

**Report on International Conference on Gender Participation in the Development of Sciences
14 - 15 November 2009, Dhaka, Bangladesh, jointly organized by Bangladesh Academy of
Sciences (BAS), Network of Academies of Sciences in the OIC Countries(NASIC) and the
Academies of Sciences for the Developing World(TWAS) and sponsored by the Inter Academy
Panel on International Issues(IAP)**

The Bangladesh Academy of Sciences (BAS), The Inter Academy Panel (IAP), the Network of Academies of Sciences in Islamic Countries (NASIC) and The Academy of Sciences for the Developing World (TWAS) jointly organized an **International Conference on Gender Participation in the Development of Science** with the support of Inter Academy Panel (IAP) on 14 - 15 November 2009. The theme of the conference



Organizing Chair Professor Naiyyum Choudhury addressing the audience



Professor Tarique Mahmood of NASIC Secretariat addressing the inaugural Ceremony

was Women Scientists for Development. In addition to the Fellows of the Bangladesh Academy of Sciences and about 10 Scientists from Asia and Africa including Malaysia, India, Pakistan and Uganda and nearly 300 women scientists from Bangladesh participated and discussed the status of women in science and education at the primary, secondary and higher level in different countries and regions and ways and means of improving the methods of science education, status of women scientists in different countries, their problems in career building in professional lives means of improving the present situation. Architect, Yeafesh Osman, Hon'ble State Minister, Ministry of Science and Information & Communication Technology was the Chief Guest of the Inaugural Ceremony, presided over by Professor M. Shamsher Ali, President of the Bangladesh Academy of Sciences while Professor Naiyyum Choudhury served as the facilitator and delivered address of welcome. In his welcoming address Professor Choudhury thanked the IAP for sponsoring the Conference and referred to the background of the event. He said that the IAP has taken strong initiatives for gender participation in science and technology in the light of the Inter Academy Council's(IAC) report on Women for Science. He briefed the audience on the salient features of the IAC report and the set of actionable recommendations by the IAC addressed particularly to the world's Science and Engineering Academies so that through their high prestige and alliances with governments, universities, and nongovernmental organizations, the Academies can play a unique advocacy and leadership role in

initiating enlightened actions for gender participation in public as well as private, sectors.



Chief Guest Architect Yeafesh Osman addressing the audience

In his inaugural speech the State Minister for Science and ICT, Architect Yeafesh Osman said that government is committed to ensure women’s participation in all the programs and activities of the government including promotion of Science and Technology. He also mentioned in his speech that without participation of women the vision 2021 will not be possible to be accomplished.



Professor M Shamsheer Ali, President, BAS presenting the keynote paper

Prof. Dr. Shamsheer Ali, President of the Academy and Vice-Chancellor of the Southeast University presented the keynote paper on “**Plight of Women in Developing Countries: What Gender Participation can do**” in the inaugural ceremony. He started with a story where he tried to focus that there is no difference between man and woman and that they are both alike and capable of doing equal thing. On his presentation he visualized the long history of success and glory of women in science and development. Later his presentation he mentioned that the current status of women in developing country. Although the contribution of women in any sector is half but they got very little renounce, as he gave an example of farmer family where half of the work get done by the female who are staying at home but the country economy never notice their contribution. He also described the present condition in the country and shows a statistical report of involvement of women on different levels of education



Dr. Farida Habib Shah, Fellow, TWAS addressing the audience

in the countries. He tried to focus that although the involvement of women in science education is increasing but not impressive. On his concluding speech he reminded again that development is a continuous process and there is no easy formula for a magic transition. Men and Women must work hard, they must work together. The work force of a country must constitute of males and females and in order that we in the developing countries can live in the new millennium with a modest sense of dignity, we have to do a lot of home work. Dr. Farida Habib Shah, Fellow, TWAS and Member of the Executive Committee of the TWOS also addressed the inaugural ceremony.

After the Inaugural ceremony they joined a special session on **Women in Science : Global and Country**, which was chaired by Prof. Farida Habib Shah. Delegates from Bangladesh, India, Malaysia, Pakistan and Uganda participated in this session.

Professor Shamima K. Choudhury, of the Department of Physics, Dhaka University, presented the topic on **Women in Science : Bangladesh Perspective**. She started her speech by informing that this year 2009 is the year of Science as this year is the 400 anniversary of the publication of Kepler's first two laws of Planetary Motion, 400 anniversary of Galileo's first use of telescope, 200 birth anniversary of Darwin and for many reasons this year is very significant for science. She emphasized that there should be balance of gender in all spheres of educational and professional environment and unfortunately that is missing in Bangladesh. She described her point by giving a number of statistical data from educational and research organizations. She reminds us that one of the



Prof. Shamima K Choudhury presenting paper on Women in Science

millennium development goals(MDGs) is promoting gender equality and women empowerment. She pointed out that the Millennium development goal can never be accomplished without the active participation of women who represent 50 percent of the population particularly their involvement in science education.

, Dr. M. Suriya Mayandi Thever, Professor of Library and Information Science, Annamalai University, Tamilnadu, India, presented “**A Bibliometric Study of Publication Activities of Women Scientists : A Cross Country Analysis**”. On her presentation she informed that still today Men produce more paper than female. She illustrated her point by giving a number of data and graph. Then, Professor Farida Habib Shah, Professor of Molecular Biology, University Tunku Abdul Rahman (UTAR), presented on “**Advancement of Women in Science in Developing Countries: the role of Networking as a Tool for Collaboration**”. Where she started with the quotation of Kofi Annan “Let us prove a society which



Dr. Suriya Mayandi presenting paper on Publication activities of women scientists

empowers its women is a society sure to success” during her presentation she focused how women of poor condition have both in public and private sectors. She also pointed out the barriers and obstacles women are facing every day both in education and job. She addressed some of the key points to reduce women struggles such as Examine Funding imbalance,

extra administrative assistance, flexi-houses, work from home, child care services and so on. She pointed out that organization like TWAS, TWOWS and other developed world networks might lead. Then Professor Azra Khanum, Dept of Biochemistry, PMAS-Arid Agriculture University Rawalpindi, Pakistan, presented “**Futuristic Approach to Enhance Girls Participation in Science**”. She described the long story of girls participation in science. She also pointed out that although fewer girls choose to select science education but the girls always do better in education.



Prof. Munawar Mirza, Chairperson, Special session addressing the audience

Finally **Dr M. Saimon Kahwa**, Fellow Uganda National Academy of Sciences, described during her presentation that although the government have been trying to increase women participation in science but because of social and cultural barriers the achievements are very low. She also pointed out the challenges Uganda are facing and the plans to overcome the current situation.



Dr. M. Saimon Kahwa presenting Paper on women in science in Uganda and then chairing Special Session

This session continued after the lunch break where eleven scientists from different organizations presented papers dealing with status, participation and problems of women scientists working in different organizations and relevant aspects of participation women in science. They all described the barriers and obstacles women are facing on their education and any other sectors. Although participants were from different background but they all agreed in one thing that the present condition of women participation in science and development is not impressive and need to be improved.

On the second day of the Conference two parallel sessions were held, one in Physical and Engineering Sciences and other in Biological, Agriculture and Medical Sciences. In Engineering Sciences, five papers were presented. 12 papers were presented in Physical Sciences were presented by the different



participants from different academic and research institutions of the country. In Biological and Medical Sciences Section a total of seventeen papers were presented by women scientists including Professor Farida Habib Shah, TWAS Fellow of Malaysia, National Professor AKM Aminul Haque and Prof. ZN Tahmina Begum and Professor Shahida Rafique and others.

After scientific sessions a short video entitled The Hand that Rocks the Cradle Rules the World was shown at lunch time. All the participants watched the video with great interest. The film was made and originally directed by the President of the Academy, Prof. Dr. Shamsheer Ali some twenty five years ago.



In the afternoon session open discussion on different issues related to the theme of the Conference was held where many participants took active part in discussion and recommendations prepared by the recommendation committee constituted by the The last session was held for the recommendation of the Workshop where speakers presented their views for better participation of women in science education. This session was chaired by Prof. Dr. Shamsheer Ali, President, BAS and Dr M. Saimon Kahwa, Fellow Uganda National Academy of Sciences was present as the Co-Chair. Here participants from local and abroad gave their valuable opinion and recommendation for better scope and opportunity for the women scientist and ways and means of improving science education for women in all levels.



Finally, Coordinator of the Conference, Prof. Dr. Naiyyum Choudhury placed a set of draft recommendation developed during the conference. The draft recommendation was as follows.

Recommendations of the International Conference on Gender Participation in the Development of Science, Dhaka, Bangladesh, 14-15 November 2009 Conference:

An International Conference on Gender Participation in the Development of Science was jointly organized by the Bangladesh Academy of Sciences (BAS), The Network of Academies of Sciences in the OIC Countries (NASIC), the Academy of Sciences for the Developing World (TWAS). A total of 300 women scientists from Bangladesh, India, Malaysia, Pakistan and Uganda participated in the Conference and presented country papers on status of women scientists in different countries, problems and career prospects and suggested the way forward. In addition 45 research papers were presented by the local women scientists in different areas of physical, engineering, agricultura, biological and medical sciences.

The Conference was sponsored by the Inter Academy Panel on International Issues (IAP).

The President of the Academy and Chairperson of the Conference, Professor M Shamsheer Ali, constituted a Committee for formulation of the recommendations of the Conference based on deliberations and discussions by the participants in the Conference with the following Members:

- Prof Farida Habib Shah (Malaysia)- Convener
- Prof Shamima Choudhury (Bangladesh)
- Prof Suriya Mayandi Thavar(India)
- Prof Margaret Saimo Kahwa(Uganda)
- Prof Azra Khanum(Pakistan)
- Prof Sultana Shafee (Bangladesh)
- Prof Shahida rafique(Bangladesh)
- Prof Munawar Mirza(Pakistan)
- Dr. Raushara Akter (Bangladesh)
- Dr. Farjana Khan (Bangladesh)
- Dr. KM Sultanarul aziz (Bangladesh)

A. Recommendations formulated by the Recommendation Committee

The Recommendation Committee discussed on different issues raised by the participants during their presentations general discussions in different scientific sessions and formulated the following recommendations:

A. Science Education (Secondary and Higher Secondary levels)

- We need strong science curriculum and instruction materials
- Materials should not have stereotype substances
- Teachers should be mentors and proper training
- Parental guidance is important
- More awareness campaigns ,such as science fairs, olympiads ,career talks
- In sex segregated schools , girls schools shld be more equipped
- Female teachers should teach in their areas of expertise and not ask other subjects
- A unit should be set up /also mobile unit to help mothers to answer childrens questions for Knowledge networking
- Encourage Engineering subjects in curriculum
- New and emerging technologies for popularising S&T among young children and young women

B. Tertiary level

- We need women universities to encourage more females to enter universities
- Universities and govt should provide stipend
- For women who has good results
- To identify role models for women scientists

C. Postgraduates and Young Scientists

- More training programmes for communication and presentation skills for their scientific work
- Should have possibility to have academic scholarships for women up to 40 years
- Stop discrimination for applications by women for scholarships
- To have more young women scientists in conference and workshops
- BAS must include young scientists and women scientists from other organisations in committees for any events
- Mentor- Mentee programmes for helping young scientists
- More travel funds for young women scientists and graduates

- More PhD and postdoc fellowships- more women should apply TWAS and TWOWS programmes

D. Scientists

- Strengthening National Network such as TWOWS and others
- Set up Muslim women scientists network
- Training opportunities within their research projects should be increased at National and international levels
- Day care centres to be set up to help women
- More allocation of donor funds to women researchers and scientists as project leaders
- NASIC should encourage women social scientists to participate in advancement of women in science and scientists
- Issue of women in science should a regular agenda in mixed seminars and workshops
- Women scientists should be sensitized themselves for self actualisation
- International research collaboration , and networking for communicating science
- More women as resource persons in training programmes

E. Women in top management (affirmative action)

- Increase number of women professors and vice chancellors and other scientific bodies
- Increase no. of women in academy of science
- Increase awareness of opportunities to apply and be nominated for these positions

F. Women scientists at rural and grassroot levels

- R&D should be promoted to help women in rural such as in addressing issues of malnutrition and agriculture, and healthcare
- Specific intergrated strategy can be formulated to empower women using women scientists
- Efficient linkages between women in universities and different communiites for nutrition
- counselling and interaction to bring about the changes and adopting best practises

G. General

- Men should be sensitized in the equity and equality of women in the workforce esp, in S&T and Men of Quality must recognise Women's Equality

The Concluding Session was chaired by Professor M. Shamsheer Ali, President, BAS and Dr. Farida Habib Shah. After presentation of the Committee's recommendation by Dr. Shah the participants took active part in open discussion and made a number of recommendations for consideration of the Academy as follows.

B. Recommendations suggested from the floor

1. A model village involving women scientists training the rural women for training of women at the grass root level in agriculture, nutrition and hygiene(Dr. Farida).
2. There should be more interaction with working on training of women at the grass root levels.
3. Women participation in science and engineering at the school levels should be encouraged.
4. The Academy should undertake more awareness programmes on gender participation in national development through seminars workshop and round table discussion.
5. Architecture involves social sciences as well. The Academy should consider inclusion of social sciences in its programme of activities.
6. Age limit for the post doc. Fellowship should be increased to 45 years for both men and women.
7. Government should establish public universities of science and technology for women.
8. Government should make special provision for scholarships for women scientists.
9. Asian University for Women does not admit only foreign students. The university authority may be requested to allow women students from Bangladesh as well for studying there.
10. The Islamic University of Technology allows only the male students, The Academy take up the issue with the OIC to include female students for studying at the IUT. The NASIC may request the concerned authority to consider the matter.
11. This type of conference should address the problems of female students at the primary and secondary levels. Text Books should take care of the gender issue at the primary levels and highlight the role of women in science and technology right from the beginning.
12. The Academy should encourage participation of young women scientists in the international conferences and take Effective measures should be given so that young scientists can participate different international events.
13. TWAS will be requested to encourage young scientists to support participation of women scientists in the international seminars, conferences and workshops.
14. Gender equality should be taken up in mixed session including both men and women.
15. Engineering and Technical education in schools- should it be there? May have more discussion. Every body should learn everything. No where in the world there is engineering as a discipline at the school level.

16. Our aim is to develop science and technology. Multidisciplinary approach to solve specific problems facing the most
17. Participation of women in decision programme
18. PhD programmes for women scientists
19. Rural women participation in science and technology on specific problem- like energy crisis, fuel crisis, food crisis, health and environment- Policy decision needed for different programmes.
20. Involve NGOs in women empowerment programme of the Academy
21. Female girls school separate from male schools. Women teachers should teach subject of their expertise to male and female students.
22. Few girls in science – must take all subjects at the school/college levels but can choose their subjects at the university levels. Specialization at the school level no good. The students should learn all subjects like history, geography etc at the school levels
23. Allocation of fund to women- How to implement. Ask the government to take effective measures in this regard so that there is no discrimination in funding.
24. Dropout problems should be addressed. Alternative education programmes- vocational etc. Open University programme, polytechnique.
25. Academy can approach the Ministry of Primary Education
26. Networking among the participants
27. Some scholarship from the Academy for the girl students- may be approach the government for that.
28. Development of science through participation of women- Rural technology should be included and scientists working in these rural technology and the Academy should take measures including allocating financial resources or approaching the government at the highest level (Prime Minister)
29. Academy should consider involving women community in all its programmes and activities.
30. Women scientists should be encouraged to be Fellows of the Academy

The participants requested the Academy to formulate the final recommendations in the light of those presented by the Committee and those suggested by the participants during open discussion.

The Conference concluded with vote of thanks to and from the Chair.

Other activities

City tour was organized for the foreign delegates. A cultural evening followed by dinner was arranged on the first night and a concluding dinner was arranged on second day of the Copnference. The event got wide coverage in the electronic and print media.