



**Results of the 25th Annual  
“Questionnaire on Environmental Problems and the Survival of Humankind”**

Data

**THE ASAHI GLASS FOUNDATION**

September 2016

## IV. Data

### Number of Counties Surveyed

Region	Country	Total
Africa	ALGERIA	2
	BENIN	3
	BOTSWANA	3
	BURKINA FASO	4
	BURUNDI	1
	CAMEROON	7
	COTE D'IVOIRE	2
	CONGO	4
	EGYPT	3
	GHANA	4
	GUINEA	1
	GUINEA-BISSAU	1
	KENYA	7
	MADAGASCAR	7
	MALAWI	1
	MALI	2
	MAURITANIA	1
	MAURITIUS	4
	MOROCCO	3
	MOZAMBIQUE	1
	NAMIBIA	2
	NIGER	1
	NIGERIA	2
	RWANDA	2
	SEYCHELLES	1
	SIERRA LEONE	1
	SOMALIA	1
	SOUTH AFRICA	8
	TANZANIA	2
	TOGO	1
	TUNISIA	2
	UGANDA	4
	ZAMBIA	2
ZIMBABWE	1	
<b>Africa Total</b>		<b>91</b>
Asia	AFGHANISTAN	1
	BANGLADESH	12
	BHUTAN	5
	CAMBODIA	5
	CHINA	304
	EAST TIMOR	1
	HONG KONG	1
	INDIA	59
	INDONESIA	8
	JAPAN	394
	KOREA	45
	LAOS	2
	MALAYSIA	18
	MONGOLIA	3
	MYANMAR	1
	NEPAL	6
	PAKISTAN	18
	PHILIPPINES	10
	SINGAPORE	3
	SRI LANKA	9
TAIWAN	94	
THAILAND	18	
VIETNAM	4	
<b>Asia Total</b>		<b>1021</b>

Region	Country	Total
Oceania	AUSTRALIA	55
	COOK ISLANDS	2
	FIJI	5
	NEW CALEDONIA	2
	NEW ZEALAND	6
	PALAU	1
	SAMOA	3
	SOLOMON ISLANDS	1
	TONGA	1
	<b>Oceania Total</b>	
Western Europe	AUSTRIA	9
	BELGIUM	6
	DENMARK	6
	FINLAND	7
	FRANCE	10
	GERMANY	30
	GREECE	3
	ICELAND	2
	IRELAND	1
	ITALY	21
	LUXEMBOURG	1
	MALTA	2
	NORWAY	2
	PORTUGAL	9
	SPAIN	19
	SWEDEN	6
	SWITZERLAND	27
THE NETHERLANDS	9	
UK	65	
<b>Western Europe Total</b>		<b>235</b>
Eastern Europe & Former Soviet Union	ALBANIA	3
	ARMENIA	2
	BOSNIA HERZEGOVINA	2
	BULGARIA	2
	CROATIA	1
	CZECH	1
	ESTONIA	1
	GEORGIA	2
	HUNGARY	3
	KAZAKHSTAN	3
	MOLDOVA	1
	POLAND	5
	ROMANIA	4
	RUSSIA	8
SERBIA	3	
SLOVAKIA	2	
SLOVENIA	1	
UKRAINE	6	
<b>Eastern Europe &amp; former Soviet Union Total</b>		<b>50</b>

Region	Country	Total
Middle East	BAHRAIN	4
	CYPRUS	1
	IRAN	4
	IRAQ	1
	ISRAEL	5
	JORDAN	3
	LEBANON	1
	OMAN	1
	PALESTINE	1
	QATAR	1
	SAUDI ARABIA	2
SYRIA	1	
TURKEY	4	
UNITED ARAB EMIRATES	3	
<b>Middle East Total</b>		<b>32</b>
United States & Canada	CANADA	52
	USA	213
<b>United States &amp; Canada Total</b>		<b>265</b>
Central America, Caribbean countries	BRITISH VIRGIN ISLANDS	1
	COSTA RICA	8
	EL SALVADOR	2
	GRENADA	1
	GUATEMALA	3
	HONDURAS	2
	JAMAICA	2
	MEXICO	17
	PANAMA	3
	SAINT LUCIA	1
TRINIDAD AND TOBAGO	1	
UNITED STATES VIRGIN ISLANDS	1	
<b>Central America, Caribbean countries Total</b>		<b>42</b>
South America	ARGENTINA	10
	BOLIVIA	3
	BRAZIL	24
	CHILE	6
	COLOMBIA	6
	ECUADOR	5
	PARAGUAY	2
	PERU	8
	SURINAME	1
URUGUAY	2	
VENEZUELA	3	
<b>South America Total</b>		<b>70</b>

# 1. AWARENESS OF THE CRISIS FACING HUMAN SURVIVAL—ENVIRONMENTAL DOOMSDAY CLOCK

In Table 1, environmental issues to be taken into account are shown. Keeping in mind the problems that the environment faces at a global level, please select the three most pressing issues for the country or the region where you reside. Then, please rank them in the order of importance. Lastly, for each item, select a time using hours and minutes between 0:10 to 12:00, to indicate the level of crisis for that issue. For the purposes of calculating results, please select your times in units of 10 minutes. If you wish to suggest another category, please do so under item "12. Others."

Unit:%

## Rank 1 Category

	Total	Oceania			USA & Canada			Central America, Caribbean countries	South America	Western Europe			Africa	Middle East	Eastern Europe & former Soviet Union	Asia (All)						
	[1882]	[76]	Oceania (Except Australia) [21]	Australia [55]	[265]	Canada [52]	USA [213]	[42]	[70]	[235]	UK [65]	Western Europe (except UK) [170]	[91]	[32]	[50]	[1021]	Asian Region* [125]	India [59]	China [304]	Taiwan [94]	Korea [45]	Japan [394]
1. Climate Change	41	53	52	53	55	69	52	45	29	36	42	34	48	34	14	39	41	25	16	38	62	55
2. Biodiversity	9	5	14	2	6	4	7	7	16	17	15	18	13	16	16	7	11	24	1	4	11	7
3. Land Use	7	5	10	4	4	6	4	12	21	12	9	13	14	6	18	5	14	8	3	10	0	3
4. Pollution/Contamination	12	1	5	0	4	6	3	0	4	4	5	4	4	3	8	20	6	7	46	28	9	5
5. Water Resources	7	4	5	4	8	2	9	19	13	3	0	4	8	34	14	6	10	14	9	5	0	3
6. Population	7	11	0	15	12	6	13	7	4	12	18	9	4	3	0	5	8	12	1	1	2	8
7. Food	2	3	0	4	0	0	0	2	1	0	0	1	2	0	0	3	1	2	6	2	0	2
8. Lifestyles	3	1	0	2	1	2	1	5	1	5	3	6	0	3	2	3	2	0	4	1	13	2
9. Global Warming Measures	3	3	0	4	2	2	1	0	0	0	0	0	0	0	2	5	2	2	5	4	0	6
10. Environment and Economy	5	5	5	5	6	4	6	2	4	7	6	7	0	0	18	4	4	2	6	2	0	4
11. Environment and Society	3	7	5	7	2	0	2	0	3	3	0	4	3	0	6	3	2	3	1	3	2	4
12. Other	1	0	0	0	1	0	1	0	1	1	2	1	0	0	2	2	0	0	3	0	0	2
No Response	0	3	5	2	0	0	0	0	1	0	0	0	2	0	0	0	0	2	0	1	0	0
Number of Responses	[1872]	[74]	[20]	[54]	[264]	[52]	[212]	[42]	[69]	[235]	[65]	[170]	[89]	[32]	[50]	[1017]	[125]	[58]	[303]	[92]	[45]	[394]
Time for Rank 1 Category	10:01	10:35	10:24	10:39	10:25	10:03	10:31	10:08	10:24	10:20	10:34	10:15	9:35	10:30	9:18	9:48	9:44	10:06	10:14	9:36	10:03	9:29

\*With the exception of India, China, Taiwan, Korea, and Japan

1. Climate Change..... Atmospheric concentration of CO<sub>2</sub>; global warming; ocean acidification; climatic aberrations (droughts, torrential rains and flooding, severe storms, heavy snow, abnormal temperatures, drying of rivers and lakes, desertification, etc.)
2. Biodiversity..... Acceleration of species extinction rate; effects of contamination, climate change, land use
3. Land Use..... Expansion of cultivated land mass; destruction of forests due to excessive development; desertification caused by overgrazing; agriculture and land use without regard for the environment; urbanization
4. Pollution/Contamination..... River and ocean pollution: eutrophication caused by excessive nitrogen and phosphorus and contamination by chemical substances; atmospheric pollution: particulates suspended in the atmosphere, soot and chemical substances
5. Water Resources..... Diminution of usable fresh water resources (depletion, contamination)
6. Population..... Population growth beyond what the Earth can support; aging of the population
7. Food..... Diminution of food supply from land and oceans
8. Lifestyles..... Transformation of lifestyles away from excessive consumption of resources like energy
9. Global Warming Measures..... Progress of measures for mitigation and adaption
10. Environment and Economy ... Progress towards implementing an economic system to reflect environmental costs, the bearing of social costs: imposition of taxes for fossil fuels that emit CO<sub>2</sub>, which cause global warming-related damages; TEEB (The Economics of Ecosystems and Biodiversity), etc.  
The operation of an environmentally conscious economy; the realization of green economy, sustainable economic development, etc
11. Environment and Society..... Environmental awareness at the individual and societal levels, progress of environmental education; poverty; the status of women

## Rank 2 Category

Unit:%

	Total	Oceania			USA & Canada			Central America, Caribbean countries	South America	Western Europe			Africa	Middle East	Eastern Europe & former Soviet Union	Asia (All)						
	[1882]	[76]	Oceania (Except Australia) [21]	Australia [55]	[265]	Canada [52]	USA [213]	[42]	[70]	[235]	UK [65]	Western Europe (except UK) [170]	[132]	[41]	[58]	[1021]	Asian Region* [125]	India [59]	China [304]	Taiwan [94]	Korea [45]	Japan [394]
1. Climate Change	15	11	5	13	14	8	15	10	13	17	14	18	14	7	9	15	14	22	18	15	18	13
2. Biodiversity	16	30	29	31	21	23	21	21	19	21	20	22	16	10	12	11	22	10	4	4	22	15
3. Land Use	10	5	14	2	6	6	6	19	30	19	20	19	17	15	17	7	10	17	4	17	7	5
4. Pollution/Contamination	11	8	10	7	6	6	6	10	7	8	5	9	5	20	17	14	10	10	15	18	16	13
5. Water Resources	15	17	24	15	21	12	23	21	14	7	2	9	20	24	21	15	28	17	20	17	0	7
6. Population	6	12	5	15	8	8	8	5	1	6	11	5	6	10	0	6	2	7	7	2	9	6
7. Food	5	1	0	2	2	2	1	0	1	2	2	2	5	5	2	7	4	2	7	4	2	9
8. Lifestyles	6	5	0	7	7	12	6	2	0	8	9	8	4	5	2	6	3	2	5	3	16	8
9. Global Warming Measures	5	1	0	2	3	4	3	7	3	2	2	2	2	2	3	6	2	0	6	8	0	10
10. Environment and Economy	6	5	10	4	7	17	5	2	6	6	9	4	7	0	12	7	1	3	8	6	9	8
11. Environment and Society	4	1	0	2	4	4	4	2	4	4	8	2	3	2	3	4	4	8	3	3	2	5
12. Other	1	0	0	0	1	0	1	0	0	0	0	0	1	0	0	1	0	0	3	0	0	1
No Response	0	3	5	2	0	0	0	0	1	0	0	0	2	0	2	0	0	2	0	1	0	0
Number of Responses	[1871]	[74]	[20]	[54]	[264]	[52]	[212]	[42]	[69]	[235]	[65]	[170]	[126]	[41]	[57]	[1016]	[125]	[58]	[303]	[92]	[45]	[393]
Time for Rank 1 Category	9:14	9:41	9:32	9:45	9:44	9:31	9:47	9:27	9:28	9:29	9:43	9:23	8:43	8:52	8:29	9:01	8:48	9:14	9:19	8:48	9:48	8:47

\*With the exception of India, China, Taiwan, Korea, and Japan

Rank 3 Category

Unit:%

	Total [1882]	Oceania			USA & Canada			Central America, Caribbean countries [42]	South America [70]	Western Europe			Africa [91]	Middle East [32]	Eastern Europe & former Soviet Union [50]	Asia (All)						
		Oceania (Except Austra- lia) [76]	Austra- lia [21]		Canada [52]	USA [213]				UK [65]	Western Europe (except UK) [170]	Asian Region* [125]				India [59]	China [304]	Taiwan [94]	Korea [45]	Japan [394]		
1. Climate Change	10	7	5	7	10	8	11	14	11	13	8	15	11	9	14	9	8	8	13	11	7	6
2. Biodiversity	13	20	29	16	15	23	13	14	23	14	9	16	14	3	20	10	11	12	6	6	18	12
3. Land Use	12	12	10	13	14	13	14	14	14	14	18	13	14	19	8	10	16	15	10	13	9	6
4. Pollution/Contamination	9	7	5	7	10	4	12	12	6	10	9	11	7	0	16	10	14	10	7	13	7	10
5. Water Resources	12	21	29	18	13	15	13	7	11	9	6	11	19	28	2	11	19	17	11	12	7	9
6. Population	7	8	0	11	11	4	13	5	4	6	8	5	11	6	2	6	6	14	7	8	4	5
7. Food	6	1	5	0	2	2	1	10	3	3	5	3	7	3	2	9	7	3	9	8	4	11
8. Lifestyles	7	1	0	2	6	6	6	5	7	9	8	9	2	6	6	7	2	3	7	8	22	9
9. Global Warming Measures	4	1	0	2	2	2	2	0	4	3	6	1	3	0	0	6	3	3	8	6	0	6
10. Environment and Economy	10	9	10	9	9	12	8	5	7	9	8	9	7	13	14	11	7	3	12	6	18	14
11. Environment and Society	8	11	5	13	7	12	6	10	6	9	12	7	2	3	14	8	5	8	7	9	2	9
12. Other	2	0	0	0	1	0	1	5	1	1	3	0	1	9	2	2	2	0	3	0	2	3
No Response	1	3	5	2	0	0	0	0	1	0	0	0	2	0	0	1	0	2	1	1	0	1
Number of Responses	[1866]	[74]	[20]	[54]	[264]	[52]	[212]	[42]	[69]	[235]	[65]	[170]	[89]	[32]	[50]	[1011]	[125]	[58]	[299]	[92]	[45]	[392]
Time for Rank 1 Category	8:39	9:07	9:03	9:09	9:13	9:01	9:16	8:39	8:49	8:53	9:01	8:50	8:23	9:11	8:03	8:26	8:31	8:51	8:40	7:14	9:02	8:22

\*With the exception of India, China, Taiwan, Korea, and Japan

2. YOUR OPINIONS ON ENVIRONMENTAL PROBLEMS - FREE TEXT

Feel free to write comments on any topic of environmental problems. If there are any items that relate to your opinion in the list of "Environmental issues to be taken into account" below, please tick the box next to the item. You may select multiple items. If you select "12. Others," please write the details in the space below.

Unit:%

	Total [1882]	Oceania			USA & Canada			Central America, Caribbean countries [42]	South America [70]	Western Europe			Africa [91]	Middle East [32]	Eastern Europe & former Soviet Union [50]	Asia (All)						
		Oceania (Except Austra- lia) [76]	Austra- lia [21]		Canada [52]	USA [213]				UK [65]	Western Europe (except UK) [170]	Asian Region* [125]				India [59]	China [304]	Taiwan [94]	Korea [45]	Japan [394]		
1. Climate Change	57	63	62	64	57	69	54	64	67	59	49	62	76	75	44	53	69	61	58	38	80	44
2. Biodiversity	40	57	67	53	40	48	38	60	60	54	40	60	63	72	64	30	64	66	31	9	40	16
3. Land Use	36	39	43	38	32	33	32	57	60	50	43	52	54	47	56	29	54	51	36	22	53	11
4. Pollution/Contamination	42	32	48	25	29	29	30	52	46	42	31	46	41	50	46	45	52	58	81	42	18	16
5. Water Resources	40	42	52	38	41	40	41	64	46	40	23	46	59	75	52	34	62	64	56	13	0	13
6. Population	27	42	24	49	34	37	33	31	23	37	38	37	30	38	20	22	38	47	25	10	2	15
7. Food	22	17	29	13	21	12	23	29	14	25	18	28	34	22	26	20	32	27	28	4	7	15
8. Lifestyles	25	14	5	18	25	33	23	36	33	37	28	40	22	41	38	21	27	32	25	6	33	16
9. Global Warming Measures	25	18	19	18	20	19	21	26	19	25	14	29	29	25	18	27	33	29	33	26	0	24
10. Environment and Economy	30	37	33	38	31	37	29	29	39	34	20	39	31	34	56	27	44	32	35	16	9	18
11. Environment and Society	27	33	19	38	24	25	24	19	40	31	26	32	31	44	44	24	44	41	26	19	13	16
12. Other	8	20	14	22	9	4	10	5	11	12	11	13	11	19	18	5	8	8	2	2	0	8
No Response	13	13	10	15	24	19	25	2	9	19	35	12	5	6	8	10	8	5	2	2	0	22

\*With the exception of India, China, Taiwan, Korea, and Japan

- Climate Change..... Atmospheric concentration of CO<sub>2</sub>; global warming; ocean acidification; climatic aberrations (droughts, torrential rains and flooding, severe storms, heavy snow, abnormal temperatures, drying of rivers and lakes, desertification, etc.)
- Biodiversity..... Acceleration of species extinction rate; effects of contamination, climate change, land use
- Land Use..... Expansion of cultivated land mass; destruction of forests due to excessive development; desertification caused by overgrazing; agriculture and land use without regard for the environment; urbanization
- Pollution/Contamination..... River and ocean pollution: eutrophication caused by excessive nitrogen and phosphorus and contamination by chemical substances; atmospheric pollution: particulates suspended in the atmosphere, soot and chemical substances
- Water Resources..... Diminution of usable fresh water resources (depletion, contamination)
- Population..... Population growth beyond what the Earth can support; aging of the population
- Food..... Diminution of food supply from land and oceans
- Lifestyles..... Transformation of lifestyles away from excessive consumption of resources like energy
- Global Warming Measures..... Progress of measures for mitigation and adaption
- Environment and Economy ... Progress towards implementing an economic system to reflect environmental costs, the bearing of social costs: imposition of taxes for fossil fuels that emit CO<sub>2</sub>, which cause global warming-related damages; TEEB (The Economics of Ecosystems and Biodiversity), etc.  
The operation of an environmentally conscious economy: the realization of green economy, sustainable economic development, etc
- Environment and Society..... Environmental awareness at the individual and societal levels, progress of environmental education; poverty; the status of women

## Respondent Affiliation

### Employment

Unit: %

	Total [1882]	Oceania			USA & Canada			Central America, Caribbean countries [42]	South America [70]	Western Europe			Africa [91]	Middle East [32]	Eastern Europe & former Soviet Union [50]	Asia (All)						
		Oceania (Except Australia) [21]	Australia [55]	Canada [52]	USA [213]	UK [65]	Western Europe (except UK) [170]			Asian Region* [125]	India [59]	China [304]				Taiwan [94]	Korea [45]	Japan [394]				
1. National government	6	9	5	11	8	10	7	19	9	6	5	7	9	3	4	5	11	17	1	18	2	3
2. Local government	6	0	0	0	3	0	3	5	10	3	0	5	2	3	2	8	2	3	8	19	11	9
3. University/research institution	34	53	48	55	35	35	35	33	34	33	32	34	30	50	50	31	21	32	19	26	22	45
4. Nongovernmental Organization	23	20	33	15	25	19	26	33	39	30	31	29	38	28	36	17	52	37	7	15	44	8
5. Corporation	16	7	0	9	3	8	1	2	3	6	5	6	4	0	2	26	2	3	62	20	16	13
6. Mass Media	2	0	0	0	9	4	11	0	0	1	2	1	0	0	0	1	0	0	0	0	0	3
7. Other	13	11	10	11	18	25	16	7	6	20	26	18	16	16	6	11	13	7	3	1	4	20
No response	0	1	5	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

\*With the exception of India, China, Taiwan, Korea, and Japan

### Gender

Unit: %

	Total [1882]	Oceania			USA & Canada			Central America, Caribbean countries [42]	South America [70]	Western Europe			Africa [91]	Middle East [32]	Eastern Europe & former Soviet Union [50]	Asia (All)						
		Oceania (Except Australia) [21]	Australia [55]	Canada [52]	USA [213]	UK [65]	Western Europe (except UK) [170]			Asian Region* [125]	India [59]	China [304]				Taiwan [94]	Korea [45]	Japan [394]				
Male	73	76	81	75	71	85	68	71	71	73	80	70	80	78	74	72	74	88	50	63	40	91
Female	27	24	19	25	29	15	32	29	29	27	20	29	19	22	26	28	26	12	50	37	60	9
No response	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0

\*With the exception of India, China, Taiwan, Korea, and Japan

### Age

Unit: %

	Total [1882]	Oceania			USA & Canada			Central America, Caribbean countries [42]	South America [70]	Western Europe			Africa [91]	Middle East [32]	Eastern Europe & former Soviet Union [50]	Asia (All)						
		Oceania (Except Australia) [21]	Australia [55]	Canada [52]	USA [213]	UK [65]	Western Europe (except UK) [170]			Asian Region* [125]	India [59]	China [304]				Taiwan [94]	Korea [45]	Japan [394]				
20s	9	3	10	0	2	0	3	2	3	3	2	4	1	3	6	15	6	7	35	28	11	1
30s	21	11	14	9	9	12	9	14	27	15	14	16	23	16	22	26	27	27	47	34	53	4
40s	20	17	14	18	15	17	14	29	14	30	25	32	27	38	26	18	30	20	13	24	29	14
50s	22	26	24	27	24	27	23	31	29	25	26	25	32	22	24	18	22	24	4	8	7	31
60s	17	22	24	22	28	25	29	19	20	18	17	18	11	19	12	14	12	14	0	2	0	30
Over 70	10	20	10	24	22	19	23	5	7	9	17	5	5	3	10	8	2	8	1	2	0	19
No response	0	1	5	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0

\*With the exception of India, China, Taiwan, Korea, and Japan

About "Number of responses" and "no response"

Number of responses counted the number of valid responses, which consisted of either single answers or when the question asked for multiple responses, selections made under the requested number of choices. When there were more responses than the number requested, the response was invalidated.

No response: Respondent did not provide a selection.

## V. Questionnaire as Distributed to Respondents

### 1. Awareness of the Crisis Facing Human Survival - Environmental Doomsday Clock

In Table 1, “environmental issues to be taken into account” are shown. Keeping in mind the problems that the environment faces at a global level, please select the three most pressing issues for the country or the region where you reside. Then, please rank them in the order of importance. Lastly, for each item, select a time using hours and minutes between 0:10 to 12:00, to indicate the level of crisis for that issue. For the purposes of calculating results, please select your times in units of 10 minutes. If you wish to suggest another category, please do so under item “12. Others.”

----- Example -----

Category Number	TIME				Category Number	TIME			
<b>First</b> ( 1. )	<input type="text" value="9"/>	:	<input type="text" value="30"/>		<b>First</b> ( )	<input type="text"/>	:	<input type="text"/>	
(of the first magnitude)					(of the first magnitude)				
<b>Second</b> ( 5. )	<input type="text" value="7"/>	:	<input type="text" value="40"/>		<b>Second</b> ( )	<input type="text"/>	:	<input type="text"/>	
(of the second magnitude)				(of the second magnitude)					
<b>Third</b> ( 3. )	<input type="text" value="8"/>	:	<input type="text" value="20"/>	<b>Third</b> ( )	<input type="text"/>	:	<input type="text"/>		
(of the third magnitude)				(of the third magnitude)					

#### About the calculation of the time on the Environmental Doomsday Clock

The time on the Environmental Doomsday Clock will be determined by taking the weighted average of the data. The issue ranked in first place will be weighted at 50%, second place at 30%, and third place at 20%. In the example shown, the time comes to 8:43.

**Table 1. Environmental issues to be taken into account**

No.	Category	Examples of Observable Changes in the Country or the Region in which You Reside
1.	<b>Climate Change</b>	Atmospheric <b>concentration of CO<sub>2</sub></b> ; global warming; <b>ocean acidification</b> ; climatic aberrations (droughts, torrential rains and flooding, severe storms, heavy snow, abnormal temperatures, drying of rivers and lakes, desertification, etc.)
2.	<b>Biodiversity</b>	Acceleration of species <b>extinction rate</b> ; effects of contamination, climate change, land use
3.	<b>Land Use</b>	Expansion of cultivated land mass; destruction of forests due to excessive development; desertification caused by overgrazing; agriculture and land use without regard for the environment; urbanization
4.	Pollution / Contamination	River and ocean pollution: eutrophication caused by excessive <b>nitrogen</b> and <b>phosphorus</b> and contamination by chemical substances; <b>atmospheric pollution</b> : particulates suspended in the atmosphere, soot and <b>chemical substances</b>
5.	Water Resources	Diminution of usable fresh water resources (depletion, contamination)
6.	Population	Population growth beyond what the Earth can support; aging of the population
7.	Food	Diminution of food supply from land and oceans
8.	Lifestyles	Transformation of lifestyles away from excessive consumption of resources like energy
9.	Global Warming Measures	Progress of measures for mitigation and adaption
10.	Environment and Economy	Progress towards implementing an economic system to reflect environmental costs, the bearing of social costs: imposition of taxes for fossil fuels that emit CO <sub>2</sub> , which causes global warming-related damages; TEEB (The Economics of Ecosystems and Biodiversity), etc. The operation of an environmentally conscious economy: the realization of a <u>green economy</u> , <u>sustainable economic development</u> , etc.
11.	Environment and Society	Environmental awareness at the individual and societal levels, progress of environmental education; <u>poverty</u> , <u>governance</u> ; the status of women
12.	Others*	( )

\* Please write in a new category in the space provided above.

Terms in **bold** are categories listed in “Planetary Boundaries” (Johan Rockstrom, et al.,: Ecology and Society 14 (2):32, 2009); those in underlined are the major categories of SDGs (Sustainable Development Goals of United Nations).

**2. Your Opinions on Environmental Problems - Free text**

Feel free to write comments on any topic of environmental problems. If there are any items that relate to your opinion in the list of “Environmental issues to be taken into account” below, please tick the box next to the item. You may select multiple items. If you select “12. Others,” please write the details in the space below.

**Environmental issues to be taken into account**

1. Climate Change	4. Pollution / Contamination	7. Food	10. Environment and Economy
2. Biodiversity	5. Water Resources	8. Lifestyles	11. Environment and Society
3. Land Use	6. Population	9. Global Warming Measures	12. Others

“12. Others” :

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Opinions :

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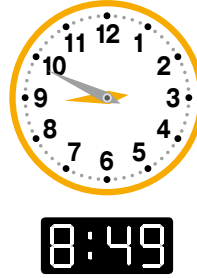
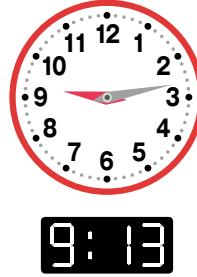
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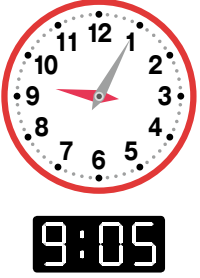


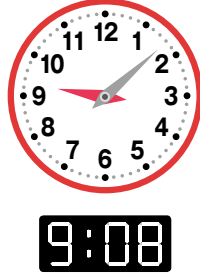
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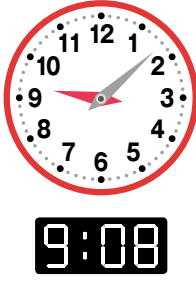
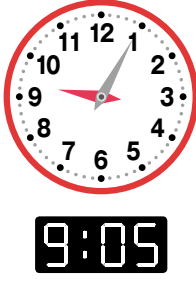

## Reference: Changes in the Environmental Doomsday Clock






Asian Region\* (except India, China, Taiwan, Korea, Japan)






1992		United States & Canada	8:35	India	-
		Latin America (Central, Caribbean, South)	8:57	China	-
		Western Europe	8:54	Taiwan	-
		Eastern Europe & Former Soviet Union	9:27	Korea	-
		Africa	8:10	Japan	7:38
		Middle East	8:10	Asian Region*	-
				Oceania	9:58
1993		United States & Canada	8:58	India	-
		Latin America (Central, Caribbean, South)	8:37	China	-
		Western Europe	9:02	Taiwan	-
		Eastern Europe & Former Soviet Union	7:02	Korea	-
		Africa	8:43	Japan	7:33
		Middle East	8:12	Asian Region*	-
				Oceania	23
1994		United States & Canada	9:07	India	-
		Latin America (Central, Caribbean, South)	9:37	China	-
		Western Europe	9:35	Taiwan	-
		Eastern Europe & Former Soviet Union	8:10	Korea	-
		Africa	9:14	Japan	8:01
		Middle East	-	Asian Region*	-
				Oceania	8:53
1995		United States & Canada	8:52	India	-
		Latin America (Central, Caribbean, South)	9:23	China	-
		Western Europe	9:02	Taiwan	-
		Eastern Europe & Former Soviet Union	9:29	Korea	-
		Africa	9:33	Japan	8:08
		Middle East	9:09	Asian Region*	-
				Oceania	9:44
1996		United States & Canada	9:30	India	-
		Latin America (Central, Caribbean, South)	9:28	China	-
		Western Europe	9:46	Taiwan	-
		Eastern Europe & Former Soviet Union	9:12	Korea	-
		Africa	9:25	Japan	8:51
		Middle East	8:30	Asian Region*	-
				Oceania	9:43



1997		United States & Canada	9:09	India	-
		Latin America (Central, Caribbean, South)	9:26	China	-
				Taiwan	-
		Western Europe	9:53	Korea	-
		Eastern Europe & Former Soviet Union	9:37	Japan	7:38
		Africa	9:15	Asian Region*	-
Middle East	9:33	Oceania	9:58		
1998		United States & Canada	8:40	India	-
		Latin America (Central, Caribbean, South)	9:04	China	-
				Taiwan	-
		Western Europe	9:37	Korea	-
		Eastern Europe & Former Soviet Union	9:44	Japan	9:01
		Africa	9:08	Asian Region*	-
Middle East	8:47	Oceania	9:34		
1999		United States & Canada	9:03	India	-
		Latin America (Central, Caribbean, South)	9:14	China	-
				Taiwan	-
		Western Europe	8:46	Korea	-
		Eastern Europe & Former Soviet Union	9:21	Japan	9:07
		Africa	9:13	Asian Region*	-
Middle East	9:32	Oceania	8:52		
2000		United States & Canada	8:49	India	-
		Latin America (Central, Caribbean, South)	8:52	China	-
				Taiwan	-
		Western Europe	8:46	Korea	-
		Eastern Europe & Former Soviet Union	8:21	Japan	8:56
		Africa	9:17	Asian Region*	-
Middle East	9:38	Oceania	8:31		
2001		United States & Canada	9:54	India	-
		Latin America (Central, Caribbean, South)	9:00	China	-
				Taiwan	-
		Western Europe	8:58	Korea	-
		Eastern Europe & Former Soviet Union	8:17	Japan	9:04
		Africa	9:37	Asian Region*	-
Middle East	9:01	Oceania	8:58		

2002		United States & Canada	8:23	India	-
		Latin America (Central, Caribbean, South)	9:22	China	-
				Taiwan	-
		Western Europe	8:44	Korea	-
		Eastern Europe & Former Soviet Union	9:28	Japan	9:18
		Africa	9:29	Asian Region*	-
Middle East	8:02	Oceania	9:22		
2003		United States & Canada	9:03	India	-
		Latin America (Central, Caribbean, South)	9:19	China	-
				Taiwan	-
		Western Europe	8:52	Korea	-
		Eastern Europe & Former Soviet Union	9:02	Japan	9:20
		Africa	9:22	Asian Region*	-
Middle East	8:52	Oceania	9:37		
2004		United States & Canada	9:14	India	-
		Latin America (Central, Caribbean, South)	9:12	China	-
				Taiwan	-
		Western Europe	8:56	Korea	-
		Eastern Europe & Former Soviet Union	8:30	Japan	9:06
		Africa	9:04	Asian Region*	-
Middle East	8:41	Oceania	9:08		
2005		United States & Canada	8:54	India	-
		Latin America (Central, Caribbean, South)	9:08	China	-
				Taiwan	-
		Western Europe	8:43	Korea	-
		Eastern Europe & Former Soviet Union	8:26	Japan	9:07
		Africa	9:03	Asian Region*	-
Middle East	9:18	Oceania	9:18		
2006		United States & Canada	9:18	India	-
		Latin America (Central, Caribbean, South)	9:31	China	-
				Taiwan	-
		Western Europe	9:08	Korea	-
		Eastern Europe & Former Soviet Union	9:07	Japan	9:15
		Africa	9:32	Asian Region*	-
Middle East	10:05	Oceania	9:18		

2007		United States & Canada	9:40	India	-
		Latin America (Central, Caribbean, South)	9:38	China	-
		Western Europe	9:23	Taiwan	-
		Eastern Europe & Former Soviet Union	9:20	Korea	-
		Africa	10:02	Japan	9:34
		Middle East	9:41	Asian Region*	-
		Oceania			10:27
2008		United States & Canada	10:13	India	10:05
		Latin America (Central, Caribbean, South)	9:49	China	8:03
		Western Europe	9:44	Taiwan	8:03
		Eastern Europe & Former Soviet Union	9:37	Korea	8:51
		Africa	10:31	Japan	9:42
		Middle East	9:24	Asian Region*	10:02
		Oceania			10:34
2009		United States & Canada	10:01	India	9:45
		Latin America (Central, Caribbean, South)	9:28	China	8:26
		Western Europe	9:55	Taiwan	8:38
		Eastern Europe & Former Soviet Union	10:00	Korea	9:53
		Africa	10:15	Japan	9:08
		Middle East	9:42	Asian Region*	9:29
		Oceania			10:10
2010		United States & Canada	10:13	India	9:42
		Latin America (Central, Caribbean, South)	9:48	China	8:04
		Western Europe	9:45	Taiwan	9:18
		Eastern Europe & Former Soviet Union	9:47	Korea	9:35
		Africa	10:24	Japan	9:09
		Middle East	10:47	Asian Region*	9:40
		Oceania			10:29
2011		United States & Canada	9:35	India	9:31
		Latin America (Central, Caribbean, South)	9:18	China	7:57
		Western Europe	9:28	Taiwan	8:42
		Eastern Europe & Former Soviet Union	9:13	Korea	9:59
		Africa	9:09	Japan	8:46
		Middle East	10:24	Asian Region*	9:03
		Oceania			10:06

2012		United States & Canada	9:54	India	9:10
		Latin America (Central, Caribbean, South)	10:00	China	8:49
				Taiwan	8:57
		Western Europe	9:55	Korea	9:33
		Eastern Europe & Former Soviet Union	9:12	Japan	9:14
		Africa	10:04	Asian Region*	9:39
Middle East	9:38	Oceania	10:14		
2013		United States & Canada	10:16	India	9:27
		Latin America (Central, Caribbean, South)	9:46	China	9:16
				Taiwan	8:39
		Western Europe	9:40	Korea	9:31
		Eastern Europe & Former Soviet Union	9:48	Japan	9:05
		Africa	9:42	Asian Region*	9:29
Middle East	9:08	Oceania	10:01		
2014		Oceania	10:08	Africa	9:09
		United States & Canada	9:55	Eastern Europe & Former Soviet Union	8:51
		Central, Caribbean America	9:12		
		South America	9:23	Middle East	9:21
		Western Europe	9:33	Asia	9:15
2015		Oceania	10:06	Africa	9:00
		United States & Canada	10:01	Eastern Europe & Former Soviet Union	8:59
		Central, Caribbean America	9:47		
		South America	9:47	Middle East	9:10
		Western Europe	9:42	Asia	9:15
2016		Oceania	10:01	Africa	9:09
		United States & Canada	9:58	Eastern Europe & Former Soviet Union	8:51
		Central, Caribbean America	9:38		
		South America	9:48	Middle East	10:06
		Western Europe	9:47	Asia	9:18

# Characters of the Environmental Domsday Clock



## Gring

Woodin's friend. Worryingly, Woodin had run out of energy for the global environment. To refresh Woodin, Gring has been traveling, looking for ways to protect our planet's environment. When Gring was on it journey, it carried Woodin as a pouch.



## Woodin

A character associated with the Environmental Doosday Clock. Woodin's state changes with the four crisis levels of the environmental Domsday Clock.



0:01~3:00  
Okay



3:01~6:00  
Concerned



6:01~9:00  
Worried



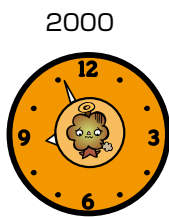
9:01~12:00  
Fearful

## What is the Environmental Domsday Clock

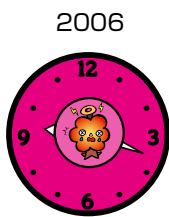
This is a clock that expresses how concerned we are about the global environment after having listened to the voices of people around the world. The greater our concern, the more time moves forward, and the closer it draws to 12 o'clock, the more dangerous the Earth becomes.



1992  
7:49  
Worried



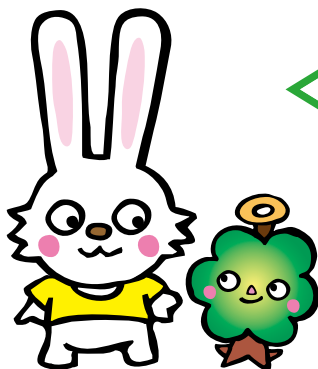
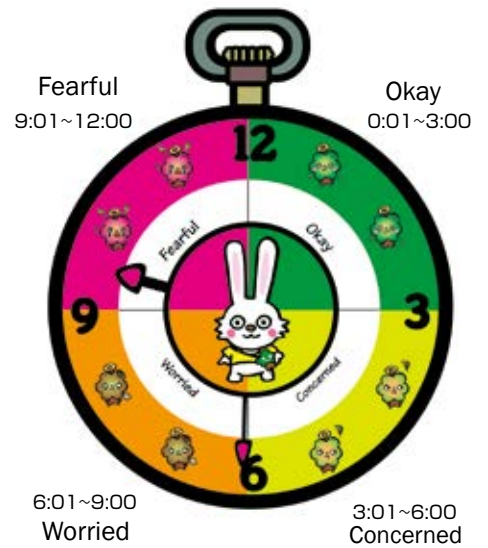
2000  
8:56  
Worried



2006  
9:17  
Fearful



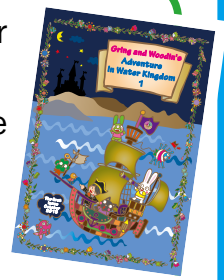
2015  
9:27  
Fearful



The comic "Gring and Woodin's Adventure in Water Kingdom" can be viewed on the foundation's website. Please come and see Gring and Woodin at our website below.

### The Asahi Glass Foundation

[http://www.af-info.or.jp/en/gw\\_clock/adventure.html](http://www.af-info.or.jp/en/gw_clock/adventure.html)



Twitter: @clock\_gw

Facebook: @gringandwoodin

# The Environmental Doomsday Clock 2016



Gring

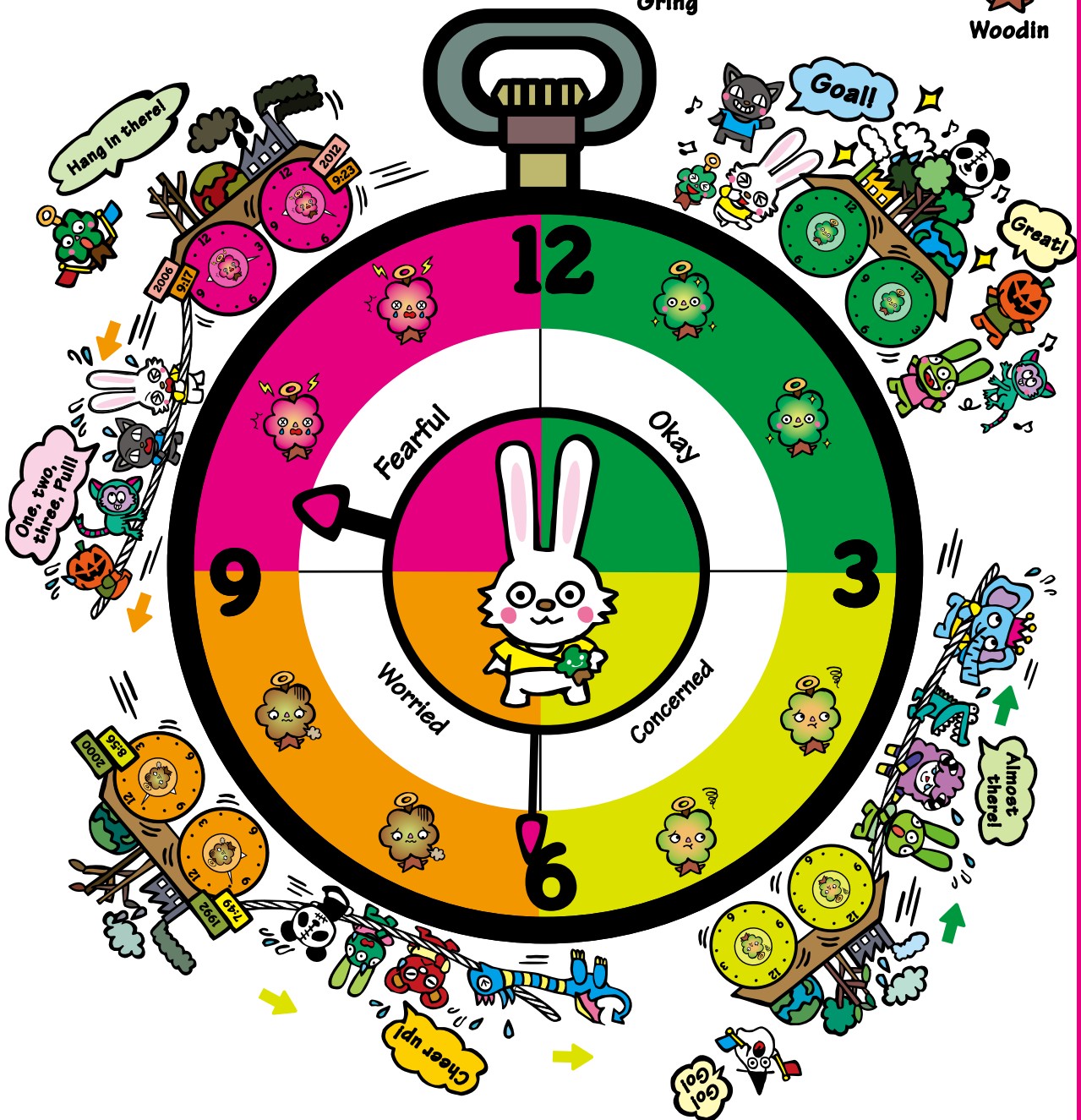
The time of  
2016 is

**9:31**

Fearful



Woodin



[www.af-info.or.jp](http://www.af-info.or.jp)

af THE ASAHI GLASS FOUNDATION

Designed by  
Entrex inc.  
[www.entrex.co.jp](http://www.entrex.co.jp)  
[inas-atelier.com](http://inas-atelier.com)

**Results of the 25th Annual  
“Questionnaire on Environmental Problems and the Survival of Humankind”**

**REPORT**

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**If you have inquiries regarding this questionnaire,  
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