# Large-Scale Survey of Actual Conditions of Gender Equality in Scientific and Technological Professions

July 2008

Japan Inter-Society Liaison Association Committee for Promoting Equal Participation of Men and Women in Science and Engineering(EPMEWSE)

This survey takes over the first survey of actual conditions of gender equality in scientific and technological professions that was conducted by the Japan Inter-Society Liaison Association Committee for Gender Equality in 2003. It mainly targets members of more than 60 associations joining of the Japan Inter-Society Liaison Association Committee for Gender Equality, and it also invites subjects from various related fields, other than the members. This survey was conducted from August 21 to November 20 in 2007 on internet website.

The questions included almost all of those in the first survey. In addition, basic information such as occupation type, profession, and annual income, questions about work, fixed-term employment, spouse, and childcare, and questions about the recent laws and policies were newly included. A total of 94 questions in 35 items were conducted. Furthermore, free description space was given at the end.

The total number of responses in this survey was 14,110, which was divided by 10,349 male respondents (73.3%) and 3,761 female respondents (26.7%). The total number of responses was smaller compared to the previous survey with 19,291 total responses (4,881 responses less this time). However, approximately 650 female respondents increased this time, which increased the female response rate at about 10 points.

The results of this survey are summarized as follows.

1. Results of each question item

◆ The major difference from the previous survey results regarding respondents was that the ratiod female increased by about 10%, and became 26.7%. In addition, the field with the highest ratio of respondents was the vital system, which dominated about 42.3% of the entire respondents. Furthermore, the respondents who belonged to corporations decreased by about 13%, and became 23.2%. The age distribution was the same as the previous results, with 30s the most at 34.8% of the entire respondents.



Fig. 1.2 Number of answers of male and female and the ratio of female



Fig. 1.3 Number of answers for each organization and ratio of female





◆ There was almost no gender difference regarding academic background, degree condition, and the rate between research work and technical work. Regarding employment status, full-time employment (without fixed-term) significantly decreased compared to the previous results, and full-time employment (fixed-term) and part-time employment increased. In universities and research institutes, the more unstable the employment status is, the higher the ratio of female is (in the order from full-time without fixed-term being the most stable, to full-time with fixed-term, and part-time being the least).



Fig. 1.9 Highest academic degree



Fig. 1.10 Situation of obtaining doctoral degree



Fig. 1.12 Ratio of research job and technical job







Fig. 1.16 Ratio of male and female in each type of employment

Figure 1.9; 1.10; 1.12; 1.14; 1.16

♦ Regarding position, post-doctoral fellow increased for both males and females. According to the ratio between males and females for each position, the higher the position was, the lower the ratio of female was in universities, research institutes, and corporations, and it was the same as the previous survey results. The average number of subordinates and the average fund for R&D for females were less than half of those for males.



Fig. 1.18 Rate of job for man and woman



Fig. 1.19 Ratio of man and woman for each type of post







Fig. 1.31 Fund for R&D







◆ Annual income distribution ranged between 4 million yen to 11million yen for males, but its peak was 4 million yen to 5 million yen for females with small rate of high-income earner. The average income for females was about 80% of that for males, and the gender inequality was bigger than the difference caused by the organization (about 10%). (The questions about annual income are the newly added questions).





#### Figure 1.20; 1.21

◆ There was a slight difference in working hours at workplace per week between males (56 hours) and females (52 hours), but their working hours at home were both 8.3 hours without any difference. Compared to the previous results, the working hours at workplace decreased by about 2 hours for both males and females, and the working hours at home increased by about 2.3 hours for both of them, which showed the tendency to bring their work back home.



Fig. 1.22 Time in work place (per week)



Fig. 1.25 Time of works at home



Fig. 1.28 Time in office for each special area



Figure 1.22; 1.25; 1.28; 1.29

◆ Regarding the reason for selecting the particular occupation and the expectation for the future occupation, occupation was selected actively and aggressively, and there was a strong intention for a career in research, in the same manner as the previous results. Females tend to hesitate to gain independence, as compared to males. There is a high rate of negative idea about possibility for getting a desired job among people employed in dependent occupation in universities or research institutes, especially among females.



Fig. 1.34 Reason for choosing current position



Fig. 1.36 Reason for choosing current position



Figure 1.34; 1.36; 1.38

◆ There was almost no gender difference regarding the rate of career change experience, which was about 25% for both males and females. The rate of job leaving experience was totally low, but it was higher for females. Career progression and job contents were mainly the reasons for job leaving and career change for both males and females, but family matters and gender segregation were significant among females.



Fig. 1.41 Yes/No of job leaving/transferring



Fig. 1.45 Reason for leaving/transferring job

### Figure 1.41; 1.45

◆ For the environments necessary for research, fund for R&D, time, environment in which researchers could focus on a project for a long period of time, degree of freedom in research, and appropriate evaluation were selected, and their rates were almost the same as the previous results without much gender difference. Therefore, it is considered as stable.



#### Fig. 1.54 Renvironment for R&Dosition

#### Figure 1.54

◆ There was no gender difference in the married rate under 30s; however, this rate was lower for females over 40s. Regarding the occupation of spouses, more than half of the male respondents selected unemployed and 12.5% of them selected researcher and engineer. However, 65.6% of the female respondents selected researcher and engineer. The average annual income of spouses was 1.75 million yen according to the male respondents and 7.12 million yen according to the female respondents, which showed significant difference. Among the married respondents, females had more experiences of their family members transferring not accompanied by family. Especially about half of the females who belonged to universities, experienced their family members transferring not accompanied by family.



Fig. 1.58 Have spouse (yes/no)





Figure 1.58; 1.59; 1.60; 1.62; 1.63; 1.64

◆ There was a gender difference regarding the number of children. The average number of children was 2 for the males over 50, and 1.3 for the females. It was 0.9 for the females in their 40s, which showed tendency of low birthrate compared to the past. Almost no gender difference was observed for any ages regarding the desired number of children, which was 2 or more if possible. However, about 45% of the males and about 60% of the females were negative about its potentiality. The males mainly selected economical reason, and the remarkable number of females selected combination of childcare and career.









Fig. 1.68 Idea number of children



Fig. 1.69 Number of children in reality and in ideal



Fig. 1.70 Reason for cannot realize the number of ideal children



Fig. 1.71 Reason for cannot realize the number of ideal children

Figure 1.66; 1.67; 1.68; 1.69; 1.70; 1.71

◆ Cooperation and understanding of supervisors and workplace, more flexible working hours, and improvements of social support base such as daycare center, after school care, and daycare services for children who are ill, were strongly desired as necessary environments for combining career and childcare.



Figure 1.81

◆ Mindset regarding gender equality promotion was consistent without any gender difference, and "change in men's mindset" and "improvement of support systems for childcare and elder care" were often needed by both males and females for the further promotion. "Improved workplace environment" and "strengthened social security" were less selected, compared to the previous results, and were considered to be planned for improvement as a result.



Fig. 1.97 Mechanisms for co-participate of man and woman

#### Figure 1.97

2. Important question items: gender inequality in higher positions

◆ Regardless of the positional status or age, the higher position index of females was lower than that of males. Females hiring rate for the position higher than university instructors in the past 10 years showed slight increase, but its increase rate is small.



Fig. 2.1 Definition of post-index











Fig. 2.5 Rate of employing woman for faculty in university (lecturer and above)

#### Figure 2.1; 2.2; 2.5

◆ Regardless of the positional status or age, the average number of subordinates and the average fund for R&D for females were lower than those for males. Even though males and females in the same position were compared, those were lower for females. It was revealed that the higher the position, the wider the difference.



Fig.2.6 Number of junior partner's vs ages (for each organization)



Fig.2.7 Change of research fund according to age - for each organization



Fig.2.9 Number of junior staffs for each post

Fig.2.10 Annual research funds for each type of post

Figure 2.6; 2.7; 2.9; 2.10

3. Important question items: childcare

◆ Females with preschool children spent about 4.6 hours per day for domestic work and childcare, which was a big burden for combining family and career. There seemed to be a correlation between the income of family and the number of children.



#### Figure 3.2; 3.3

◆ The rate of females who took a childcare leave tended to increase, which meant establishment of childcare leave. However, the rate of females in universities and research institutes was lower when compared with that of females in corporations. The reason for this difference is considered to be the anxiety about discontinuation of work and the environment that does not allow the leave.



Fig. 3.4 Situation of taking vacation for each generation of the youngest children, organization



Fig. 3.5 Reason why did not take vacation for taking care children (with satisfaction) (Woman who have children not yet going to school)

Figure 3.4; 3.5

◆ The rate of male respondents who selected their spouses as the main caregiver during the day tended to decrease. There was an increasing use rate of day care center and after school care.



Fig. 3.6 Person who take charge of taking care children in day time for each generation of the youngest children



Fig. 3.7 Person who take charge of taking care elementary student after school time for each generation of the youngest children

Figure 3.6; 3.7

4. Important question items: fixed-term employment / post-doctoral fellows

◆ The rate of fixed-term employment was higher in universities and research institutes, and the rate of such employment was observed for females in almost all the positions. Especially in the case with technologists, the rate of females was 71%, and the rate of part-time employment was higher, and the annual income for part-time employed technologists was about the half of that for full-time employed technologists (without fixed-term). Among the fixed-term employments in universities and research institutes, other than the post-doctoral fellows, the rate of participation in social insurance such as health insurance, pension, and employment insurance was 80% or higher. However, it was about 70% for the

post-doctoral fellows.















Fig. 4.7 Situation of joining health insurance (Analyzed the covariant with contract time. For each area of post, male and female)



Fig. 4.8 Employees' pension for the aged (Analyzed the covariant with contract time. For each area of post, male and female, legends are the same as that of figure 4.7)



Fig. 4.9 Situation of joining unemployment insurance (Analyzed the covariant with contract time. For each area of post, male and female, legends are the same as that of figure 4.7)

#### Figure 4.2; 4.3; 4.6; 4.7; 4.8; 4.9

◆ The rate of females in post-doctoral fellows was about 35% around the age 30, which was almost consistent with the rate of graduate female students. However, its rate increased as the age became older. There was no significant gender difference regarding the working hours of post-doctoral fellows, and there was no such difference when compared with full-time employment. However, their average annual income was lower than that of full-time workers and corporations of the same age. Furthermore, the average annual income of female post-doctoral fellows in their 30s was lower at about 10% when compared with that of male post-doctoral fellows. The main age group of post-doctoral fellows is the same age for childbearing and childcare, and they are under disadvantageous condition when considering about the possibility of childcare leave and of term extension.



Fig.4.11 Distribution of age of postdoc and rate of woman



Fig.4.12 Number of hours for postdoc in the contract



Fig.4.13 number of hours in work place (for each area of employment)



Fig.4.16 Annual income for postdoc (for each age, male and female)



Fig. 4.18 Permission for non-tenure employment to take vacation for taking care children (for each area of employment, man and female)



Fig. 4.19 RePermission of extension term for non-tenure employment when take vacation for taking care children (for each area of employment, man and female)

Figure 4.11; 4.12; 4.13; 4.16; 4.18; 4.19

• Post-doctoral fellows have been established as a career path for researchers. However, few positions after post-doctoral fellows and difficulty in mapping life plan have been pointed out as issues of post-doctoral

fellows system. In order to ensure career path after post-doctoral fellows, it has been strongly desired to increase the full-time employment for continuous research in universities and research institutes.



Fig.4.20 Prior post of assistant professor/researcher/associate professor/senior research (Plot by dividing into the duration in current post, 5 years or lower, 5~10 years, 10 years or more for man and female)

Figure 4.20

#### 5. Important question items: recognition of policies

◆ Regarding 4 new policies related to gender equality "support for returning to work after childcare leave," "cultivation of support model for female researchers," "support project of science career selection for female students in junior high school and high school," and "numeric target for employment of female researchers," they were not sufficiently recognized because they were just initiated recently. However, they were generally positively evaluated. There were slightly more negative opinions about "numeric target for employment of female researchers" compared to the others, which was mainly observed among younger generation,post-doctoral fellow,males,and in physics and life-biology fields.





















Fig. 5.3 Recognition about recent policy



Fig. 5.4 Recognition about the goal number employment of female researchers

Figure 5.1; 5.3; 5.4 (5: 3 figures)

### 6. Free description

◆ It was possible to reveal the feeling and heartfelt voices of science and technology professionals from free description. The main contents were as follows:

- 1. Demand for stability and continuity of fixed-term employment.
- 2. Possibility of combining research and childcare by changing mindset of supervisors and males.
- 3. Discouragement of combining research as well as career and family caused by long working hours.
- 4. Expectation of married couples to find employments in the same area and live together for combining research and childcare.
- 5. Expectation of abolishing age limits in public offering of hiring and research fund.

### Questionnaire working group members

### Coordinators:

Yoko Toyoshima (The Biophysical Society of Japan) Hisako Ohtsubo (The Molecular Biology Society of Japan) Sumiko Okada (Atomic Energy Society of Japan) Tomoko Sawabe (The Institute of Electronics, Information and Communication Engineers) Atsushi Takeuchi (The Japan Society of Applied Physics) Tomoko Chikumoto (The Japan Society of Applied Physics) Zhang,L. (The Japan Society of Applied Physics) Shigeki Mitaku (The Biophysical Society of Japan) Naoko Yoshie (The Society of Polymer Science, Japan)

Associations participated in survey

The following 64 associations participated in this survey (36 full members of Japan Inter-Society Liaison Association Committee for Promoting Equal Participation of Men and Women in Science and Engineering(EPMEWSE), 26 observer members, and 2 others).

(Full members) The Japan Society of Applied Physics The Society of Chemical Engineers, Japan The Society of Polymer Science, Japan The Japan Society of Chemistry of Complexes The Ecology and Engineering Society, Japan Society of Geomagnetism and Earth, Planetary and Space Sciences The Institute of Electronics, Information and Communication Engineers Japanese Society of Animal Breeding and Genetics Genetics Society of Japan Japanese Society for Biological Sciences in Space The Chemical Society of Japan Japanese Liquid Crystal Society Atomic Energy Society of Japan Architectural Institute of Japan Japan Society for Cell Biology Japanese Society of Plant Physiologists The Society of Japanese Women Scientists Society of Evolutionary Studies, Japan The Japan Neuroscience Society Japan Forest Society The Mathematical Society of Japan The Japanese Biochemical Society Ecological Society of Japan The Biophysical Society of Japan Physiological Society of Japan Protein Science Society of Japan Society of Geomagnetism and Earth, Planetary and Space Sciences Astronomical Society of Japan Japanese Society of Carbohydrate Research The Zoological Society of Japan Japanese Society of Bio-imaging The Japanese Society of Developmental Biologists Japanese Society of Animal Reproduction The Japan Society for Comparative Endocrinology The Physical Society of Japan The Molecular Biology Society of Japan

(Observer members)

The Institute of Image Information and Television Engineers Society of Automotive Engineers of Japan

The Japanese Geotechnical Society

Illuminating Engineering Institute of Japan

Japan Society for Precision Engineering

Institute of Petroleum

Electrochemical Society of Japan

Japan Society of Civil Engineers

Japanese Liquid Crystal Society

The Magnetics Society of Japan

Japan Scientists Association

Japan Association for Fire Science and Engineering

Japan Society of Mechanical Engineers

Ichthyological Society of Japan

Japan Institute of Metals Botanical Society of Japan Japanese Women Engineers Forum Japan Society for Fishery Stock Enhancement Japan Database Society Ornithological Society of Japan Japan Bioinformatics Society Surface Science Society of Japan Japan Society for Process Chemistry Japan Society for Analytical Chemistry Japan Society on Water Environment The Iron and Steel Institute of Japan

(Survey cooperative associations) Japanese Society of Species Biology Japanese Society of Microscopy

• Refer to the following website about this report.

Website for Japan Inter-Society Liaison Association Committee for Promoting Equal Participation of Men and Women in Science and Engineering(EPMEWSE)

http://annex.jsap.or.jp/renrakukai/

• When quoting the contents of this report, refer to the following examples and clearly specify the sources.

### (Descriptive examples)

• Indicate "Large-Scale Survey of Actual Conditions of Gender Equality in Scientific and Technological Professions" Japan Inter-Society Liaison Association Committee for Promoting Equal Participation of Men and Women in Science and Engineering(EPMEWSE) (2008) in quotation part.

• Regarding information for posting as reference cited, indicate the year 2007-version"Large-Scale Survey of Actual Conditions of Gender Equality in Scientific and Technological Professions."

Inter-Society Liaison Association Committee for Gender Equality (2008) pp.130

Website for Japan Inter-Society Liaison Association Committee for Promoting Equal Participation of Men and Women in Science and Engineering(EPMEWSE)

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Japan Inter-Society Liaison Association Committee for Promoting Equal Participation of Men and Women in Science and Engineering(EPMEWSE)





Fig. 1.5 Percentages of main affiliations for each academic field



Fig. 1.23 Hours spent on research and development at work (per week)



Fig. 1.26 Hours spent on research and development at home



Fig. 1.40 Important factors to attain the desired position







Fig. 1.44 Subsequent employment status after leaving / changing work



Fig. 1.74 Duration of childcare leaves



Fig. 1.77 Duration of childcare leaves (spouse)



Fig. 1.79 Effects of taking childcare leaves



Fig. 1.80 Evaluation of those who take childcare / family-care leaves



Fig. 1.82 Factors necessary to maintain a balance between work and family life by presence and age of children



Fig. 1.83 Reasons for low proportion of female researchers and engineers



Fig. 1.85 Reasons for low proportion of women in leadership positions



Fig. 1.86 Is there a gender gap regarding compensation / promotion in the field of science and technology?





Fig. 1.73 Percentage of respondents who have taken childcare leave



Fig. 1.76 Percentage of respondents whose spouses have taken childcare leave

## Questionnaire

- It requires from 20 to 30 minutes for answering the entire questionnaire below. It is impossible to discontinue and save the questionnaire, but it does not time out unless the browser is kept opened. Please answer all the questions as far as possible. Answer only one time even though you participate in multiple academies, and check all the academies you participate in the question 6. Check only one option when unlined, and check all the relevant options when lined. In the case of brackets [], click and check one of the options.
- 1. Age on April 1, 2008. [] years old (choose 21 or under, 22-70 by a year, 71 or over)
- 2. Gender  $\Box$ Male  $\Box$ Female
- 3. What is your highest academic degree?
- $\Box$ Undergraduate
- $\Box$  Master's
- $\Box$ Ph.D.
- $\Box Other$
- 4. Do you hold a doctoral degree?
- $\Box I$  don't have a doctoral degree
- $\Box$  Course
- $\Box$ Non-course
- $\Box \operatorname{Both}$  "Course" and "Non-course"
- (Note: "Course" doctorates are conferred upon those who complete graduate school courses, whereas
- "non-course" doctorates do not require enrollment in the graduate school.)
- 5. What is your current occupation and area of specialization? Choose the closest one from each category.
  - 5.1  $\square$ Research  $\square$ Technical  $\square$ Other  $\square$ Retired
  - 5.2  $\Box$ Science  $\Box$ Engineering  $\Box$ Agriculture  $\Box$ Medical  $\Box$ Other
  - 5.3 Mathematics Electric information Physic Material Science Life-Biology Architecture Engineering Other
- 6. To which academic societies do you belong? Mark all that apply.
  - □ The Japan Society of Applied Physics
  - $\Box$  The Society of Chemical Engineers, Japan
  - □ The Society of Polymer Science, Japan
  - $\Box$  The Japan Society of Chemistry of Complexes
  - □ The Ecology and Engineering Society, Japan
  - $\Box$  Society of Geomagnetism and Earth, Planetary and Space Sciences
  - □ The Institute of Electronics, Information and Communication Engineers
  - $\Box$  Japanese Society of Animal Breeding and Genetics
  - $\Box$ Genetics Society of Japan
  - □Japanese Society for Biological Sciences in Space
  - $\Box$  The Chemical Society of Japan
  - □Atomic Energy Society of Japan

 $\Box$ Architectural Institute of Japan

- $\Box$  Japan Society for Cell Biology
- $\Box$ Japanese Society of Plant Physiologists
- $\Box The Society of Japanese Women Scientists$
- □Society of Evolutionary Studies, Japan
- □ The Japan Neuroscience Society
- □Japan Forest Society
- $\Box$  The Mathematical Society of Japan
- $\Box$  The Japanese Biochemical Society
- $\Box$  Ecological Society of Japan
- □ The Biophysical Society of Japan
- □Physiological Society of Japan
- □Protein Science Society of Japan
- $\Box$  Society of Geomagnetism and Earth, Planetary and Space Sciences
- □Astronomical Society of Japan
- □Japanese Society of Carbohydrate Research
- □ The Zoological Society of Japan
- □Japanese Society of Bio-imaging
- $\Box The Japanese Society of Developmental Biologists$
- □Japanese Society of Animal Reproduction
- $\Box The Japan Society for Comparative Endocrinology$
- □ The Physical Society of Japan
- □ The Molecular Biology Society of Japan
- □The Institute of Image Information and Television Engineers
- $\Box$ Society of Automotive Engineers of Japan
- $\Box$  The Japanese Geotechnical Society
- $\Box$ Illuminating Engineering Institute of Japan
- □Japan Society for Precision Engineering
- $\Box$ Institute of Petroleum
- Electrochemical Society of Japan
- □Japan Society of Civil Engineers
- □Japanese Liquid Crystal Society
- □ The Magnetics Society of Japan
- $\Box$ Japan Scientists Association
- □Japan Association for Fire Science and Engineering
- □Japan Society of Mechanical Engineers
- $\Box$  Ichthyological Society of Japan
- □Japan Institute of Metals
- □Botanical Society of Japan
- □Japanese Women Engineers Forum
- □Japan Society for Fishery Stock Enhancement

 $\Box$ Japan Database Society

 $\Box$  Ornithological Society of Japan

□Japan Bioinformatics Society

 $\Box$  Surface Science Society of Japan

 $\Box$  Japan Society for Process Chemistry

 $\Box$  Japan Society for Analytical Chemistry

 $\Box$ Japan Society on Water Environment

 $\Box$  The Iron and Steel Institute of Japan

 $\Box$  Japanese Society of Species Biology

 $\Box$  Japanese Society of Microscopy

 $\Box Other$ 

 $\Box$ Independent

7. What type of organization do you belong to? (If you have left work, please respond questions 7-17 with your most recent position in mind.)

 $\Box$  Corporation  $\Box$  National University  $\Box$  Public university (municipal)

 $\Box$ Private university  $\Box$ Other educational institution  $\Box$ Public research institution (including

independent corporation)  $\Box$  Other  $\Box$  Independent

8. What is your current employment status?

 $\Box$  Full-time employment (permanent position)

 $\Box$  Full-time employment(with limited-term contract)

 $\Box$  Part-time employee

 $\Box$ Student

 $\Box$  Unemployed

 $\Box$  Other

9. What is your current position?

Corporation

 $\Box Entry-level \ employee \ \ \Box Term/group \ leader \ \ \Box Section \ head$ 

 $\Box Department/division \ head \ or \ director \quad \Box Operations \ manager/director$ 

 $\Box$  Executive director/officer or above  $\Box$  Other

University

 $\begin{tabular}{ll} $\square$ Undergraduate student $ $\square$ Graduate student $ $\square$ Research student $ $$ 

 $\Box$  Post-doctoral fellow  $\Box$  Technician  $\Box$  Research associate  $\Box$  Lecturer

 $\Box Assistant \ professor \quad \Box Associate \ professor \quad \Box Professor \quad \Box Other$ 

Public research institution

□Team/group laboratory chief/director

 $\Box$ Division/department head or director  $\Box$ Operations manager/director  $\Box$ Other

10. What is your approximate annual income, including tax?

[] yen (choose 0, 0-15 million yen by 1 million yen, 15 million yen or above)

- 11. Hours spent at your workplace
  - 11.1 How many hours per week do you spend at your workplace?
    - [] hours (choose 0-90 by 10 hours, 90 hours or more)
  - 11.2 How many of the above hours do you spend on research and development?
    - [] hours (choose 0-90 by 10 hours, 90 hours or more)
- 12. Hours spent working at home
  - 12.1 How many hours per week do you work at home?

[] hours (choose 0-50 by 10 hours, 50 hours or more)

- 12.2 How many of the above hours do you spend on research and development?
  - [] hours (choose 0-50 by 10 hours, 50 hours or more)
- 13. How many people do you supervise? If you are with a university, how many people do you advice, excluding undergraduates?
  - $\Box 0$   $\Box 1$ -3  $\Box 4$ -6  $\Box 7$ -15  $\Box 16$ -30  $\Box 31$  or more
- 14. What is your total annual research and development budget, excluding personnel costs? If you are representing your research group or project team, please check the total amount allocated to your group/team in 2007.
  - $\Box 0$  yen  $\Box$  Under 500,000 yen  $\Box$  500,000-1,000,000 yen
  - $\Box$ 1,000,000-5,000,000 yen  $\Box$ 5,000,000-20,000,000 yen
  - $\Box$  20,000,000-50,000,000 yen  $\Box$  50,000,000 yen or above
- 15. Why did you choose your current occupation?
  - $\Box$  For academic satisfaction/intellectual simulation
  - $\Box$  To make full use of my abilities
  - $\Box$  Because I find this job attractive
  - $\Box$  To improve my skills
  - $\Box$ To earn a high income
  - $\Box$  Job security
  - $\Box$  Able to balance family and career
  - $\Box$  Free of gender discrimination
  - $\Box$ To benefit society
  - $\Box$  To archive status/fame
  - $\Box$  Because I want to engage in management
  - $\Box$  No other satisfactory work was available
  - $\Box$  Because I was offered the job
  - $\Box$  Parents/friends recommended it
  - $\Box$  Near my home
  - $\Box$  No relocation required
  - $\Box$  Flexible working hours
  - $\Box$  Other
- 16. Previous position
  - 16.1 What was your employment status? Mark all that apply.
    - $\Box$ Full-time  $\Box$ Full-time (limited-term contract)  $\Box$ Part-time  $\Box$ Student

 $\Box$  Unemployed  $\Box$  Other

16.2

Corporation

 $\Box Department/division \ head \ or \ director \quad \Box \ Operations \ manager/director$ 

 $\label{eq:executive director/officer or above $$\Box$ Other $$$ 

University

 $\Box Undergraduate \ student \ \ \Box Graduate \ student \ \ \Box Research \ student$ 

 $\Box$ Assistant professor  $\Box$ Associate professor  $\Box$ Professor  $\Box$ Other

Public research institution

□Team/group laboratory chief/director

 $\Box$  Division/department head or director  $\Box$  Operations manager/director

 $\Box$  Other

16.3 How long have you been placed in the current position?

[] year(s) (0-10 years by a year, 10 or more)

17. Your future career path (For those who have left work, please respond as you would have in your most recent position.)

### 17.1 In the future, what type of position do you wish to hold? (If you wish to continue in your present

position, please respond as such.)

- $\Box$  Leader of academic research laboratory
- $\Box$  Work in academic research
- $\Box$  Leader of corporative research/development
- $\Box$  Work in corporative research/development

 $\Box$  Business management

 $\Box$  Other than those above at corporations

 $\Box$  Education

 $\Box$ Local government

- $\Box$  Entrepreneur
- $\Box$  Science and technology journalist
- $\Box \operatorname{Not} \operatorname{sure}$
- $\Box Other$

17.2 Please choose up to 5 factors you consider important in achieving that position. Mark all that apply.

 $\Box$ Talent

 $\Box$  Specialized knowledge

 $\Box$  Dedication

- $\Box$ Physical strength
- $\Box$  Efficiency
- $\Box Time \ spent \ on \ work$

 $\Box$ Leadership

 $\Box$ Social skills

□Skills of data gathering

 $\Box \mbox{Presentation skills}$ 

 $\Box Gender$ 

 $\Box$  Personal connections

 $\Box$  Cooperation from or mentoring by one's supervisors

□Support from family

 $\Box System of hiring, evaluation and promotion$ 

 $\Box$ Social support system

 $\Box \operatorname{Location}$  of work

 $\Box$ Timing

 $\Box$ Management

 $\Box$ Don't know

 $\Box Other$ 

17.3 Please rate the likelihood of achieving your desired position.

 $\Box$  Already achieved  $\Box$  Possible with some effort  $\Box$  Unlikely  $\Box$  Don't know

- 18. Leaving/changing your job
  - 18.1 Have you ever considered leaving/changing your job or have you ever actually left/changed jobs?
    - $\Box I$  have changed jobs
    - $\Box I$  have left jobs
    - $\Box I$  have considered changing jobs
    - $\Box I$  have considered leaving jobs

 $\Box I$  have neither considered leaving/changing nor actually left/changed jobs.

18.2 If you have left work or changed jobs, please mark the reason(s). Mark all that apply.

 $\Box$  To further my career  $\Box$  Job content  $\Box$  Better income  $\Box$  Job relocation

 $\Box Job \ relocation \ of family \ member \ \Box \ Work place \ location \ \Box \ End \ of \ contract$ 

 $\Box$  Marriage  $\Box$  Childrearing  $\Box$  Caring for sick family member

 $\Box$  Concern for the future  $\Box$  Gender discrimination

 $\Box$  Difficult personal relations  $\Box$  Unhappy with previous workplace

 $\Box$ Dismissed  $\Box$ Out of business  $\Box$ Other

18.3 If you have ever changed jobs, how many times? [] (1, 2, 3, 4, 5 or more)

18.4 Into what type of field did you move? Mark all that apply.

 $\Box$ University

 $\Box$  National/public research institution

 $\Box$  School education-related

 $\Box$ Private enterprise (research and development)

 $\Box$ Private enterprise (survey research and consulting)

 $\Box$ Private enterprise (non-research related work)

 $\Box$ Public administration

 $\Box Other$ 

 $\Box$ Independent

18.5 If you have ever changed jobs, what was your employment status afterwards?

 $\Box$  Full-time employment (permanent position)

 $\Box$  Full-time employment (limited-term contract)

 $\Box$  Part-time employment

 $\Box$  Unemployed

 $\Box$  Other

- 19. If you are currently employed with limited-term contracts including part-time, post-doctoral fellow, contract employee, please answer the following questions.
  - 19.1 How long is your contract? [] years (1, 2, 3, 4, 5 or more)

Is it possible to extend your contract?

- $\Box Possible \quad \Box Impossible \quad \Box Possible \text{ with limitation } \quad \Box Not \text{ sure}$
- 19.2 What is the total year of employment under limited-term contracts, excluding the period out of work and leaving?

[] years (0-10 by 1 year, 10 years or more)

19.3 How many times have you changed your place as a limited-term contract?

[] times (0, 1, 2, 3, 4 or more)

19.4 What is the working hour per week on your contract?

[] hours (0-40 by 10 hours, 40 hours or more, I am not in hourly position)

- 19.5 Are you covered by health insurance (or mutual short) of organization you belong to? □Yes □No □Not sure
- 19.6 Are you signed up for welfare pension (or mutual long) of organization you belong to? □Yes □No □Not sure
- 19.7 Are you covered by employment insurance?  $\Box$  Yes  $\Box$  No  $\Box$  Not sure
- 19.8 Is it possible to take childcare leave?  $\Box$  Yes  $\Box$  No  $\Box$  Not sure
- 19.9 Is it possible to extend your contract after maternity/childcare leave?

 $\Box$ Yes  $\Box$ No  $\Box$ Not sure

20. If you are currently employed full-time in permanent position, please answer the following questions.

20.1 What is the total year of employment under limited-term contracts, excluding the period out of work and leaving?

[] years (0-10 by 1 year, 10 years or more)

20.2 How many times have you changed your place as a limited-term contract?

[] times (0, 1, 2, 3, 4 or more)

21. Please answer the questions regarding post-doctoral fellow system and career path.

21.1 What do you think of the current number of post-doctoral fellows in your field?

- $\Box$  Too few
- $\Box$  Adequate
- $\Box$  Too many
- Don't know
- 21.2 Mark all the advantages of the current post-doctoral fellow system that you agree with.
  - $\hfill\square$   $\hfill$  Promotion in mobilization of human resources

- $\Box$  Activation of research organization
- $\Box$  Possible to flexibly collect workforces without being tied down by limit of organization
- $\Box$  Possible to attract human resources with different backgrounds
- $\Box$  Possible to proceed with research project at low-cost labor
- $\hfill\square$  Possible to try out the ability as a researcher after obtaining a degree
- $\hfill\square$  Possible to focus on research
- $\hfill\square$  Opportunity to work on different research field and project
- $\Box$  Possible to work on a big project as a team member
- $\hfill\square$   $\hfill$  Easy to change career and easy reemployment
- $\Box$  Easy to map life plan
- $\Box$  No advantage

21.3 Mark all the problems of the current post-doctoral fellow system that you agree with.

- $\hfill\square$  Mobilization of human resource does not fit the actual condition in Japan
- $\hfill\square$  It is difficult to forecast because the term depends on the research expense
- $\hfill\square$  Cannot work on a big project because of the term
- $\Box$  The term contract may be terminated because employment to permanent job is given priority
- $\hfill \Box$   $\hfill Few positions after post-doctoral fellow$
- $\Box$  Age-limit
- $\hfill\square$  Difficult to map life plan
- $\hfill\square$  Serious salary disparity of post-doctoral fellows
- $\Box$  Unreasonable social security
- $\hfill\square$  Difficult to take childcare leave
- $\Box$  No problem
- 21.4 Mark all the necessary approaches for ensuring career path after post-doctoral fellow.
  - □ Expansion of full-time work for conducting independent research in university and research
  - institute
  - □ Establishment of full-time employment in which research can be continued without necessarily gaining independence
  - $\hfill\square$  Abolishment of age limits for post-doctoral fellow
  - $\Box$  Ensuring time for finding employment after post-doctoral fellow
  - □ Providing opportunities for exchanging between various industries (corporations and governments)
  - □ Expansion of professional work that is related to Scientific Technical Administration
  - $\Box$  Hiring junior high school teachers and high school teachers who have used special licensing system
  - $\hfill\square$   $\hfill$  Creation of the field in which science communicators and others can be active
  - $\hfill\square$  Improvement of the system for supporting company foundation
  - $\hfill\square$  Education regarding science and social studies (politics, economics, and ethics) in graduate school
  - $\hfill\square$  Setting career center in research institute such as in university
- 22. Please answer the questions regarding life outside work.

22.1 Commute time:  $\Box$ None  $\Box 1$   $\Box 2$   $\Box 3$   $\Box 4$  hours or longer

22.2 Time required for domestic work, childcare, and elder care (average):  $\Box$  None  $\Box 1$   $\Box 2$   $\Box 3$   $\Box 4$ 

- $\Box 5$   $\Box 6$  hours or longer
- 23. Are you married?  $\Box$  Yes  $\Box$  No
- 24. Please answer if you are married.
  - 24.1 What is the occupation of your spouse?
    - $\Box$  Non-working
    - $\Box$  Company employee (R&D)
    - $\Box$  Company employee (other than R&D)
    - $\hfill\square$  R&D in university and research institute
    - $\hfill\square$  Public employee (other than educational institute)
    - $\hfill\square$  Self-employed
    - $\Box$  Other
  - 24.2 Is it under fixed-term contract?  $\Box$  Yes  $\Box$  No
  - 24.3 The approximate annual income (including tax) of your spouse:
    - $\Box 0 \quad \Box 0 \sim 100$  million yen  $\Box 100 \sim 200$  million yen  $\Box 200 \sim 300$  million yen
    - $\Box\,300{\sim}400$  million yen  $\Box\,400{\sim}500$  million yen  $\Box\,500{\sim}600$  million yen
    - $\Box\,600{\sim}700$  million yen  $\Box\,700{\sim}800$  million yen  $\Box\,800{\sim}900$  million yen
    - $\Box$ 900~1000million yen  $\Box$ 1000~1100 million yen  $\Box$ 1100~1200 million yen
    - $\Box$  1200~1300 million yen  $\Box$  1300~1400 million yen  $\Box$  1400~1500 million yen
    - $\Box$ 1500 million yen or higher
  - 24.4 Do you, or does your spouse, have experience of leaving the family behind for the new post?  $\Box$  Yes  $\Box$  No
  - 24.5 If you have such experience, how many years is it for total?
    - $\Box 0 \text{ year } \Box 0 \sim 1 \text{ year } \Box 1 \sim 2 \text{ years } \Box 2 \sim 3 \text{ years } \Box 3 \sim 4 \text{ years } \Box 4 \sim 5 \text{ years } \Box 5 \sim 6 \text{ years } \Box 6 \sim 7 \text{ years } \Box 7 \sim 8 \text{ years } \Box 8 \sim 9 \text{ years } \Box 9 \sim 10 \text{ years } \Box 10 \text{ years }$
    - $\Box 10$  years or longer
- 25. Please answer regarding children.
  - 25.1 How many children do you have?  $\Box$  None  $\Box 1 \quad \Box 2 \quad \Box 3 \quad \Box 4 \quad \Box 5$  or more

What are their age groups? Mark all that apply.

- $\Box$  ~ Below school age
- $\Box$  Primary school age
- $\hfill\square$  Junior high school age
- $\hfill\square$  High school age
- $\Box$  Undergraduate
- □ Working
- $\Box$  Other
- 25.2 The ideal number of children?  $\Box$  None  $\Box 1 \quad \Box 2 \quad \Box 3 \quad \Box 4 \quad \Box 5$  or more

25.3 Do you think it is possible to have the ideal number of children, or has it already been realized?  $\Box$ Yes  $\Box$  No

25.4 What is the reason for the actual possible number of children that is fewer than the ideal number?

Mark all that apply.

- $\Box$  Economical reason
- $\Box$  Medical reason
- $\Box$  Job stability
- $\hfill\square$  Combination of childcare and career
- $\hfill\square$  Cooperation of spouse in childcare
- $\Box$  Supportive workplace environment
- $\hfill\square$  Social environment in which children grow up
- $\Box$  Other
- 26. Please answer regarding how children are nurtured.

26.1 Who was the primary caregiver for your children during working hours before they reached school age (including secondary childcare)? Mark all that apply.

- $\Box$  Myself
- $\Box \quad My \ spouse$
- $\Box$  Cohabiting relatives
- $\hfill\square$  Relatives or friends
- $\Box$  Day care center
- □ Babysitter

26.2 Who was the primary caregiver for your children over primary school age after school (including secondary childcare)?

- $\Box$  Myself
- □ My spouse
- $\Box$  Cohabiting relatives
- $\Box$  Relatives or friends
- $\hfill\square$  After school care program
- □ Babysitter
- $\hfill\square$  Private tutoring school / culture lesson
- $\Box$  Stay at home by themselves
- 26.3 To what extent were you able to take childcare leave?
  - $\hfill\square$  Received sufficient leave
  - $\hfill\square$  Received leave, but it was insufficient
  - $\hfill\square$  Did not receive leave

Mark all the reasons for "insufficient leave" and "no leave" that apply.

- $\hfill\square$  I wanted to shorten the leave / I didn't want to interrupt my career
- $\hfill\square$  I didn't want my income to decrease
- $\hfill\square$  My workplace environment prevented me from taking leave
- $\hfill\square$  Fixed-term employment did not allow the term extension for childcare leave
- $\hfill\square$  I used the system of shorter working hours
- $\hfill\square$  For the convenient timing of entering day care center
- $\hfill\square$  There was no leave system
- $\hfill\square$  I didn't feel it was necessary

- $\Box$  I resigned
- $\Box$  I was not working
- $\Box$  Other

If you took leave, what was the average duration per each child, exclusive of maternity leave?  $\Box$ Less than 1 month  $\Box$ 1~3 months  $\Box$ 3~6 months  $\Box$ 6~12 months  $\Box$ 12~18 months  $\Box$ 18 months or more

26.4 If you took childcare leave, what was the subsequent effect on your working conditions? Mark all that apply.

- $\hfill\square$  Continued same work as before leave
- $\Box$  Position changed at the employee's request
- $\hfill\square$  Working section changed at the employee's request
- $\hfill\square$  Position changed at the direction of employer
- $\hfill\square$  Working section changed at the direction of employer
- $\hfill\square$  Pay increases and promotions were delayed
- □ Lost job
- $\Box$  Left job

26.5 To what extent was your spouse able to take childcare leave?

- $\hfill\square$  Received sufficient leave
- $\hfill\square$  Received leave, but it was insufficient
- $\Box$  Did not receive leave

Mark all the reasons for "insufficient leave" and "no leave" that apply.

- $\hfill\square$  I wanted to shorten the leave / I didn't want to interrupt my career
- $\hfill\square$  I didn't want my income to decrease
- $\Box$  My workplace environment prevented me from taking leave
- $\Box$  Fixed-term employment did not allow the term extension for childcare leave
- $\Box$  I used the system of shorter working hours
- $\hfill\square$  For the convenient timing of entering day care center
- $\Box$  There was no leave system
- $\hfill\square$  I didn't feel it was necessary
- $\Box$  I resigned
- $\hfill\square$  I was not working
- $\Box$  Other

If your spouse took leave, what was the average duration per each child, exclusive of maternity

leave?	$\Box$ Less than 1 month	$\Box 1 \sim 3 \text{ months}$	$\Box$ 3~6 months	$\Box 6 \sim 12 \text{ months}$	$\Box 12 \sim 18$
months	$\Box 18$ months or more				

27. What do you think is necessary to maintain a balance between work and childcare as well as elder care? Mark all that apply.

- $\Box$  Shortened working hours
- $\Box$  Change in work-centered mindset
- $\Box$  Change in mindset regarding gender roles
- $\hfill\square$  Lessen distance between workplace and home

- $\Box$  More increase in paid holidays
- $\Box$  Support staff for experiments
- $\hfill\square$  Home help
- $\hfill\square$  More increase in day care services
- $\hfill\square$  Day care services for children who are ill
- $\hfill\square$  Improvement in after-school care for children
- $\hfill\square$  Improvement in systems for mothers and family supports
- $\hfill\square$  Better care services for the elderly
- $\Box$  Diversified leave system
- $\hfill \Box$   $\hfill \hfill \hf$
- $\Box$  Government subsidies for the workplace while employees are on leave
- $\hfill\square$  Availability of replacement staff during leave
- $\hfill\square$  System to allow work at home during leave
- $\Box$  Work sharing system
- $\Box$  More flexible working hours
- $\hfill\square$  Improvement in employment system such as term system
- $\Box$  Diverse working styles (diverse carrier path)
- □ Supportive working atmosphere
- $\Box$  Supportive supervisor
- $\Box$  Improvement in security
- $\Box$  Nothing in particular

28. How do you think employers should evaluate those who take childcare / family-care leaves? Mark all that apply.

- $\Box$  Evaluation comes up
- $\hfill\square$  Evaluation comes down
- $\Box$  Emphasis on achievement
- $\Box$  Deal with each case on an individual basis according to the person's potential
- $\Box$  Others
- Don't know

29. What sort of environments and opportunities are necessary for further research and development? Mark all that apply.

- $\hfill\square$   $\hfill$  Time for research and development
- $\hfill\square$  Sponsorship / support for research and development
- $\Box$  Research and development funds (including maintenance)
- $\Box$  Presence of collaborating researchers
- $\Box$  Freedom in research and development
- $\hfill\square$  Efficient and divided office work and chores
- $\Box$  Opportunities to present research findings
- □ Understanding / cooperation of supervisors
- □ Understanding / cooperation of managers
- □ Environment fostering long-term projects

- $\Box$  Communication within research group
- $\hfill\square$  Appropriate evaluation of research achievements and ability
- $\hfill\square$  Guidance by advisors
- $\hfill\square$  Opportunities to educate students, entry-level employees, etc.
- $\Box$  Other's expectations of success
- $\Box$  Other

30. Mark all that apply.

30.1 Why do you think there are fewer women than men in the science and technology fields?

- $\hfill\square$  Educational environment
- $\Box$  Home environment
- $\Box$  Workplace environment
- $\Box$  Prejudice
- $\hfill\square$  Social gender rules
- $\hfill\square$  Lack of role models
- $\Box$  Women hired less often than men
- $\hfill\square$  No attention to childcare and elder care in performance evaluation
- $\hfill\square$  Evaluators' mindset or tendency to give preference to men
- $\hfill\square$  Gender-based differences in ability
- $\hfill\square$  Gender-based differences in aptitude
- $\Box$  Higher proportion of males
- $\hfill\square$  No good image of researchers and engineers
- $\Box$  Uncertain future vision
- □ Low salary
- $\Box$  Long working hours
- $\Box$  Difficult to attain managerial positions
- $\hfill\square$  Difficult to maintain family (domestic work, childcare, elder care) and career
- $\hfill\square$  Difficult to return to work after childcare leave
- $\Box$  Other

30.2 What do you think is the reason(s) for the low proportion of women in leadership positions?

- $\hfill\square$  Difficult to combine family and career
- $\hfill\square$  Many women leave work or take leave mid-career
- $\hfill\square$   $\hfill$  Women are less eager for promotion than are men
- $\hfill\square$  Lack of role models
- $\Box$  No attention to childcare and elder care in performance evaluation when hiring or promoting
- $\hfill\square$  Evaluators' mindset or tendency to give preference to men
- $\hfill\square$  Gender-based differences in ability and aptitude
- $\hfill\square$  Women have shown inadequate achievements
- $\hfill\square$  Women are not desired as leaders
- $\Box$   $\;$  Low proportion of women in the current leadership positions
- $\Box$  Other

30.3 Do you think there is a gender gap regarding compensation or promotions in the science and

### technology fields? $\Box$ Yes $\Box$ No

If yes, in what area(s) (mark all that apply).

- □ Hiring
- $\Box$  Promotion to managerial positions
- $\Box$   $\;$  Promotions and pay raises
- $\hfill\square$  Allocation of research and development funds
- $\hfill\square$  Sponsorship / support for research and development
- $\Box$  Evaluation of achievements
- $\Box$  Assignment of office chores
- $\hfill\square$  Opportunities for further study / sabbatical domestically and abroad
- $\Box$  Opportunities for presentation / self-promotion
- $\Box$  Training opportunities
- $\Box$  Other
- 31. Please answer regarding the recently implemented law.

31.1 Do you know about "Act for Measures to Support the Development of the Next Generation (Implemented on April 1, 2005)"?

- $\Box$  Know well
- $\Box$  Know to a certain degree
- $\hfill\square$  Don't know

Have the workplace environment such as working conditions changed by this law?

- $\Box$  Changed
- $\Box$  Not changed
- Don't know

31.2 Do you know about "Amended Equal Employment Opportunity Act for Men and Women (implemented on April 1, 2007)"?

- $\Box$  Know well
- $\Box$  Know to a certain degree
- $\hfill\square$  Don't know

Have the workplace environment such as working conditions changed by this law?

- $\Box$  Changed
- $\Box$  Not changed
- Don't know

32. Please answer regarding national policies that were newly started by Third-Stage Basic Plan for Science and Technology and Secondary Gender Equality Basic Plan.

32.1 Do you know about support project for returning to work after childcare leave (fellowship RPD system)?

- $\Box$  Know well
- $\Box$  Know to a certain degree
- Don't know
- $\hfill\square$  It is meaningful
- $\Box$  It is not so meaningful

- $\Box$  It has negative effect
- $\hfill\square$  It should be expanded and promoted
- $\Box$  There are points that should be improved

32.2 Do you know about cultivation project of support model for female researchers?

- $\Box$  Know well
- $\Box$  Know to a certain degree
- Don't know
- $\Box$  It is meaningful
- $\hfill\square$  It is not so meaningful
- $\Box$   $\$  It has negative effect
- $\hfill\square$  It should be expanded and promoted
- $\hfill\square$  There are points that should be improved

32.3 Do you know about support project of science career selection for female students in junior high school and high school?

- $\Box$  Know well
- $\Box$  Know to a certain degree
- $\hfill\square$  Don't know
- □ It is meaningful
- $\Box$  It is not so meaningful
- $\hfill\square$  It has negative effect
- $\hfill\square$   $\hfill$  It should be expanded and promoted
- $\hfill\square$  There are points that should be improved

32.4 Do you know about numeric target (science 20%, engineering 15%, agriculture 30%, health science 30%) for employment of female researchers in Gender Equality Basic Plan and Third-Stage Basic Plan for Science and Technology?

- $\Box$  Know well
- $\Box$  Know to a certain degree
- Don't know
- $\Box$  It is meaningful
- $\Box$  It is not so meaningful
- $\hfill\square$  It has negative effect
- $\hfill\square$  It should be expanded and promoted
- $\hfill\square$  There are points that should be improved

33. Is there a numeric target for employment of female researchers in the institute you belong to?  $\Box$  Yes  $\Box$ 

No  $\Box$  Don't know

If yes, is the numeric target announced?  $\hfill\square$  Yes  $\hfill\square$  No  $\hfill\square$  Don't know

If no, do you think the numeric target should be set?  $\hfill\square Yes$   $\hfill\square No$ 

## 34. Regarding approaches for Gender Equality Promotion and system improvements, do you feel the

changes compared to the first questionnaire survey (4 years ago)?

In the institute you belong to:

 $\Box$  Progressing well

- $\Box$  Gradually progressing
- $\hfill\square$  Almost no change
- □ Retrogressing
- $\hfill\square$  Don't know
- In the academic society you belong to:
- $\Box$  Progressing well
- $\Box$  Gradually progressing
- $\Box$  Almost no change
- $\Box$  Retrogressing
- $\hfill\square$  Don't know
- In the world as a whole:
- $\Box$  Progressing well
- $\Box$  Gradually progressing
- $\Box$  Almost no change
- □ Retrogressing
- $\Box$  Don't know

35. What do you think is needed in future for women to participate fully in the science and technology field? Mark all that apply.

- $\Box$  Change in women's mindset
- $\Box$  Change in men's mindset
- $\hfill\square$  Women should balance family and careers
- $\hfill\square$  Men should balance family and careers
- $\hfill\square$   $\hfill$  Improve promotion systems by nation, community, and employer
- $\hfill\square$   $\hfill$  Strengthen social security / pension systems
- $\hfill\square$  Allow married couples to retain their original surnames
- $\Box$  Improve the workplace environment
- $\hfill\square$  Establish a time-limited period of affirmative action for women
- $\hfill\square$  Abolish job-related age limits
- $\Box$  Improve current evaluation systems
- $\hfill\square$  Improve the understanding / cooperation of supervisors
- $\hfill\square$  Establish diverse working styles
- $\hfill\square$  Improve support systems for childcare and elder care
- $\hfill\square$  Introduce system of limited-term positions
- $\Box$  Improve system of limited-term positions
- $\hfill\square$  Abolish system of limited-term positions
- $\hfill\square$  Increase opportunities for women researchers to network
- $\Box$  Other
- $\hfill\square$  No particular measures required

36. If you have any ideas and opinions regarding full participation of women in the science and technology field, please freely describe in less 100 words.

[]

Thank you for your cooperation. All the questionnaires collected are treated statistically and anonymously without identifying the respondents. Protection measures for information leakage will be carried out thoroughly regarding security of the collected data, and the results will never be used for other purposes than for promotion activity of gender equality.