Organization of American States (OAS) * Office of Science and Technology (OST) *
Inter-American Commission of Women (CIM) * Gender Advisory Board (GAB-UNCSTD)

Recommendations for Integrating a Gender Perspective
in Science and Technology Policies and Programs in the Americas

Considering:

That democracy and integral development cannot be fully achieved without the full and equal participation of both women and men;

That as defined in the Declaration of Lima (preliminary version 4), integral development encompasses the economic, social, education, scientific and technological fields in the framework of protection in the quality of the environment and integration of the gender perspective in policies;

That science, technology, engineering and innovation are leading elements for social and economic development strategies and the driving force behind the knowledge-based economy and social progress. They must be integrated into national and regional strategic development plans for the fundamental purpose of reducing poverty in the Hemisphere, as set forth in the agreement of the Fourth Regular Meeting of the Inter-American Committee on Science and Technology;

That national policy-making for science, technology, engineering, innovation, and higher learning must give special consideration to promoting the establishment of productive innovation systems and expanding human, institutional, and material capacities to undertake scientific and technological research in a framework of environmental protection, gender equity, and openness to the inter-relation between the public and private sectors,

The *Meeting of Experts on Gender and Science and Technology*, held at the Organizaton of American States (OAS), in Washington DC, on August 24-25, 2004, recommends the following lines of action to the *First Meeting of Ministers and High Authorities on Science and Technology in the framework of CIDI-OAS*:

1) Institutional Strengthening: Key Strategies for a New Commitment with Society

It is necessary to ensure that the gender perspective is integrated in the science and technology policies and programs of the Member States, supported by the appropriate budget allocation, so that women and men can achieve equal representation and advancement in science, technology, engineering and innovation in the workplace, including industry and academia, as well as in national, regional and international policy- and decision-making bodies and fora.

- Strengthen the coordination between science and technology ministries and national councils of science and technology, and the OAS Office of Science and Technology (OST), the Inter-American Commission of Women (CIM), the Gender Advisory Board (GAB) of the United Nations Commission on Science and Technology for Development (UNCSTD), UNESCO, and other pertinent agencies and multilateral organizations, to work together to promote gender mainstreaming in science and technology policies and programs.
- Sensitize and train those charged with the formulation of science and technology policies and programs to integrate a gender perspective and strengthen networks and organizations in the field, through training, resources, dialogue and planning for common tasks.
- Establish channels for systematic dialogue among science and technology researchers, specialists in gender studies, policy-and decision-makers, and pertinent social organizations, in order to plan actions, evaluate their execution, and promote the participation of representative civil society institutions related to science, technology, engineering and innovation in policy discussion.

2) Creation, Acquisition, Utilization and Dissemination of Knowledge

In the 21st century, the creation, acquisition, utilization and dissemination of knowledge must have the full participation of women and men. In order to achieve this, we must fully integrate the gender perspective in science, technology, engineering and innovation and we must generate, gather and disseminate knowledge to support effective evidence-based policy and decision-making.

- Organize existing knowledge to generate a data base which includes research projects, researchers, centers, and other information of interest that can serve as reference and orientation for future studies in this field. This action could be undertaken by the Office of Science and Technology of the OAS, in coordination with national institutions responsible for science and technology in the region, the CIM and other pertinent multilateral organizations.
- Support the efforts of the Ibero-American / Inter-American Network on Science and Technology Indicators (RICYT) and other pertinent initiatives and programs to develop gender indicators for the area of science and technology, ensuring that all statistics gathered are disaggregated by sex.
- Undertake studies to address new topics and priority areas for gender in science and technology, among them:
    - current status, at national level, of the participation of women in all of the branches, levels and specializations of science, technology, engineering and innovation;
    - analysis of the everyday practices and institutional structures that reflect concrete behaviors related to gender inequality in opportunities, in institutional cultures, and in the academic community;
    - priority areas in science and technology: biotechnology, clean technologies and renewable energies, information technology and communications, materials and nanotechnology, and health, among others.
- Widely disseminate, for the purpose of decision-making, the results of the research undertaken in the last two decades that links gender and science and technology.

3) Education and Training

Gender Equity in Access and Quality.

The highest priority must be given to improving the quality of science and technology education at all levels, with particular attention to eliminating the effects of gender bias and promoting creativity and a critical point of view at all levels, especially at the earliest stages.

In conjunction with the ministries of education and research institutions, including academia:

- Develop initiatives to ensure equal opportunity for men and women to access scientific education at all levels, and in particular, to increase the participation of girls and women in scientific activities from early childhood;
- Renovate curricula, teaching materials, and train teachers to integrate the gender perspective at all levels, in order to provide high quality scientific and technological education;
- Create public awareness programs on the importance of science and technology, including initiatives to encourage parents to provide their children with early stimuli during the first three years of childhood.

4) Towards a Gender-Equitable S&T Workforce

While the numbers of women and girls enrolled in science and technology subjects is increasing, the low translation of women's scientific training to the recruitment, retention and advancement of women into the active science and technology workforce represents a loss of investment in science and technology education as well as the loss of national scientific capacity.

- Collect sex-disaggregated data on women's participation in the science and technology workforce, including by discipline, sector, salary and level, as well as longitudinal data.
- Initiate employment and performance assessment policies which address women's life responsibilities, sexual harassment, and career development.
- Recommend action policy to support women's increased representation in research teams and in governing bodies of science and technology.
- Implement policies and programs to support women's re-entry into the workforce through bridging, retraining and updating programs.
- Implement programs, awards and fellowships to recognize and promote women's achievements in science and technology, including at the international level.

5) Science and Technology for Economic and Social Development

We cannot afford not to maximize the use of human capacity.

National and regional policies that recognize the relation of gender to social development and science and technology must be developed and implemented in conjunction with the ministries of social development, labor, and other pertinent ministries, and national gender institutions.

- Develop and implement policies and programs to support the advancement of women in micro, small and medium enterprises and facilitate their access to scientific knowledge, technology, credit and other resources.
- Promote knowledge and application of science and technology that addresses the needs of women and men in situations of poverty, taking into account the gendered nature of indigenous knowledge.
- Encourage public officials and governments to be more explicit in their policy platforms about how they intend to use "science and technology" to meet the basic needs of both men and women equitably in society.

6) Building the Knowledge Society Through Gender Equity and Equality

New technology should not reproduce old inequalities.

Women and men should be equal partners in the design and production of the knowledge society and should have equal access to its use and benefits.

- Reduce gender barriers to Information Technology and Communications (ITC) education and training, and promote equal training opportunities in ITC-related fields for women and girls. Early intervention programs in science and technology should pay particular attention to young girls with the aim of increasing the number of women in ITC careers.
- In collaboration with stakeholders, formulate conducive ITC policies that foster entrepreneurship, innovation and investment, with particular emphasis on the promotion of participation by women.
- Develop gender-specific indicators on ITC use and needs, as well as measurable performance indicators to assess the impact of ITC projects on the lives of women and girls.

The Way Forward

Promoting Awareness

There is now considerable knowledge and understanding about the critical importance of including the gender dimension in all considerations of how science and technology contribute to sustainable development. This includes issues of education and training, employment opportunities, career development, and the impact of technological change on the lives of both women and men.

However this knowledge is not widely known among policy-makers, the scientific community, development authorities or the general public in both developed and developing countries.

Consequently, there is a need for a campaign to promote much greater awareness of the gender dimension in all aspects of science, technology and development. This campaign would identify the problems of ignoring the gender dimension and suggest ways for overcoming them.

The campaign should bring together all agencies with an interest in the subject, and a global and regional plan of action should be developed.

Further Research on Gender, Science and Development

This report has concentrated on issues where the evidence is sufficiently conclusive to warrant immediate action. But there are other issues where more knowledge is required before policy actions can be recommended. It is therefore important that policy research is conducted on these issues, in order to provide the evidence and knowledge on which future policies can be based.

Monitoring

To monitor implementation of the gender mainstreaming strategy, the Inter-American Committee on Science and Technology (COMCYT) and the Inter-American Commission of Women (CIM) should work together through the follow-up process to the Inter-American Program on the Promotion of Women's Human Rights and Gender Equity and Equality, known by its Spanish acronym, SEPIA.

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Background Information

Gender mainstreaming has been defined by the United Nations Economic and Social Council (ECOSOC) as "the process of assessing the implications for women and men of any planned action, including legislation, policies, or programs, in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension in the design, implementation, monitoring and evaluation of policies and programs in all political, economic and societal spheres so that women and men benefit equally and inequality is no perpetuated."

The need to integrate gender as a crosscutting issue and a fundamental element in all aspects of sustainable development has been fully recognized in the Hemisphere by the Heads of State and Government of the Americas within the Summit Process, and by the different political bodies of the OAS and other multilateral organizations.

In particular, the Third Summit of the Americas, held in Quebec in 2001, and the Special Summit, held in Monterrey in 2004, acknowledged that the empowerment of women, their full and equal participation in the development of our societies, and their equal opportunities to exercise leadership are fundamental for the reduction of poverty, the promotion of economic and social prosperity, and for people-centered sustainable development.

The world scientific community has also seen the gender issue come onto the agenda. Several United Nations conferences, including the UN IV World Conference on Women in Beijing (1995), the UNESCO World Conference on Science (1999), Beijing +5 (2000), and the World Summit on the Information Society (WSIS) (2003), as well as initiatives by the European Union, and now the OAS and international science policy bodies, have called the attention to the importance of including women in the international science initiative on an equal basis, of facilitating women's contribution in science and technology for national development, and of their right to benefit equally from the implementation of advances in science and technology.

The UN Commission on Science and Technology for Development (UNCSTD) included gender in its working agenda for 1993-1995, and convened a Gender Working Group (GWG) which reviewed the gender dimensions of national science and technology policy, and referred to the gender-specific nature of development, including scientific and technological contributions to the development process. Subsequently, the ***Gender Advisory Board (GAB)*** was created to monitor and facilitate the implementation of the recommendations made by this working group.

The accelerated progress of science and technology in our region is indisputable, as is its impact, increasingly recognized, on economic, social, cultural and health aspects, among others. In spite of women's important contribution to this progress, the region's national programs for scientific and technological development have not addressed the issue of their equal inclusion. In general terms, women are under-represented, under-employed and under-valued in most areas, and this also applies to science and technology, where they face marked inequality in their access to and use of scientific and technological innovations.

In 1998, the Member States of the OAS, through the Inter-American Committee on Science and Technology (COMCYT), adopted the Inter-American Program on Science and Technology (PRICYT), which among other mandates calls for "Ensuring equitable gender participation in programs for human resource training and for scientific and technological development."

This mandate was reinforced in 2000 by the adoption, by the Member States of the OAS, of the Inter-American Program on the Promotion of Women's Humans Rights and Gender Equity and Equality (IAP), a comprehensive approach to integrating a gender perspective and achieving gender equity and equality in all spheres of public policy, both within the Inter-American system and in the Member States. Pursuant to its mandates, several initiatives have been developed, including one to integrate gender into the agendas of ministerial-level meetings, known by its Spanish acronym SEPIA (Seguimiento del IAP/Follow-Up to the IAP).

The Special Meeting of COMCYT, held in May 2003, defined gender and science and technology as one of the priority areas for the Americas. This was ratified by the Fourth Regular Meeting of this Committee in Washington, DC on April 15-16, 2004, where the COMCYT delegates agreed to support and encourage the establishment of gender-sensitive national science, technology, engineering and innovation policies.

All of these mandates have resulted in a considerable body of work, including interesting policy proposals at different levels. However, these policy proposals have not been formally presented at the highest level, since the last Ministerial Meeting in Science and Technology of the Hemisphere was held in 1996.

Aware of this situation, and in compliance with the above-mentioned mandates, the **OAS *Office of Science and Technology (OST)*** started promoting in 2003, the integration of the gender perspective in its programs and projects, with the support of the CIM.

The immediate actions of the OST in this respect are oriented to help the countries in the formulation of recommendations for integrating the gender perspective in science and technology policies and programs. These recommendations and policy proposals will be presented subsequently to the *First Meeting of Ministers and High Authorities on Science and Technology in the framework of CIDI-OAS*, to be held in Lima, Peru, November 11-12, 2004. This initiative is of especial relevance considering that this ministerial meeting will provide very important inputs to the Fourth Summit of the Americas, programmed for 2005.

The activities carried out in this area by the OST include a hemispheric workshop on *Science and Technology for Social Development*, held in Jamaica in March 2004, in collaboration with the National Commission on Science and Technology (NCST) of that country. On gender issues, the workshop addressed the severe social, economic and cultural development disadvantages faced by women in the region; the special efforts that must be made in favor of the application of science and technology to women's social development; and the need to develop policies that take into account the relation between gender, social development, and science and technology.

The OST also undertook in 2003, the project "*Integrating Gender in Science and Technology Policy in the Americas: Recommendations and Follow-up,"* in partnership with the CIM and the GAB/ UNCSTD, within the framework of the SEPIA process and of the preparatory process for the ministerial on science and technology. This project entails the convening of a meeting of experts to identify key issues and develop recommendations on gender mainstreaming to be presented to the 2004 Ministerial Meeting on Science and Technology.

To this end, with funds provided by the International Development Research Centre (IDRC) of Canada, two position papers were prepared for the meeting of experts. One addresses international policy and experience, including the industrialized countries; the second focuses on Latin America. Both papers assess the current situation and state of knowledge and gather information on research, debates and policy recommendations in the area of gender and science and technology.

The Inter-American Commission of Women (CIM) is the principal hemispheric forum for generating hemispheric policies on the promotion of women's rights and gender equity and equality. It is entrusted with monitoring implementation of the Inter-American Program on the Promotion of Women's Humans Rights and Gender Equity and Equality (IAP) and coordinating and evaluating the actions to implement it.

In compliance with the IAP mandate to mainstream gender into the preparation and application of international instruments, mechanisms, and procedures, particularly, the agendas of ministerial-level meetings, the CIM developed the SEPIA initiative that has allowed it, working in partnership with civil society, government experts, other OAS entities and other specialized organizations, to present recommendations to the Ministerials of Labor (SEPIA I, 2001), Justice (SEPIA II, 2002) and Education (SEPIA III, 2003), and to develop lines of action for implementing the recommendations, in conjunction with ministerial mechanisms. The fourth area addressed in the SEPIA process is Science and Technology.