

The International Workshop on “Women and Science/Technology” Network in Asia

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“Women in Science and Technology : A lesson learned from some Asian Countries”

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Outline of the Presentation

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Background

WOMEN, POVERTY, S&T AND DEVELOPMENT



- In Developing countries - women and girls are the poorest, least educated, most unhealthy, most marginalized segment of the population
- Environmental degradation – impacts disproportionately on women
- Women are **doubly** disadvantaged:
 - **along with males**: marginalization from access to technological opportunity as well as unequal access to the benefit of science and technology.
 - as **women**: trap of local custom and culture
- The problem is for the whole society:
 - women play a central role in productive, reproductive and community management responsibilities
 - any society that disempowers **half** of its population is seriously weakened in reaching any development objectives
- First step in ‘sustainable development’: recapture the power of women

Background

WOMEN **IN** SCIENCE AND TECHNOLOGY

- Women are **missing** in the S&T enterprise roots of globalization’s power -- under representation and under performance in the education, S&T careers, decision making position, politics
- Result: patriarchal tendency in scientific questions, options for solution and modes of application
- Conclusion of the 1999 World Conference on Science: need for a **new social contract** for women to participate in S&T enterprise



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Background

The importance of women and S&T has been discussed by many international, regional and national forum.

- Four world Conferences on Women : Mexico City (1975); Copenhagen (1980); Nairobi (1985); Beijing (1995)

The commitment to support gender equity in science and technology (GEST) was reflected in the **Declaration on Science and the Use of Science** of the **World Conference on Science** held in Budapest (1999):

“Equal access to science is not only a social and ethical requirement for human development, but also essential for realizing the full potential of scientific communities worldwide and for orienting scientific progress towards meeting the needs of humankind. The difficulties encountered by women, constituting over half of the world’s population, in entering, pursuing and advancing in a career in the sciences and in participating in decision making in science and technology should be addressed urgently. There is an equally urgent need to address the difficulties faced by disadvantaged groups which preclude their full and effective participation”.

Millennium Development Goals No. 3

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UNESCO and LIPI BUILDING THE BRIDGES to promote gender equality and equity in S&T

The Regional Secretariat for GEST

Prime objective:

- ‘Science for Women’
build the bridges between the modern sector and women in local communities
- ‘Women for Science’
enhance opportunities for women in science

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RESGEST Objectives and Functions

To promote understanding on **gender equality and equity in S&T** as well as to enhance the status and role of **women, both as actors and beneficiaries in the development of S&T and their application to social and economic development in the Asia Pacific-Region**

- ◆ establishment of National Committees GST
- ◆ regional cooperation through networking, exchange of information and experiences;
- ◆ regional cooperation in studies

In line with .. Seven AREAS that need TRANSFORMATIVE ACTIONS Recommended By UNCSTD

1. **Gender Equity** in Science and Technology Education
2. **Removing the Obstacles** to Women in Scientific and Technological Careers
3. **Making Science Responsive** to the Needs of Society: The Gender Dimension
4. **Making Science and Technology Decision-Making more Gender Aware**
5. **Relating Better with Local Knowledge Systems**
6. **Addressing Ethical Issues** in Science and Technology: The Gender Dimension
7. **Improving the Collection of Gender Disaggregated Data** for Policy Makers

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3. Current Condition of Women in S&T

MDG Indicators

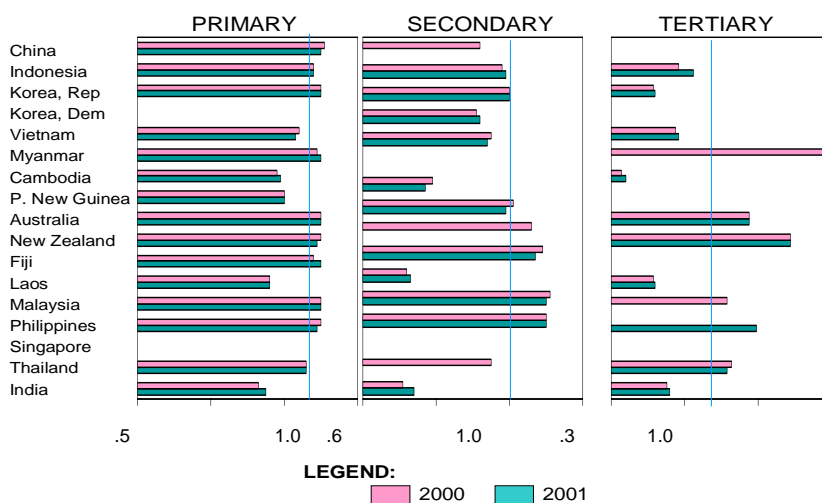
Goal 3: <i>Promote gender equality and empower women</i>	Asian Countries			
	Eastern	South-Eastern	Southern	Western
Equal girls' enrolment in primary school	parity	parity	far from parity	nearly close to parity
Women's share of paid employment	high share	medium share	low share	low share
Women's equal representation in national parliaments	moderate representation	low representation	low representation	very low representation

- Target already met or being close to being met
- Target is not expected to be met by 2015, if prevailing trends persist
- No progress, or a deterioration or reversal

Source: UN Millennium Development Goals

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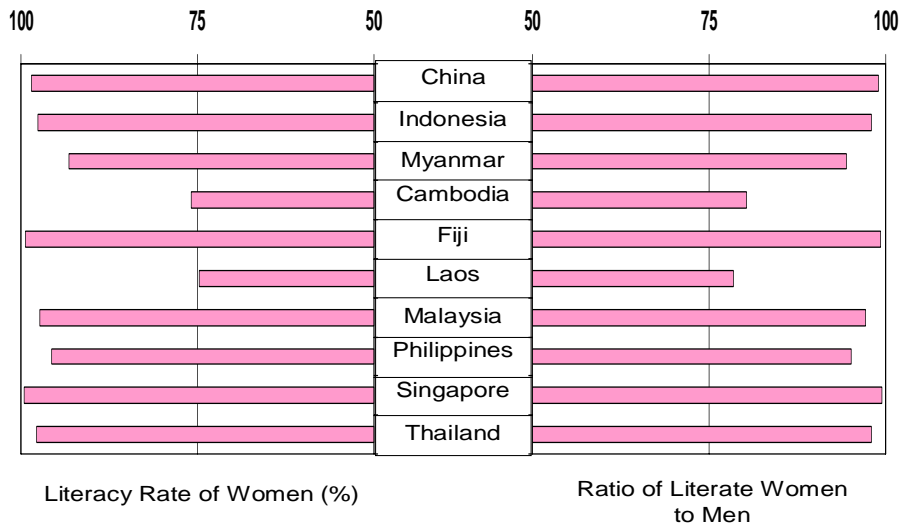
Enrollment Ratio of Girls by Educational Level 2000 and 2001



Note: The blue line indicates a 1:1 ratio of girls with boys

Source: UNDP Report, 2005

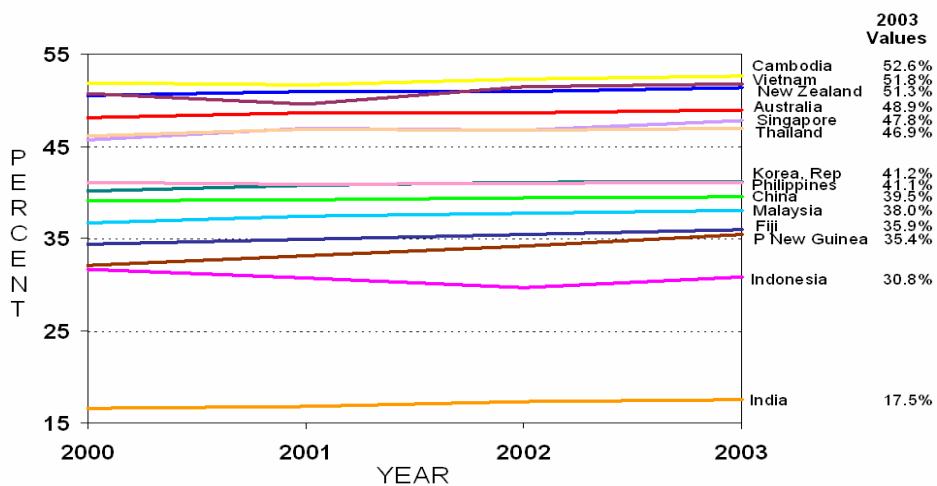
Comparison of Literacy of Women, 15-24 Years Old Among Asia Pacific Countries in 2004



Note: No data for other member countries
Source: UNDP Report, 2005

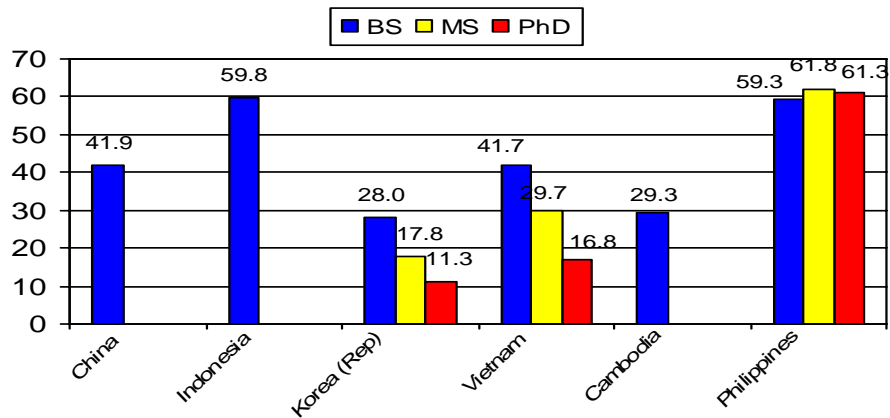
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Women's Share in Wage Employment in the Non-Agriculture Sector, 2000 to 2003



Note: No data are available for Korea (Dem), Laos and Myanmar for the four-year period
Source: UNDP Report, 2005

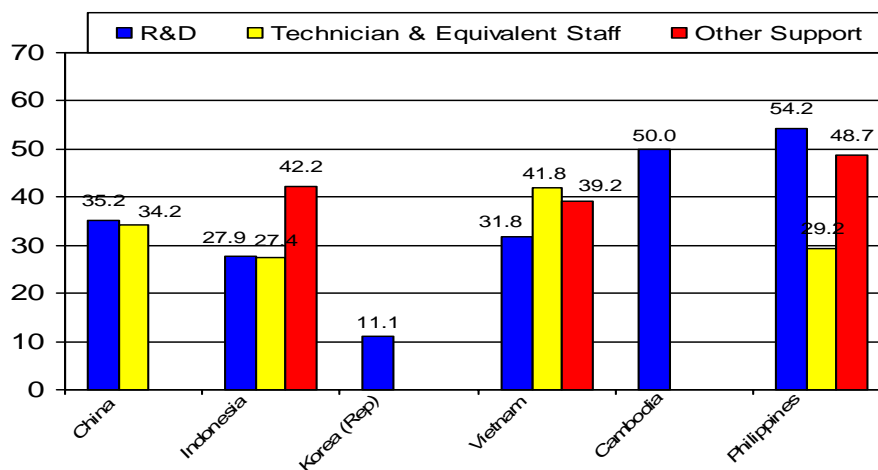
Percent of Female Graduates in Higher Education (All Fields)



Source: RESGEST Country Reports, 2005

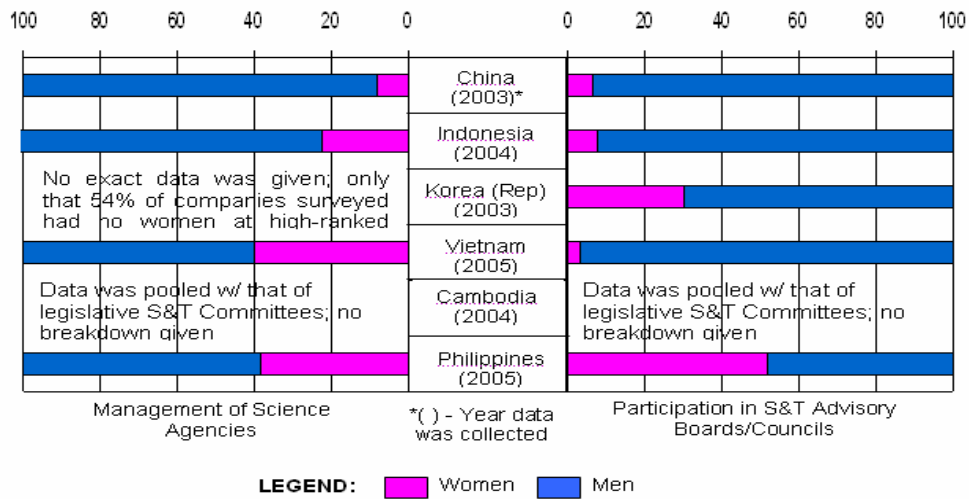
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Percent of Women Working in R&D



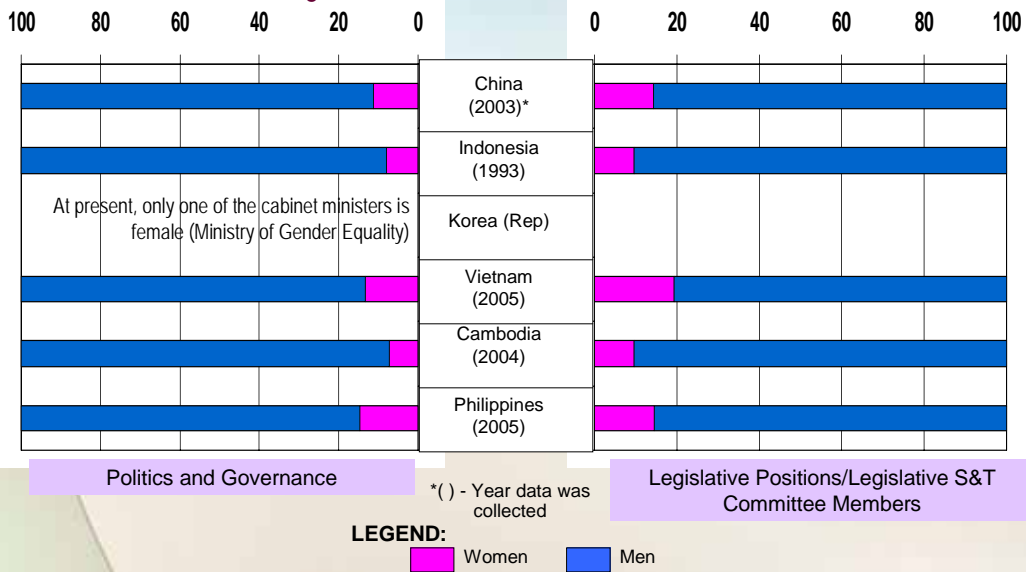
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Percent of Men and Women Performing Key Roles in the S&T Sector



Source: RESGEST Country Reports, 2005

Percent of Men and Women Occupying Key Positions in Government



Source: RESGEST Country Reports, 2005

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4. Raising the Quality of Life by Women: Increasing the knowledge and skills



Raising the Quality of Life : Increasing Women's knowledge and skills

- **Biotechnology**
 - Food technology, sericulture, floriculture, waste management, medicinal plant, biodiversity, conservation, organic farming, etc.
- **Green Health Technology**
 - Traditional medicine, food supplement, herbal medicine, etc
- **Renewable energy**
 - Solar energy, micro hydro, solar oven, bio-gas, cooked stove, etc
- **Clean Water and Sanitation**
 - Community-based water supply technologies : Hydraulic Ram Pumps, low-cost drop irrigation, gravitation and piping system, etc.
- **Information Technology**
 - Internet shops, education and training

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- **Importance of each area to women's development**

- Incredible cultural & biological diversity
- Neglect of green health relative to its importance to primary health care
- Double burden experienced by women if energy & water needs are not met
- Potential for IT to change women's lives even/especially in remote areas

- **Benefit of the Innovative Grassroots Technology for women :**

- Saving time
- increased income
- gaining new knowledge and skills
- improve health and status
- Wider opportunities to access activities – economic and social
- Increase self-confidence, self-reliance, creativity, receptive to new changes
- More strength and independent

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5. Constraints Faced by Women to Enter S&T Arenas

1. Personal feelings – e.g. lack of self confidence
2. Family – lack of funding and gender stereotyping
3. Others and Infrastructure – science teaching is very poor, lack of ability in motivating girls, gender bias in science curricula, no role models, no career advise in S&T
4. Double burden
5. There is NO - Gender responsive policies, programs, projects and planning

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6. Efforts in Promoting Women in S&T

- Gender Mainstreaming at all levels
- Reducing drop out girls
- Improving access of girls
- Promoting S&T Careers
- Sensitizing Parents, teachers, educators
- Provide funding for research on women/gender issues
- Make available sex-disaggregated statistics and indicators

- Strengthen Regional and National Networking on Gender Equity in S&T

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A FINAL NOTES

To strengthen human resources in S&T is to consider women and girls as a resource of future scientists, engineers, technologist or developers of S&T which can make the world difference.

Therefore,

- S&T Policy should take gender equality into account
- Improve access of women and girls in S&T arenas
- Provide gender disaggregated statistics and indicators for policy, programs and planning purposes
- Strengthen National Capacity Building – to systematically integrate gender concerns into design, implementation and evaluation of S&T development

Only then, Gender Equality and Equity in all spheres of live and sustainable development – will be achieved effectively

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