

History and Situation of East Asian Workshops for Women Researchers

Funded by JSSTS Yoshinobu Kakiuchi
Memorial Award

Mie University

Mariko OGAWA

Welcome to our workshop!

I will introduce our activities for these several years.

- 2005 Nov. Paris, France
- 2005 Nov. Pohang, Korea

I made two applications to
Toyota Foundation and
MEXT to get grant-in aid.


- 2006 Sept. Nagoya, Japan
- 2007 June Okinawa, Japan
- 2007 July Tokyo, Japan
- 2007 Nov. Chonju, Korea APEC
- 2008 Sep. Taipei, Taiwan
- 2010 Sept. Tokyo, Japan 4S/JSSTS
- 2012 Jan. Tokyo, Japan


Nov. 16-17, 2005

Joint OECD-French government international workshop on

“women in scientific careers:
unleashing the potential”




 EUROPEAN COMMISSION
 Community Research

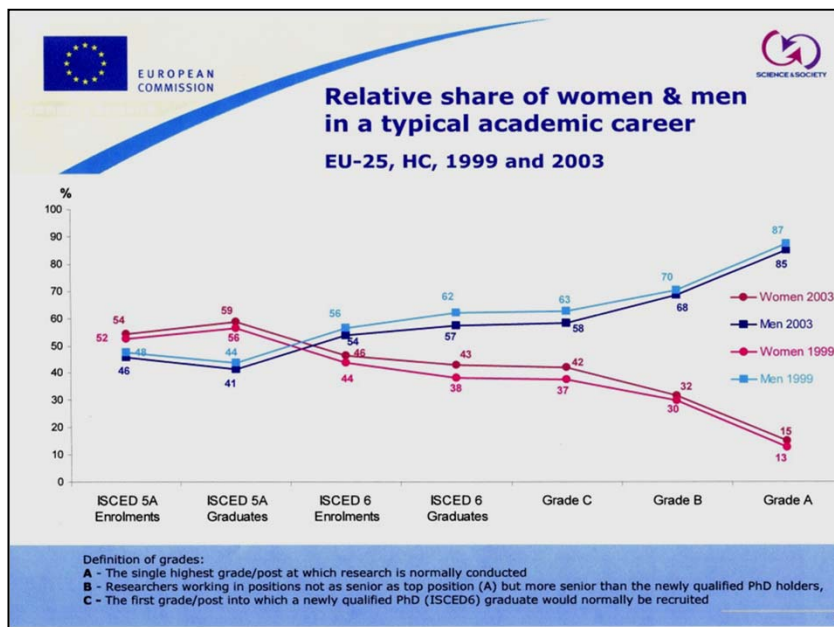

 SCIENCE & SOCIETY

Women & Science Statistics – state of the art

Camilla Gidlöf Regnier
 Women and Science Unit,
 DG Research, European Commission

Joint OECD - French government international workshop on
 "women in scientific careers: unleashing the potential"
 Paris 16-17 November 2005

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ministère
 éducation
 nationale
 enseignement
 supérieur
 recherche

E

ministère délégué
 à l'enseignement supérieur
 et à la recherche

OECD

ATELIER OCDE - FRANCE :

" LES FEMMES DANS LES CARRIÈRES SCIENTIFIQUES : LIBÉRER LES POTENTIELS "

JOINT OECD-FRENCH GOVERNMENT WORKSHOP ON
 "WOMEN IN SCIENTIFIC CAREERS: UNLEASHING THE
 POTENTIAL"

16 - 17 NOVEMBRE 2005

BACKGROUND PAPER – DOCUMENT D'INFORMATION

AMPHITHÉÂTRE STOURDZE
 Ministère chargé de l'Enseignement Supérieur et de la Recherche
 1 rue Descartes 75005 Paris

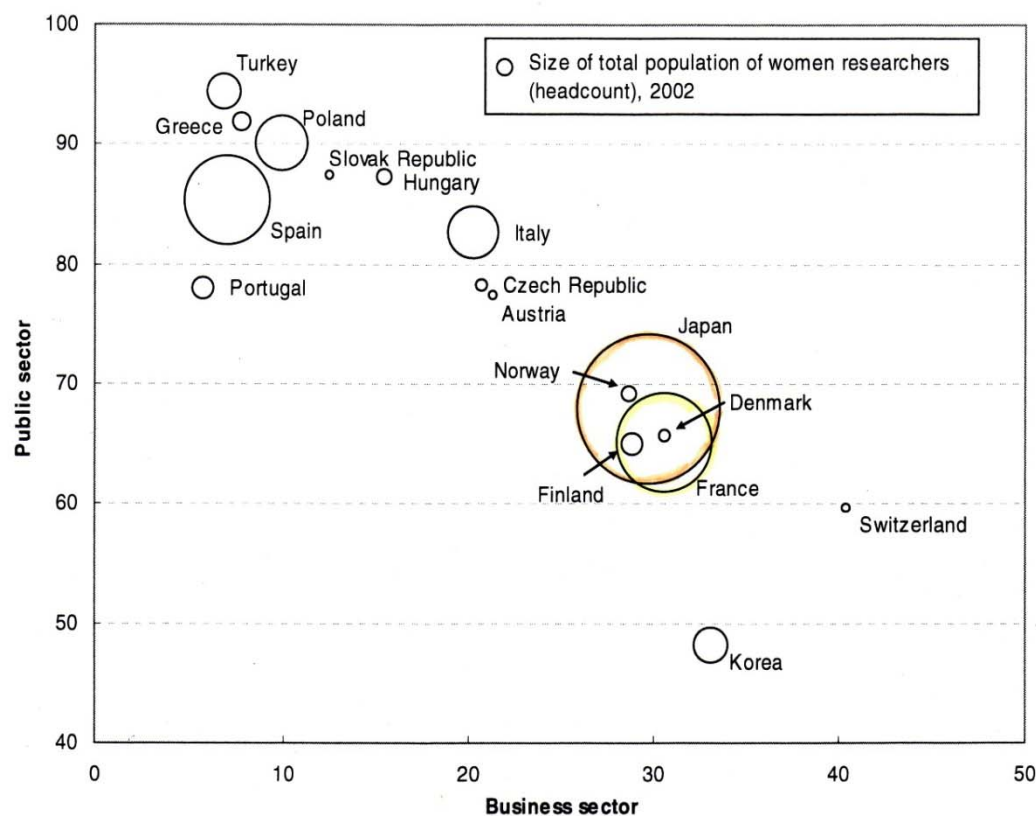
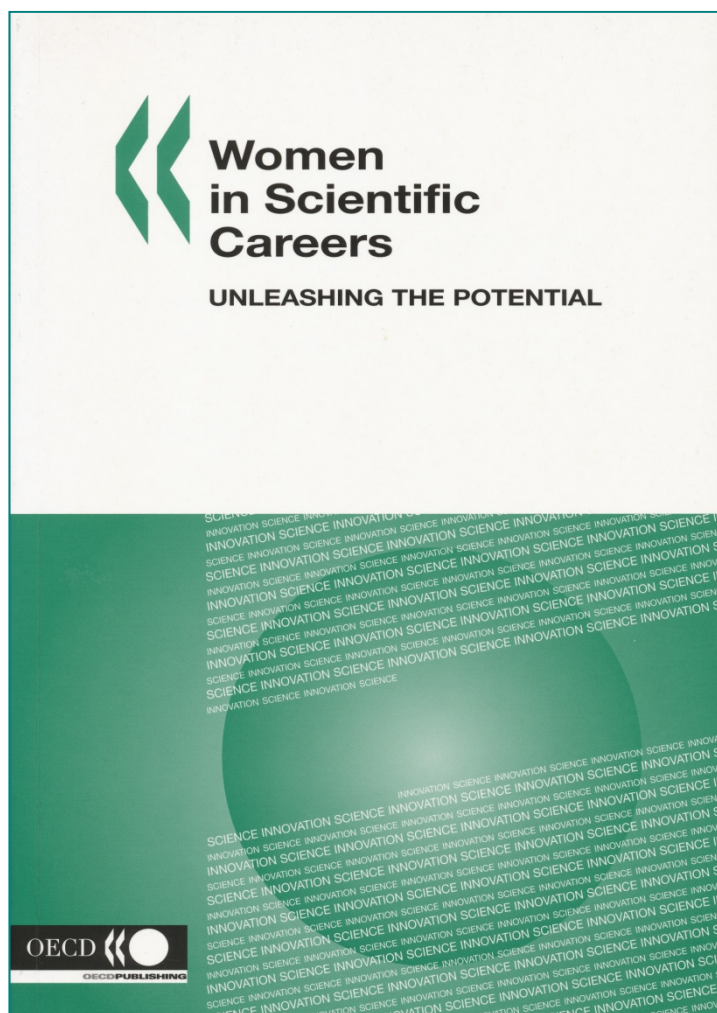
Avec l'aimable participation du Ministère de l'Éducation de la Finlande


 MINISTRY OF
 EDUCATION
 FINLAND

With the generous support of the Finnish Ministry of Education

BACKGROUND PAPER

The report was published in 2006



Source: MSTI, 2005.

Clever graph

The Present Condition and Problems of Women in Science and Technology in Japan:

Difficulties in Continuing Careers
in Japanese Society

Mariko OGAWA
Mie University, JAPAN



Contents



- Present condition and problems
- Why does Japan have relatively few female researchers?
- Social reasons and analysis of the historical process
- New changes in Japanese academic society
- Recent strategies for increasing women in S & T
- New drastic support programme from MEXT



Conclusion

- Organizing EPMEWSE in 2002 has brought about new trends in promoting equal participation.
- Current dramatic increase of female membership of SCJ seems to be the beginning of an equal relationship between the sexes.
- New policies from MEXT 2006 will revitalize the activities of female scientists and engineers.

Japanese society is putting gender mainstreaming in S&T in gear.

This will eventually bring about changes.

P.S. Construction of S&T community in Asia



- The Science and Technology Basic Plan for the third term 2006-2010 (MEXT) declares the importance of forming an Asian community of S&T.
- Now I have launched a project on women and S&T in Asia, involving many Asian researchers, and with the support of the Toyota Foundation.
- The first Japan & Korea joint seminar on physics will be held.

**APCTP International Workshop
on Asian Women in Physics**
APCTP headquarters, Pohang, Korea
November 23-25, 2005



APCTP International Workshop on Asian Women in Physics



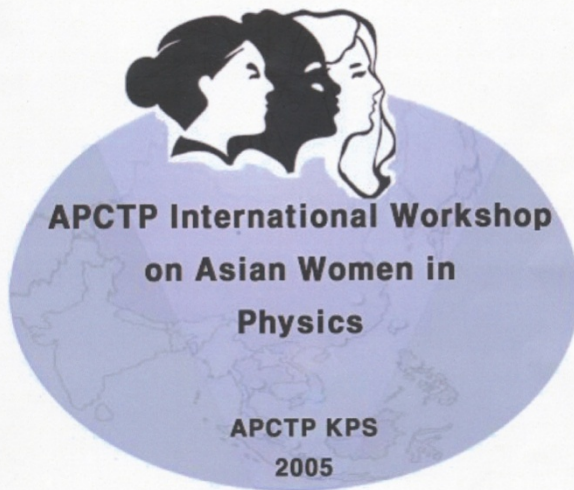
Nov. 2005

This is the first opportunity for me to participate in the activity like this.

Asia Pacific Center for Theoretical Physics

Lecture Notes

APCTP International Workshop
on Women in Physics



APCTP Headquarters, Pohang, Korea
November 23-25, 2005

The Initiatives for Women in S&T in the Republic of Korea

----- Gil Ja Jhon

Recent Strategy for Increasing Women of S&T in Japan

----- Mariko Ogawa

Progress and Problem of Women in Physics in China

----- Ling-An Wu

Promoting Women Physicists in Korea

----- Youngah Park

Prospects of Women Physicists in Taiwan

----- Shu-ching Yeh

Women Physicist, a key word for the fusion technology in the
21st Century

----- Eun K Suh

Activity and Resolution for both Men and Women in Japan

----- Eiko Torikai

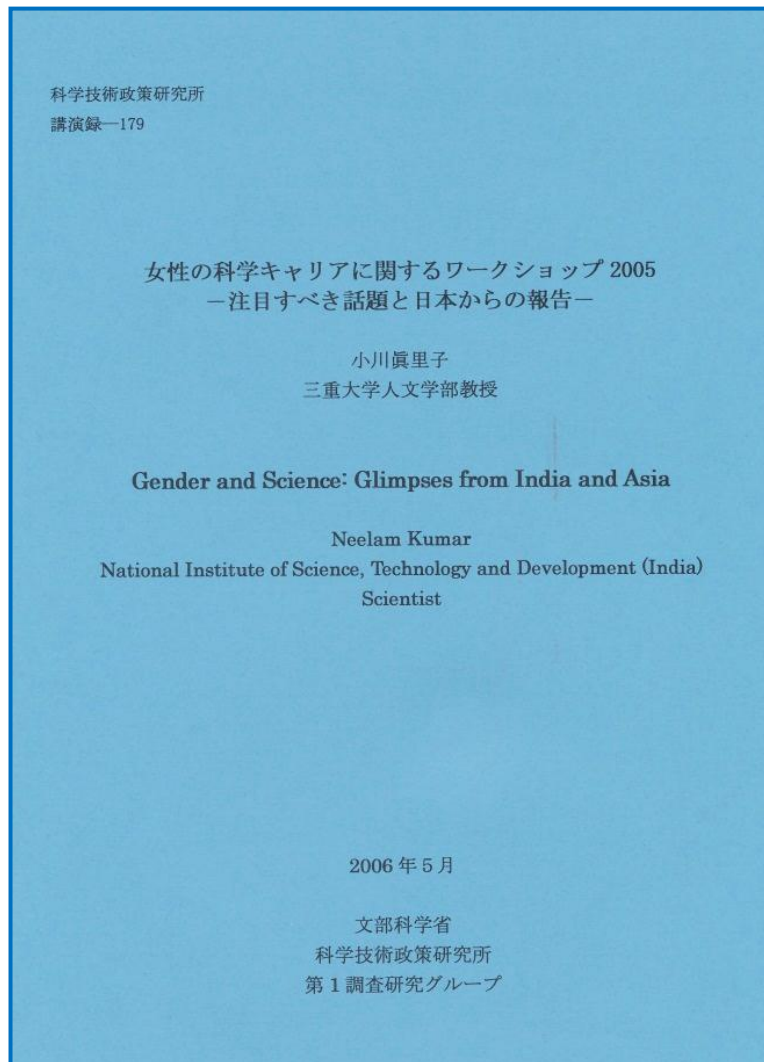
Funding and Related Results

----- Tuyen Le

Women Physicist in Indonesia: what they are doing with
Physics

----- W. S. Subowo

Dr. Kumar gave a lecture at NISTEP in Feb. 2006.
And she was also invited to the Institute for Gender
Studies, Ochanomizu University.



Prof. Lee gave a lecture
at NISTEP in Mar. 2006.



お茶の水女子大学 21 世紀 COE プログラム

ジェンダー研究のフロンティア

ジェンダー研究センター (IGS) 人間文化研究科ジェンダー論講座

プロジェクト C 身体と医療・科学・技術

✂ C-1&2 研究会のお知らせ

第 8 回「科学技術史・科学技術政策とジェンダー」研究会

日時： 2006 年 3 月 24 日（金）10:30～12:30

場所： お茶の水女子大学 図書館第 2 会議室

報告者： 李恩京

（韓国チョンブク大学）

テーマ：「韓国における女性科学者と技術者の状況」

司会： 小川真里子（お茶の水女子大学客員研究員、三重大学教授）

館かおる（お茶の水女子大学教授）

事前登録していない方も当日ご参加いただけます。
どうぞお気軽にお越し下さい。

「ジェンダー研究のフロンティア」事務局
お茶の水女子大学

〒112-8610 文京区大塚 2-1-1

TEL: 03-5978-5547 FAX: 03-5978-5548

f-gens@cc.ocha.ac.jp <http://www.igs.ocha.ac.jp/f-gens/>



科学技術政策研究所
講演録—188

韓国女性科学者・技術者 — 成長と政府支援策

李恩京 (Eunkyoung Lee)
韓国国立全北大学科学文化研究センター長

2006 年 7 月

文部科学省
科学技術政策研究所
第 1 調査研究グループ

NISTEP Seminar 2006.3.23

1

韓国 女性科学者 社会 成長 & 政府 政策

Situated Women Scientists &
Engineers in Korea

Lee, Eunkyoung (李恩京)
Chonbuk Nat'l Univ.
eklee@chonbuk.ac.kr



29 Sept-2 Oct, 2006, in Nagoya



International Workshop of Women and Science/Technology Network in Asia

This is the first opportunity for the gender workshop in STS in Asia.

Chubu University,
Nagoya, Japan
29 September - 2 October , 2006



International Workshop on "Women and Science/Technology" Network in Asia

This Workshop is supported by the
Japan Society for the Promotion of
Science and the Toyota Foundation.

Program Head:
Mariko Ogawa, Mie University

Funded by
Toyota Foundation
(300 million yen)

Chubu University for which Prof. Takarabe works
kindly offered a very convenient venue.



Pacific Science Association Okinawa, Japan June 13-17, 2007



Symposium on Women and S&T



21st Pacific Science Congress Okinawa, Japan, June 2007.



Prof. Lee
from Korea


Ms Hermawati
from Indonesia

Prof. Ohsumi

Dr. Miura
from Japan

Ogawa

Results and Future Vision for the Workshop on the “Women and Science/Technology” Network in Asia



21st Pacific Science Congress
Okinawa, Japan

2005-2007 Toyota Foundation
2006年 Grant-in-Aid for Scientific Research
Head Investigator Mariko OGAWA
Mie University, JAPAN

How did the Network begin?

- ❑ The Science and Technology Basic Plan for the third term (2006-2010) aims to form an Asian Community of Science & Technology.
- ❑ In this stage, the women's network will occupy an important position in S&T.
- ❑ Application to the Toyota Foundation.
- ❑ The program started in November, 2005.
- ❑ Japan's initiative in Asia has been strongly anticipated by OECD Workshop on Gender in S&T and the Women and Science Unit of the European Committee (EC).

A New Approach to Promote the Activities of Female Scientists



Yukiko MIURA

National Institute of Science and Technology Policy (NISTEP)
Ministry of Education, Culture, Sports, Science and Technology (MEXT)
2-5-1 Marunouchi, Chiyoda-ku, Tokyo 100-0005 Japan ym40z@nistep.go.jp

Dr. Miura's Poster filled with useful hints

Present Situation

Female Students in Tertiary Education (Figure 1)

Number of female graduates has favorably increased even though that of male graduates has gently decreased since the late 1990's. Rate of female and male graduates will be 50:50 soon. However, the growth rate in science & technology fields is smaller than that in social sciences.

Policy Action

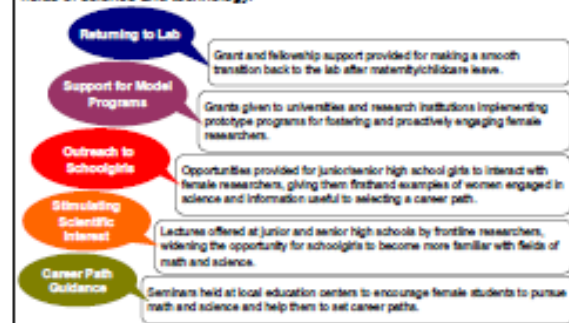
The Third Basic Plan for Science and Technology which started in FY2006 shows three view points to promote the activities of female researchers.

1. Providing support for work-life balance of researchers
2. Setting a numerical target (25%) for the recruitment of women
3. Provision of useful information for women to go into the S&T fields

Under this Plan, the government began to perform some policy programs (Scheme).

Scheme Present Policy Programs to Encourage Women in S&T

MEXT conducts programs to attract women to science and to create environments in which each can give expression to her individual talents. In these ways, MEXT is working to promote the active participation of women in fields of science and technology.



Ref. http://www.mext.go.jp/b_menu/houdou/19/12/06122114/001.pdf

Leaky Pipeline in Japan (Figure 2)

Most serious leaking point on the career pipeline could be stage of graduate schools in Japan.

Figure 1 Number of Graduates from Universities

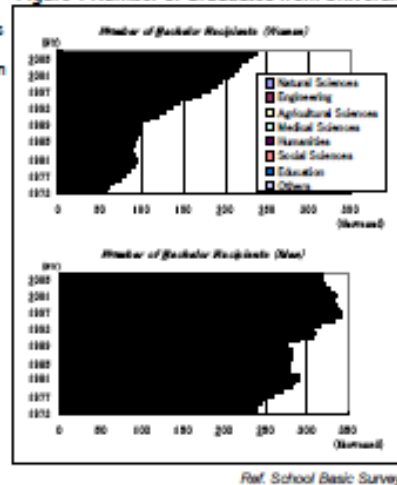
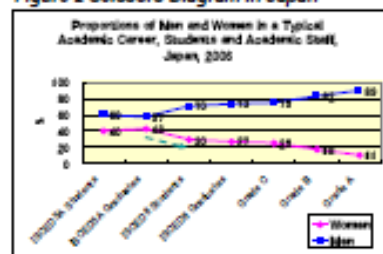
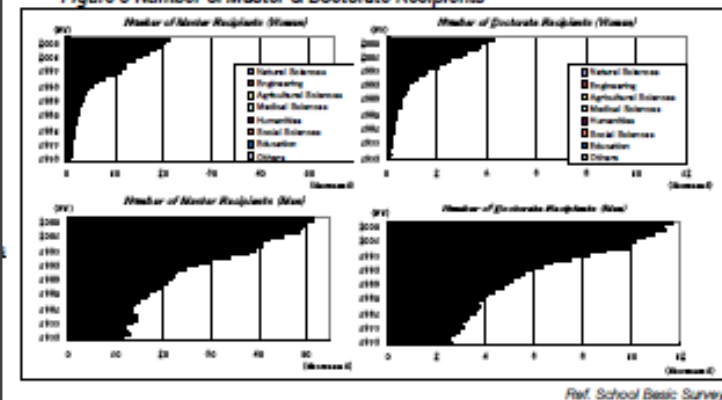


Figure 2 Scissors Diagram in Japan



Ref. School Basic Survey 2006
ISCED5A: Undergraduate, ISCED6: Doctorate course, Grade A: Full Professor, Grade B: Associate Professor, Grade C: Lecturer

Figure 3 Number of Master & Doctorate Recipients



educations and vocations

	Women	Men	Women	Men
6	71.8	79.3	79.5	79.5
5	87.8	93.4	90.0	90.0
4	86.7	88.5	88.7	88.7
3	80.8	81.7	88.1	88.1
2	84.8	87.1	87.0	87.0
1	87.7	88.8	81.8	81.8
0	81.8	73.3	79.6	79.6

Figure 3 Rate of Female Researchers

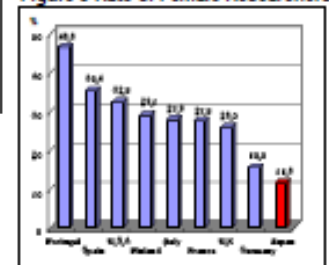
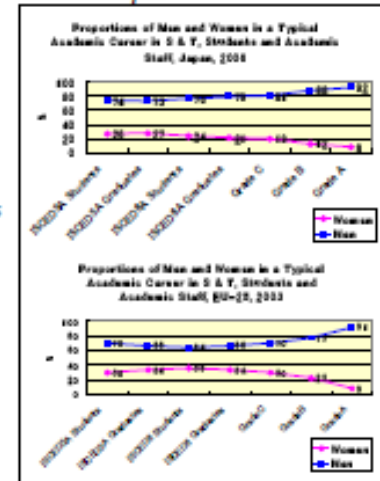


Figure 4 Scissors Diagrams in S&T fields in EU and Japan



Next Action

Attractiveness of holding higher degrees for women should rise to promote activities of female researchers. One of the ways would be support for their career planning and setting in the professional fields.

Dr. Miura kindly offers her poster.

Two Taiwanese researchers came to Japan for our study of statistical indexes



Prof. Tsai and Prof. Cheng gave lectures at Ochanomizu Gender Research Center



Gendered Participation in Physics in Taiwan

By
Dr. Li-Ling Tsai
National Kaohsiung Normal University, Taiwan

For the
Frontiers of Gender Studies (F-GENS) Program
Institute for Gender Studies
Ochanomizu University

July 12, 2007
Tokyo, Japan

Drs. Tsai and Cheng gave
lectures at Ochanomizu
Gender Research Center

In a Man's World: Women in the Medical Profession in Taiwan: 1950-1995.

Frontiers of Gender Studies (F-GENS) Program,
Institute for Gender Studies, Ochanomizu University.
July 12, 2007, Tokyo, Japan

Ling-fang Cheng
Associate Prof. & Director of Graduate Institute of
Gender Studies,
Kaohsiung Medical University, Taiwan



Study meeting for statistical indexes

International Workshop on "Women and Science / Technology" Network in Asia

http://www.wstna.org/ RSS Google

International Workshop on "Women and Science / Technology" Network in Asia

2006年9月、日本は名古屋で行われたInternational Workshop on "Women and Science / Technology" Network in Asiaでの研究報告のPDFファイルをご提供しながら、今後の活動予定なども掲載いたします。

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International Workshop

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- [Women in Science and Technology](#)
- [Mainstreaming Women Physicist in Korea and Supporting Policy of Korean government for women in S&T](#)
- [Is Gender Speakable in the Community of Physics in Taiwan?](#)
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- [In a Men's World: Women in the Medical Profession in Taiwan, 1950-1995.](#)
- [Opening the Policy Window: In Case of the WISE Policy in Korea](#)
- [Women in Science: the Case of India](#)
- [Female Managers in Japan ICT Industry](#)
- [Women's Participations in the Digital Economy: Perspective's in China](#)
- [Murasaki' is the Origin of the History of Japanese Women in Chemistry](#)
- [Workshop on Women in Scientific Careers](#)

韓国と日本における女子高校生のサマーキャンプ

- [Science and Gender in Chinese University on 21 Century](#)
- [Education in Asia: A Comparative Perspective](#)

韓国

- [韓国：Report on 2004 KPS-ASML-WISE Physics CAMP](#)
- [日本：Activities for Gender Equal Participation in Physics and S&T](#)
- [隣のおばさんもする物理というものを.....](#)

統括

- [本ワークショップへのコメント](#)
- [Future Vision of the International Workshop on "Women and Science/Technology" Network in Asia](#)
- [Education in Asia](#)
- [Summary Chart of Gender Equality Measures in Asia](#)

2007年05月15日

沖縄で国際会議が開催されます -- 21st Pacific Science Congress
6月12日から18日を会期として沖縄で国際会議が開催されます。

ごあいさつ



2005年11月からトヨタ財団の助成をうけて、アジアにおける女性科学者・技術者のネットワークを構築するプログラムを開始した。科研費基盤研究C企画調査による助成もあり、2006年9月末から3日間、アジアの科学/技術分野における女性の活躍を願ってネットワークを築こうとする国際ワークショップの開催が実現した。おそらく、分野をとくに限定しないこの種のものでは初めての試みではないと思われる。それは小規模ながら親密な交流の場となった。<研究代表者 小川眞里子>

<http://www.wstna.org/>

カテゴリ

2006年 研究報告（概要とPDFダウンロード）：Reports 2006 (abstracts and PDF files)(24)
お知らせ: information(2)

新着記事

Our
Home
Page



Program head **Mariko OGAWA**

Join the network !

As the 3rd MEXT Science and Technology Basic Plan (2006-2010) emphasized the development of the Asian S&T community, this hints that the Asian network of female scientists and engineers will occupy an important position in the policies of Asian S&T development. The EU and the US, where women's networks in S&T have already been fully developed, expect Japan to take the initiative, and are interested in China and India because of their remarkable economic expansion. This program aims at strengthening the solidarity of female scientists and engineers in Asia, and promoting their friendship and the improvement of women's social status.

In order to establish the network, it is important to discover potential human resources suitable for the program. We have carried out the following activities to find ideal people not only in the fields of science and technology but also social studies of science.

1. Nov. 2005. OECD/SFRI WS on Women and Scientific Careers, Paris. (Ogawa: The Present Condition and Problems of Women in Science and Technology in Japan : invited lecture)

2. Nov. 2005. International WS on Asian Women in Physics, Pohang (Korea). (Ogawa and Torikai: invited lectures)
3. June 2007. The 21st Pacific Science Congress, Okinawa. (Ogawa: Results and Future Vision for the Workshop)

1. Feb. 2006. Dr. N. Kumar (NISTADS INDIA) (lecture in Ochanomizu Univ. and discussion with program members)
2. Mar. 2006. Prof. Lee (Chonbuk Univ. Korea) (lecture in Ochanomizu Univ. and discussion with program members)
3. June 2007. Profs. Cheng and Tsai (Taiwan) (lecture in Ochanomizu Univ. and investigation on statistics and indexes)
4. Sept. 2007. Prof. Petchsingh (Thammasat Univ.) (joint program with international exchange of Mie Univ.)

1. Oct. 2006. ICU International WS "Body Knowledge and Gender in Asia" (Ogawa, Takarabe & Rikitake participated.)
2. Jan. 2007. Visit to NISWIST in Korea (by Takarabe: Research on Policies of Supporting Female Scientists and Engineers, funded by Chubu Univ.)

3. June 2007. The Australian Embassy, Evening Seminar "Women in Government" (Ogawa and Torikai)
- * Through these activities, we can extend the network of scientists and sociologists in science and technology.
 - * Invitations to Asian researchers have given us opportunities to study other Asian countries' situations.



Main participants: Taiwan 2, China 3, Korea 2, India 1, Indonesia 1, Japan 7, Total 16 plus some quests

After the workshop, the members visited the Toyota Commemorative Museum of Industry and Technology.



contents

(3) Results of Activities

The First International Workshop (photo ①) 29 Sept. – 1 Oct. 2006 (upper right: a group photo)

Various kinds of presentation were given: Physics and Gender (4 members), ICT Industry and Women (2 members), Contemporary Situation of Women's Participation in Science and Technology (3 members), Policies of Gender Mainstreaming in Science and Technology (2 members), Women and Medicine (1 member), Two days' discussion for statistics indexing, education systems, and gender policies as general themes were well-attended.



photo② <http://www.wstna.org/>

Setting up of our Home Page (photo ②)

In March, 2007, our network homepage was set up. It is indispensable for communication between members and sharing of information or for appealing to the outside of the network. It will be very useful for us to prepare the workshop which will be held in September of 2008.



photo③

Presenting our program at the Asian Pacific Congress (photo ③)

At the international congress held in Okinawa in June, the program head gave a presentation of our results and extended our network through the session on science and gender. As this session was held with links to the Science Council of Asia, we were able to find a clue to collaborate with public sectors hereafter. Such collaboration is important for us to collect the statistics in each country and inform non-members of our activities. (photo③: from front left, Prof. Lee (Korea) and Ms Hermawati (Indonesia), participants of our 2006 workshop)



photo ④

Study of Statistical Indexes —welcoming 2 Taiwanese researchers (photo ④)

We began to prepare for the 2008 workshop with the collaboration of two Taiwanese researchers in July 2007. Although in the 2006 workshop we had many themes, now we are focusing on the sex-disaggregated statistics of students and researchers in each country based on common indexes. We have realized importance of disseminating information outside of our network via our home page. In order to not only exchange opinions within a network, but also to increase the number of young scientists and engineers, a statistical foundation is important. Also important are activities to improve the public image of female scientists and engineers. These will lead junior school girls and junior high school girls to major in science and engineering and to enter careers in science and technology. From these points of view, we are planning both intensive discussion within the network and a public symposium in cooperation with Mie Prefecture Gender Equality Center, in which we introduce female pioneers in medicine and physics in Asian countries.

(4) Conclusion and Perspective

Our workshop was a first opportunity to collect together people who were interested in encouraging female scientists and engineers in Asia. Through this international exchange, we hope to support female scientists and engineers in Asia and find themes and orientations by recognizing problems in common and areas of difference by:

- ① establishing a statistical foundation;
- ② promoting role models of female scientists and engineers to encourage young women to enter S&T fields;
- ③ appealing to the importance of female participation in science, engineering, medicine and agriculture, and contributing to the empowerment of women in Asian countries and to the elevation of women's social status.



여성과 소수인종의 과학기술 진출 촉진을 위한

APEC Workshop Participation of Women & Ethnic Communities in S&T

일시: 2007. 11. 21~24 장소: 전북대학교 박물관 2층 주최: 전북대학교 과학문화연구원·과학기술정책연구원 후원: APEC·과학기술부



2007 Chonju

APEC Workshop

Chubu University,
Nagoya, Japan
29 September - 2 October, 2006

International Workshop on "Women and Science/Technology Network in Asia"

This Workshop is supported by the
Japan Society for the Promotion of
Science and the Toyota Foundation

Program Head:
Mariko Ogawa, Mie University

2006 Nagoya



여성과 소수인종의
과학기술 진출 촉진을 위한

APEC Workshop Participation of Women & Ethnic Communities in S&T in APEC Region

일시 : 2007. 11. 21~24

장소 : 전북대학교 박물관 2층

주최 : 전북대학교 과학문화연구원
과학기술정책연구원

후원 : APEC
과학기술부



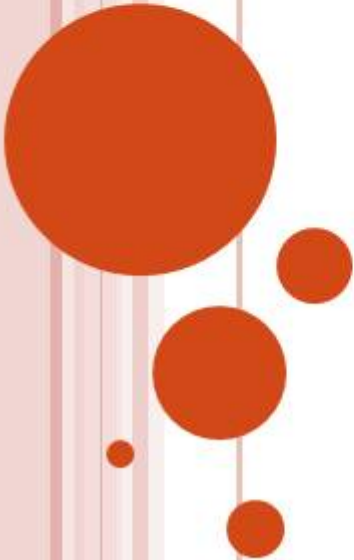
All participants enjoyed
Korean culture, too.
Food and historical sites



Sightseeing

Wonderful dinner





Keynote speech for the APEC funded workshop
on “Women and Ethnic Communities in S&T”
Chonbuk National University, on 22 November, 2007

IMPORTANCE OF THE PROMOTION POLICIES FOR WOMEN AND ETHNIC COMMUNITIES INTO S&T

Mie University
OGAWA

Mariko

IMPORTANCE OF SENDING OUT INFORMATION

- Asia is not a homogenous area in terms of development according to the UN Human Development Index (UNHDI).
- However, there are great possibilities of development.
- Therefore, EU countries and the US take interest in the present trend of Asian countries in economy and science.
- EU countries and the US wait for information from Asia, especially from two countries of BRICs, China and India (India is not a member country of APEC. Russia is a member).



International Conference on Woman Scientists

Challenges, Opportunities and Choices
English | 中文

What's New

Keynote Speaker : Dr. Evelyn Fox Keller



Dr. Evelyn Fox Keller received her Ph.D. in theoretical physics at Harvard University, worked for a number of years at the interface of physics and biology, and is now Professor of History and Philosophy of Science in the Program in Science, Technology and Society at MIT. She is the author of many articles and books, including: A Feeling for the Organism; The Life and Work of Barbara McClintock; Reflections on Gender and Science; Secrets of Life, Secrets of Death: Essays on Language, Gender and Science; Refiguring Life: Metaphors of Twentieth Century Biology; The Century of the Gene; and Making Sense of Life: Explaining Biological Development with Models, Metaphors, and Machines. Last year, she was in Paris (at REHSEIS) as a Chaire Blaise Pascal, and this year, visiting professor at the Weizmann Institute in Israel. .More..

Speakers



Dr. Lisa Frehill
(USA)



Dr. Susan Hamilton
(Australia)



Dr. Wati Hermawati
(Indonesia)



Dr. Neelam Kumar
(India)

Introduction

In recent years, government start to pay attention to women's right by passing bills about how to elevate the status of women because of the change of social structure and the trend of feminism. We can also find the same phenomenon in the field of science as more and more woman scientists manifest their capability through their outstanding achievements of research on technology and science.

In developed countries, governments and social organizations all stress the concept of social equality and play the role of supervisor in the procedure of policy adjustment. [More...](#)

The Venue : National Yang-Ming University

2008, Taipei

Yang-Ming University

International

conference on

woman scientists

Challenge, Opportunities and Choices

National Yang-Ming University

This was very well organized conference. Most impressive event was a mingling session with high school students. They expressed their own opinions without flinching. Most delightful presentation was analysis of gender bias about female scientists in comic books. Both conference in a big venue and opinion exchanges in a small room were interesting and suggestive.



4S/JSSTS Joint Meeting 2010

August 25-29, 2010

- **‘Choice and Confusion’ of High School girls in Japan**

Ginko KAWANO (Yamagata Univ.)

- **Current Problems for Female researchers in Japan**

Mariko OGAWA (Mie University)

- **Trend of the Scientific Careers in Japan –Female-specific Problems**

Yukiko MIURA (RCAST/Univ. of Tokyo)

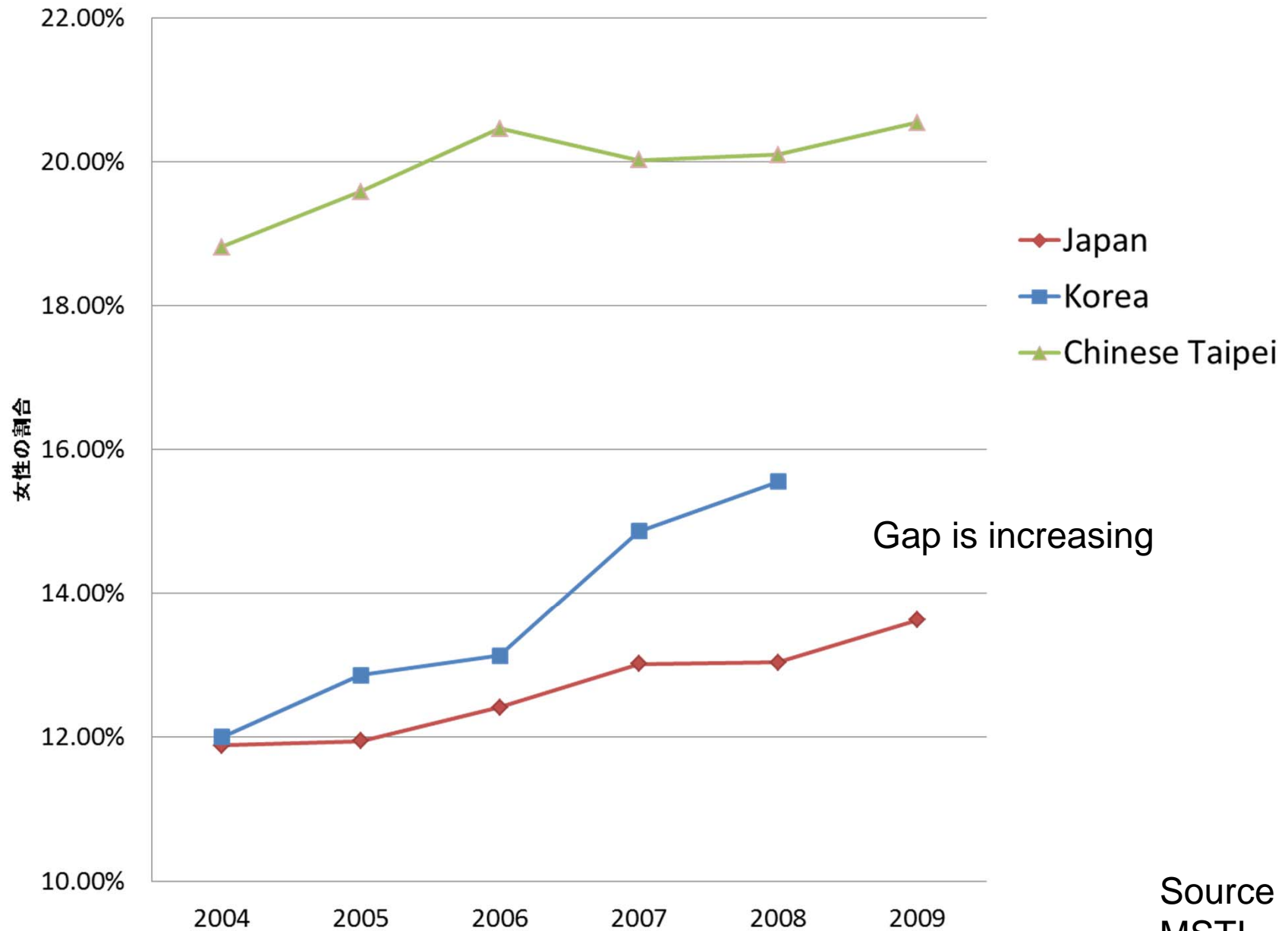
- **Female Scientists and Engineers Exhibited in Science Museums**

Kae TAKARABE (Chubu University)



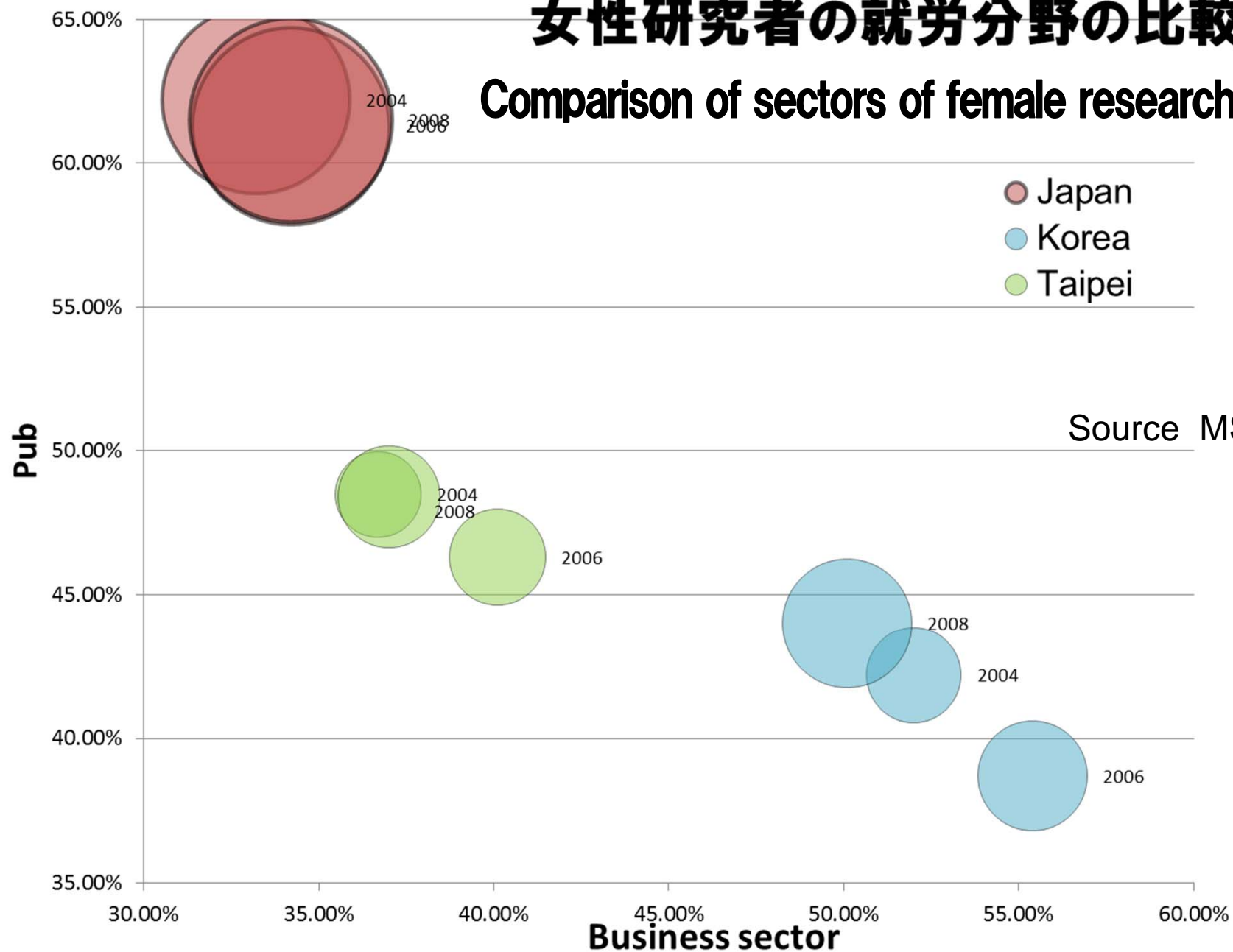
Li-Ling gave them
nice comments
and
encouragement.

Proportion of female researchers



女性研究者の就労分野の比較

Comparison of sectors of female researchers





Continuity is the father of success.

- We have a long history and accumulation of our knowledge of women in S&T in Asia.
- It is important to exchanging information among us on how to encourage women researchers.
- We are expected to send out a message to the world. EU and US are waiting for our information.