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Promoting Women in Science and Technology

In Japan: Trend & Strategy

Fostering Women Leaders in the Scientific and Engineering Field

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1 Gender and Development Trends

Global Gender Gap Index (ranking of 134 countries)

Country	2009 rank	2009 score	2009 rank among 2008 countries	2008 rank
Iceland	1	0.8276	1	4
Finland	2	0.8252	2	2
Norway	3	0.8227	3	1
Sweden	4	0.8139	4	3
New Zealand	5	0.7880	5	5
South Africa	6	0.7709	6	22
Denmark	7	0.7628	7	7
Ireland	8	0.7597	8	8
Philippines	9	0.7579	9	6
Lesotho	10	0.7495	10	16
Netherlands	11	0.7490	11	9
Germany	12	0.7449	12	11
Switzerland	13	0.7426	13	14
Maldives	99	0.6482	97	91
Malaysia	100	0.6467	98	96
Japan	101	0.6445	99	98
Senegal*	102	0.6427	n/a	n/a

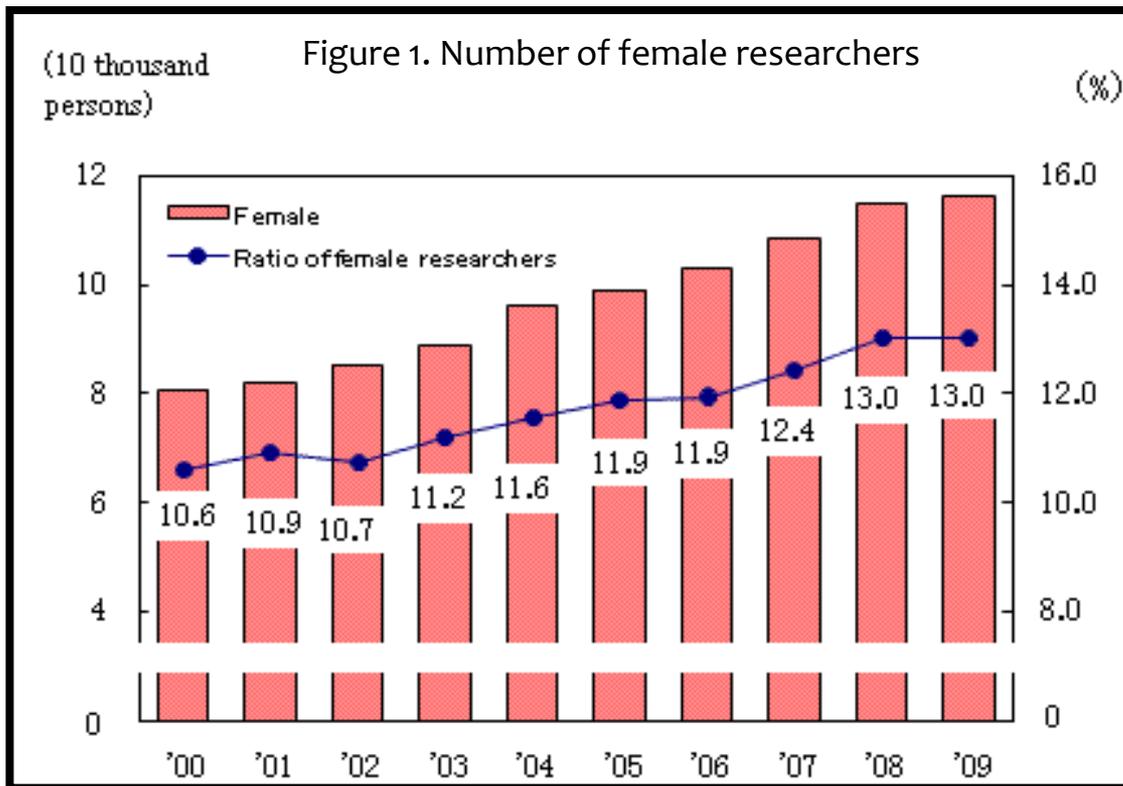
Three basic concepts underlying the Global Gender Gap Index:

1. Focuses on measuring gaps rather than levels.
2. Captures gaps in outcome variables rather than gaps in means or input variables.
3. Ranks countries according to gender equality rather than women's empowerment

Source: World Economic Forum, The Global Gender Gap Report 2009
<http://www.weforum.org/pdf/gendergap/rankings2009.pdf>

2 Gender Issues in Science and Technology in Japan

2.1 Relatively Few Female Researchers



- As of 31 March 2009, total researchers numbered 839,000.
- Female researchers numbered 116,100 (13.0 %)

2 Gender Issues in Science and Technology in Japan

2.1 Relatively Few Female Researchers

Factors that contributes to fewer female researchers

- 1 females are responsible for child care
- 2 fewer job opportunities
- 3 small number of female students in S&T

2 Gender Issues in Science and Technology in Japan

2.2 Gender inequality in rank of position and resource allocation in R&D

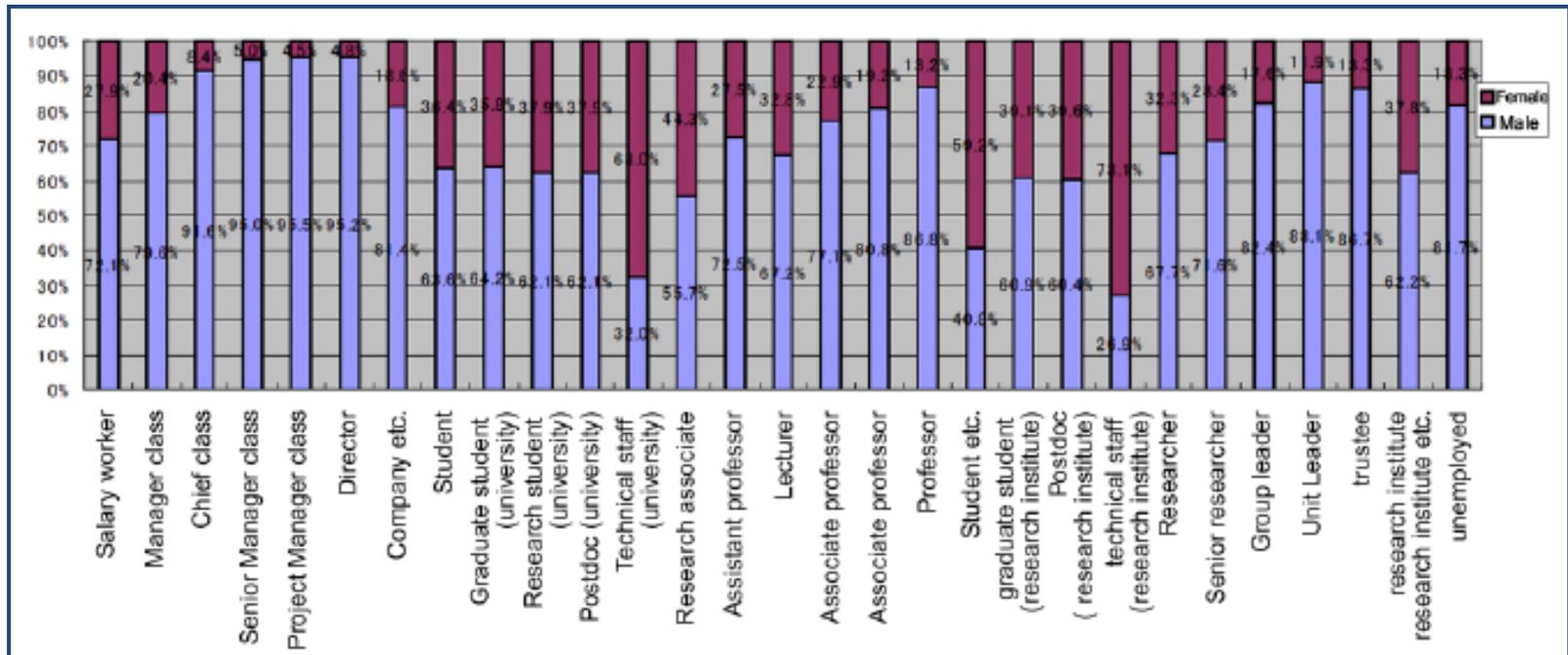


Figure 2. Ratio of male and female for each type of position

2 Gender Issues in Science and Technology in Japan

2.2 Gender inequality in rank of position and resource allocation in R&D

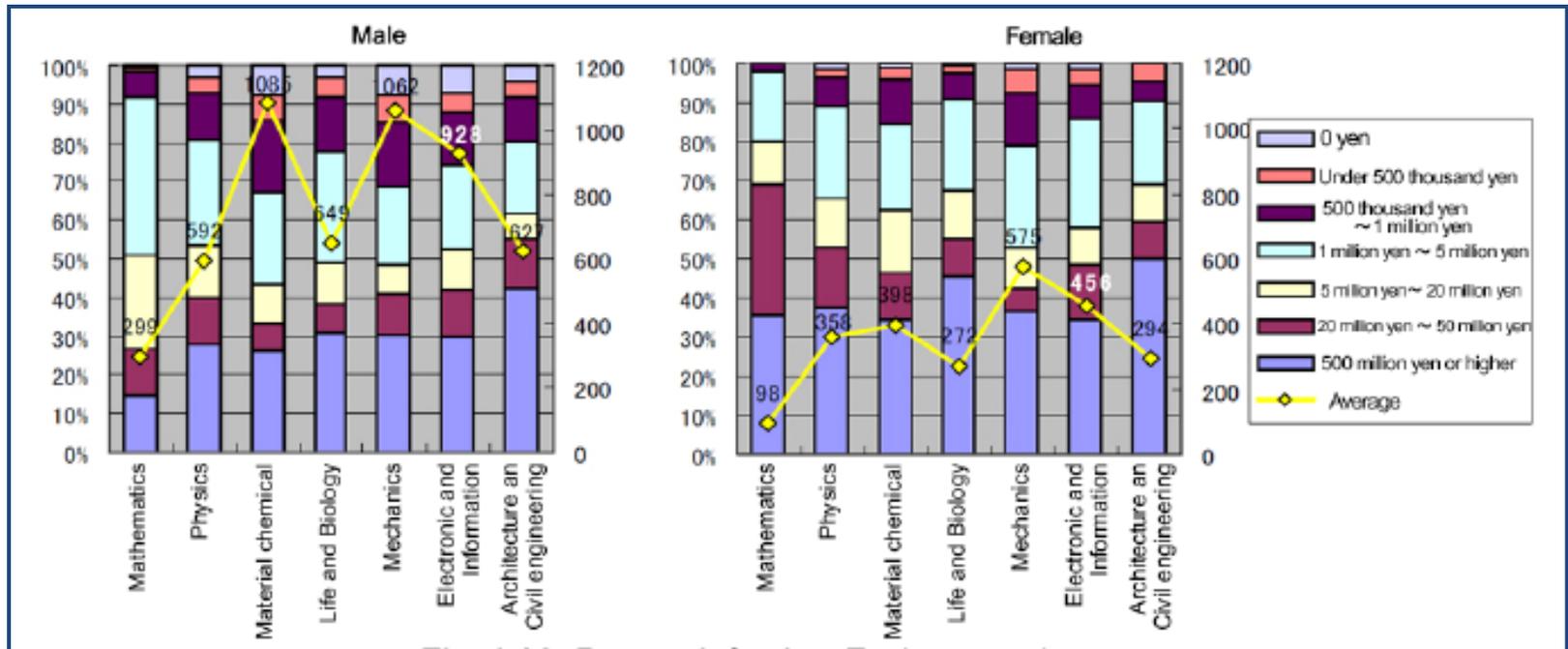


Figure 4. Research fund for each research area

3 Gender and Development Programs and Projects

- 3.1 Japan Inter-Society Liaison Association
Committee for Promoting Equal Participation of
Men and Women in Science and Engineering
(EPMEWSE)
- 3.2 The 3rd Science and Technology Basic Plan (FY
2006-2010)
- 3.3 Special Coordination Funds for Promoting
Science and Technology

3 Gender and Development Programs and Projects

3.1 EPMEWSE

- Organized by Science Council of Japan (SCJ) in 2002
- Compose of more than 60 S&T societies/association
- Conducted MEXT-commissioned survey on actual conditions of gender equality in scientific and technological profession in 2003 (extensive survey) and in 2008 (internet website).
- Advocacies:
 - ✓ Encourage female researchers' return for second career
 - ✓ Offer information on support for choosing career paths
 - ✓ Request for childcare support system

3 Gender and Development Programs and Projects

3.1 EPMEWSE

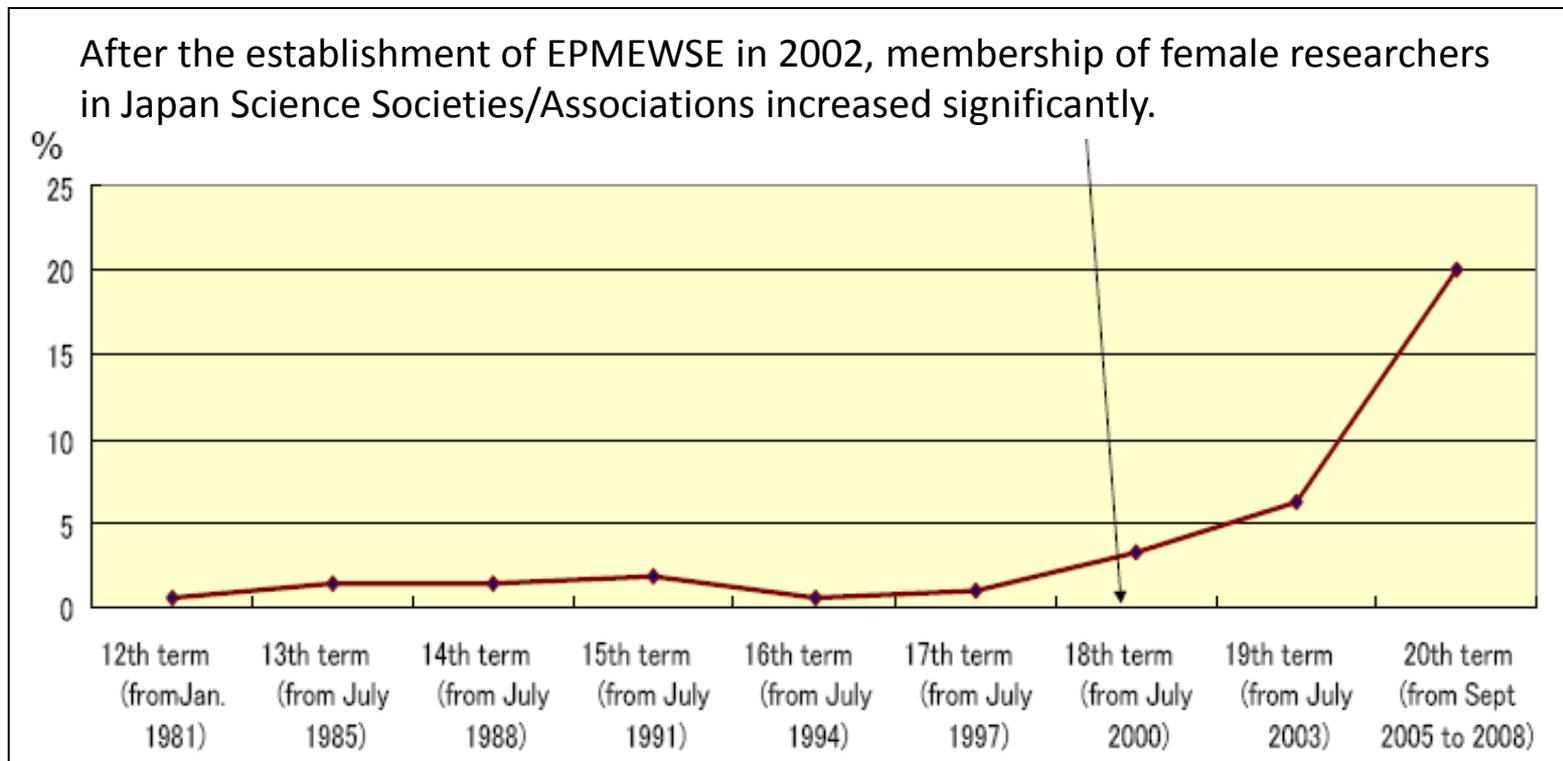


Figure 6. Effect after establishing the EPMEWSE

3 Gender and Development Programs and Projects

3.2 The 3rd Science and Technology Basic Plan (FY 2006 – 2010)

Organizations	Advocacies
1. Universities and Public Research Institutions	<ul style="list-style-type: none"> • Provide support for balancing research and child rearing • Have fair recruitment after seeking female candidates • Promote female researchers for advancement and participation in policy-making bodies
2. Government Institutions	<ul style="list-style-type: none"> • Advocate information to encourage girls in S&T fields • Support institutions that are positive models with good practices in promoting activities of female researchers
3. All Organizations	<ul style="list-style-type: none"> • Set numerical targets for the recruitment of female researchers • Set percentage of women in the doctorate courses of the relevant field, preferable at 25% • Acknowledge a fixed period of respite following child birth in receiving competitive funds

3 Gender and Development Programs and Projects

3.3 Special Coordination Funds for Promoting Science and Technology

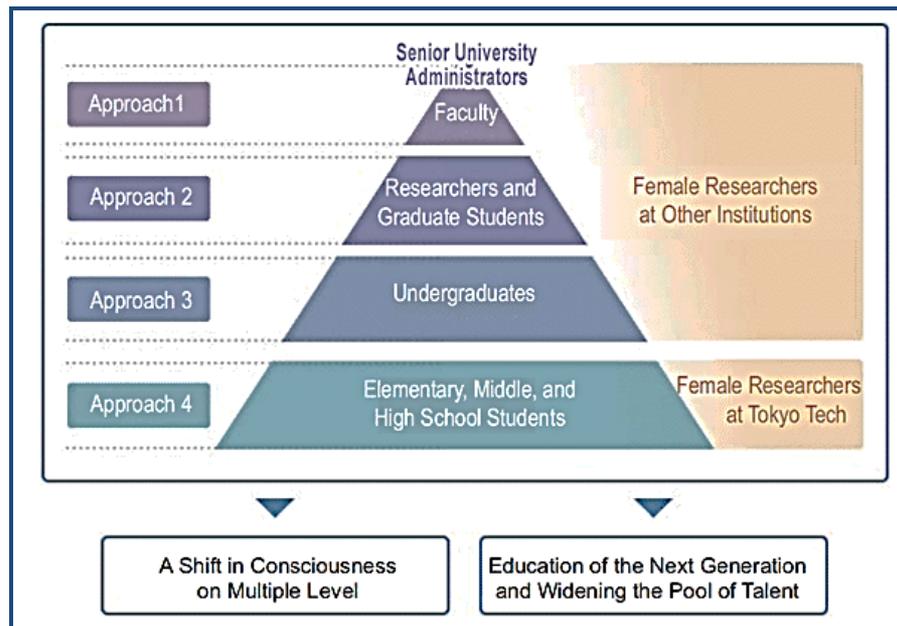
MEXT model programs to support female researchers

- ✓ Provide supportive environment, both “soft” and “hard” infrastructural aspects, for women researcher
- ✓ Maintain a healthy work-life balance alongside life stages such as childbirth, child rearing and caring for elderly relative

3 Gender and Development Programs and Projects

3.3 Special Coordination Funds for Promoting Science and Technology

Tokyo Institute of Technology's "LEAP"



Career Model Plan:

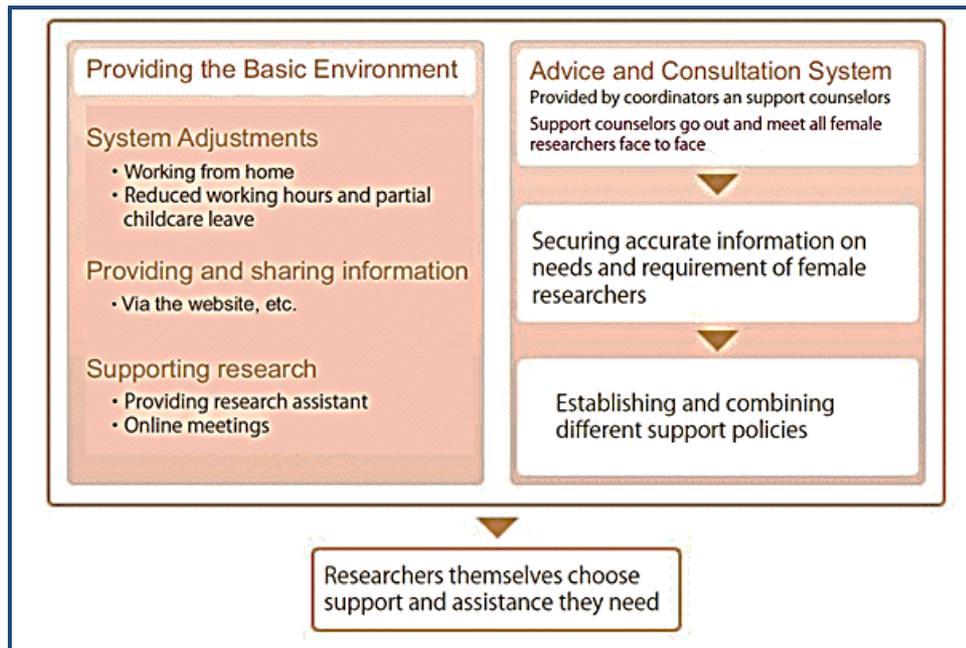
Bringing all opportunities to all levels through exchange and interaction with female researchers (career models) working in the sciences

Figure 7. LEAP's career model plan

3 Gender and Development Programs and Projects

3.3 Special Coordination Funds for Promoting Science and Technology

Tokyo Institute of Technology's "LEAP"



Tailor-made Support Plan:

Allowing female researchers to choose the support they need

Figure 8. LEAP's tailor-made support plan

4 Insights and Current Gender and Development Trends in Japan

- 4.1 As a positive note, female graduate students and researchers are increasing!
- 4.2 **Sustained & holistic** efforts are required to advocate female welfare in universities, research institutes and industries/companies.
- 4.3 International and Asian networking of women can induce more opportunities for women to play significant role in society.

References

- EPMEWSE (2008). Large-Scale Survey of Actual Conditions of Gender Equality in Scientific and Technological Professions, July 2008. Available online, http://annex.jsap.or.jp/renrakukai/doc_pdf/h19enquete_report_en.pdf
- MIAC (2008). Results of the Survey of Research and Development. Ministry of Internal Affairs and Communications, Statistics Bureau Director-General for Policy Planning and Statistical Research and Training Institute. Available online, <http://www.stat.go.jp/english/data/kagaku/1536.htm>
- Ogawa, M. (2005). The Present Condition and Problems of Women in Science and Technology in Japan. Available online, <http://www.oecd.org/dataoecd/47/38/35776236.pdf>
- Tokyo Institute of Technology (2009). Leading and Promoting Program for Women Researchers in Science and Engineering (LEAP). Available online, http://annex.jsap.or.jp/renrakukai/doc_pdf/h19enquete_report_en.pdf
- UNDP (2007). Human Development Reports, Composite Indices. Available online, <http://hdr.undp.org/en/statistics/indices/>
- World Economic Forum (2009). The Global Gender Gap Report 2009. Available online, <http://www.weforum.org/pdf/gendergap/rankings2009.pdf>



Thank you very much!