Promoting Gender Equality in the field of Science and Technology in Japan

Kimiko Fukuda
Tokyo Metropolitan University
ratio of female researchers in STEM.
Japan is always at the bottom!!!
Today’s topics

Activities of the Japan Inter-Society Liaison Association Committee for Promoting Equal Participation of Men and Women in Science and Engineering (EPMEWSE)
Proposal to the government based on two large surveys

S&T policies of the government

Activities for promotion of female researchers in universities and institutes

Problems still to be solved
EPMEWSE — Renraku-kai

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/

established in 2002
67 academic societies in science & technology

The 1st & 2nd large questionnaire surveys (2003 & 2008)
The proposals & requests to the government
Workshops & annual symposium
EPMEWSE proposal and policies of the government in S&T

EPMEWSE’s activity

1st survey in 2003
Diverse vision of Scientists and Engineers in the 21st Century
-for promotion of gender equality

established in 2002

1st Basic plan (1996-2000)

The Basic Law regarding S&T (1995)

Improvement of the working environment for female researchers in S&E is needed.

2nd Basic plan (2001-2005)

Proposal 2005

3rd Basic plan (2006-2010)

Proposal 2008

2nd survey in 2007
Large questionnaire Surveys
for promoting Gender Equality in S&E Field

4th Basic plan (2011-2015)

Action of the Government
(MEXT: Ministry of Education, Culture, Sports, Science and Technology)
Maternity and childcare affect the careers of female researchers

Questionnaire: Why are there small number of female researchers in S&T?

From the 1st EPMEWSE “Diverse Visions of Scientists and Engineers in the 21st Century — For the Promotion of Gender Equality—” (2005)
Female researchers with children spend more time at Home than Male researchers

**Female < Male**
- Shorter working hours (by 11-14 hrs/week) in the Lab

**Female > Male**
- Longer childcare hours (by 20 hrs/week) at home

From the 2nd EPMEWSE "Large Questionnaire Surveys for Promoting Gender Equality in S&T Field (2008)"
Three changes are needed for balance family with careers

Questionnaire: What changes are needed to increase number of female researchers in S&T?

- Receptive attitude of supervisors
- Receptive attitude of colleagues
- Change in gender roles
- Increase nursery schools
- Increase after school daycare
- Built nursery schools for special needs children
- Decrease working hours
- Increase acceptance of alternative career paths
- Make work time more flexible

From the 1st EPMEWSE "Diverse Visions of Scientists and Engineers in the 21st Century — For the Promotion of Gender Equality—" (2005)
2005 proposals from EPMEWSE

1. Establish “model programs” to support female researchers.

2. Establish numerical targets for female researchers and engineers and set up special grants for this purpose.

3. Set up policies for gender equality in S & T.

4. Promote policies for child support.

5. Encourage girls in junior high and high school to choose S&T.
EPMEWSE proposal and policies of the government in S&T

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Action of the Government
(MEXT: Ministry of Education, Culture, Sports, Science and Technology)

Increased support for female researchers with children.
Support for model programs to promote female researchers in universities and institutions.
Target of female researchers in the natural science field is 25%.
Promotion of the WiSE activities for girls.
Increased support for female researchers with children.

Support for model programs to promote female researchers in universities and institutions.

Target of female researchers in the natural science field is 25%. (Science: 20%, engineering: 20%, Agriculture: 30%)

Promotion of the WiSE activities for girls.
Three Supports programs by MEXT

1. Support for returning to lab after maternity/childcare leave.  
   (RPD-PDS fellow)

2. Encouraging girls in junior high and high schools to choose S&T.

   girls summer camp for future scientists and engineers
Three Supports programs by MEXT

3. Grants for model programs for supporting female researchers in universities/institutes

Make nursery schools and after school daycare in universities/institutes.

Hire support staff during maternity/childcare period.

Hire guidance counselors for female researchers.

Build new systems for flexible work time during the childcare period (Internet meeting system etc.).

Build the networking systems for female researchers.

Hold workshops and symposiums to change faculty staff’s mentality (gender bias).

Show attraction of S&T research to young girls.
Model Programs for Supporting Activities for Female Researchers

- 2006:10
- 2007:10
- 2008:10
- 2009:13
- 2010:12
  total: 45 univs/institutes

Kyushu Univ.
University grant for female researchers

Several recipients obtained large grants from the government

First female executive professor in the Univ.

National Institute of material research
Nursery school was first opened for children of female researchers.
the school was expanded to include children of male staff as well

Drastic attitude change
This operation is now under the general affairs division, not gender equality office.
Numbers of female PI are growing, but very gradually and slowly. (less than 1%/year)

Female ratio in newly hired university faculty (PI)

Questionnaire: Where is the gender gap in S&T?

From the 2nd EPMEWSE "Large Questionnaire Surveys for Promoting Gender Equality in S&T Field (2008)"
model programs for supporting female researchers

basic environmental support
nursery school, mentality change and work-life balance

Supporting Positive Activities for Female Researchers Program

increase the number of the female researchers in the University/Institute

Hire full time female researchers.
Give them start up funding and educational/granting/networking support.
Built a new system for keep hiring female researchers.
One assistant professor position per one new female professor, “one plus one”, to the department.

- Hokkaido Univ.: 3 years salary
- Tokyo Univ. Agriculture & Technology: 3 years salary
- Tohoku Univ.: 5 years salary
- Univ. of Tokyo, Chiba Univ., Nara Woman’s Univ., Kyushu Univ., Hiroshima Univ., Kobe Univ., Nagoya Univ., Kyoto Univ.: 3 years salary

$30,000 / a new female professor to the department
A case from the University of Tokyo

presidential special positions \rightarrow 9 positions special for Female

Competition among Faculties

Faculty of Engineering 3 positions
Faculty of Science 3 positions
Faculty of Agriculture 3 positions

International open recruitment for female researchers. Not specified research field.

about 90 applicants

each of six departments in the faculty choose the best applicant

competition between departments

three best applicants were awarded the positions
A case from the University of Tokyo

Dept. of Physics

previous number of applicants/position: 20 male & 0-2 Female

This time: 20 Female applicants

Talented applicants (equal or more than normal recruitment)

Few numbers of the female applicants

Research level is not so high as male applicants

The recruitments in non-specified field attract many talented applicants and as a result, the best applicants will be excellent researchers, even better than normal specific-field recruitment.
Young male researchers are opposed to the positive actions

Questionnaire: How do you think of the target ratio for female researchers in “the Third S&T Basic Plan”?

More positive in older generations
Less positive in early 30s, postdocs, physics majors

From the 2nd EPMEWSE “Large Questionnaire Surveys for Promoting Gender Equality in S&T Field (2008)”
Women are less ambitious than men

Job positions and ratios of woman in universities.

The higher the job position, the lower the female ratio is.

Women should be encouraged to be leaders!

From the 2nd EPMEWSE “Large Questionnaire Surveys for Promoting Gender Equality in S&T Field (2008)”
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