No response	5
<b>Total</b>	<b>282</b>

## **Results of second "Questionnaire on Environmental Problems and Survival of Humankind"**

This report contains the results and analysis of a questionnaire conducted by the Asahi Glass Foundation in May 1993. Surveyed were members of government organizations (GOs) and nongovernment organizations (NGOs) registered with the United Nations Conference on Environment and Development, or Earth Summit, which was held in Rio de Janeiro in June 1992. The aim of the questionnaire was to gauge opinions about the progress of Agenda 21 and the current state of those issues in each respondent's country. The questionnaire also contained more detailed questions about issues that were identified as environmental problems in the previous year's survey. This section was designed to be a reference source to those formulating policies on the environment.

As there have been many ways Agenda 21 has been approached, opinions differ on how much has been achieved. To our knowledge, however, this is the only comprehensive, international survey to record the current state of Agenda 21. For this reason, we are most pleased to present the results for your reference. Unfortunately, we only achieved a less-than-expected 11% response rate. This may have been because many of the addresses in our data base were inaccurate. As a result, the small size of the sample prevented us from making regional comparisons. Please keep these factors in mind when reading the results. Accordingly, this year's survey is being treated as a pilot project and from 1994, we will conduct more comprehensive questionnaires.

The results have been provided with little additional analysis from the Foundation. We hope specialists from various fields will provide insights on the results.

### **1. Agenda 21: Progress and Current State**

(1) Over half the respondents reported progress on government regulations to conserve the environment, science and technologies contributions to solving environmental problems and international efforts toward sustainable development in the developing countries. Also noted was an increase in awareness toward the solving of environmental problems, in particular there was progress on environmental education, activities by local governments and citizens' groups and raised environmental awareness by industry. Progress on concrete measures to conserve the environment, such as protection of the ozone layer and preservation of the earth's biodiversity, was also recorded.

(2) Regarding the current state of issues in Agenda 21: 31% of respondents reported that the current state of environmental education was adequate -- the highest level of adequacy for any topic. This indicates all were reportedly in an inadequate state.

The number of people who selected adequate for each area listed (1) above was at most around 25%, therefore a wide scope of continuous effort is thought necessary.

(3) Little progress was reported on issues influenced by international politics such as overpopulation, poverty, capital-creation mechanisms and transfer of technology. Likewise, there was also minimal progress on issues affecting daily life, such as changes to economic systems for the benefit of the environment, efforts to alter lifestyles and consumption patterns and raising of industry's environmental awareness. Few respondents recorded progress on concrete measures to conserve the environment, such as measures to reduce acid rain and combat desertification. The current state of these issues was also rated as inadequate, meaning that there are still areas untouched.

(4) Progress on international cooperative efforts toward sustainable development in the developing countries was recorded in the Middle East and Africa but not in Asia, Latin America and Eastern Europe.

(5) Progress on measures to conserve forests and water resources occurred in Asia, Eastern Europe and Africa, regions where attention is required immediately.

(6) Japanese respondents ranked the level of adequacy higher in most issues than that of respondents from other regions, however these evaluations didn't reach the level of completely adequate.

(7) NGO respondents were relatively harsher in their evaluations than respondents from GOs.

### **2. Concern about the survival prospects of humankind in light of the deterioration of the environment**

Pollees indicated their level of concern by choosing a time based on the following information: 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. The average time was 8:19. As this year's survey sample is different from last year's, the results are not directly comparable. However, compared with last year's average response of 7:49, this year's result shows a greater level of concern for the survival of humankind.

### **3. Changing lifestyles**

In response to the question, "Can you adapt to a more frugal lifestyle?", 58% responded that they could or already had. As the respondents were mainly representatives of governmental or NGOs--people considered experts in this field--opinions differ on how this result should be interpreted in regard to the general population.

#### **4. Solutions to overpopulation: policies the developed nations and international organizations should implement to solve overpopulation in the developing countries**

Regarding overpopulation, respondents prioritized four policies from a list of 10 that they thought important, as well as those the developed nations should implement. Family planning, improving education in the developing countries, raising economic growth and the standard of living in the developing countries, and heightening women's status in society were the highest-ranked categories by importance. Improving education, raising economic growth and living standards, expanding alternative forms of energy, and securing adequate supplies of water and food were listed as solutions the developed countries and international organizations should provide.

Family planning was highly ranked, especially in North America and Western Europe, and was emphasized as a means to solve overpopulation by respondents from the developed countries, generally. However, respondents from the developing countries of Eastern Europe and the former Soviet Union, Africa, Asia and Latin America chose aid for education and economic development over family planning. This indicates a difference of opinion between respondents in the developed countries compared with those of the lesser developed nations.

#### **5. Important strategies of environmental education**

From eight choices, respondents chose in order of importance strategies for the promotion of environmental education. Increasing the number and quality of people promoting education, and establishing systems and organizations that will result in the furthering of education were ranked as more important than establishing consensus about the content and focus of the curriculum for the people of varying socioeconomic groups. This indicates environmental education has surpassed the initial discussion stages and has reached the implementation stage. This trend also appears in the results to 1, indicating that progress on environmental education is notable. A large number of respondents chose elementary and junior and senior high school students as those who should receive environmental education.

#### **6. Important aspects of science and technology's contribution to the solving of environmental problems**

From the seven categories, respondents indicated the following priority areas for solving environmental problems: activate an interdisciplinary cultural and natural sciences' approach toward the environment, establish clear strategies and goals for science and technology, and establish methods of evaluating scientific results. These choices indicate the importance of policies and methodology.

#### **7. Effective economic measures and regulations**

From 11 categories, respondents chose regulations to limit industrial activities that harm the environment, and an environment tax or a system that allows tax reductions for corporations working to reduce the negative environmental effects of their activities. These responses indicate support for orthodox methods to deal with these problems.

The creation of deposit refund and recycling programs was considered more effective by respondents from Japan, Latin America, Eastern Europe and the former Soviet Union than by those from North America, Western Europe and Oceania.

Support for the introduction of discriminatory pricing to promote purchases of more environment-friendly products came from respondents in North America and Western Europe.

Self-imposed restrictions and self monitoring by corporations and industry was generally not supported as an effective means of solving environmental problems, but it did receive substantial support from respondents in Japan.

#### **8. Influence of Eastern philosophy on global civilization**

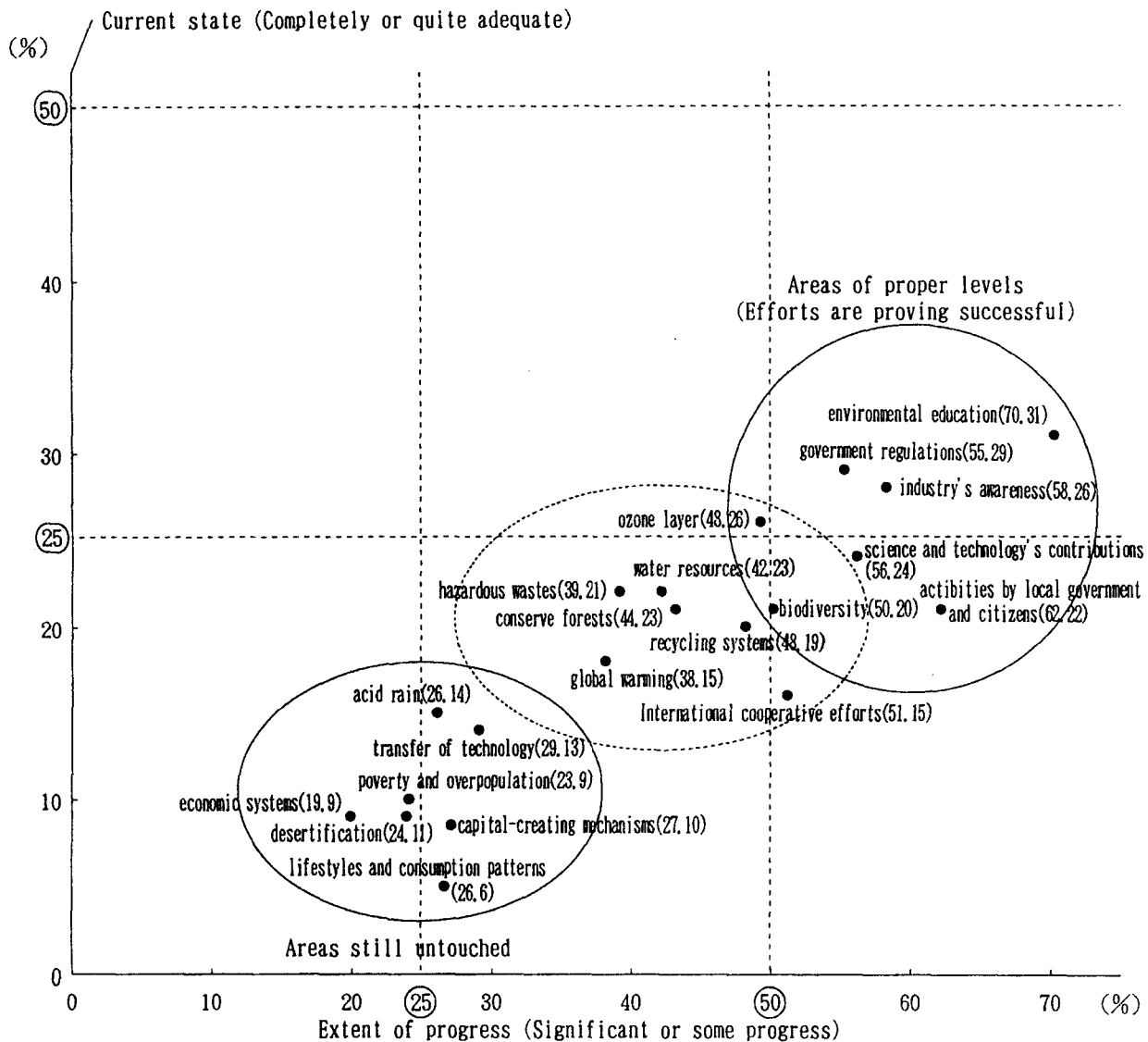
From four options, 28% of respondents believe that Eastern philosophy will embrace other thought systems, resulting in a new, hybrid Eastern philosophy. Twenty percent believe that current Western thought will influence the entire world. Respondents who chose the first response came chiefly from Japan, other parts of Asia, Eastern Europe and the former Soviet Union, while those who chose the second were for the most part situated in North America, Latin America, Western Europe and Africa. The results naturally reflect the historical and cultural orientations of the respondents.

Only eight percent of respondents believe that traditional Eastern philosophy will attain a position of dominance following the decline of Western thought.

# 1. AGENDA 21: PROGRESS AND CURRENT STATE <Generalization>

**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

<Total of 8 regions>



**Notes:**

1. The axis of the abscissa indicates the extent of progress as calculated by the total scores of "some progress" and "significant progress," while the axis of ordinate indicates the current state totally the scores of "quite adequate" and "completely adequate."
2. Two figures in brackets following the area description show the ratios in the extent of progress and the current state, respectively, as referred to in 1. above.
3. Area descriptions are shortened. For full descriptions, refer to those in the questionnaire.

•The current state and the extent of progress made since the Earth Summit in the 20 areas were classified into three groups: the first group was those whose progress was good and whose current state was judged to be relatively adequate (areas at proper levels), the second group was the opposite of the first (areas still untouched), and the third group was intermediate of these two, though the current state was generally very inadequate.

•Included in the areas at proper levels were education, activities by local governments and citizens' groups, and industrial environmental awareness, all of which would enhance environmental awareness. Policies protecting the ozone layer and biodiversity in this group are areas of current global environmental problems. Included in the areas still untouched were poverty and overpopulation, efforts to alter lifestyles, efforts to establish a capital-creating mechanism, and technology transfer, all of which are basic and make up the so-called environmental infrastructure. Change in economic systems, the area lagging behind, is expected to be taken up quickly as an effective means.

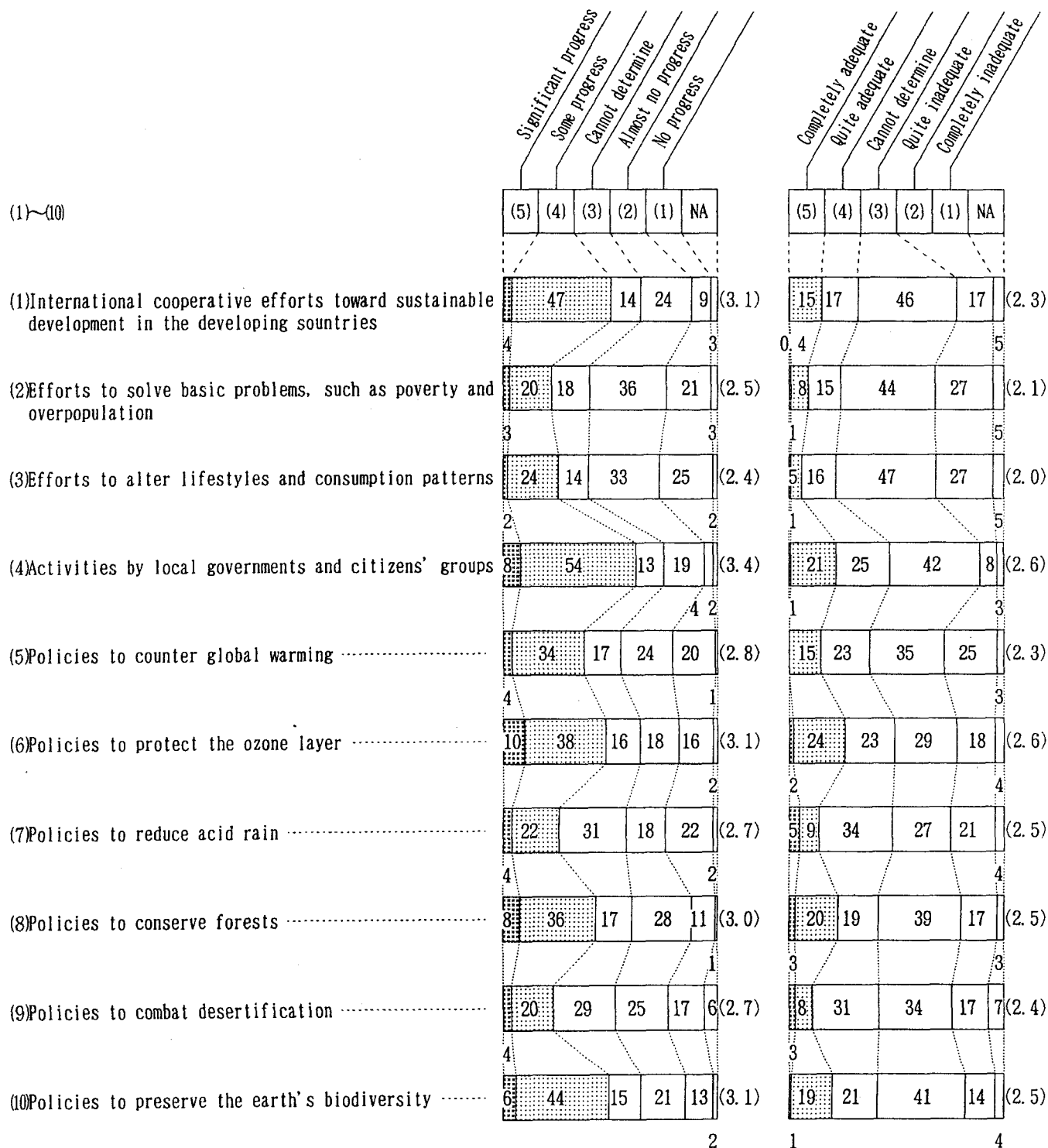
## 2. AGENDA 21: PROGRESS AND CURRENT STATE (up to page 3)

**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

<Total of 8 regions>

(Extent of progress)

(Current state)



Notes: ( ) denotes the average value.

**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

<Total of 8 regions>

(Extent of progress)

(Current state)

	Extent of progress						Current state					
	Significant progress	Some progress	Cannot determine	Almost no progress	No progress	NA	Completely adequate	Quite adequate	Cannot determine	Quite inadequate	Completely inadequate	NA
(11)~(20)	(5)	(4)	(3)	(2)	(1)	NA	(5)	(4)	(3)	(2)	(1)	NA
(11) Policies to conserve water resources	5	37	19	26	11	(3.0)	2	21	20	40	14	(2.6)
(12) Policies for the disposal of hazardous waters and substances	4	35	18	26	16	(2.8)	1	20	19	36	22	(2.4)
(13) Formation of recycling systems	5	43	15	22	15	(3.0)	1	18	25	37	16	(2.5)
(14) Science and technology's contributions toward solving environmental problems	5	51	18	17	9	(3.3)	1	23	29	33	11	(2.7)
(15) Efforts involving the transfer of environmental-conservation technology	1	28	26	30	14	(2.7)	1	12	29	38	18	(2.4)
(16) Efforts to establish the necessary capital-creating mechanisms for the preservation of the environment	3	24	19	32	21	(2.5)	2	8	25	34	29	(2.2)
(17) Promotion of environmental education	8	62	11	16		(3.6)	2	29	19	42	6	(2.8)
(18) Introduction of government regulations to conserve the environment	7	48	15	19	10	(3.2)	4	25	18	38	13	(2.7)
(19) Changes to economic systems leading to greater conservation of the environment	1	18	21	28	31	(2.3)	1	8	22	34	32	(2.1)
(20) Raise industry's environmental awareness	8	50	13	17	12	(3.3)	3	23	18	36	18	(2.6)

Notes: ( ) denotes the average value.



### 3. AGENDA 21: PROGRESS AND CURRENT STATE <Comparison of average values by area and region> (up to page 5) .

**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

#### <EXTENT OF PROGRESS>

	Total of 8 regions (82)	Japan (61)	Asia (43)	North America (22)	Central or South America (37)	Western Europe (38)	Eastern Europe or former Soviet Union (13)	Middle East (6)	Africa (40)	Oceania (22)	GO (38)	NGO (173)
(1) International cooperative efforts toward sustainable development in the developing countries	3.1	3.4	2.8	3.1	2.7	3.3	2.6	3.5	3.4	3.1	3.3	3.0
(2) Efforts to solve basic problems, such as poverty and overpopulation	2.5	2.6	2.6	2.2	2.2	2.2	2.0	3.0	2.9	2.5	2.6	2.4
(3) Efforts to alter lifestyles and consumption patterns	2.4	2.9	2.4	2.5	2.0	2.2	2.2	2.0	2.4	2.4	2.7	2.3
(4) Activities by local governments and citizens' groups	3.4	3.2	3.4	3.6	3.4	3.8	3.1	2.8	3.4	4.0	3.4	3.5
(5) Policies to counter global warming	2.8	3.0	2.8	2.7	2.1	3.1	2.5	2.5	2.6	3.1	3.0	2.7
(6) Policies to protect the ozone layer	3.1	3.7	2.8	3.4	2.5	3.6	2.8	2.7	2.3	3.4	3.3	2.9
(7) Policies to reduce acid rain	2.7	2.9	2.6	3.0	2.0	3.2	2.9	2.0	2.0	3.0	2.8	2.6
(8) Policies to conserve forests	3.0	2.8	3.3	2.4	3.2	2.9	3.0	2.4	3.5	2.9	3.3	2.9
(9) Policies to combat desertification	2.7	2.4	2.8	2.4	2.5	2.5	3.1	2.6	3.2	2.9	2.8	2.6
(10) Policies to preserve the earth's biodiversity	3.1	2.9	3.2	3.0	3.0	3.1	3.2	2.2	3.3	3.3	3.4	3.0
(11) Policies to conserve water resources	3.0	2.9	3.1	2.5	2.9	3.1	3.2	2.7	3.2	3.4	3.2	2.9
(12) Policies for the disposal of hazardous wastes and substances	2.8	3.2	2.9	2.9	2.1	2.9	3.0	2.3	3.0	2.8	3.1	2.7
(13) Formation of recycling systems	3.0	3.4	2.7	3.6	2.4	3.6	2.8	2.2	2.2	3.8	3.1	3.0
(14) Science and technology's contributions toward solving environmental problems	3.3	3.6	3.2	3.7	2.9	3.4	3.3	2.3	2.8	3.5	3.3	3.3
(15) Efforts involving the transfer of environmental-conservation technology	2.7	3.1	2.4	2.8	2.8	2.7	2.8	2.5	2.4	2.7	2.8	2.7
(16) Efforts to establish the necessary capital-creating mechanisms for the preservation of the environment	2.5	2.6	2.5	2.3	2.5	2.7	2.6	2.3	2.6	2.4	2.7	2.5
(17) Promotion of environmental education	3.6	3.2	3.8	3.5	3.8	3.6	3.8	3.8	3.9	3.8	3.6	3.6
(18) Introduction of government regulations to conserve the environment	3.2	2.9	3.6	3.3	3.2	3.2	3.4	3.0	3.3	3.5	3.3	3.2
(19) Changes to economic systems leading to greater conservation of the environment	2.3	2.6	2.2	2.6	1.8	2.1	2.6	2.3	2.6	2.1	2.4	2.3
(20) Raise industry's environmental awareness	3.3	3.6	3.1	3.4	3.0	3.5	2.8	3.2	2.8	3.5	3.4	3.2

Note: Figures indicated are the average value in the extent of progress. (Calculated using the following scores: No progress = 1, Almost no progress = 2, Cannot determine = 3, Some progress = 4, and Significant progress = 5)

#### Comments:

- Progress has generally been observed in environmental education.
- It has also been observed in activities by local governments and citizens' groups, science and technology's contribution, industrial environmental awareness, government regulations, and biodiversity, although some regions were exceptions to this.
- In the areas of policies to protect the ozone layer and recycling systems, progress has been seen in advanced regions but little progress has been made and problems remain in developing regions.
- Changes in economic systems is one area drawing attention but little overall progress has been made.
- Basic issues such as poverty and overpopulation, efforts to alter lifestyles, capital-creating mechanisms and technology transfer have made almost no progress.
- International cooperative efforts toward sustainable development progressed in the Middle East and Africa but have been delayed in Asia, Latin America and Eastern Europe. (Middle East data is shown as reference.)
- Implementation of positive measures for environmental problems of global warming, acid rain, desertification and hazardous substances has generally been delayed.
- Efforts are apparent and some progress has been made in Asia, Eastern Europe and Africa where policies to conserve forests and water resources are urgently called for.
- Generally, members of GOs gave higher scores in the extent of progress, and a difference could be noted between them and members of NGOs.

**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

<CURRENT STATE>

	Total of 8 regions (282)	Japan (61)	Asia (43)	North America (22)	Central or South America (37)	Western Europe (38)	Eastern Europe or former Soviet Union (15)	Middle East (6)	Africa (40)	Oceania (22)	GO (98)	NGO (173)
(1) International cooperative efforts toward sustainable development in the developing countries	2.3	2.6	2.1	2.0	2.2	2.0	2.5	2.4	2.7	2.1	2.5	2.3
(2) Efforts to solve basic problems, such as poverty and overpopulation	2.1	2.3	2.2	1.6	1.8	1.9	2.2	2.8	2.3	2.2	2.1	2.1
(3) Efforts to alter lifestyles and consumption patterns	2.0	2.2	2.0	1.7	1.9	1.8	2.2	2.2	2.1	2.0	2.2	1.9
(4) Activities by local governments and citizens' groups	2.6	2.7	2.5	2.6	2.6	2.7	2.5	2.8	2.7	2.8	2.6	2.7
(5) Policies to counter global warming	2.3	2.6	2.1	2.0	2.0	2.3	2.1	2.3	2.3	2.5	2.5	2.2
(6) Policies to protect the ozone layer	2.6	3.3	2.0	2.4	2.2	2.7	2.6	2.3	2.4	2.7	2.9	2.5
(7) Policies to reduce acid rain	2.5	3.0	2.1	2.4	2.1	2.4	2.5	2.2	2.4	2.9	2.7	2.4
(8) Policies to conserve forests	2.5	2.6	2.6	1.9	2.3	2.3	2.9	2.2	2.9	2.4	2.8	2.3
(9) Policies to combat desertification	2.4	2.4	2.3	2.1	2.4	2.3	2.6	2.2	2.8	2.5	2.6	2.3
(10) Policies to preserve the earth's biodiversity	2.5	2.6	2.5	1.9	2.4	2.3	2.9	2.4	2.9	2.4	2.7	2.4
(11) Policies to conserve water resources	2.6	2.8	2.5	1.8	2.4	2.6	2.8	2.7	2.8	2.6	2.8	2.4
(12) Policies for the disposal of hazardous wastes and substances	2.4	3.0	2.2	2.2	1.9	2.6	2.6	2.2	2.4	2.2	2.6	2.3
(13) Formation of recycling systems	2.5	2.7	2.3	2.5	2.2	2.8	2.5	1.8	2.2	2.8	2.6	2.4
(14) Science and technology's contributions toward solving environmental problems	2.7	3.2	2.6	2.5	2.4	2.7	2.6	2.2	2.6	2.8	2.8	2.7
(15) Efforts involving the transfer of environmental-conservation technology	2.4	2.8	2.0	2.5	2.4	2.4	2.2	2.2	2.2	2.2	2.5	2.4
(16) Efforts to establish the necessary capital-creating mechanisms for the preservation of the environment	2.2	2.5	2.0	1.9	2.0	2.1	2.2	2.0	2.3	1.9	2.4	2.0
(17) Promotion of environmental education	2.8	2.7	2.7	2.2	2.7	2.8	3.3	2.7	3.3	2.8	3.0	2.7
(18) Introduction of government regulations to conserve the environment	2.7	2.8	2.6	2.2	2.4	2.7	2.7	2.5	2.9	2.7	2.9	2.6
(19) Changes to economic systems leading to greater conservation of the environment	2.1	2.5	2.0	1.9	1.9	1.6	2.3	2.3	2.5	1.8	2.3	2.0
(20) Raise industry's environmental awareness	2.6	3.2	2.2	2.2	2.3	2.6	2.2	3.0	2.5	2.1	2.8	2.5

Note: Figures indicated are the average value in the current state. (Calculated using the following scores: Completely inadequate = 1, Quite inadequate = 2, Cannot determine = 3, Quite adequate = 4, and Completely adequate = 5)

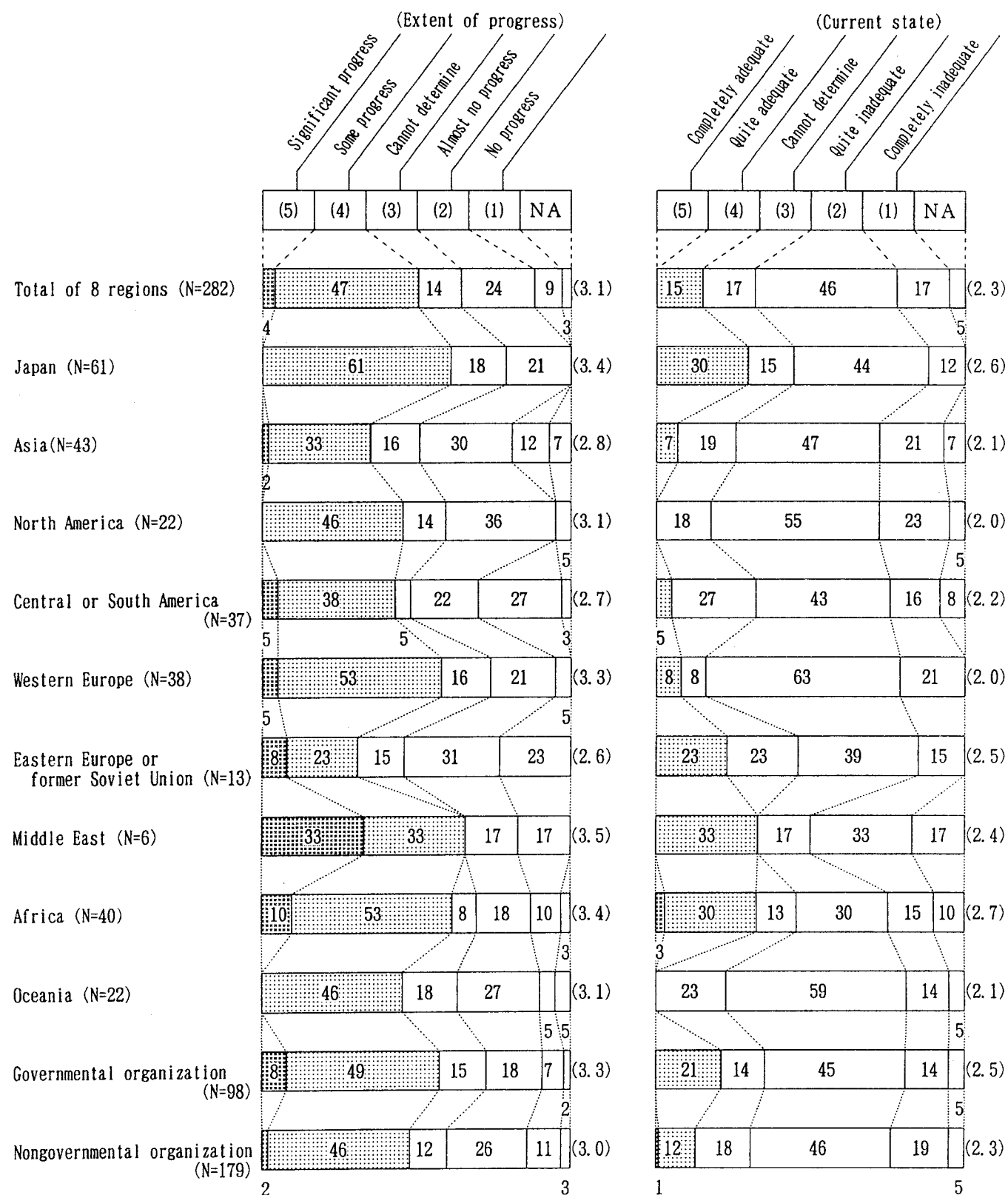
Comments:

- (1) There were almost no regions where the current state of any area was viewed as positive.
- (2) Comparatively high average scores were observed in Japan. However, even there only three areas exceeded a ranking of 3.0: policies to protect the ozone layer, science and technology's contribution, and industrial environmental awareness.
- (3) Regions whose average scores exceeded 3.0 were Eastern Europe and Africa and this was true only in the area of environmental education.
- (4) Members of NGOs judged the current state relatively more severely.

#### 4. AGENDA 21: PROGRESS AND CURRENT STATE <Comparison by region in each area> (up to page 25)

**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

##### ( 1 ) International cooperative efforts toward sustainable development in the developing countries



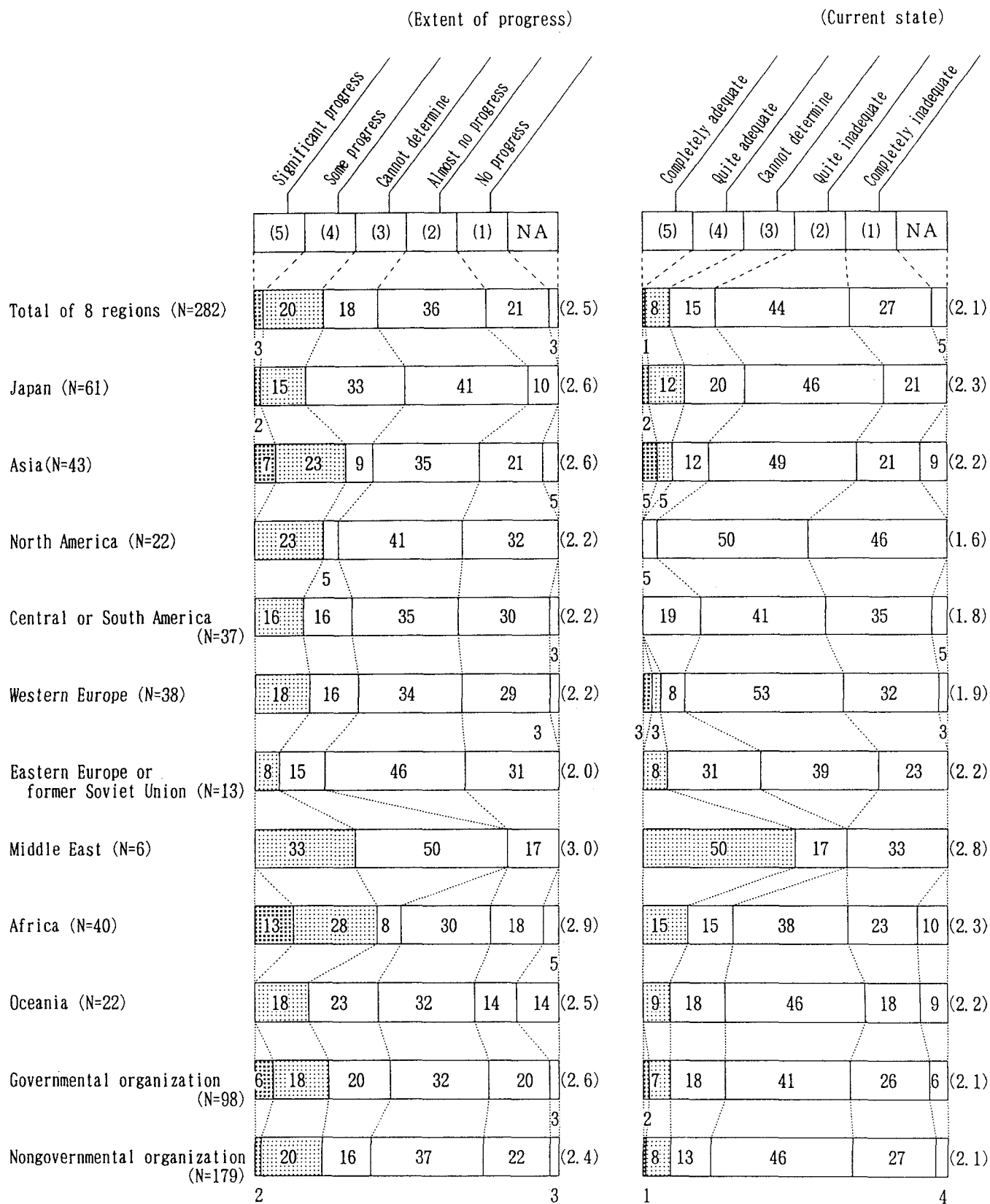
Notes: ( ) denotes the average value.

**Comment:**

(1) Progress has been noted in Japan, Western Europe and the Middle East but the current state is still inadequate. (Middle East data is shown as reference.)

**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

**( 2 ) Efforts to solve basic problems, such as poverty and overpopulation**

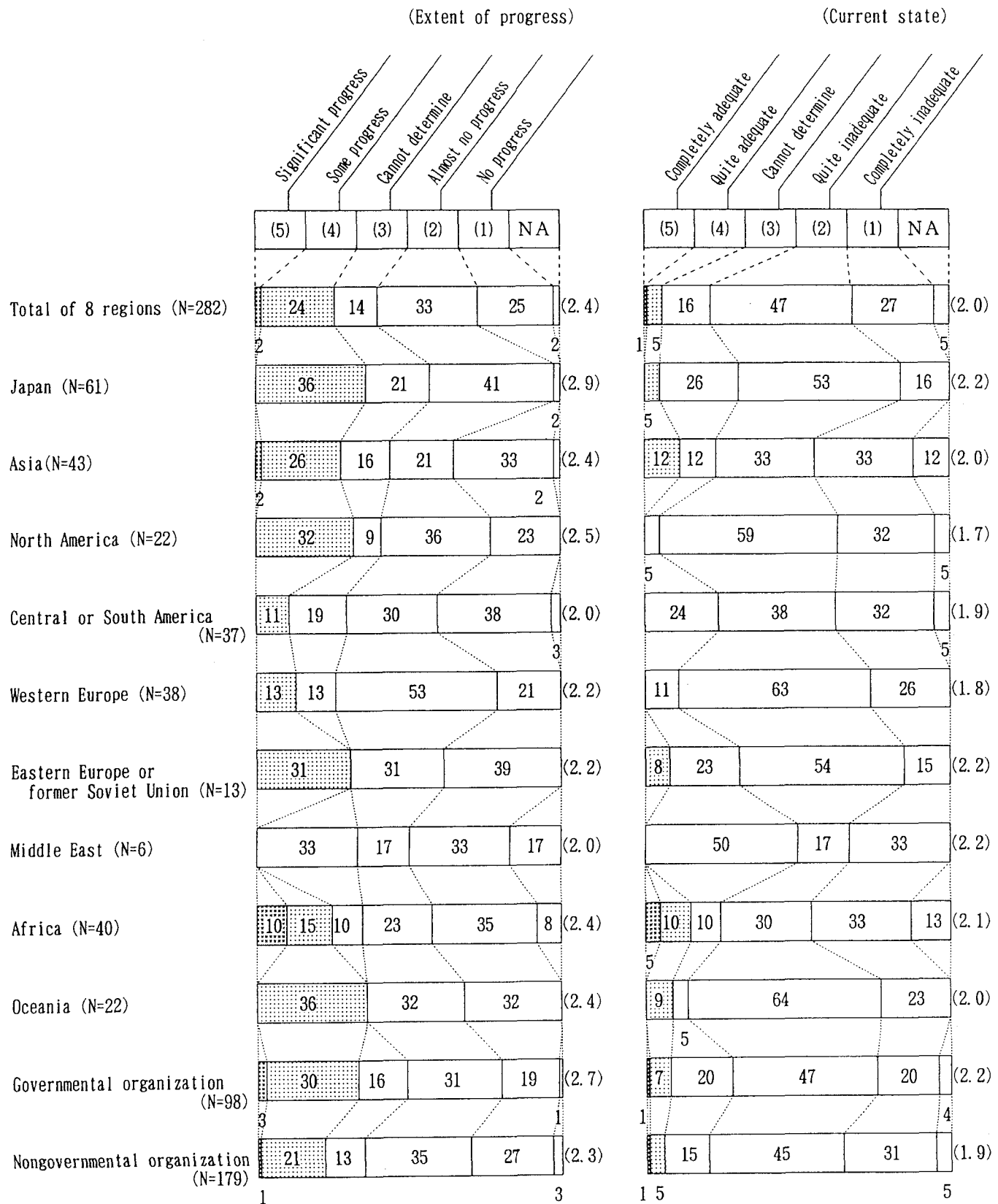


Comment:

(1) It is encouraging that comparatively good progress is seen in Africa and Asia whose poverty and overpopulation problems are acute. However, it is clear that the current state in these regions remains serious.

**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

**(3) Efforts to alter lifestyles and consumption patterns**



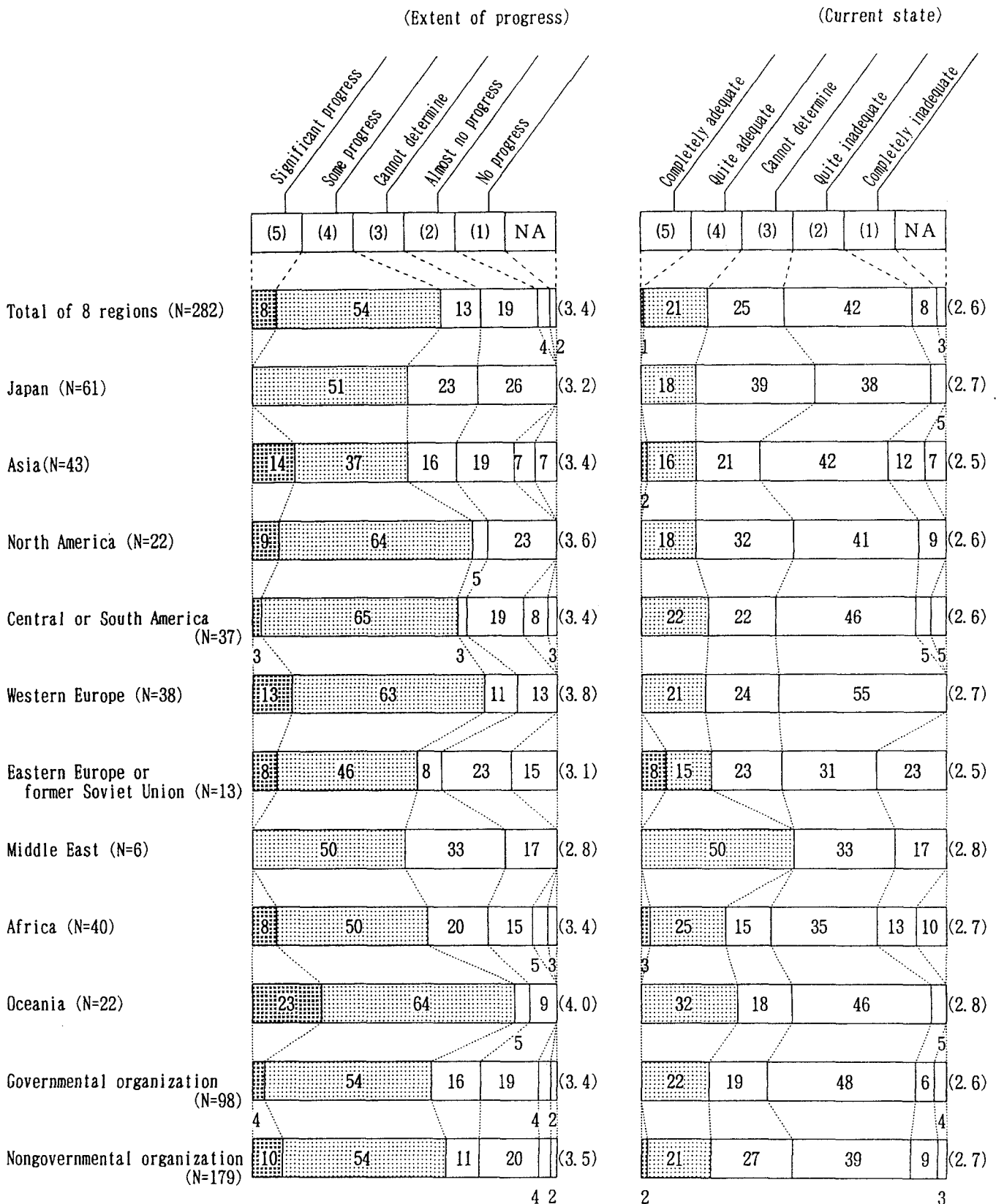
Notes: ( ) denotes the average value.

**Comment:**

(1) Although slightly more progress has been observed in Japan and Oceania than in other regions, it is still generally minimal. It is clear that the current global state is extremely inadequate.

**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

**(4) Activities by local governments and citizens' groups**

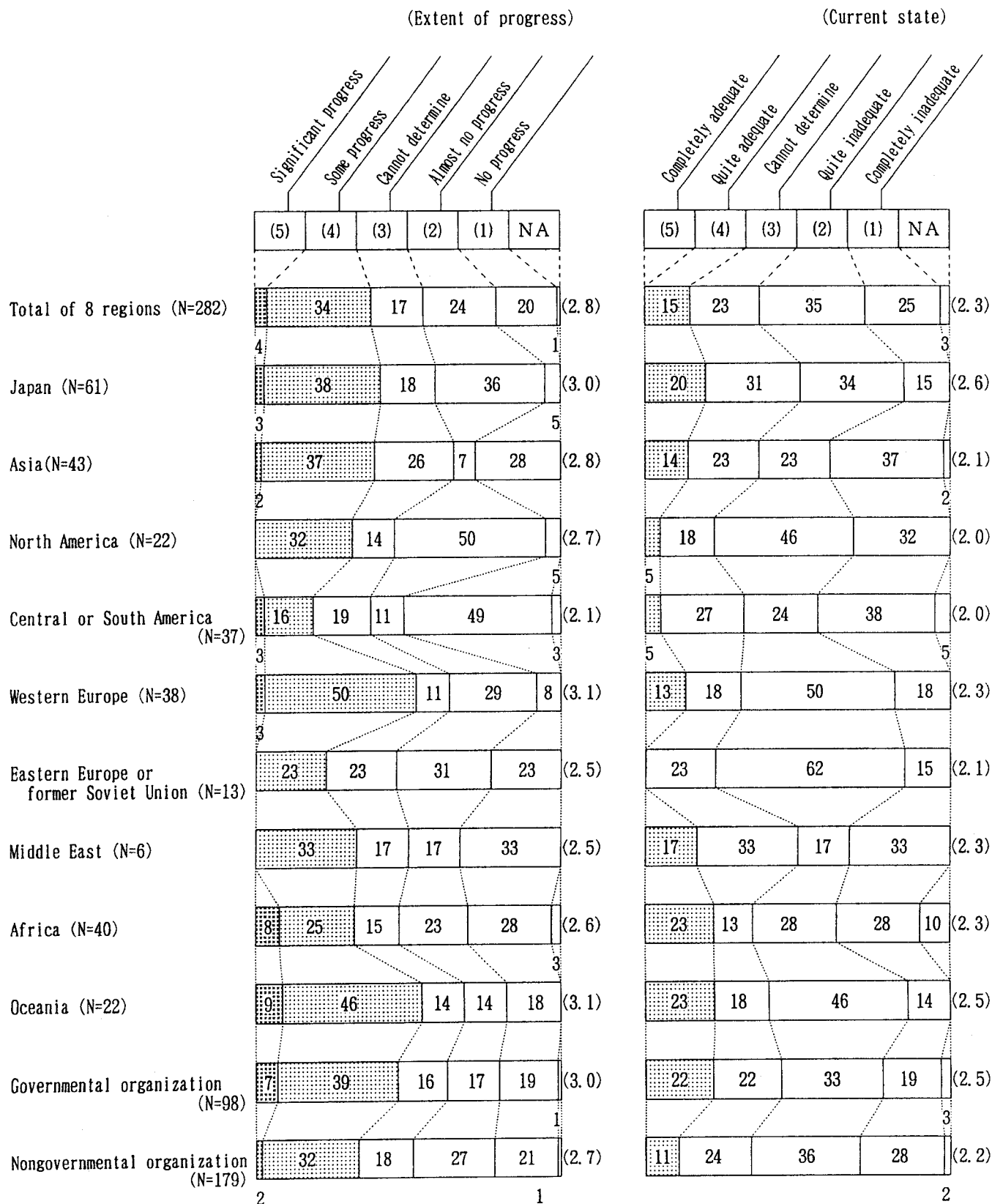


**Comments:**

- (1) Participation was generally acknowledged, with progress being remarkable in advanced regions of North America, Western Europe and Oceania. However, the current state is still inadequate.
- (2) This was the only area where the rating of members of NGOs exceeded that of members of GOs in the 20 areas in terms of the extent of progress.

**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

**( 5 ) Policies to counter global warming**



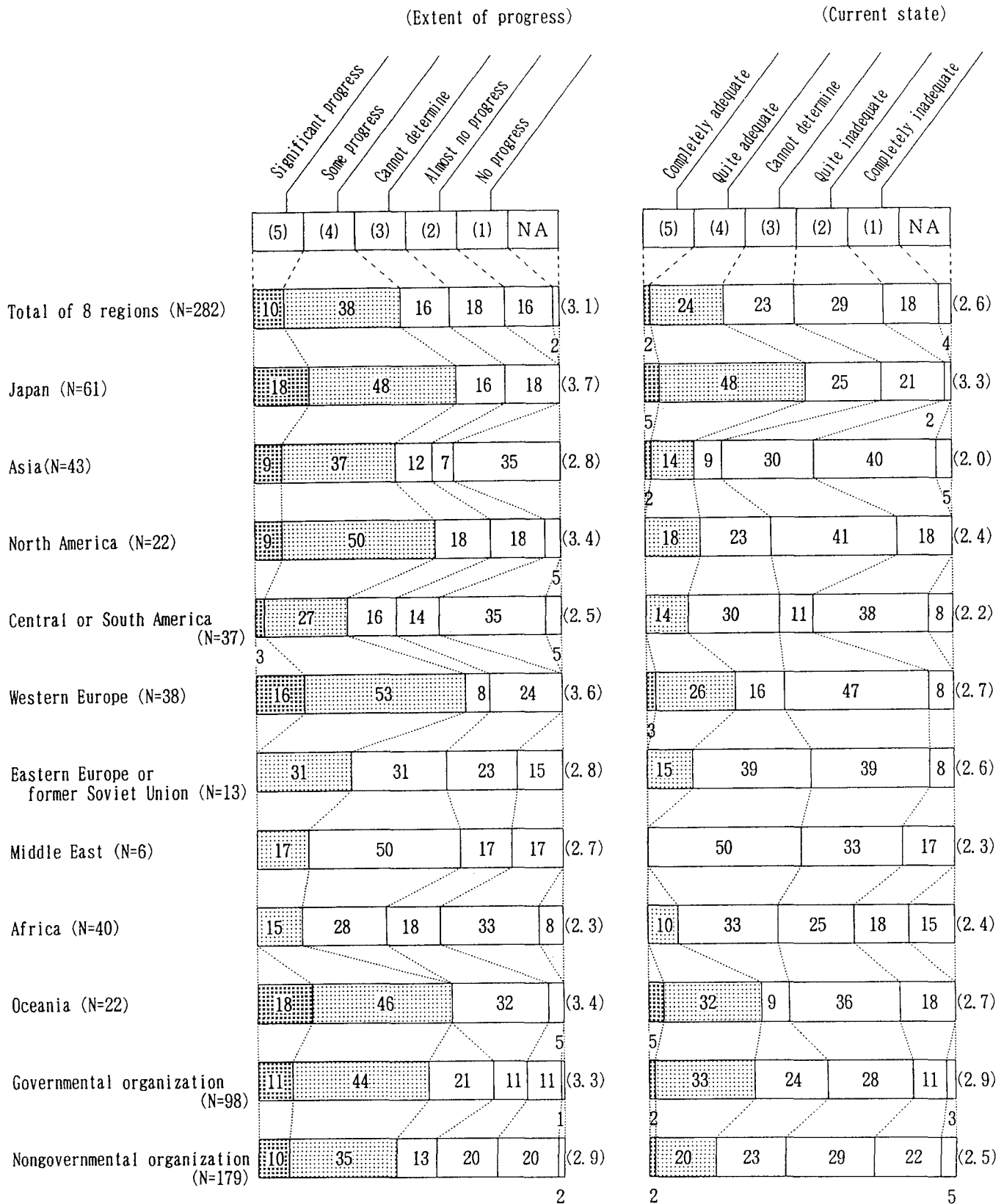
Notes: ( ) denotes the average value.

**Comment:**

(1) Progress has been conspicuous in Western Europe and Oceania, but the current state remains inadequate.

**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

**( 6 ) Policies to protect the ozone layer**



Notes: ( ) denotes the average value.

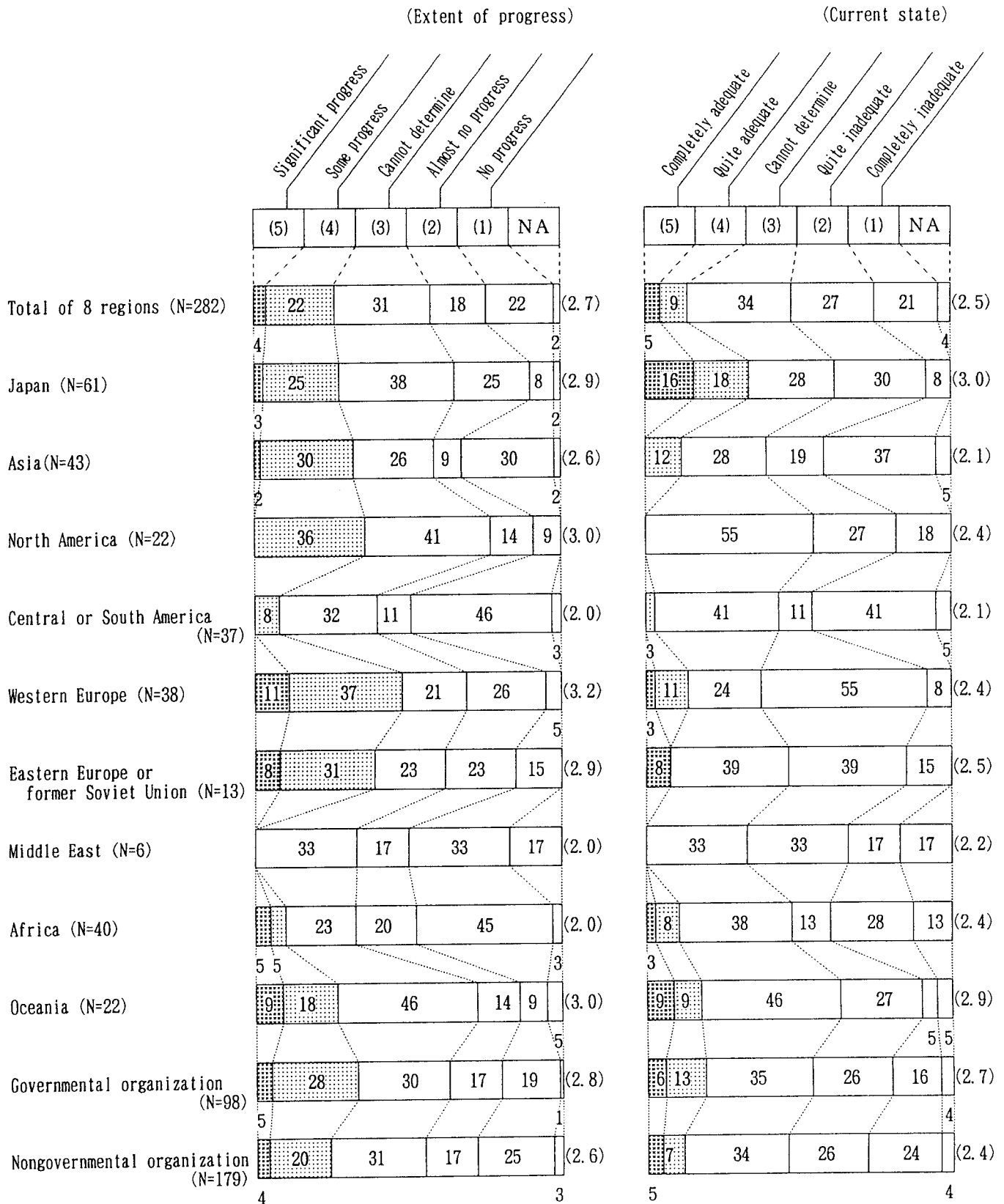
**Comment:**

(1) Progress has been noted in advanced regions of Japan, North America, Western Europe and Oceania, demonstrating that efforts are being made where active phase-out of CFC (chlorofluorocarbon) use is being encouraged. Even in these regions, however, Japan is the only one in which many people think the current state to be adequate, while elsewhere additional measures are demanded. The poor progress and still inadequate situation in the Asian region as a whole is disappointing.



**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

**( 7 ) Policies to reduce acid rain**



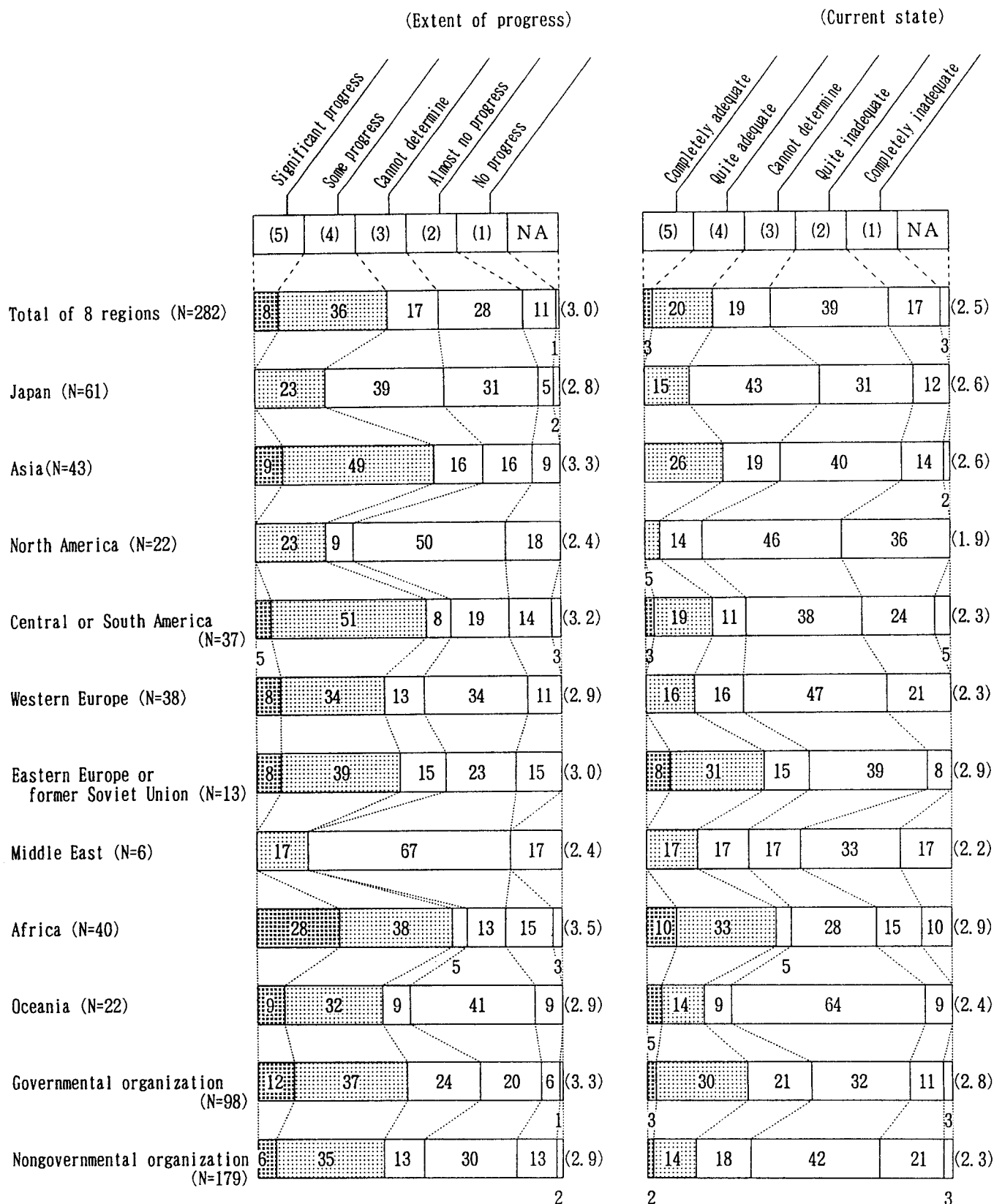
Notes: ( ) denotes the average value.

**Comments:**

- (1) While it was good to see that many people in Western Europe and Eastern Europe gave higher scores to the extent of progress, the current state in these regions is, however, known to be still extremely poor.
- (2) In Japan, those who judged the current state adequate was conspicuously high at 34%.

**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

**( 8 ) Policies to conserve forests**



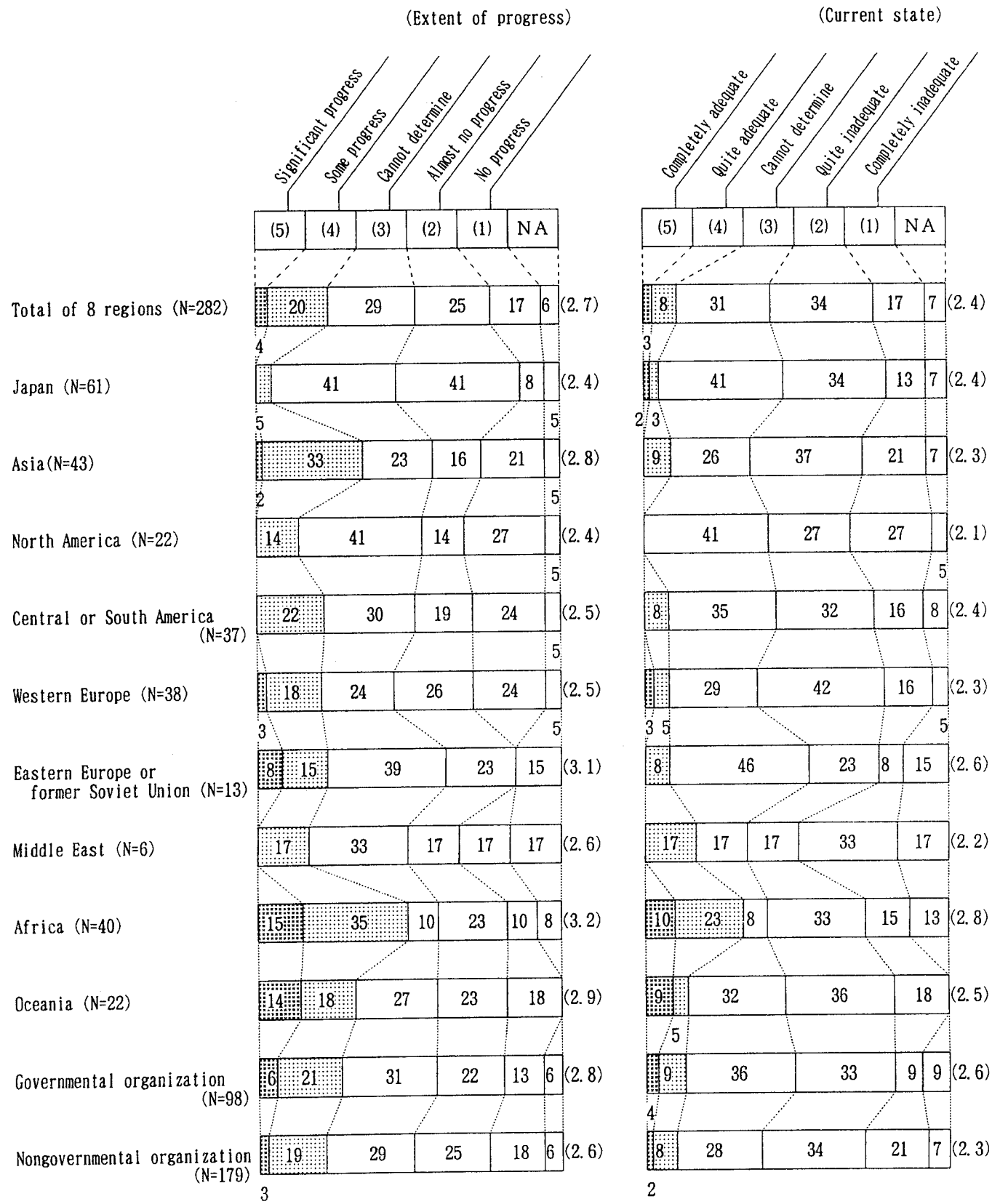
Notes: ( ) denotes the average value.

**Comments:**

- (1) The extent of progress was also notable in Asia, Latin America and Africa. It is encouraging that in Africa where deforestation is a serious issue, the current state was judged relatively adequate. On the contrary, it is troublesome that little progress has been seen in Japan and North America where the current state remains inadequate.
- (2) Large gaps existed between members of GOs and NGOs in their evaluation of the current state of regions.

**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

**( 9 ) Policies to combat desertification**



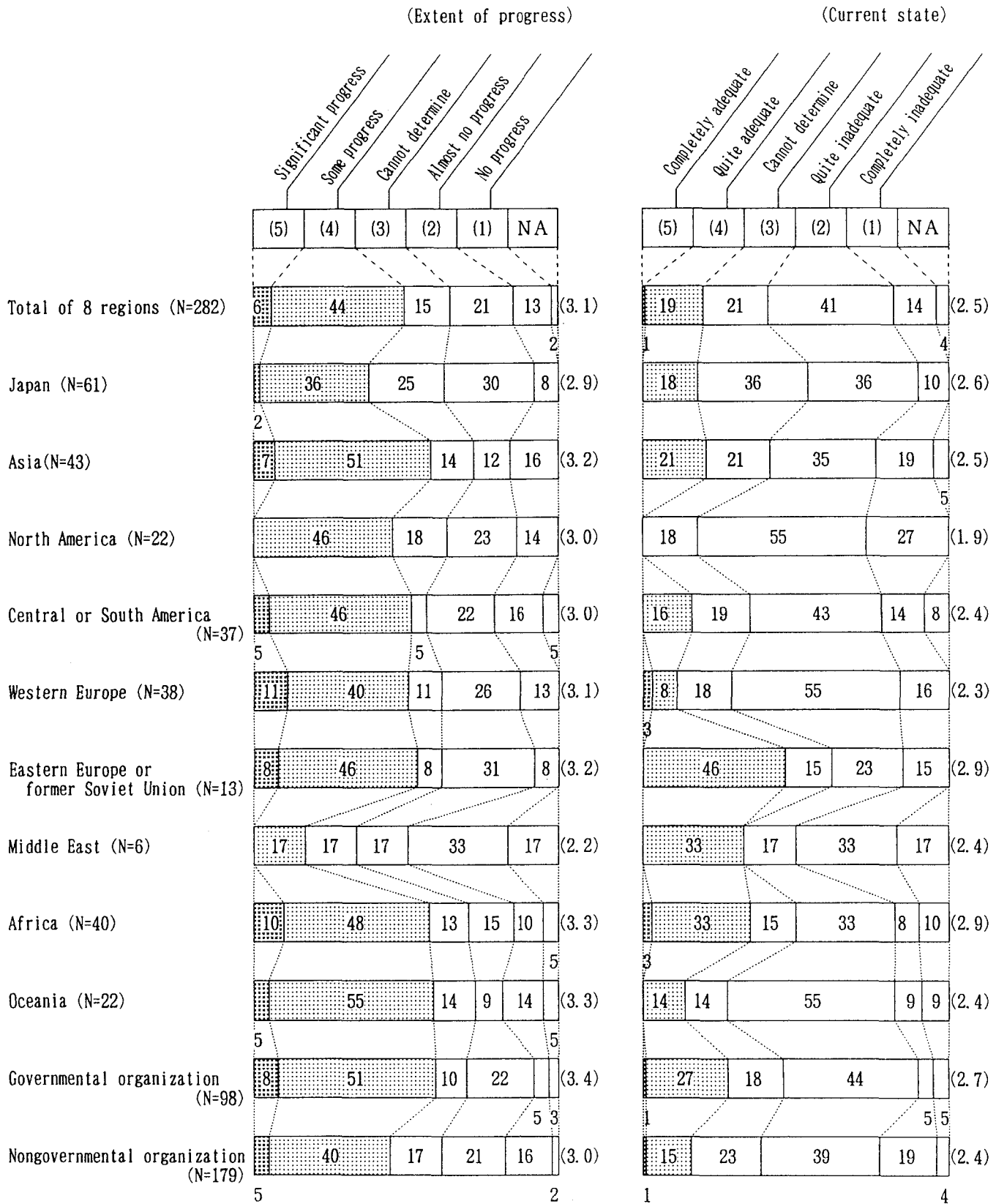
Notes: ( ) denotes the average value.

**Comment:**

(1) Progress has been recognized in Asia and Africa, which is a very rewarding trend in the regions most requiring a solution. About 30% of the respondents in Africa judged the current state to be adequate, more than in any other region.

**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

**(10) Policies to preserve the earth's biodiversity**



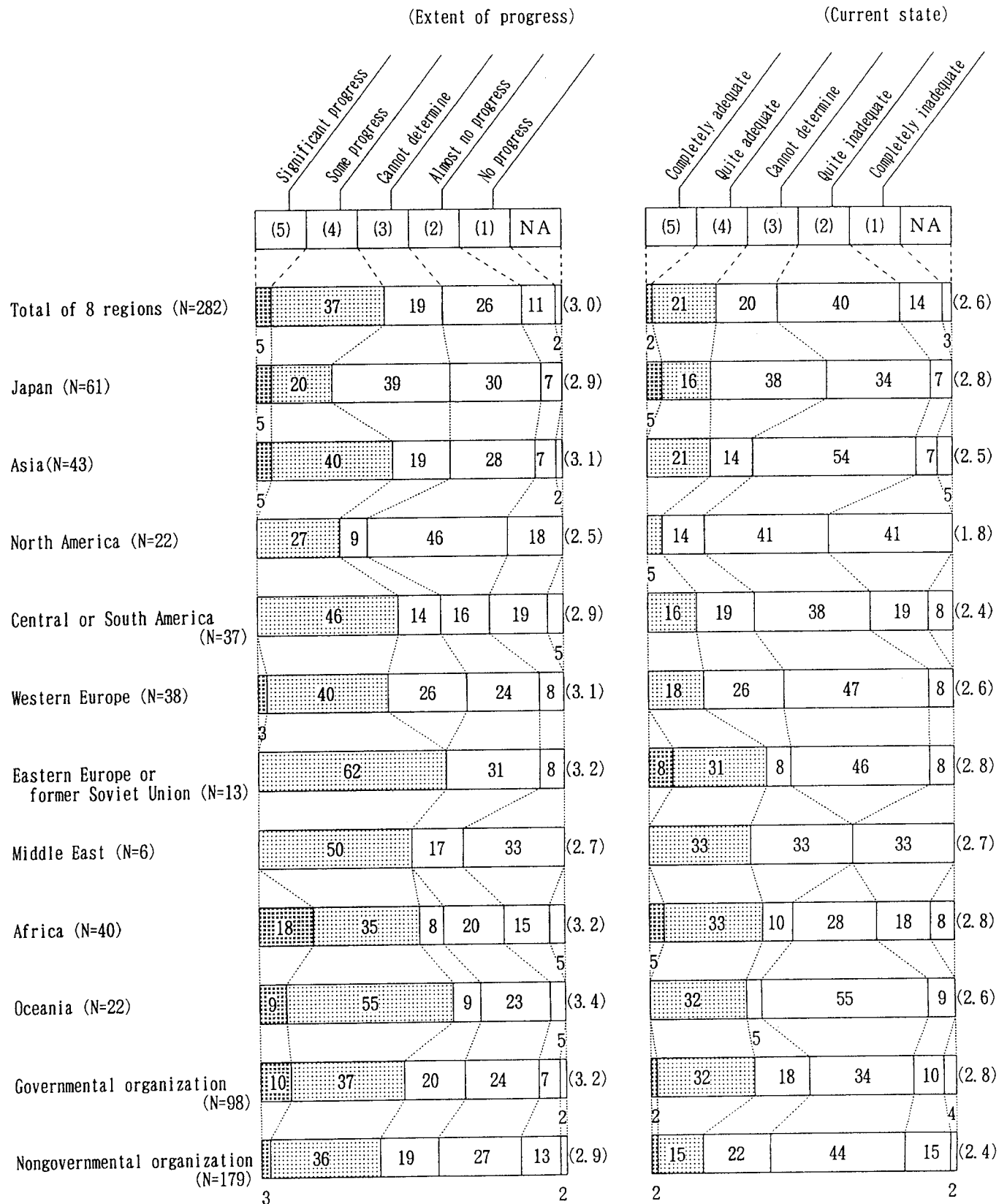
**Comments:**

- (1) Progress has been noted in Asia, Africa and Oceania. Half of the Eastern Europe respondents were affirmative about the current state.
- (2) The fact that no respondents from North American judged the current condition to be adequate may be attributable to the failure of that region to sign the treaty last year in Rio de Janeiro.
- (3) Little progress in the Middle East may be the result of inadequate actions taken after the Gulf War. (The data is shown as reference because of few samples.)

Notes: ( ) denotes the average value.

**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

**(11) Policies to conserve water resources**



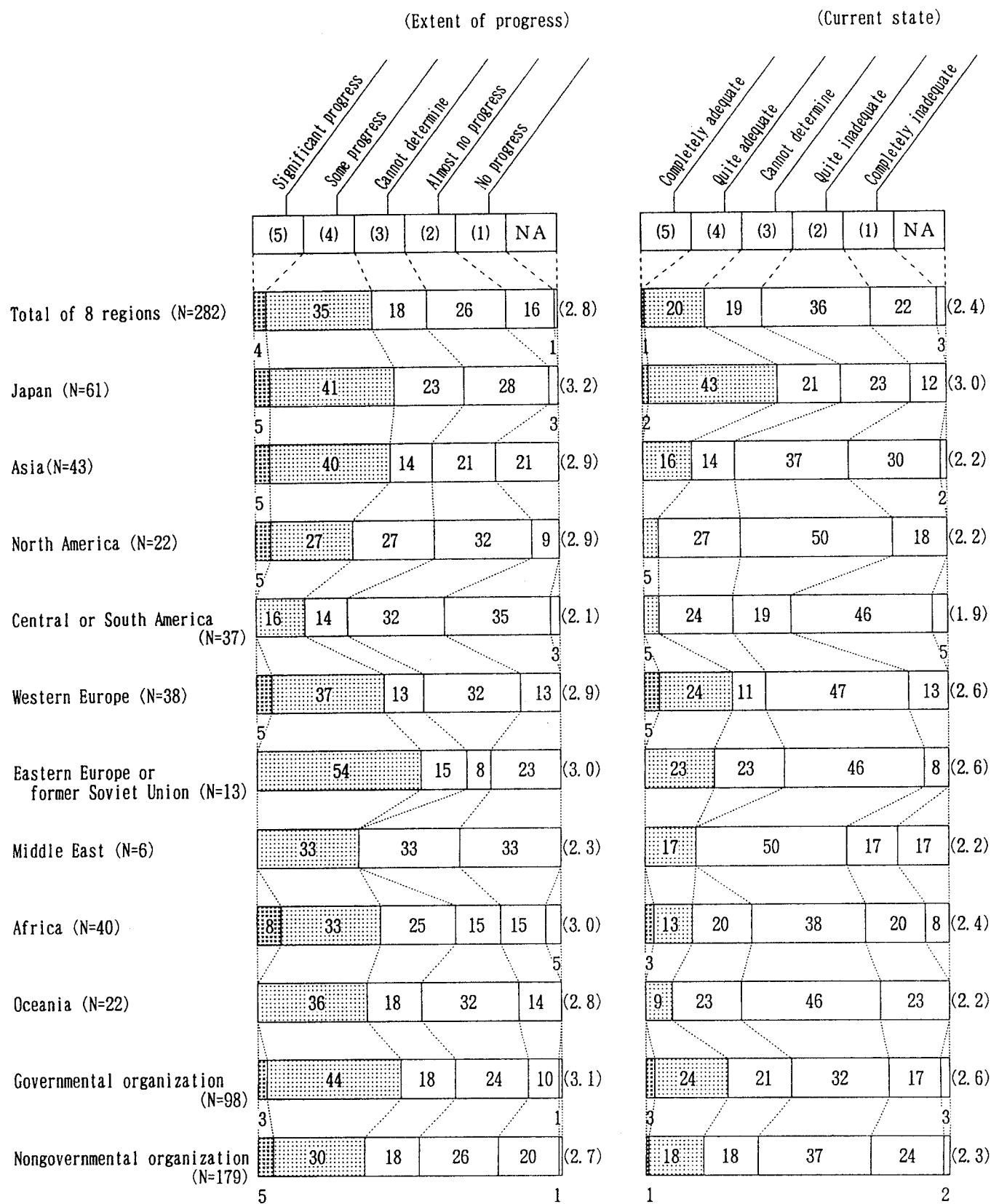
Notes: ( ) denotes the average value.

**Comments:**

- (1) Progress has been remarkable in Eastern Europe, Oceania, the Middle East and Africa, where more than 30% judged the current state adequate, while little progress has been made in Japan and North America, where many found current conditions inadequate. (Middle East data is shown as reference.)
- (2) Many people in Asia, Latin America and Western Europe as well as North America and Japan consider the current state inadequate.
- (3) Large gaps were seen between governmental and nongovernmental organizations in their evaluation of the current state.

**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

**(12) Policies for the disposal of hazardous wastes and substances**



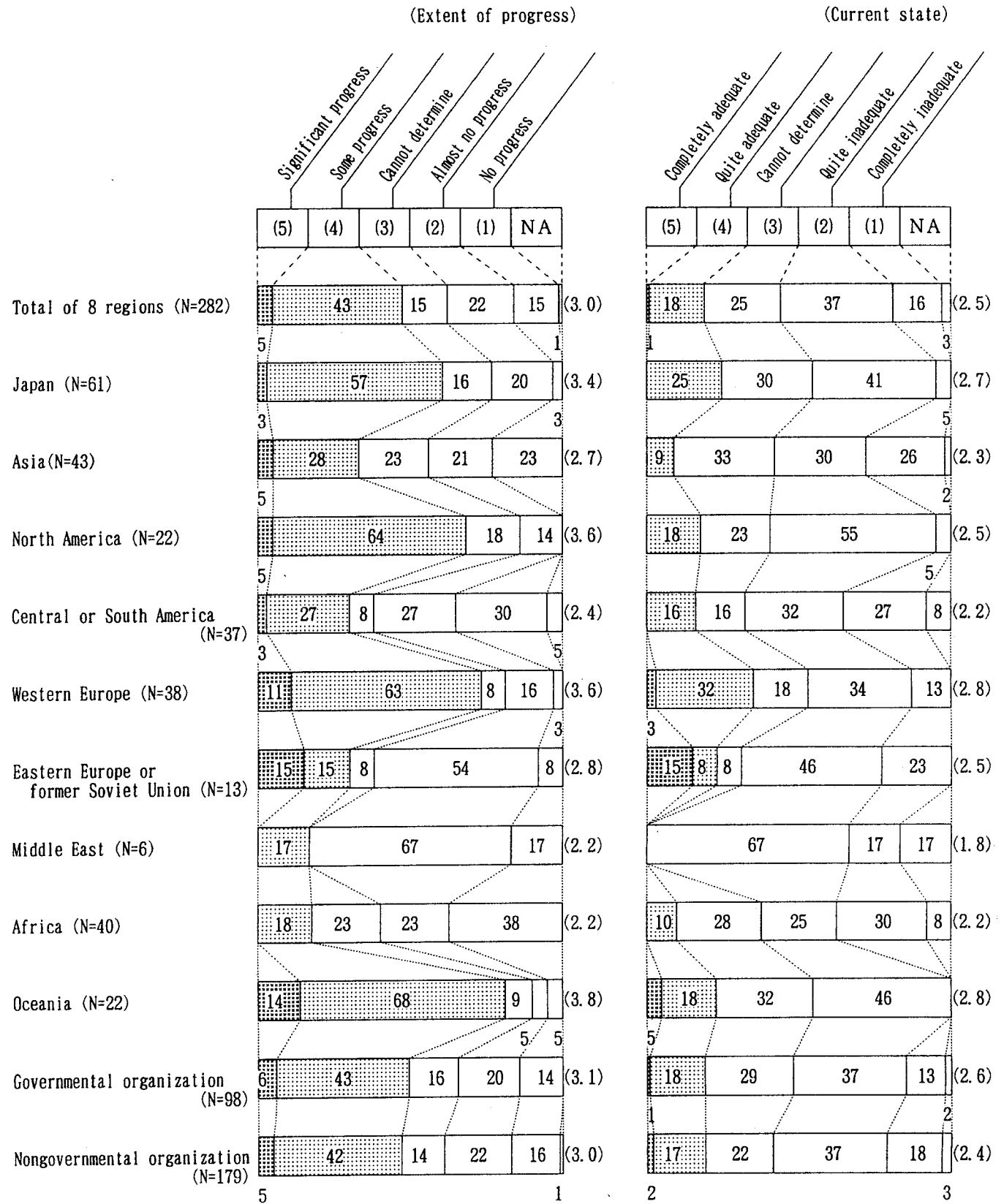
Notes: ( ) denotes the average value.

**Comments:**

- (1) It is commendable that progress has been observed in Eastern Europe. Action has been delayed in Latin America.
- (2) The current state is seriously inadequate in all regions except Japan.

**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

**(13) Formation of recycling systems**



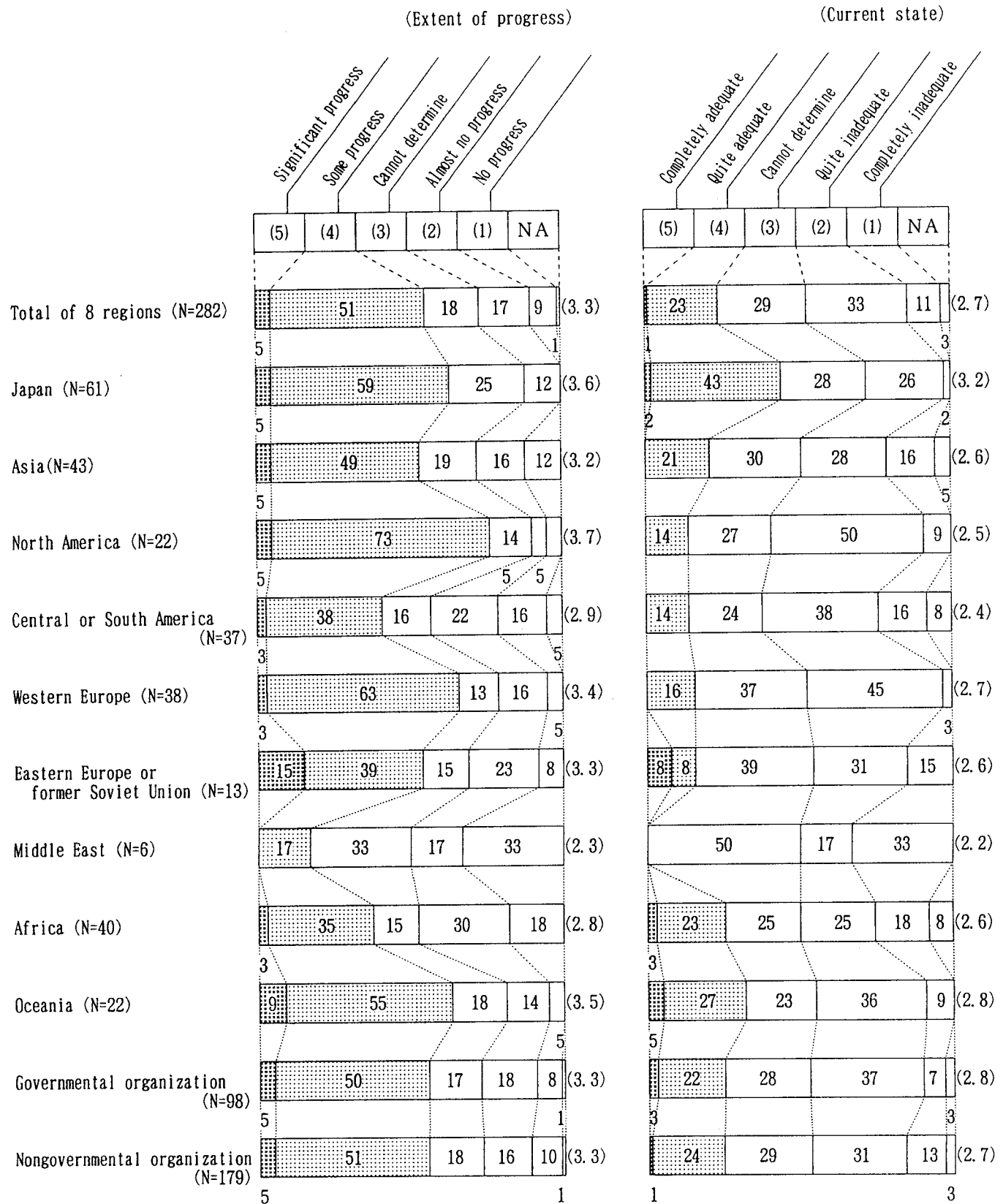
Notes: ( ) denotes the average value.

**Comment:**

(1) While progress has been observed in such advanced regions as Japan, North America, Western Europe and Oceania, little can be seen in the Middle East and Africa. The current state of all regions is generally inadequate though a few more people in Western Europe judged it to be adequate. (Middle East data is shown as reference.)

**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

**(14) Science and technology's contributions toward solving environmental problems**



Notes: ( ) denotes the average value.

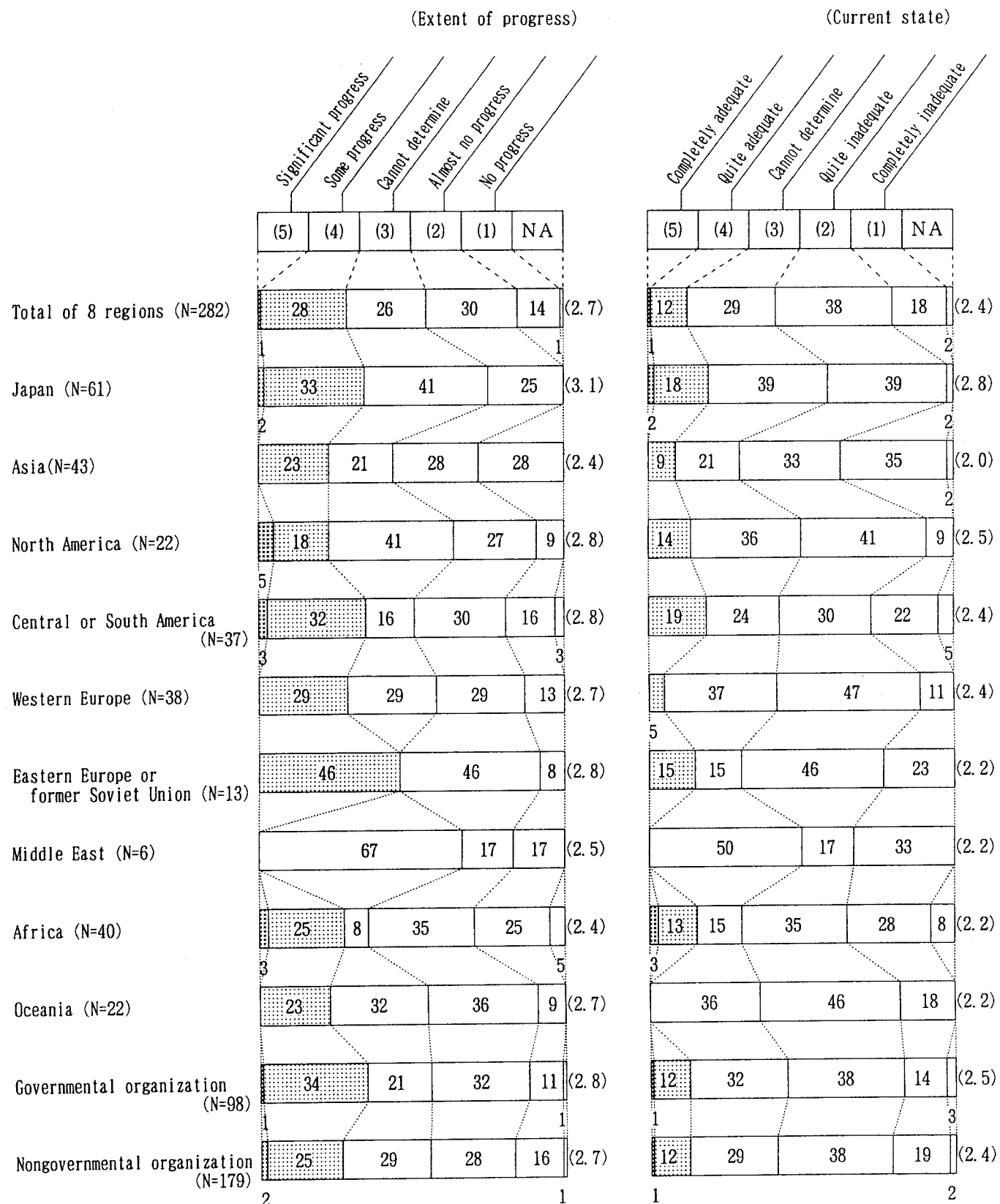
**Comment:**

(1) Understandably, progress has been observed in advanced regions. While nearly half of the Japanese respondents judged their condition adequate, it was generally viewed as inadequate in other regions and additional efforts must be made.



**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

**(15) Efforts involving the transfer of environmental-conservation technology**



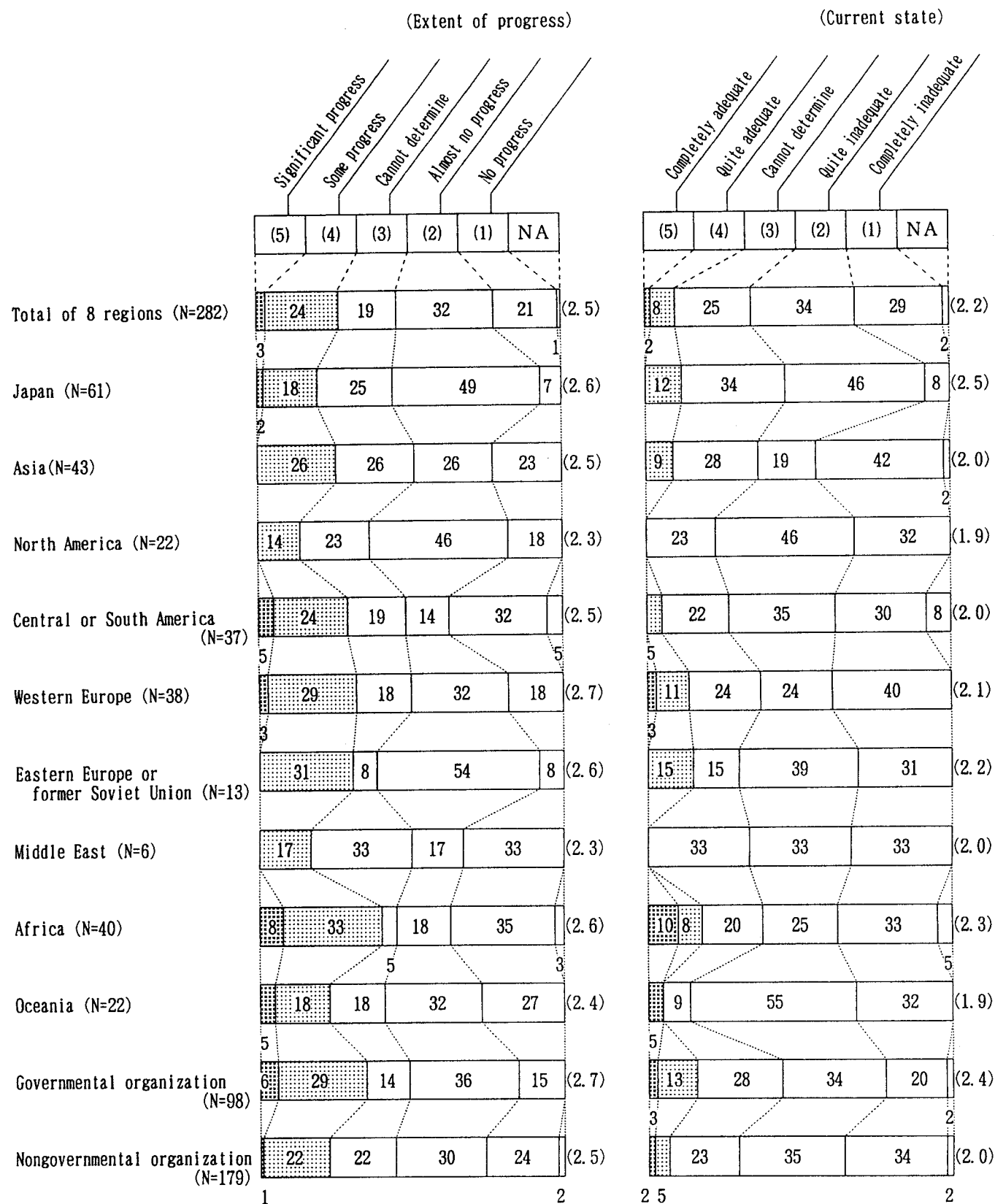
Notes: ( ) denotes the average value.

**Comment:**

(1) Progress was felt to be sluggish overall, and substantial progress was recognized only in Eastern Europe. Respondents are not satisfied with the current state and fruitful international cooperation is urgently desired.

**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

**(16) Efforts to establish the necessary capital-creating mechanisms for the preservation of the environment**



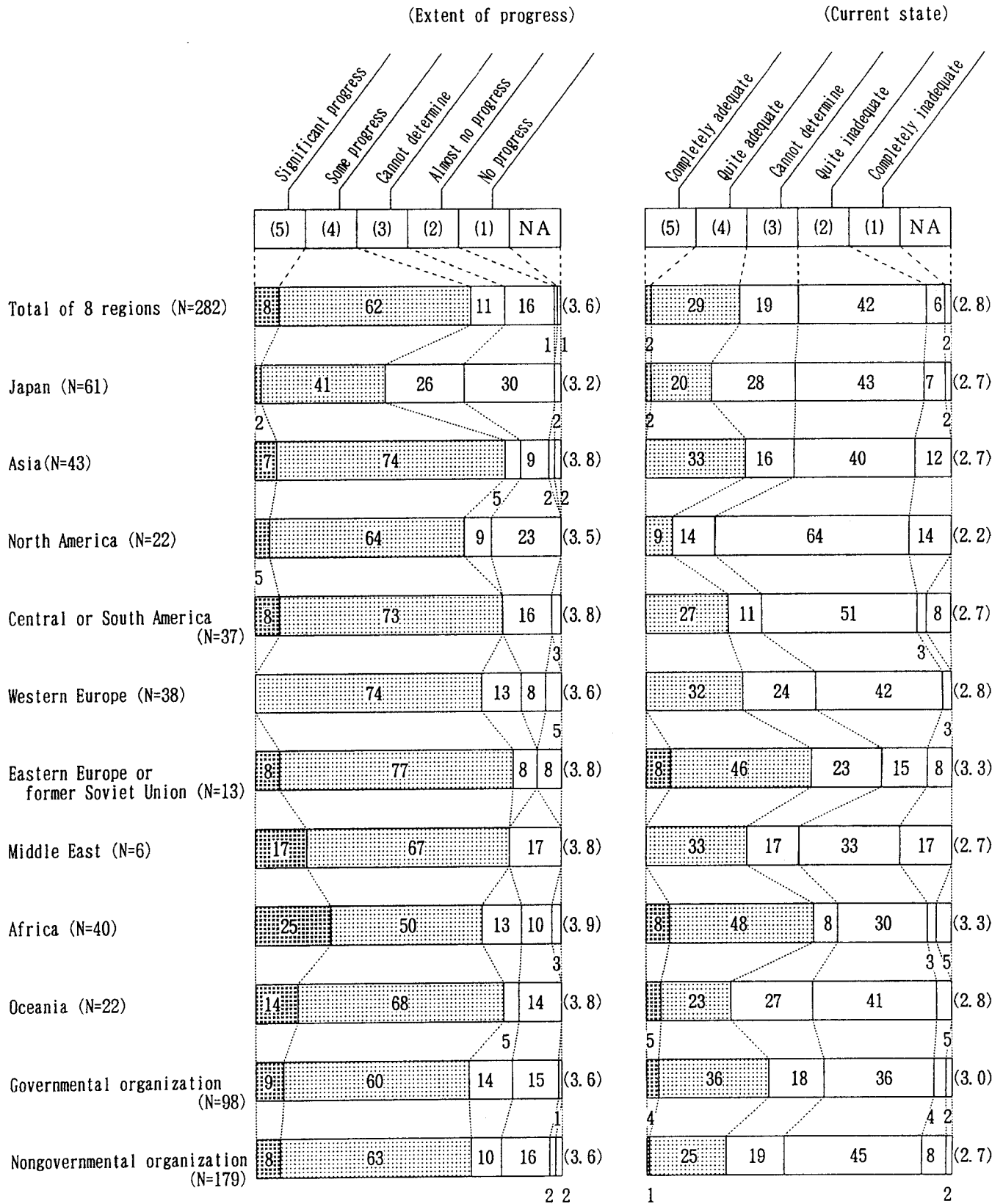
Notes: ( ) denotes the average value.

**Comment:**

(1) Generally appropriate actions have not yet been taken, and the task is viewed as difficult to achieve. A few more respondents from Africa recognized progress than from other countries, but even they were quite dissatisfied with the current state. This is an area requiring continued effort.

**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

**(17) Promotion of environmental education**



Notes: ( ) denotes the average value.

**Comments:**

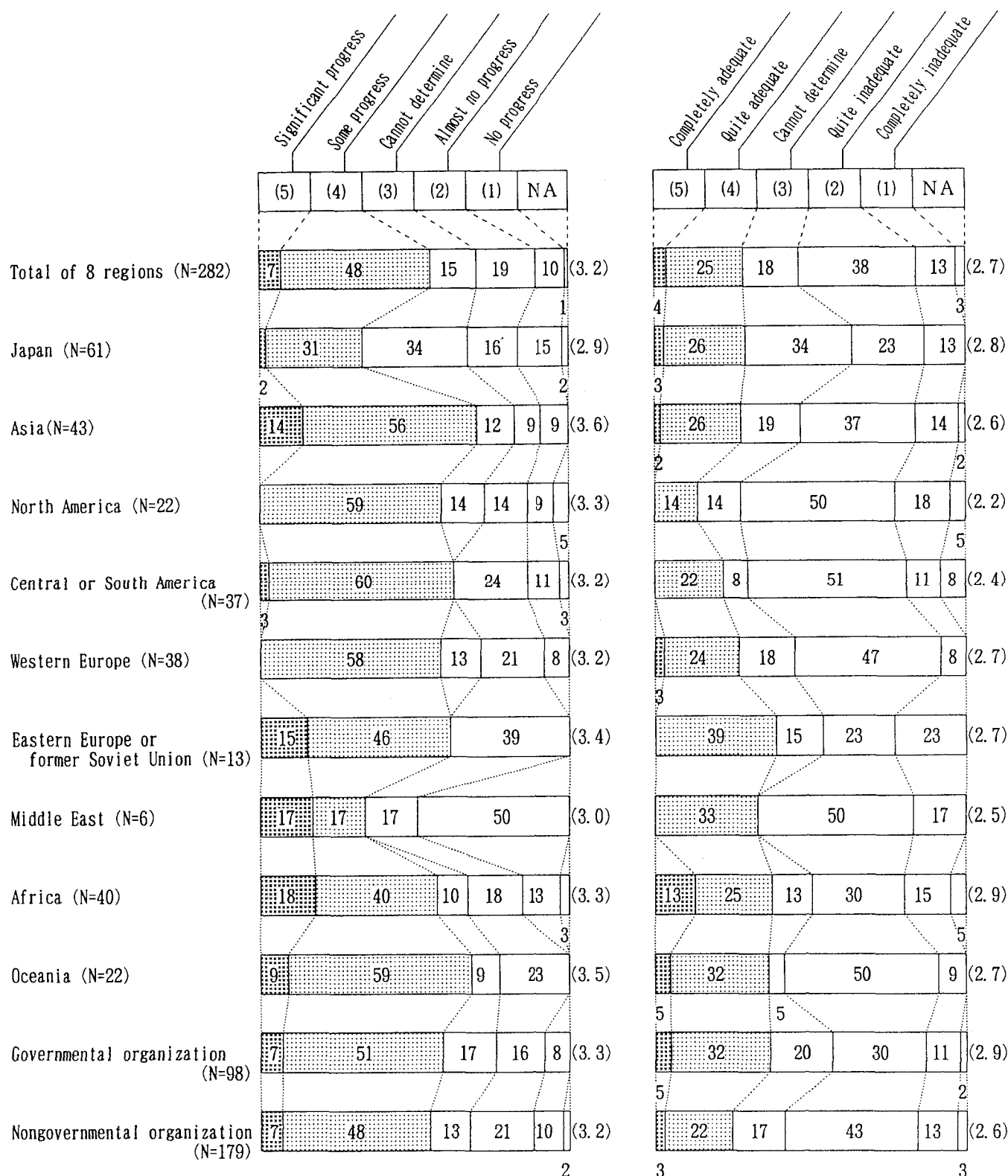
- (1) Great progress was indicated in all regions except Japan where evaluation was relatively low. Despite positive progress, the current state was not viewed as satisfactory except in Eastern Europe and Africa; further efforts are needed.
- (2) There was a remarkable difference in evaluation of the current state between members of GOs and NGOs.

**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

**(18) Introduction of government regulations to conserve the environment**

(Extent of progress)

(Current state)



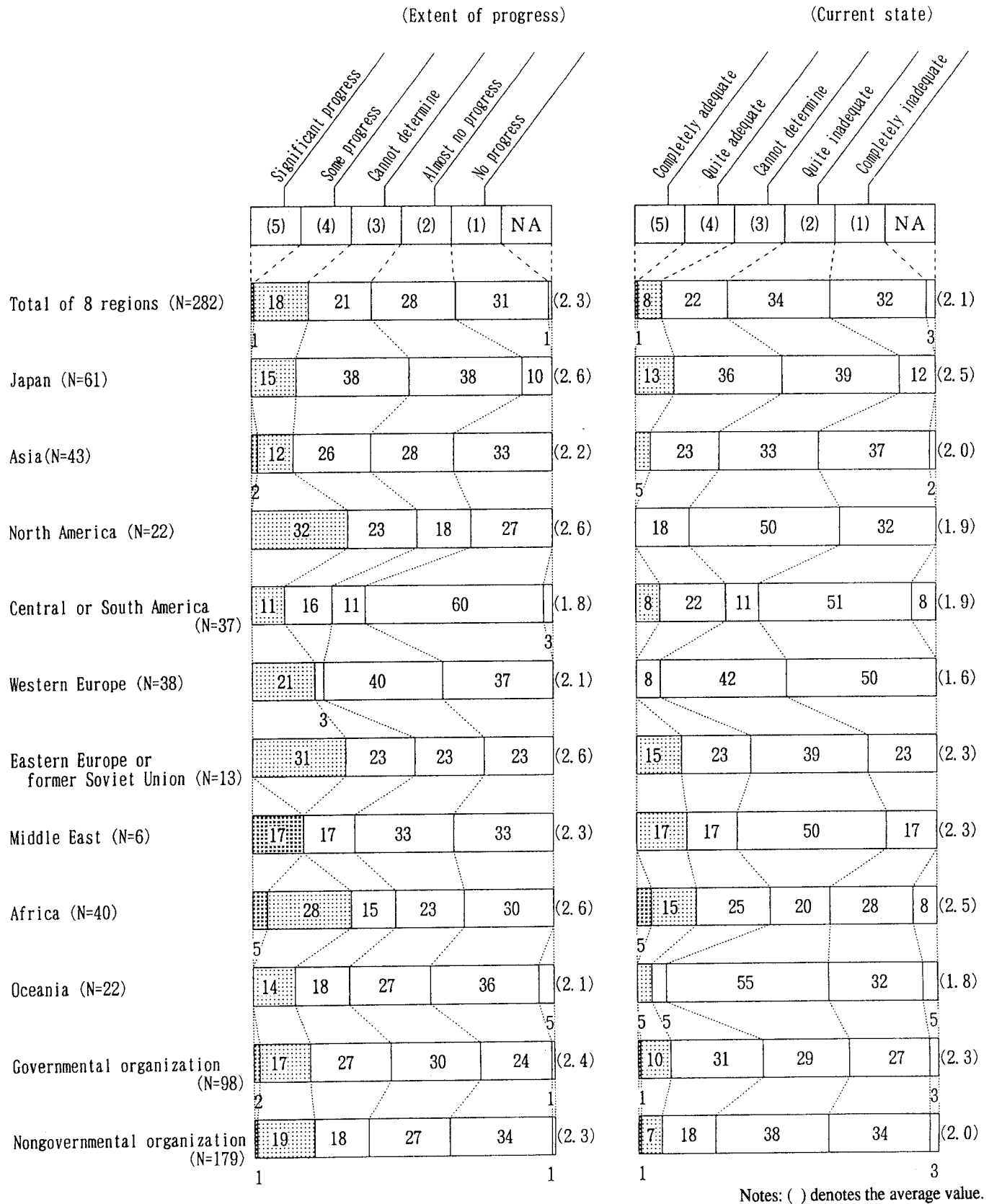
**Comments:**

- (1) Considerable progress was seen in countries other than Japan and the Middle East. Regulations on NOx and SOx in Japan were instituted when problems of environmental pollution were addressed, but no remarkable progress has been made since that time. This seems the reason for the low evaluation in Japan. (Middle East data is shown as reference.)
- (2) A remarkably high percentage saw the current state as inadequate in North America.
- (3) There was a great difference in evaluation of the current state between members of GOs and NGOs.

Notes: ( ) denotes the average value.

**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

**(19) Changes to economic systems leading to greater conservation of the environment**

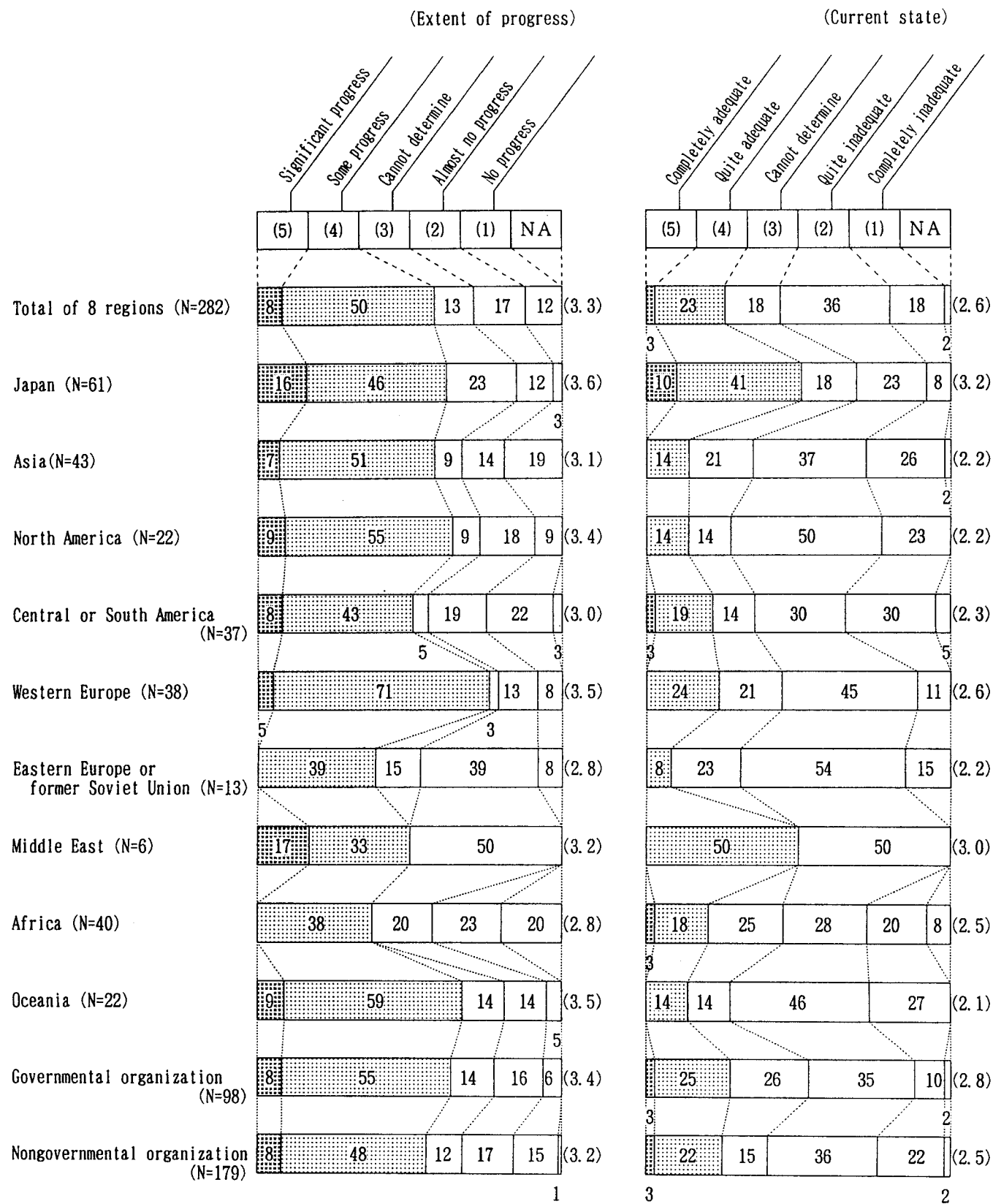


**Comment:**

(1) No remarkable progress was recognized in any region and the current state was felt inadequate. New economic systems are being introduced in the U.S., and these changes will become an important future theme throughout the world.

**Question 1.** Since the Earth Summit, held in June 1992, to what extent has progress been achieved in the areas described below? Also, make an overall judgement regarding the current state of these areas. For both sections, consider the situation in your own country only.

**(20) Raise industry's environmental awareness**



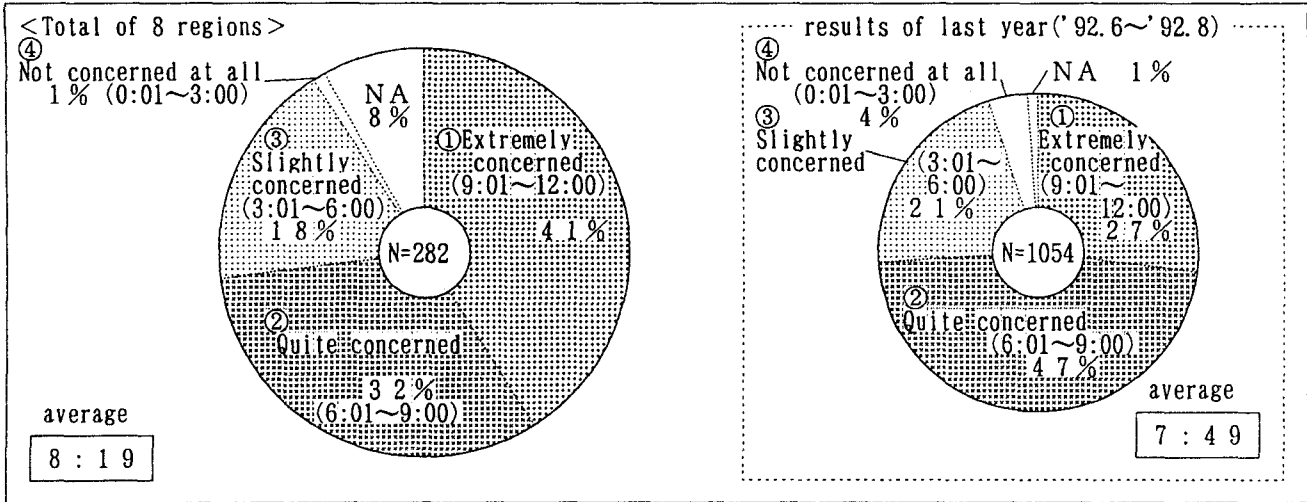
Notes: ( ) denotes the average value.

**Comments:**

- (1) Overall progress was recognized, particularly in environmentally advanced Western Europe. In Eastern Europe and Africa, however, more progress is hoped for.
- (2) The current state was recognized as being relatively adequate in Japan and the Middle East, but in other countries was considered inadequate. (Middle East data is shown as reference.)

## 5. HUMANITY IN CRISIS

**Question 2.** 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.



Region/Organization	①	②	③	④	NA (%)	Average
Japan (N=61)	23	48	25	5	(7:33) (7:38)	
Asia (N=43)	49	21	23	7	NA (8:19) (8:10)	
North America (N=22)	50	32	9	9	(8:58) (8:35)	
Central of South America (N=37)	51	22	19	8	(8:37) (8:57)	
Western Europe (N=38)	53	34	11	3	(9:02) (8:54)	
Eastern Europe or former Soviet Union (N=13)	15	46	31	8	(7:02) (9:27)	
Middle East (N=6)	17	67	17		(8:12) (8:10)	
Africa (N=40)	45	25	8	23	(8:43) (8:10)	
Oceania (N=22)	41	23	27	9	(8:23) (9:58)	
Governmental organization (N=98)	38	31	20	3	8	(8:03)
Nongovernmental organization (N=179)	43	33	17	7		(8:26)

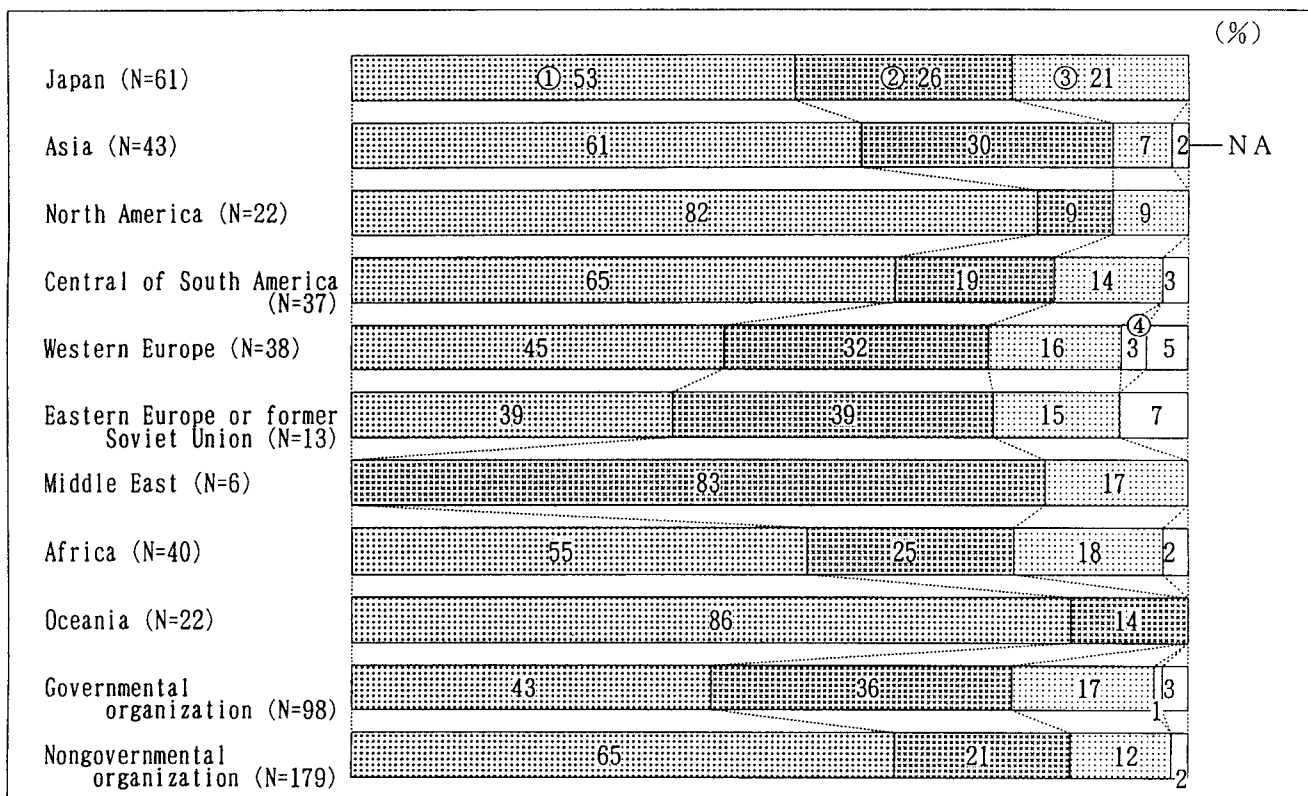
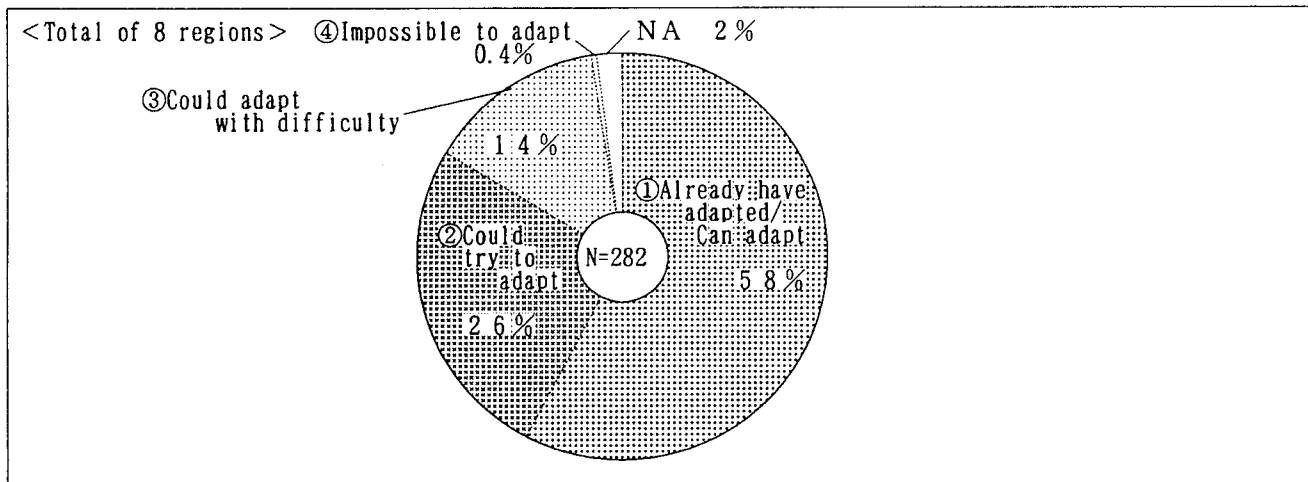
[ ] denotes the survey results of last year.  
 \* Last year, figures of the Middle East and Africa were combined.

### Comments:

- (1) Overall more than 70% of the respondents were "Quite concerned" or "Extremely concerned." Average time of 8:19 also exceeded 7:49 of last year.
- (2) By region, strong concern was expressed in Western Europe and North America. Degree of concern was relatively low in Japan, Eastern Europe and the Middle East, but even in these regions the ratio of those concerned was high. (Middle East data is shown as reference.)
- (3) Concern expressed in Asia, North America and Africa has become greater than last year, but that in Latin America, Eastern Europe and Oceania has decreased. Since the target and number of samples differed from last year, however, these comparisons should be regarded as for reference only.

## 6. LIFESTYLE CHANGES

**Question 3.** Lately, there is a growing consensus that we should change our overconsumption-throwaway lifestyle. Do you think you can adapt to a more frugal lifestyle?



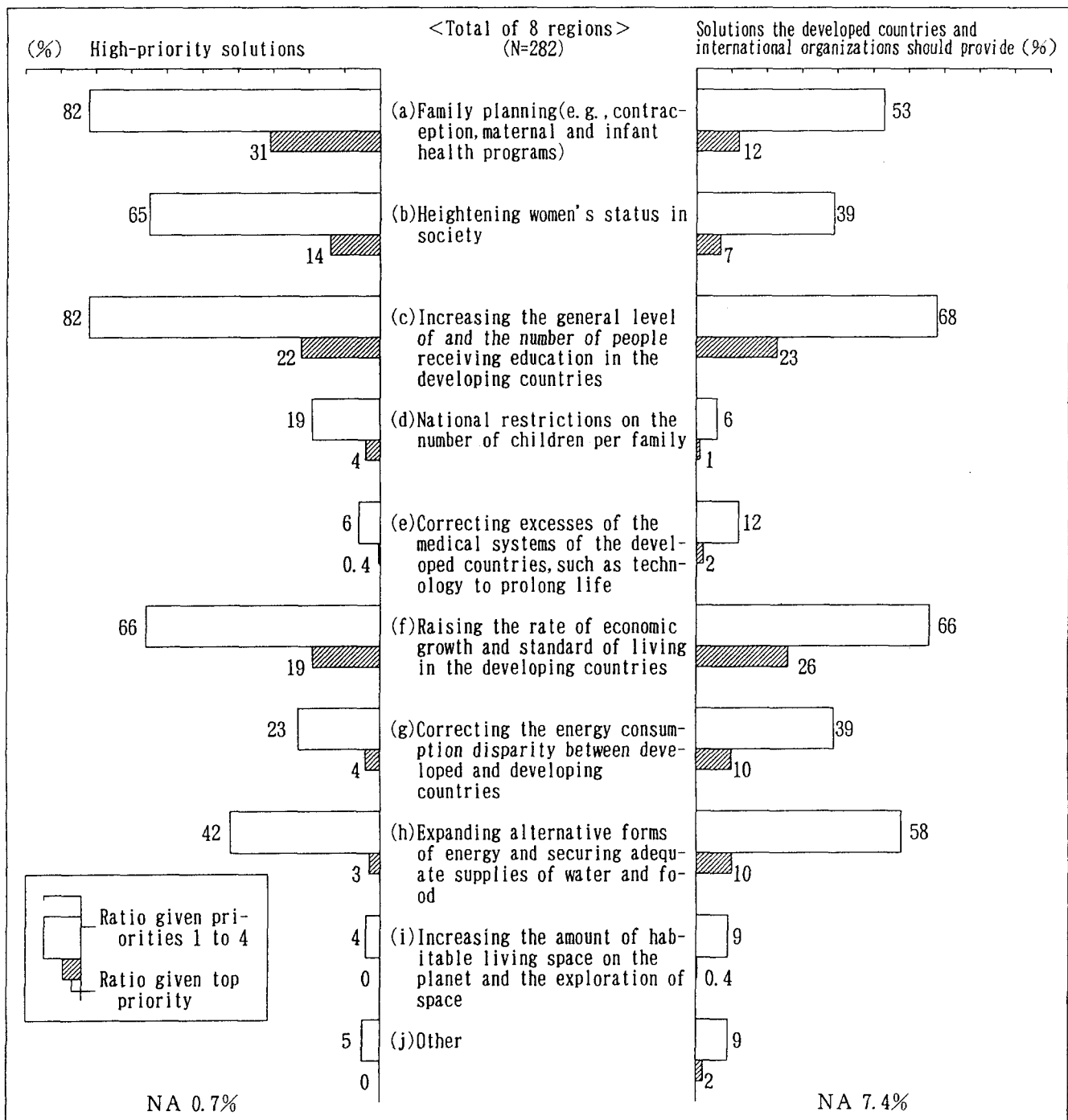
### Comments:

- (1) 60% of all respondents replied "Already have adapted (Can adapt)," and this is reasonable considering the survey target. The ratio was particularly high in North America and Oceania.
- (2) Those who "Could adapt with difficulty" were the most numerous in Japan, accounting for about 20%.
- (3) Those who "Could try to adapt" were in the majority in Eastern Europe and the Middle East. (Middle East data is shown as reference.)



## 7. OVERPOPULATION

**Question 4.** Among the many solutions to overpopulation, such as limiting population growth or expanding the world's capacity to accommodate people, which do you think should be given highest priority? Choose in order of priority the four best solutions from (a) to (j) below. Also, choose four solutions you think the developed countries and international organizations should provide as aid to the developing countries.



### Comments:

- Solutions given the four highest priorities were: family planning (given first priority by 31% of the respondents), increasing the general level of and the number of people receiving education, economic growth, and heightening women's status in society.
- The two policies the developed nations and international organizations should implement were: increasing the general level of and the number of people receiving education and raising the economic growth rate in developing countries. Expanding alternative forms of energy and securing adequate supplies of water and food and family planning followed.

## 8. OVERPOPULATION

### High-priority solutions <Comparison by region>

**Question 4.** Among the many solutions to overpopulation, such as limiting population growth or expanding the world's capacity to accommodate people, which do you think should be given highest priority? Choose in order of priority the four best solutions from (a) to (j) below. Also, choose four solutions you think the developed countries and international organizations should provide as aid to the developing countries.

	Japan (31)	Asia (43)	North America (22)	Central or South America (37)	Western Europe (38)	Eastern Europe or Former Soviet Union (13)	Middle East (6)	Africa (40)	Oceania (22)	GO (80)	NOI (179)	(%)
(a) Family planning (e.g., contraception, maternal and infant health programs)	25 87	37 77	27 96	35 76	37 90	31 54	17 83	35 80	18 82	35 84	29 80	
(b) Heightening women's status in society	7 62	9 67	46 82	11 54	21 68	8 31	33 67	3 63	23 91	10 68	16 63	
(c) Increasing the general level of and the number of people receiving education in the developing countries	31 89	14 70	5 73	22 95	18 84	31 85	17 67	35 85	14 68	28 84	20 81	
(d) National restrictions on the number of children per family	5 26	2 19	5 9	- 5	5 13	- 23	- 17	8 38	- 5	1 16	5 20	
(e) Correcting excesses of the medical systems of the developed countries, such as technology to prolong life	- 5	- 2	- -	- 3	- 8	- 23	17 17	- 8	- 5	- 6	1 6	
(f) Raising the rate of economic growth and standard of living in the developing countries	25 71	28 86	14 55	24 81	13 53	8 62	17 67	15 60	9 41	21 70	18 65	
(g) Correcting the energy consumption disparity between developed and developing countries	7 25	2 19	- 14	5 24	3 26	- 15	- 33	3 18	9 46	4 22	4 24	
(h) Expanding alternative forms of energy and securing adequate supplies of water and food	2 25	5 44	5 46	- 57	- 53	8 39	- 33	3 40	14 46	- 37	5 45	
(i) Increasing the amount of habitable living space on the planet and the exploration of space	- 3	- 2	- 5	- 3	- -	- 31	- 17	- 5	- -	- 5	- 4	
(j) Other	- 2	- 5	- 14	3 3	3 5	8 8	- -	- -	14 18	- -	3 8	
N A	-	2	-	-	-	8	-	-	-	1	1	

#### Comments:

- (1) More than 60% of the respondents who indicating priorities gave top priority to increasing the general level of and the number of people receiving education in developing countries. Raising the rate of economic growth in these countries was also emphasized, though in North America, Western Europe and Oceania family planning was given more weight than economic growth.
- (2) The priority of heightening women's status in society was high in Oceania and North America, but somewhat low in Eastern Europe and Latin America. The ratios of giving top priority to this as a solution were low in Africa, Japan, Eastern Europe and Asia, where family planning and education were considered more important.

## 9. OVERPOPULATION

### Solutions the developed countries and international organizations should provide <Comparison by region>

**Question 4.** Among the many solutions to overpopulation, such as limiting population growth or expanding the world's capacity to accommodate people, which do you think should be given highest priority? Choose in order of priority the four best solutions from (a) to (j) below. Also, choose four solutions you think the developed countries and international organizations should provide as aid to the developing countries.

Upper column - Ratio given top priority  
Lower column - Ratio given priorities 1 to 4

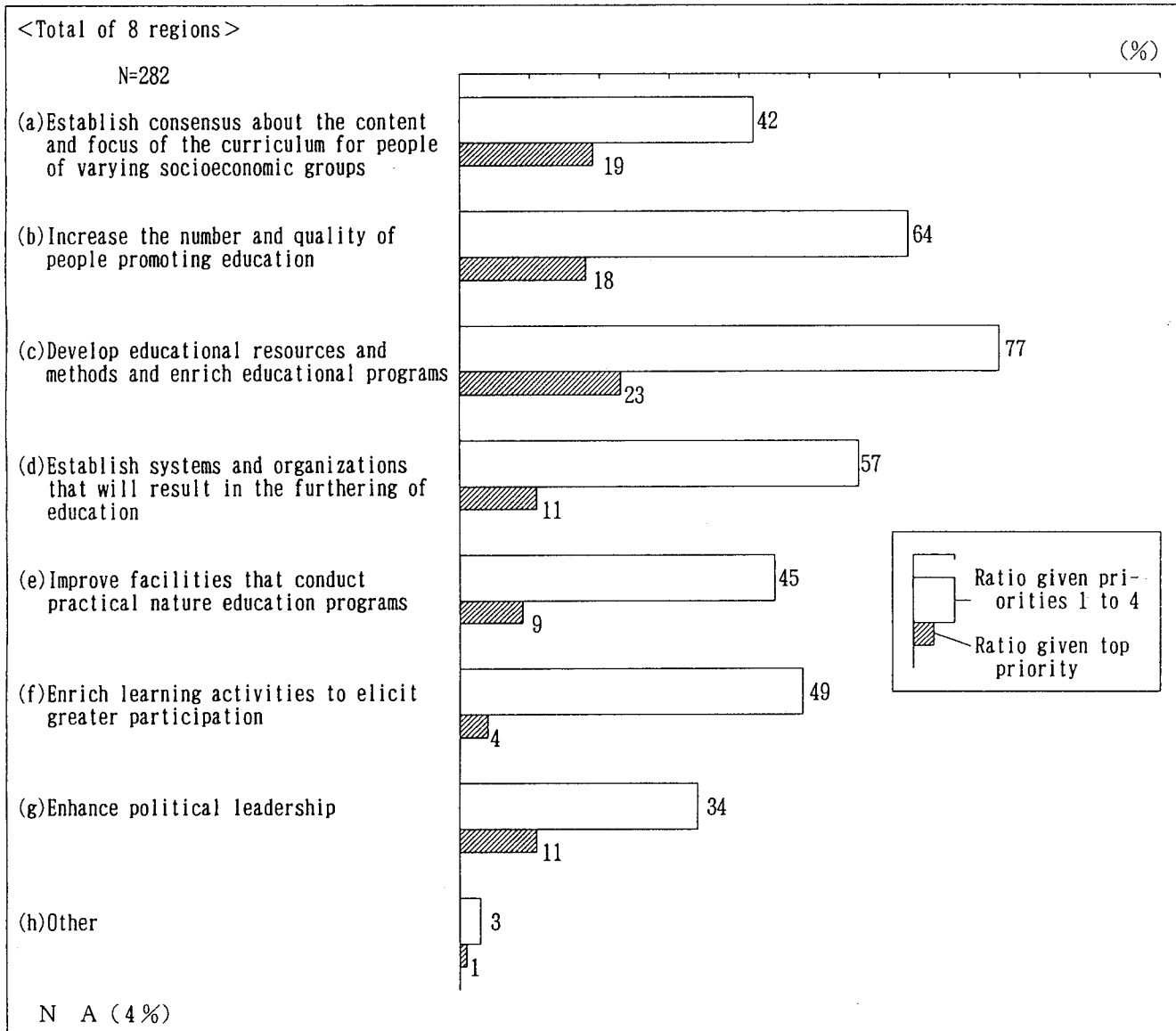
	Japan(61)	Asia(48)	North America(22)	Central or South America(37)	Western Europe(38)	Eastern Europe or former Soviet Union(13)	Middle East(6)	Africa(40)	Oceania(22)	GO(38)	NOO(179)	(%)
(a) Family planning (e.g., contraception, maternal and infant health programs)	12 61	5 44	32 86	3 38	26 76	8 31	- 33	13 35	9 50	14 55	10 51	
(b) Heightening women's status in society	3 39	7 35	23 55	3 22	8 47	8 23	17 50	3 40	14 55	3 34	9 43	
(c) Increasing the general level of and the number of people receiving education in the developing countries	38 89	9 47	14 68	22 68	13 74	31 62	17 83	30 55	18 73	34 66	17 69	
(d) National restrictions on the number of children per family	- 10	- 7	- -	- 3	3 3	- -	17 33	- 13	- -	- 6	1 6	
(e) Correcting excesses of the medical systems of the developed countries, such as technology to prolong life	2 5	2 9	- -	- 11	- 8	8 46	17 50	5 13	- 23	2 12	2 10	
(f) Raising the rate of economic growth and standard of living in the developing countries	31 85	40 72	14 64	27 68	21 55	15 62	17 50	20 63	18 36	25 70	27 64	
(g) Correcting the energy consumption disparity between developed and developing countries	7 33	12 51	5 14	19 46	5 32	- 15	17 50	10 53	14 46	10 42	10 39	
(h) Expanding alternative forms of energy and securing adequate supplies of water and food	8 54	12 58	9 59	11 65	13 68	- 31	- 17	8 53	18 77	3 59	14 58	
(i) Increasing the amount of habitable living space on the planet and the exploration of space	- 5	2 16	- 5	- 8	- -	- 8	- 33	- 18	- -	- 11	1 7	
(j) Other	- 5	- 9	5 18	3 11	5 11	- -	- -	3 10	5 14	2 5	2 12	
N A	-	12	-	14	5	31	-	10	5	7	8	

#### Comments:

- (1) Family planning, increasing the level of and the number of those receiving education, and economic growth were most often shown as a priority by Japan and North America. In Asia, Latin America, Africa and Oceania expanding alternative forms of energy and securing adequate supplies of water and food were most desired, indicating the importance to them of problems with which they are confronted. In Western Europe also, priority was given to those latter two factors.
- (2) Focusing solely on the top priority item, North America and Western Europe indicated family planning, Eastern Europe and Africa felt education was the key, and Asia and Latin America indicated support for economic growth: supporting and supported countries thus clearly have different views. Education and economic growth were stressed in Japan.

## 10. ENVIRONMENTAL EDUCATION

**Question 5-a.** Below is a list of strategies for the promotion of environmental education. Choose the four strategies given highest priority in your country, ranking them from one to four.



### Comments:

- (1) The three approaches garnering the greatest number of "votes" in the four priority classes were: development of educational resources and methods and enrichment of educational programs, increase in the number and quality of people promoting education, and establishment of systems and organizations that will further education. As shown in Question 1, the greater emphasis placed on these concrete items than on establishment of a content consensus and focusing on the curriculum indicates that environmental education has already moved to a practical stage from one of groping stage.
- (2) Roughly the same tendency held for the ratio of priority No. 1. Only 20% of all respondents selected establishment of consensus about content and focus on curriculum as being of greatest importance.

## 11. ENVIRONMENTAL EDUCATION <Comparison by region>

**Question 5-a.** Below is a list of strategies for the promotion of environmental education. Choose the four strategies given highest priority in your country, ranking them from one to four.

Upper column - Ratio given top priority  
Lower column - Ratio given priorities 1 to 4

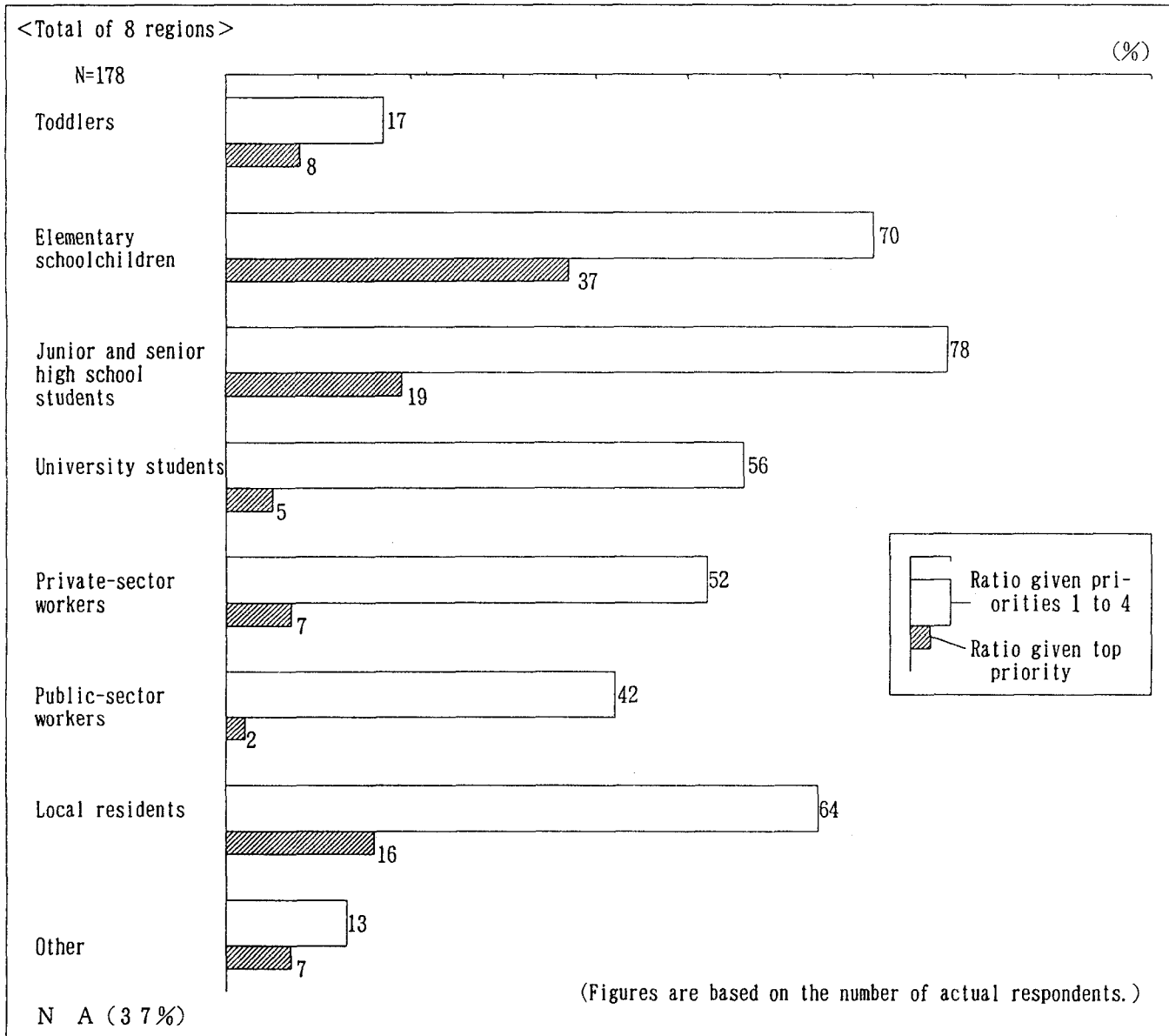
	Japan(61)	Asia(48)	North America(22)	Central or South America(37)	Western Europe(38)	Eastern Europe or Former Soviet Union(13)	Middle East(6)	Africa(40)	Oceania(22)	OECD(98)	NGO(78)	(%)
(a) Establish consensus about the content and focus of the curriculum for people of varying socioeconomic groups	28 54	14 42	5 14	8 38	24 42	23 31	- 50	28 50	18 36	19 39	19 45	
(b) Increase the number and quality of people promoting education	20 84	9 51	9 55	35 78	16 42	15 54	17 50	13 63	23 68	24 71	15 59	
(c) Develop educational resources and methods and enrich educational programs	13 67	28 79	23 64	30 97	26 76	8 69	17 100	28 73	32 82	26 77	22 78	
(d) Establish systems and organizations that will result in the furthering of education	16 75	19 56	5 36	11 62	5 42	15 77	- 17	5 53	5 59	8 61	12 55	
(e) Improve facilities that conduct practical nature education programs	5 21	12 49	18 27	5 46	11 61	15 54	17 33	10 68	- 50	10 49	8 43	
(f) Enrich learning activities to elicit greater participation	3 44	7 54	- 59	3 32	3 47	- 39	- 50	8 55	9 73	3 51	5 48	
(g) Enhance political leadership	15 44	2 23	23 64	8 32	8 29	8 23	33 33	8 28	14 27	6 29	13 37	
(h) Other	- -	- 2	9 14	- -	3 8	8 8	- -	- -	- -	1 1	2 4	
N A	-	9	9	-	5	8	17	3	-	3	5	

### Comments:

- (1) Strategies ranked highest by each region in an overall tally of priorities No. 1 to No. 4 were: development of educational resources and methods and increase in the number and quality of those promoting education. Systems and organizations to further education was stressed in Japan, Latin America and Eastern Europe, and improved facilities for nature education programs was desired by Western Europe and Africa. It was characteristic that in North America many respondents desired better political leadership.
- (2) Consensus on curriculum content and focus for varying socioeconomic groups was shown as top priority by many and was particularly high in Japan and Africa. There was a qualitative difference in expectations of advancing environmental education depending on the country or region.

## 12. MOST IN NEED OF RECEIVING ENVIRONMENTAL EDUCATION

**Question 5-b.** If you chose strategy (a) in response to question 5-a, rank from one to four those groups of people listed below most in need of receiving environmental education.



**Comment:**

(1) Junior and senior high school students, elementary schoolchildren and local residents, in this order, received highest total percentages in the four rankings, with top priority given by the most regions to elementary schoolchildren. This same tendency was seen in the comparison by region (see page 34), and indicates strong recognition of the necessity of environmental education to this group.

### 13. MOST IN NEED OF RECEIVING ENVIRONMENTAL EDUCATION <Comparison by region>

**Question 5-b.** If you chose strategy (a) in response to question 5-a, rank from one to four those groups of people listed below most in need of receiving environmental education.

Upper column - Ratio given top priority  
Lower column - Ratio given priorities 1 to 4

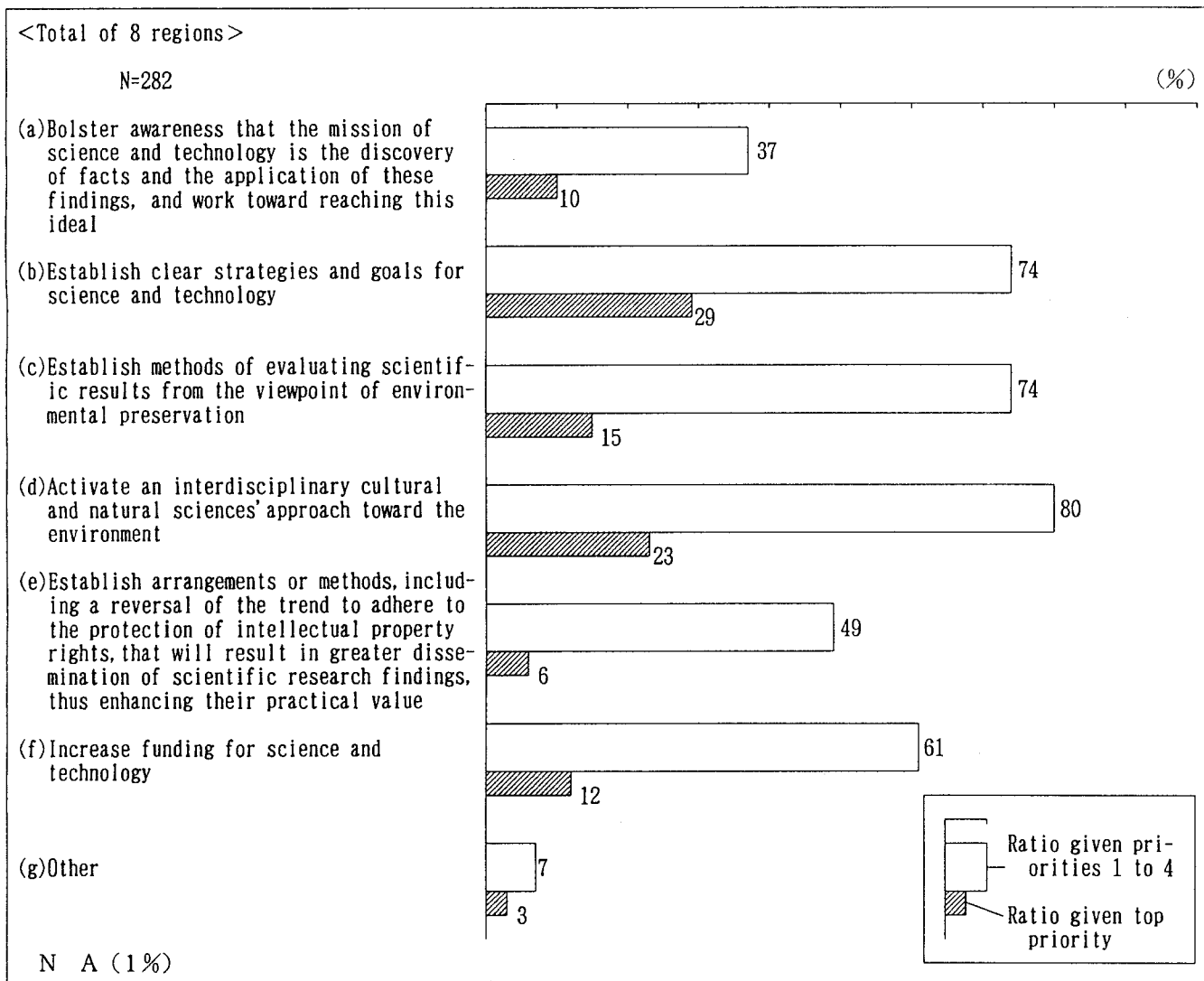
	Japan (61)	Asia (48)	North America (22)	Central or South America (37)	Western Europe (38)	Eastern Europe or former Soviet Union (13)	Middle East (6)	Africa (40)	Oceania (22)	GO (38)	MO (178)	(%)
Toddlers	5	6	-	11	13	29	-	6	8	7	8	
	15	15	13	28	30	29	-	13	8	20	17	
Elementary schoolchildren	34	27	38	56	30	57	50	41	33	44	34	
	66	58	63	72	78	100	50	75	83	80	66	
Junior and senior high school students	12	30	13	6	26	-	25	22	17	19	19	
	85	73	75	72	65	86	50	88	83	85	75	
University students	5	3	-	6	4	14	25	3	-	4	5	
	59	61	75	78	48	57	75	41	33	56	55	
Private-sector workers	17	-	25	-	13	-	-	-	8	4	9	
	61	52	63	44	48	14	75	44	75	54	52	
Public-sector workers	-	3	-	6	-	-	-	-	8	2	2	
	24	46	50	33	57	43	75	50	33	35	45	
Local residents	20	18	13	6	13	-	-	25	17	17	16	
	76	58	50	50	48	57	75	75	75	57	66	
Other	7	12	13	11	-	-	-	3	8	4	7	
	10	21	13	11	13	14	-	13	8	9	14	

**Comment:**

(1) Although there was a problem about the number of samples, the necessity of educating private-sector workers was mentioned in Japan, North America, the Middle East and Oceania. Many respondents in North America gave top priority to private-sector workers.

## 14. SCIENCE AND TECHNOLOGY'S CONTRIBUTION

**Question 6.** The activities below are considered key to enhancing science and technology's ability to contribute to the solving of environmental problems. Choose the four activities you think are most important in this respect, ranking them from one to four.



**Comments:**

- (1) The top ranking three were an interdisciplinary approach, strategies and goals for science and technology, and good evaluation of scientific results. The establishment of appropriate policies and/or methodologies is thus seen as important for the contribution of science and technology to the resolution of environmental problems.
- (2) Supporting funding was, of course, recognized as important.



## 15. SCIENCE AND TECHNOLOGY'S CONTRIBUTION <Comparison by region>

**Question 6.** The activities below are considered key to enhancing science and technology's ability to contribute to the solving of environmental problems. Choose the four activities you think are most important in this respect, ranking them from one to four.

Upper column - Ratio given top priority  
Lower column - Ratio given priorities 1 to 4

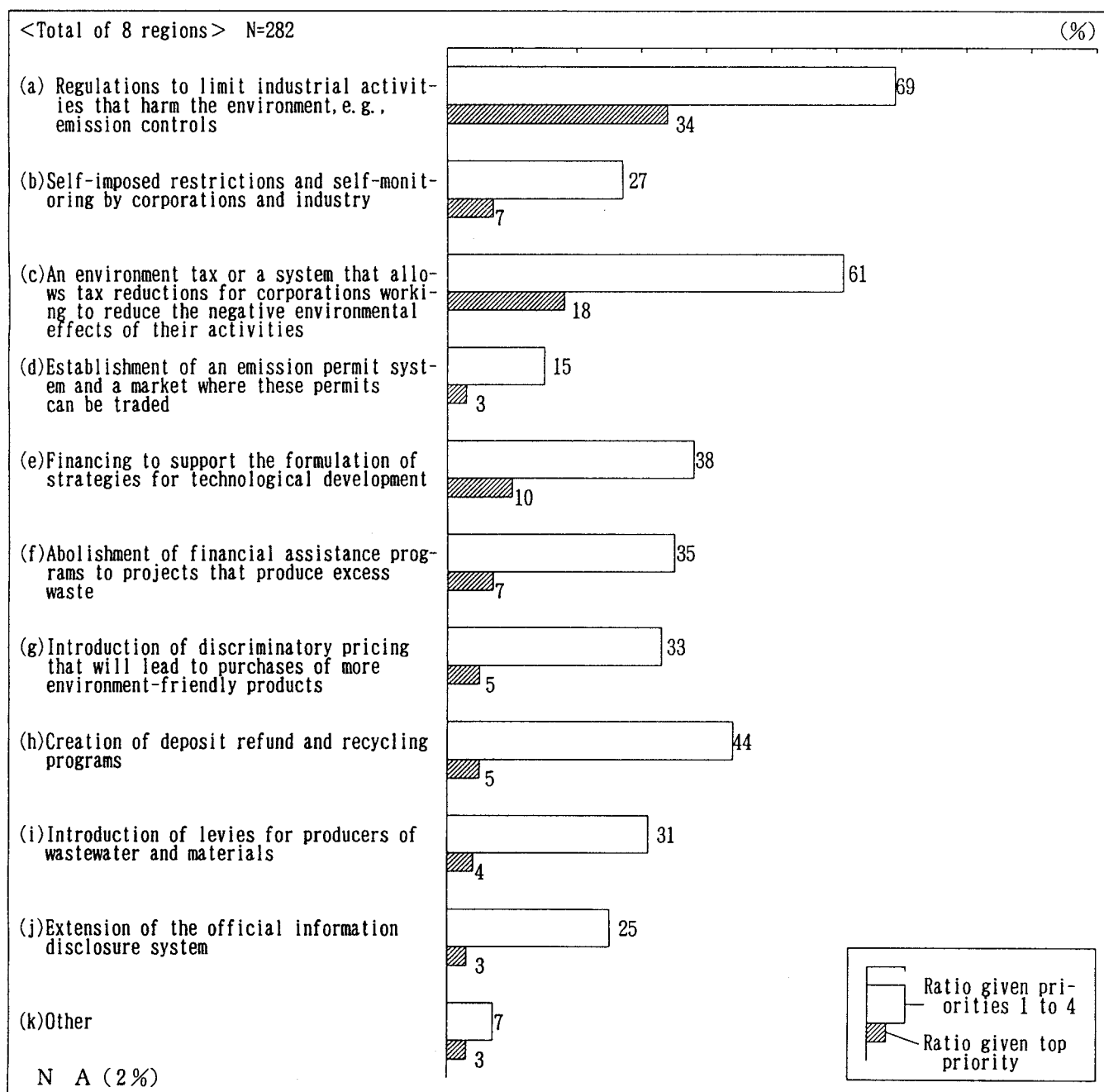
	Japan(61)	Asia(43)	North America(22)	Central or South America(37)	Western Europe(38)	Eastern Europe or Former Soviet Union(13)	Middle East(6)	Africa(40)	Oceania(22)	GO(38)	NGO(179)	(%)
(a) Bolster awareness that the mission of science and technology is the discovery of facts and the application of these findings, and work toward reaching this ideal	12 43	9 44	- 23	14 35	8 42	15 23	- 33	13 38	14 27	15 45	7 34	
(b) Establish clear strategies and goals for science and technology	23 71	33 77	18 64	19 81	29 79	23 46	33 50	53 83	27 77	33 74	27 74	
(c) Establish methods of evaluating scientific results from the viewpoint of environmental preservation	18 79	7 74	32 68	11 81	16 74	23 77	17 83	8 68	23 64	13 65	15 78	
(d) Activate an interdisciplinary cultural and natural sciences' approach toward the environment	18 74	23 74	27 82	27 78	29 90	23 77	17 83	20 85	18 82	20 77	25 81	
(e) Establish arrangements or methods, including a reversal of the trend to adhere to the protection of intellectual property rights, that will result in greater dissemination of scientific research findings, thus enhancing their practical value	8 61	7 44	9 46	3 38	11 45	- 46	- 33	- 45	9 73	2 47	8 50	
(f) Increase funding for science and technology	20 53	16 58	- 55	24 78	5 50	8 85	33 100	5 68	- 50	14 70	12 57	
(g) Other	2 2	2 7	14 27	3 5	3 8	- -	- 17	- 3	9 18	0 4	5 10	
N A	-	2	-	-	-	8	-	3	-	2	1	

### Comments:

- (1) All regions stressed scientific strategies, methods of evaluating results, and an interdisciplinary approach.
- (2) While all regions ranked methods of evaluating results among priorities No. 1 to No. 4, this factor was given top priority in North America, Eastern Europe and Oceania.
- (3) Funding was particularly emphasized in the Middle East and Latin America. (Middle East data is shown as reference.)
- (4) Members of NGOs emphasized the method of evaluating results while members of GOs saw funding as most important.

## 16. ECONOMIC MEASURES AND REGULATIONS

**Question 7.** From among the following economic measures and regulations aimed at solving environmental problems, which would be most effective in your country? Choose four, ranking them from one to four.



### Comments:

- (1) Regulations limiting industrial activities that harm the environment are the basis of environmental policies and have produced clear results. This approach ranked at the top in this survey. Many also pointed out that an environmental tax or a system allowing tax reductions was an effective economic measure. Making these two measures the core of a policy mix is viewed as effective.
- (2) Creation of deposit refund and recycling programs was deemed next most important, though this approach percentages did not gain even half of the total No. 1 - 4 priorities, so this seems to be viewed as a supplementary measure.
- (3) Self-imposed restrictions and self-monitoring by corporations and industry were not considered effective. As emission permit system which has recently been attracting attention was not considered to have reached a stage where its effectiveness could be confirmed.

## 17. ECONOMIC MEASURES AND REGULATIONS <Comparison by region>

**Question 7.** From among the following economic measures and regulations aimed at solving environmental problems, which would be most effective in your country? Choose four, ranking them from one to four.

Upper column - Ratio given top priority  
Lower column - Ratio given priorities 1 to 4

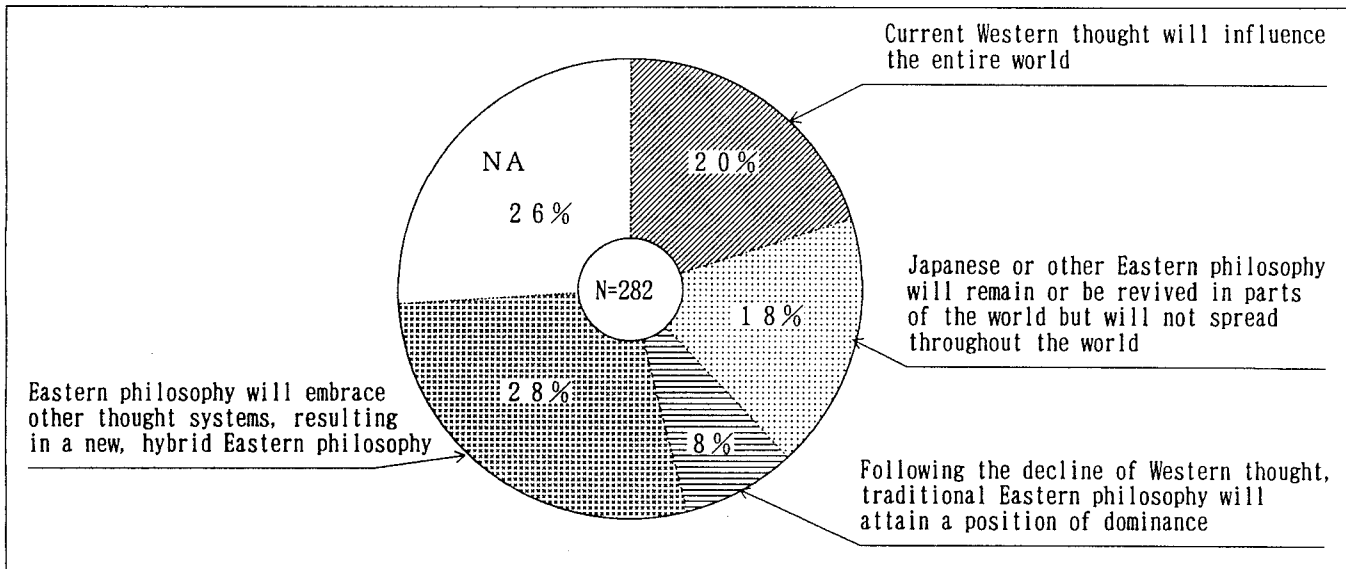
	Japan(61)	Asia(43)	North America(22)	Central or South America(37)	Western Europe(38)	Eastern Europe or former Soviet Union(19)	Middle East(6)	Africa(40)	Oceania(22)	COI(80)	MED(179)	(%)
(a) Regulations to limit industrial activities that harm the environment, e.g., emission controls	28 57	40 74	27 73	35 65	32 63	31 77	50 100	35 70	46 86	31 67	37 70	
(b) Self-imposed restrictions and self-monitoring by corporations and industry	21 46	2 19	5 9	- 27	3 29	8 8	- -	3 33	5 18	5 31	7 25	
(c) An environment tax or a system that allows tax reductions for corporations working to reduce the negative environmental effects of their activities	20 56	23 70	14 73	16 57	26 71	23 77	17 50	10 53	9 41	21 58	16 62	
(d) Establishment of an emission permit system and a market where these permits can be traded	2 12	2 12	9 18	3 11	3 29	- 8	- 33	3 15	- 9	2 24	3 11	
(e) Financing to support the formulation of strategies for technological development	13 54	7 30	5 9	16 57	- 16	- 31	- 33	20 55	9 23	13 44	8 36	
(f) Abolishment of financial assistance programs to projects that produce excess waste	5 25	5 30	14 50	14 49	5 32	- 31	17 50	3 30	9 46	6 31	7 36	
(g) Introduction of discriminatory pricing that will lead to purchases of more environment-friendly products	- 18	5 42	9 46	8 30	11 53	8 39	- 17	3 20	5 41	6 29	5 36	
(h) Creation of deposit refund and recycling programs	5 56	2 35	9 32	5 60	5 32	8 54	- 83	8 38	5 32	4 41	6 46	
(i) Introduction of levies for producers of wastewater and materials	3 38	2 35	9 32	- 27	5 32	- 8	- -	8 28	5 36	4 32	4 30	
(j) Extension of the official information disclosure system	2 20	2 21	- 27	- 11	5 21	8 31	17 33	5 38	5 41	3 19	3 27	
(k) Other	- 2	7 12	- 18	3 8	3 5	8 8	- -	5 5	- 9	1 1	4 11	
N A	2	2	-	-	3	8	-	-	5	3	1	

### Comments:

- (1) All regions felt that regulations limiting harmful industrial activities and tax or system of tax reductions would be effective, with the former being indicated a little more often than the latter in most regions. This tendency was particularly noted in Oceania.
- (2) Deposit refund and recycling programs were mentioned more in Japan, Latin America, Eastern Europe and the Middle East than in North America, Western Europe and Oceania. (Middle East data is shown as reference.)
- (3) Financing was seen as effective in Japan, Latin America and Africa more than in other regions.
- (4) Abolition of financial assistance programs was supported by North America, Latin America, the Middle East and Oceania. (Middle East data is shown as reference.)
- (5) The ratio of introduction of discriminatory pricing exceeded 50% only in Western Europe in totalling the four priority levels
- (6) Corporate self-imposed restrictions and monitoring were supported by about 50% of the respondents in Japan in the overall four priorities, and more than 20% of all respondents saw as the top priority, a very strong number.

## 18. EASTERN THOUGHT AND CIVILIZATION

**Question 8.** In Eastern philosophy and culture, there is said to be a harmonious coexistence between humankind and nature. Considering civilizations of the future, choose from four areas listed below the scenario you believe best describes the dominant philosophical base of the future. (Future refers to the end of the 21st century.)



(%)	Current Western thought will influence the entire world	Japanese or other Eastern philosophy will remain or be revived in parts of the world but will not spread throughout the world	Following the decline of Western thought, traditional Eastern philosophy will attain a position of dominance	Eastern philosophy will embrace other thought systems, resulting in a new, hybrid Eastern philosophy	NA
Japan (N=61)	18	30	2	43	8
Asia (N=43)	7	16	14	33	30
North America (N=22)	23	9	18	23	27
Central or South America (n=37)	32	22	3	22	22
Western Europe (N=38)	26	16	3	21	34
Eastern Europe or former Soviet Union (n=13)	15	31	—	31	23
Middle East (N=6)	17	—	—	17	67
Africa (N=40)	25	5	20	23	28
Oceania (N=22)	14	23	5	14	46
Governmental organization (n=98)	26	22	6	25	21
Nongovernmental organization (n=179)	17	16	9	29	29

### Comments:

- (1) The dominant philosophical base of the future was anticipated to be a new, hybrid Eastern philosophy by 28%, influenced by current Western thought by 20%, and to be a revival of Eastern philosophy in parts of the world by 18%. Those who predicted dominance of traditional Eastern philosophy were 8%. A new philosophy and culture is therefore certainly foreseen by most.
- (2) By region, however, current Western thought was expected to prevail by many respondents in North America, Latin America and Africa, and a new hybrid Eastern philosophy was seen by those in Japan, Asia and Eastern Europe. This strongly reflects the historical backgrounds of these respective regions.

## 19. COMMENTS FROM RESPONDENTS

1. This section contains comments made by respondents about questions four to nine. This section is designed to be a supplementary reference for questions four onwards.
2. Order of information for this section is: comment, name, name of organization, nationality and office registration number.
3. Respondents wishing to remain anonymous are marked with a M or F to indicate their sex. A question mark denotes that the respondents sex is unknown.
4. Although the questionnaires were published in Japanese and English, there were responses in French and Spanish. The accents on these names and organization names have been omitted.
5. Opinions published represent approximately 25% of total responses. They have been reproduced or translated in full.
6. To achieve a balance of views, majority as well as minority opinions were selected. Furthermore, responses from a variety of regions and occupations were also included. Majority opinions were selected regardless of region or sex. Minority opinions does not refer to ideas that are opposed to mainstream opinions, but those which differ from mainstream thought.

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#### Question 4. Overpopulation

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•Although the best way of confronting overpopulation is heightening woman's status and increasing the general level of education, but these things take a long time to be done and so national restriction is useful prior to them.

M, World Watch, IRAN 020

•The best problem for developing countries such as our country is the poverty caused by the excessive social inequality.

Vladimir Roura Game, Environmental Sanitary, ECUADOR 207

•When the countries have invested in educating women, population growth has stabilized.

Ximena Abogabir, Casa de la Paz, CHILE 058

•If the standard of living overall in developing countries is improved, this could go a far way in reducing population growth. It is the poor in the developing countries who have the most children. Reduce poverty and we are on our way!

Patricia F. Thorpe, University of the West Indies, JAMAICA 012

•National restrictions on family size should be imposed nationally, met internationally. So, implementing medical technological progress should naturally lead to family planning.

F, YWCA of Australia, AUSTRALIA 156

•Broadening the educational base and educating women is a priority in tackling overpopulation.

M, University of Maiduguri, NIGERIA 225

•The world must try to overcome ignorance in the developed countries because more than 70% of the world people are illiterate so that a minority in the developed countries use 80% of the world resources.

O. Pascal Badjagou, Association Orukutuku, BENIN - West Africa 186

•Couples who enjoy a good standard of living and who have received a good education limit themselves the number of their children.

F, Association pour la Promotion de l'Enterprise a Madagascar, MADAGASCAR 053

•The best assistance developed countries can provide to others is to practice the principles which they preach, rather than merely to talk about doing so.

David Black, People Against the River Crossing, UNITED KINGDOM 151

•They should stop PREACHING and start PRACTICING.

Anil Chitrakar, Environmental Camps for Conservation Awareness, NEPAL 107

•There is no time to wait until people spontaneously offer to limit their family size. The government must go for two way approach such adopting national restriction and educating people.

Dr. Sundara Narayana Patro, Orissa Environmental Society, INDIA 011

•General ecological education for all people, deconstruction our bad future by forecasting mathematical ecological models, and TV lectures could be helpful

Andrei Degermeudzy, Institute of Biophysics, RUSSIA 028

•Environmental problems result from overpopulation and overpopulation causes poverty.

Takao Shiraishi, Global Industrial and Social Progress Research Institute, JAPAN J56

•Perhaps the emphasis should not be just supplying essential foods, such as powdered milk cheaply to developing nations, but raising the level of food production technology. Breast feeding as a form of contraception should also be considered.

Katsuji Hisano, Tokyo University of Agriculture and Technology, JAPAN J39

•The problem of overpopulation can not be separated from economic problems. Basic knowledge and an allopathic approach are essential. I selected family planning as a priority area to counter overpopulation, but I don't think the developing countries would agree. An equal approach to dividing up the resources pie can't be taken lightly either.

Kunio Yonezawa, Global Guardian Trust, JAPAN J36

•In the past, India and China has imposed restrictions on the number of children a women could bear, but these actions were not very effective. Measures to control overpopulation should not harm racial or national dignity.

Mizue Nakajima, Ministry of Foreign Affairs, JAPAN J14

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## Question 5. Environmental education

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•In our country environmental education exist only as if denomination.

Israfilov Vugar Asabali eglu, Azerbaijan Green Movement, AZERBAIJAN 197

•In a poor country, the primary goal is to earn bread. Acquisition of knowledge is given low priority. What is needed is to break this myth and with proper technology both learning and earning should be perceived as compliment only.

K. Sundaram, Centre for Environment & Management Studies, INDIA 148

•Environmental education should be linked with information on how to reduce consumption. The latter through adapted, stricter legislation, but more through (inter)national change of morality and ethics, a matter of persistence and time.

Arthur van Norden, IWT THE NETHERLANDS 183

•In my country, ignorance and lack of information are the main causes that conduct people on exess waste of the natural resources.

Abdoulaye Sadio Diallo, Volontaires Guineens pour l'Environnement "Missi on Verte", REPUBLIQUE DE GUINNEE 048

•Learning from aborgines is mistakenly undervalued.

M, Tropical Interdigenous Groups - Petford, AUSTRALIA 138

•At present the education process is at the stage of sensitizing the population.

M, Caribbean Network for Integrated Rural Development, TRINIDAD AND TOBAGO 097

•Up to now there has been no special strategy for the promotion of environmental education in Iran- Otherwise I did not have to write with a typewriter like this.

M, World Watch, IRAN 020

•1) Educated citizens must inform their government representatives that serious attention be given to setting standards regarding the protection of every aspect of our environment. The representatives must be educated. 2) The media must play a full and ethical role in this education.

Miriam Ferstman, International Council of Jewish Women, CANADA 062

•How to educate those with no interest in the environment is a major issue.

M, Research Institute of Innovative Technology for the Earth, JAPAN J37

•Environmental education should not be taught as a separate subject, but in conjunction with issues, such as development.

Ryuhei Funano, Ministry of Agriculture & Forestry, JAPAN J33

•Financial assistance to organizations that implement environmental education programs would need to be distributed equally.

Takashi Kaji, Japan Environment Association, JAPAN J05

•When considering the solving of environmental problems at the individual level, the important thing is how should we enrich the hearts of individuals? Environment education is necessary to make human relationships more environmentally friendly.

M, Federation of New Religions Organizations of Japan, JAPAN J01

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**Question 6. Science and technology's contribution**

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•Activating an interdisciplinary cultural and natural sciences' approach toward the environment is especially critical, so that cause and effect is brought to everyone's attention.

Riochard Edlin, Progress Agency Inc., USA 153

•I would first establish an environmental ethic and strive to have it widely respected and accepted.

Miriam Ferstman, International Council of Jewish Women, CANADA 062

•Every effort must be made to improve technology in developing countries; but goals must be clearly defined.

Patrecia F. Thorpe, University of the West Indies, JAMAICA 012

•Strongly disagree with e), but I think we should discuss ways in which indigenous science and western sciences can be resources=enhanced.

F, National Maori Congress, NEW ZEALAND 093

•If discovery of electricity for example, was governed by intellectual property rights, it would not be the basic universal commodity it is today.

Dr. Paschal J. Khimulu, UNEP, KENYA 115

•The environmental problem are also cultural problem, we develop an adopted technology which will be accepted by the local community.

Abdou Ouedraogo, Association Nationale d'Action Rurale, BURKINA FASO - West Africa 009

•e) is unlikely to have any positive effect to out weigh potential negative effects.

Guy R. Bayley, International Juridical Organization for Environment & Development, ITALY 063

•Establish environmental safety rules and regulations.

Nausheen Farrukh, Sustainable Development Policy Institute, PAKISTAN 163

•Only if we all have better strategies and goals we would increase the fundings.

Anto Raukas, Estonian Academ: Sciences and of Geology, ESTONIA 190

•We need to STRENGTHEN demand side and not concentrate on the SUPPLY of S/T.

Anil Chitraker, Environmental Camps for Conservation Awareness, NEPAL 107

•Science and technology must be used to utilize better living condition of mankind, not only for leisure or deburdening work systems.

Salehudin Ghazali, Asian Youth Council, MALAYSIA 052

•The biggest problem is the increase in people concerned with science and technology.

M, University of Tokyo, JAPAN J55

•Up till now, science and technology have only exacerbated and expanded environmental problems, therefore we can't expect any solutions from them. New civilizations and a new way of viewing things is essential.

Saburo Kato, Environmental Agency, JAPAN J44

•One must not forget that science and technology are for the benefit of humanity. Because of self interest and short sightedness, science and technology produces idiotic measures. Projects must be strictly controlled from a humanistic perspective.

Tadayuki Nishimura, Japan Federation of Bar Associations, JAPAN J11



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## Question 7. Economic measures and regulations

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•Business and Trade Organizations should supervise their members activities creating harm for environment.  
M, Izmir Bar Association, TURKEY 168

•In my view, all four measures and regulations form part of a green tax strategy.  
Per Christensen, Aalborg University, DENMARK 109

•First of all, in Angola, we need to overcome the problems of a 14's years war for economical liberation and a 18's years of civil war and they are the basic problems of poverty: food security, water and energy supply, education and health care, housing and employment.  
Lesaltina Abreu Van-Dunen, Secretariat of Planning, ANGOLA - West Africa 170

•All these measures sound good but it is not possible with the government we have because it is too corrupted. Not unless we have a new one.  
Mensah Franco Toozro, Les Amis de la Terre, TOGO - West Africa 001

•These answers are all similar taxation systems- they should be used in a variety of ways appropriately in the industry. Full environmental costing of industries- for example, forest cutting reduces your water yield so there are financial subsidies to the foresting industry by the water industry.  
Lesley Dalziei, Australian Conservation Foundation, AUSTRALIA 085

•In the developing countries the high impact in the environment comes from the big corporations so it's necessary an international regulation, like reward or penalty, for its activities.  
Silvia Sanchez, Peruvian Association for the Conservation of Nature, PERU 100

•Taxes on gasoline!!!  
Dr. Christine K. Durbak, World Information Transfer, USA 075

•Heavy penalties and taxes if rules of environmental conservation are not followed, industrialists should install waste treatment plants otherwise this licence should be cancelled.  
Dr. Prerana Naish, Sarita Society, INDIA 051

•A substantial amount of capital for environmental protection could be raised by just modifying the way of allocating funds for engineering and agricultural projects. However, this may result in an increase in unemployment of construction workers.  
M, Environmental Agency, JAPAN J48

•The meaning of "Abolishment of financial assistance programs to projects that produce excess waste" is unclear.  
M, Ministry of Transport, JAPAN J41

•Self monitoring by companies, in particular conducting internal audits and disclosing the findings will become increasingly more important.  
Masato Yamazaki, Ciba-Geigy Japan Limited, JAPAN J22

•I think strict economic and legal regulations are required.  
Tetsuro Taniyama, Mie University, JAPAN J15

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**Question 8. Eastern thought and civilization**

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•d) if we are lucky; a) if we are less lucky; total chaos or human extinction are also possibilities.

M, Solar Box Cookers International, USA 079

•The myth of Eastern harmony is pure propaganda. No national environments in the world have suffered more of human hands (Africa not excepted) than those in Asia, a pattern which continues today. Japan is one of the West dispatchers, possibly exceeded only by China.

M, USDA/AOHIS/BBEP, USA 069

•I define "Western thought" as limited democracy, ruled by wealthy capitalists and exaggerated consumption patterns (materialism). "Harmonious coexistence" stands little chance against human greed.

Greg Nottinghen, Church World and Witness, USA 056

•The interpretation of Eastern refers to Asian and African philosophy.

M, Caribbean Network for Integrated Rural Development, TRINIDAD AND TOBAGO 097

•I believe Eastern and Western philosophies will mix and the result will be a more spiritual culture but keeping Western ability to produce material goods that human beings need.

Sergio Vergara, Instituto Chileno de Reconocimiento Ambiental, CHILE 057

•It is not only Eastern philosophy which views human-kind in harmonious coexistence with nature. All of the indigenous cultures of the world hold this view.

Diana Weiss, Earth Centre, NEW ZEALAND 067

•In addition to the spread of Islamic beliefs and thoughts.

Samia Elsirag Ahmen, Environmentalists Organization Society, SUDAN 219

•Scenario d) seems to me is the dominant philosophical base of the future: Eastern thought had already penetrated a number of Western countries, not traditional Eastern thought but Eastern thought is influenced by Western thought.

F, Association pour la Promotion de l'Entreprise a Madagascar, MADAGASCAR 053

•Current Western thought particularly American will influence the world.

Hassan Osman Abdel Nur, Forests National Corporation, SUDAN 034

•Let us hope that a new science- based on environmental ethics can be developed, to guide mankind for the future. For this, elements of both Eastern and Western thoughts would be needed.

Dr. Lars Kristoferson, The Stockholm Environment Institute, SWEDEN 124

•With the defrauding of the environment, there is no harmonious coexistence between humankind and nature in Japan as elsewhere (see Tokyo!). However, thanks to its value system, Japan and Eastern philosophy and culture could take a leadership role in the 21st century and promote changes in the global economy to reach a sustainable development, based on efficient resource use, community participation, expiable distribution, respect of ecosystems, etc...

Genevieve Verbrugge, Ministry of the Environment, FRANCE 036

•Islamic Eastern philosophy will be the solution for the Islamic societies.

Zeig Mohamed, Arab Security and Training Centre, SAUDI ARABIA 166

•Buddhist philosophically religious-political-economic systems can help evolve a more stable social life styles.

?, Wild Life and Nature Protection Society of Sri Lanka, SRI LANKA 119

•Well, if there is no other choice, I think Eastern philosophy offers more wisdom about life and environment than Western philosophy.

F, National Federation of Indigenous Peoples of the Philippines, PHILIPPINES 096

•Oriental systems of living based on conservation would be revived eliding to change in life styles of people in the occidental.

Dr. R. K. Pachauri, Tata Energy Research Institute, INDIA 010

•If Japanese philosophy led to present Japan, what is the hope? If other Eastern philosophies led to Singapore or North Korea, what's hope? West certainly is not in the present hope!

Gula Adam, Polish Ecological Club, POLAND 117

•It is not possible to choose a clear scenario. The domain and philosophy will be surely of hybrid character.  
Ladislav Miklos, Institute of Landscape Ecology of Slovak Academy of Sciences, SLOVAKIA 014

•The same ways of thinking exist in both eastern and western philosophy. Thought and civilization strongly reflect the religion dominant in a particular society. It is difficult to think of Christian-influenced thought and Eastern philosophy as interchangeable things.  
Hideo Yabumoto, Japan National Oil Corporation, JAPAN J45

•I don't think there is a harmonious coexistence between humankind and nature in Eastern philosophy.  
Saburo Matsui, Kyoto University, JAPAN J19

•It is not possible to state precisely that either Eastern or Western philosophy is better than the other. Both philosophies have good and bad points. Taking good points from both philosophies is the best option.  
Masayo Hasegawa, Sasakawa Peace Foundation, JAPAN J08

•Neither (a), (b), (c) nor (d) are applicable. In the future, Eastern philosophy will have greater influence and these ideas will merge with Western scientific rationalism, resulting in the progress of thought concerning environmental ethics and an appreciation of the environment. A mixture of Eastern and Western philosophy may become dominant.  
Takashi Abiru, Federation of Economic Organizations, JAPAN J07

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## Question 9. General Comments

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•Non Governmental Organizations should take part in the decision making process of mega projects. Also, an international environmental Court should be established in order to prevent natural destruction throughout the world.

M, Izmir Bar Association, TURKEY 168

•The global rush to over privatization under the pressure of institution in the UN system like the world bank and IMF can accelerate the environmental destruction of many if not most first world countries.

?, Wild Life and Nature Protection Society of Sri Lanka, SRI LANKA 119

•If West continue to impose regulation and restriction on know-how transfer of technology or scientific findings, the East will closely be allied to the developed Eastern nations: Korea, Japan, Singapore etc for quality products and knowledge.

Salehudin Ghazali, Asian Youth Council, MALAYSIA 052

•Whatever may be the fact self realization is more important for building up a better tomorrow which will be environmentally sound and habitable. This is only possible only through dedicated patriots and a method should be evolved for soul searching.

Dr. Sundara Narayana Patro, Orissa Environmental Society, INDIA 011

•In general any measures to maintain and improve environmental quality cannot be left to 'market forces', which distort and do not reflect environmental costs. This is where Eastern thought is important, in eroding the contemporary materialistic perspectives.

David Black, People Against the River Crossing, UNITED KINGDOM 151

•There is a strong need for international support to local, independent development centers for environment and renewable energy development/implementation.

Preben Maegaard, Kolkecenter for Renewable Energy, DENMARK 066

•I think one of the solutions to environmental problems is to free the third world countries from their debts and loans and they have a say in GEF decisions for more funds allocated to the developing countries.

Samia Elsirag Ahmed, Environmentalists Organization Society, SUDAN 219

•Almost in every culture or tradition there are values based on environmental protection. Each culture should first take into consideration these values and then seek from the outside what are needed in terms of environmental protection philosophy.

Dr. Ghoussou Fhaiga, CEPATA, GUINEE 200

•The conference of Rio made it clear that the majority of the world population is too poor while a minority is very rich. I don't think it possible to diminish the lifestyle in the developing countries.

O. Pascal Badjagou, Association Orukutuku, BENIN - West Africa 186

•We are not going to solve global environmental problems unless we first tackle the issue of increasing poverty in the south.

Dr. Paschal J. Khimulu, UNEP, KENYA 115

•It seems to me that the survival prospects of humankind are more threatened by widespread poverty than by the deterioration of the environment. So raising the standard of living of peoples should be given higher priority. For peoples already enjoying a fair standard of living, changing lifestyle for a more frugal one would help to limit the deterioration of environment.

F, Association pour la Promotion de l'Entreprise a Madagascar, MADAGASCAR 053

•Indigenous healing culture fits with the cycle of water distilled by the sun from the sea, soaked up by forests and redistributed by rivers, lakes and springs, also with the carbon cycle, the biological cycle, and the cycle of birth and death of civilizations such as the West. They need our respect and support for us to survive.

M, Tropical Interindigenous Groups - Petford, AUSTRALIA 138

•Japanese culture consumes too many fish and sea mammal products and leaves behind devastation when "long lines" are used. The over consumption of fishing, adding toxic wastes from surrounding countries add up to many international laws broken.

Sylvia Adam, Macquarie University, AUSTRALIA 088

•The oriental and cultural philosophies really have a relation with your country. It occurs equally in Continental America, where the philosophy of the indigenous people is that the nature is their mother. Both philosophies owe their play, for example, in all the sustainable programmes of your natural resources.

Geodisio Castillo, Ed. Ambiental y Agricultura Sostenible, REPUBLICA DE PANAMA 193

•I see an inherent contradiction between the productive relations of modern society and the environment. The difficulties that face us is how to overcome the contradictions while maintaining a good standard of living for all the world's people. This is a major challenge since human society abhors regression and the environmental issue evokes this type of response- a deep fear! Most people aspire to live well.  
Patrecia F. Thorpe, University of the West Indies, JAMAICA 012

•Question 1:My country recently signed the Montreal Protocol and related... but who is monitoring? Question 7:Usually these apply to companies, enterprises, etc... they should find some to apply to the individual.  
Mohamad Khawlie, Maerican University of Beirut, LEBANON 084

•Socialism is destroyed, capitalism is in a sever crisis and can not solve the problems of today and tomorrow. A new system is needed to keep nature and human beings alive and save the planet.  
M, World Watch, IRAN 020

•It is important for all the Earth's countries to stay focused on environmental protection collectively and similarly - much like the agenda outlined in Rio. We must all actively work on the objectives we set out at the UINCED Earth Summit, but we must remain realistic in doing this, sticking to our deadlines and communicating through internationally circulated "progress reports."  
Anna C. Ulloa, Sen. George Bamba's Office, GUAM (USA) 162

•A fundamental goal to achieve sustainable development will have to be the elevation of the status of women, and the equal inclusion of women in policy and decision making. Only then will real change come about and the necessary transition be made.  
F, NGO, NORTH AMERICA 146

•Teach respect for life and all living creatures. We as a world community will not survive if we continue with the Dominance and Resource attitude.  
Mona Benson, Fossil Fuels Policy Action Institute, USA 144

•I believe the traditional religions hve an obligation to take leadership in creating respect for the earth and all creatures. The indigenous peoples have much to teach us in this regard.  
Dr. Pat Kenoyer, Loretto Community, USA 128

•Currently, out of the many environment-related publications available, I think that by developing earth studies as advocated by Takanori Matsui of the University of Tokyo and expanding the awareness of environmental problems as life or death questions for humanity, concrete measures can be formulated.  
I would like to see better publications based on these two principles.  
Takashi Nitta, Tokai University, JAPAN J54

•As Asian countries position in the world increases, Japan's economic influence is weakening because of a shortage of young workers and the rise in the population of the elderly. Latent discrimination against women, which is part of Eastern philosophy, may become worse when the time comes to appoint women to prestigious positions in the work force.  
M, Environmental Agency, JAPAN J48

•The rapid increase in the population of developing countries is the most grave environmental problem. Strict controls to limit population growth will not completely solve this problem, but have the potential to slow the time till overpopulation reaches crisis point. Establishing an international structure to tackle overpopulation is the first priority. Consensus on environmental problems must be reached before effective measures can be devised. We must also increase the amount of research concerning the mechanisms of environmental change.  
Akiyoshi Motoki, Ministry of Education, JAPAN J47

•Pollution, overpopulation and poverty are the three largest environmental problems. Eradicating these problems is of extreme importance to the world.  
M, Ministry of International Trade and Industry, JAPAN J42

•A great deal of effort will have to be expended to change society and people's way of thinking. We have to believe that there is hope for the future.  
Tsutomu Mizutani, Osaka Gas Co., Ltd., JAPAN J09

•In the mid- to long-term, human issues will take precedence over profits. With the bursting of Japan's so called economic bubble, there all calls for the government to stimulate domestic consumption, however, such policies are counter to policies to protect the environment. It is imperative that we create a society that will enable humanity to continue for many more centuries.  
M, Environmental Agency, JAPAN J03

## 20. QUESTIONNAIRE TABLE

# QUESTIONNAIRE ON ENVIRONMENTAL ISSUES

Please print clearly your responses to the following questions.

## I. Questions About Worldwide Activities Concerning Solutions to Global Environmental Problems

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 (1) to (20) below? Also, make an overall judgement regarding the current state of the areas described in (1) to (20). For both sections, circle the best response from (a) to (e), considering the situation in your own country only.

	Extent of progress	Current state
	No progress Almost no progress Cannot determine Some progress Significant progress	Completely inadequate Quite inadequate Cannot determine Quite adequate Completely adequate
(1) International cooperative efforts toward sustainable development in the developing countries .....	a b c d e	a b c d e
(2) Efforts to solve basic problems, such as poverty and overpopulation .....	a b c d e	a b c d e
(3) Efforts to alter lifestyles and consumption patterns .....	a b c d e	a b c d e
(4) Activities by local governments and citizens' groups .....	a b c d e	a b c d e
(5) Policies to counter global warming .....	a b c d e	a b c d e
(6) Policies to protect the ozone layer .....	a b c d e	a b c d e
(7) Policies to reduce acid rain .....	a b c d e	a b c d e
(8) Policies to conserve forests .....	a b c d e	a b c d e
(9) Policies to combat desertification .....	a b c d e	a b c d e
(10) Policies to preserve the earth's biodiversity .....	a b c d e	a b c d e
(11) Policies to conserve water resources .....	a b c d e	a b c d e
(12) Policies for the disposal of hazardous wastes and substances .....	a b c d e	a b c d e
(13) Formation of recycling systems .....	a b c d e	a b c d e
(14) Science and technology's contributions toward solving environmental problems .....	a b c d e	a b c d e
(15) Efforts involving the transfer of environmental-conservation technology .....	a b c d e	a b c d e
(16) Efforts to establish the necessary capital-creating mechanisms for the preservation of the environment .....	a b c d e	a b c d e
(17) Promotion of environmental education .....	a b c d e	a b c d e
(18) Introduction of government regulations to conserve the environment .....	a b c d e	a b c d e
(19) Changes to economic systems leading to greater conservation of the environment .....	a b c d e	a b c d e
(20) Raise industry's environmental awareness .....	a b c d e	a b c d e

2. 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

6:01 – 9:00: Quite concerned

3:01 – 6:00: Slightly concerned

9:01 – 12:00: Extremely concerned

Your time  :

3. Lately, there is a growing consensus that we should change our overconsumption–throwaway lifestyle. Do you think you can adapt to a more frugal lifestyle? Circle the appropriate response below.

(a) Already have adapted/Can adapt

(c) Could adapt with difficulty

(b) Could try to adapt

(d) Impossible to adapt

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## II. Questions Regarding the Primary Solutions to Global Environmental Problems as Adapted from the Previous Survey

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4. Among the many solutions to overpopulation, such as limiting population growth or expanding the world's capacity to accommodate people, which do you think should be given highest priority? Choose in order of priority the four best solutions from (a) to (j) below. Also, choose four solutions you think the developed countries and international organizations should provide as aid to the developing countries.

(a) Family planning (e.g., contraception, maternal and infant health programs)

(b) Heightening women's status in society

(c) Increasing the general level of and the number of people receiving education in the developing countries

(d) National restrictions on the number of children per family

(e) Correcting excesses of the medical systems of the developed countries, such as technology to prolong life

(f) Raising the rate of economic growth and standard of living in the developing countries

(g) Correcting the energy consumption disparity between developed and developing countries

(h) Expanding alternative forms of energy and securing adequate supplies of water and food

(i) Increasing the amount of habitable living space on the planet and the exploration of space

(j) Other (Please specify)

High-priority solutions 1st ( ) 2nd ( ) 3rd ( ) 4th ( )

Solutions the developed countries and international organizations should provide 1st ( ) 2nd ( ) 3rd ( ) 4th ( )

Comment:

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5-a. Below is a list of strategies for the promotion of environmental education. Choose the four strategies given highest priority in your country, ranking them from one to four.

(a) Establish consensus about the content and focus of the curriculum for people of varying socioeconomic groups

(b) Increase the number and quality of people promoting education

(c) Develop educational resources and methods and enrich educational programs

(d) Establish systems and organizations that will result in the furthering of education

(e) Improve facilities that conduct practical nature education programs

(f) Enrich learning activities to elicit greater participation

(g) Enhance political leadership

(h) Other (Please specify)

1st ( ) 2nd ( ) 3rd ( ) 4th ( )

Comment:

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5-b. If you chose strategy (a) in response to question 5-a, rank from one to four those groups of people listed below most in need of receiving environmental education.

- (a) Toddlers
- (b) Elementary schoolchildren
- (c) Junior and senior high school students
- (d) University students
- (e) Private-sector workers
- (f) Public-sector workers
- (g) Local residents
- (h) Other (Please specify)

1st ( ) 2nd ( ) 3rd ( ) 4th ( )

6. The activities below are considered key to enhancing science and technology's ability to contribute to the solving of environmental problems. Choose the four activities you think are most important in this respect, ranking them from one to four.

- (a) Bolster awareness that the mission of science and technology is the discovery of facts and the application of these findings, and work toward reaching this ideal
- (b) Establish clear strategies and goals for science and technology
- (c) Establish methods of evaluating scientific results from the viewpoint of environmental preservation
- (d) Activate an interdisciplinary cultural and natural sciences' approach toward the environment
- (e) Establish arrangements or methods, including a reversal of the trend to adhere to the protection of intellectual property rights, that will result in greater dissemination of scientific research findings, thus enhancing their practical value
- (f) Increase funding for science and technology
- (g) Other (Please specify)

1st ( ) 2nd ( ) 3rd ( ) 4th ( )

Comment:

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7. From among the following economic measures and regulations aimed at solving environmental problems, which would be most effective in your country? Choose four, ranking them from one to four.

- (a) Regulations to limit industrial activities that harm the environment, e.g., emission controls
- (b) Self-imposed restrictions and self-monitoring by corporations and industry
- (c) An environment tax or a system that allows tax reductions for corporations working to reduce the negative environmental effects of their activities
- (d) Establishment of an emission permit system and a market where these permits can be traded
- (e) Financing to support the formulation of strategies for technological development
- (f) Abolishment of financial assistance programs to projects that produce excess waste
- (g) Introduction of discriminatory pricing that will lead to purchases of more environment-friendly products
- (h) Creation of deposit refund and recycling programs
- (i) Introduction of levies for producers of wastewater and materials
- (j) Extension of the official information disclosure system
- (k) Other (Please specify)

1st ( ) 2nd ( ) 3rd ( ) 4th ( )

Comment:

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8. In Eastern philosophy and culture, there is said to be a harmonious coexistence between humankind and nature. Considering civilizations of the future, choose from (a) to (d) below the scenario you believe best describes the dominant philosophical base of the future. (Future refers to the end of the 21st century.)

- (a) Current Western thought will influence the entire world
- (b) Japanese or other Eastern philosophy will remain or be revived in parts of the world but will not spread throughout the world
- (c) Following the decline of Western thought, traditional Eastern philosophy will attain a position of dominance
- (d) Eastern philosophy will embrace other thought systems, resulting in a new, hybrid Eastern philosophy

Comment:

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

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*The following questions pertain to you and your organization.*

10. In which region is your country located?

- a) Asia b) North America c) Central or South America d) Western Europe e) Eastern Europe or former Soviet Union
- f) Middle East g) Africa h) Oceania

11-a. Who are you employed by?

- a) Central government b) Local government c) Nongovernmental organization

*Questions 11-b and 11-c relate to employees of nongovernmental organizations only.*

11-b. What is the geographic scope of your organization's activities?

- a) Domestic only b) Restricted to a number of specified foreign countries c) Carried out in many countries

11-c. Which of the following best describes the activities of your organization? (Choose one only)

- a) Practical and aid b) Awareness raising, educational or campaign
- c) Surveys, research or participation in policy-making d) Other

If the information gathered in this survey is made public, would you like to remain anonymous?

Yes  No

*To receive a copy of the results of this survey, please fill out the following.*

Name: \_\_\_\_\_ Age: \_\_\_\_\_ Sex: Male / Female

Name of organization: \_\_\_\_\_

Section: \_\_\_\_\_ Position held: \_\_\_\_\_

Mailing address: \_\_\_\_\_

Country: \_\_\_\_\_

*Thank you for taking the time to fill out this questionnaire. Please mail or fax it to the following address.*

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