

FINAL REPORT  
OF  
INTERREGIONAL SEMINAR ON  
WOMEN AND THE  
INTERNATIONAL DRINKING WATER SUPPLY  
AND SANITATION DECADE

Cairo, 12-16 March, 1984

United Nations  
International Research and Training  
Institute for the Advancement of  
Women

(INSTRAW)

## Table of Contents

- I. ORGANIZATIONAL MATTERS
  - Introduction
  - Inaugural Session
  - Election of the Bureau
  - Agenda of the Meeting
- II. CONCLUSIONS AND RECOMMENDATIONS
  - Preamble
    - A. Recommendations in the Socio-Economic Development area
    - B. Recommendations in the Health and Sanitation area
    - C. Recommendations in the Science and Technology area
    - D. Recommendations General
- III. GENERAL DEBATE
  - 1. Identification of the problems in Water Supply and Sanitation as they relate to women in the area of Socio-Economic Development, Health and Sanitation, and Science and Technology (Agenda Item 4).
    - A. Socio-Economic area
      - i. Community Participation
      - ii. Perception and Social Values
      - iii. Institutional Framework
      - iv. ECA, ECLA, ECWA and ESCAP Regions
    - B. Health and Sanitation
      - i. Health
      - ii. Pollution and Contamination
      - iii. Sanitation
    - C. Science and Technology
  - 2. Measures aimed at solving the problems and enhancing the role of women in activities of the IDWSSD - Proposal for action at the national, regional and international level. (Agenda Item 5).
- IV. ANNEXES I AND II
  - Annex I - List of Participants
  - Annex II- List of Participants Papers Available.

## I - ORGANIZATIONAL MATTERS

### 1. Introduction

The United Nations International Research and Training Institute for the Advancement of Women, as one of the outcomes of the United Nations Decade for Women, is mandated to promote through research, training and information the advancement of women. Its activities in those areas are geared toward the full integration of women in the socio-economic development process. Its programme of activities is to enhance both the role and status of women in the social and economic life of society by, inter-alia, increasing awareness on the multiple role of women, identifying their needs and requirements, bring forth the impact of women's participation on the development process and determine if this participation is fully recognized and properly valued. Therefore, the Institute's mandate is to focus on the development issues as they relate to women.

2. The Institute implements its programme of activities catalytically by using the network system, and therefore its activities are implemented in co-operation with and through the regional commissions, United Nations bodies, specialized agencies, academic and training institutions, non-governmental organizations and women's groups and associations.

3. Among the pressing problems facing many developing countries is that of water supply and sanitation, for which the United Nations declared the period 1980-1990 as The International Drinking Water Supply and Sanitation Decade (IDWSSD) with the target that, if possible, the world would have access to safe water and proper means of sanitation by 1990. The Board of Trustees of the Institute, in compliance with the call to attain the objectives of the Decade, decided during its Third Board Session Meeting that the Institute will have a long-term commitment to the objectives and goals of the International Drinking Water Supply and Sanitation Decade.

4. In pursuance of this decision, the Interregional Seminar on Women and the International Drinking Water Supply and Sanitation Decade was organized and convened by the United Nations International Research and Training Institute for the Advancement of Women and hosted by the Government of the Arab Republic of Egypt, in Cairo, Egypt from 12-16 March 1984.
5. The objective of the Seminar was to identify the problems encountered in the various areas related to drinking water supply and sanitation, particularly in the socio-economic, health and sanitation, and science and technology areas. The meeting also aimed at seeking possible solutions to these problems, based on the successful experiences of experts from different countries and regions. This was accomplished by drawing upon the different expertises of the participants, particularly since they represent a tripartite participation scheme of social scientists, medical doctors and health specialists, and engineers/scientists.
6. Sixty participants from various regions attended the meeting in their personal capacity. Included among the participants were a number of representatives of United Nations bodies and specialized agencies as well as international donor agencies, non-governmental organizations and other international organizations. The meeting was also attended by a number of observers from foreign Embassies in Cairo and local organizations, associations, agencies, media, etc. (For a list of participants, see Annex I).
7. The Seminar received thirty one papers covering the issues of Water Supply and Sanitation from various perspectives. (For list of participants' papers, see Annex II).
8. The deliberation of the meeting was conducted in a series of plenary sessions as well as three specialized panels. The seminar had seven plenary sessions and nine sessions for the panels during which the participants discussed the subject matter of the seminar and prepared the final recommendations.



9. The seminar was officially opened by Mrs. Dunja Pastizzi-Ferencic, the Director of INSTRAW. The Under-Secretary General of the United Nations for Social and Economic Affairs sent a message to the Meeting expressing, on behalf of the United Nations, his deep gratitude to the Government and the people of the Arab Republic of Egypt for hosting the meeting. He emphasized the inter-dependence of the various development problems and the critical stage some of these issues have reached. He referred to the efforts exerted by the United Nations and its specialized agencies to assist the national endeavors in facing these problems. He pointed out INSTRAW's contribution as an example of international impact in search for solutions that will enable women to contribute more effectively to development efforts.

Inaugural Session

10. At the inaugural session, the following Egyptian official dignitaries addressed the meeting, expressing their support for the objectives of the Seminar:
11. The Director of the Academy of Scientific Research, Dr. Ibrahim Badran, emphasized the relationship between the question of water supply and sanitation to development, particularly in rural areas, where the majority of the Third World population lives.
12. Dr. Badran drew attention to the effects of the migration of the rural population to the urban areas which aggravates the already overburdened urban problem and delays rural development. He also underlined the need to reverse the process and accelerate rural development, stating that the provision of adequate water supply and sanitation would greatly contribute to this acceleration, particularly by improving the conditions of rural women.
13. He emphasized that water was a precious resource, basic to good health and satisfactory living conditions, directly linked to women in their activities in and outside the home.

14. In concluding, he stated that the activities of the Academy of Scientific Research gave the needs and requirements for the improvement of drinking water and sewage treatment due consideration.
15. The Minister of State for Housing, Urbanization and Land Reclamation, His Excellency Hassaballah Al Kafrawi, stated that the issues at hand were of vital importance to Egypt, requiring funding and assistance from other sources. He expressed appreciation to all the friendly countries and international organizations assisting Egypt in this endeavor.
16. He stressed the importance of the role of women to better utilize water supply and minimize waste since, unfortunately 40% of the water production in Egypt is wasted. He expressed his confidence that the recommendations of the seminar would provide answers to these concerns.
17. The Minister of Agriculture, His Excellency Youssef Wali, mentioned the endeavors undertaken by the Ministry of Agriculture in co-ordination with other ministries to address the questions of water supply and sanitation. These efforts include research, dissemination of information, and a joint project with the Food and Agriculture Organization (FAO) concerning rural women, as well as various other activities.
18. In closing he reflected on the problems encountered and cited the programmes being carried out by the different ministries to meet these difficulties. He emphasized that a special problem for women in Egypt was the high percentage rate of illiteracy.
19. The Chairman of the State Information Service, Dr. Mamdouh. El-Beltagui stated that the State Information Service was involved in many activities serving the objectives of the IDWSSD.
20. Within the context of its role, the State Information Service embarked on various programmes to encourage positive public input, increase awareness

through well planned media and information campaigns, adult education and training materials, etc. Also included were special programmes and materials targeted at women as the major influencing factor in their homes and communities.

21. His Excellency, Minister of Information, Mr. Safwat El-Sherif, welcomed the participants to the Seminar. He expressed Egypt's concern with the issues of the seminar Women and Drinking Water Supply and Sanitation. The Minister reviewed the historical development of water purification in Egypt and the factors that need continuous efforts to expand services. He stated that an increase in both population and consumption required the development of new resources and plans for both urban and rural areas. He emphasized the need to co-ordinate efforts since the issues were multidimensional.
22. He addressed the role of the media and the dissemination of information provided by the Ministry in co-operation with other Ministries to raise consciousness, and to increase the awareness of the public on health education and sanitation pollution. He expressed that there was a concerted effort to protect water resources in Egypt - particularly the Nile River - from contamination. Also, that the Ministry of Information gave special attention to programmes and information targeted at women as part of raising public awareness, for women are major agents in reaching and affecting the attitudes of new generations and society at large.
23. The Director of INSTRAW, Mrs. Dunja Pastizzi-Ferencic, conveyed profound thanks to the government and the people of the Arab Republic of Egypt for the generous offer to host the Seminar, as well as for the excellent hospitality given to the participants. She expressed gratitude to the Ministers for their statements and their support to the cause of the advancement of women through development. She also conveyed thanks on behalf of the participants in appreciation of the fact that the meeting was organized in Egypt, land of rich traditions and experience in both water and sanitation and development efforts.

She expressed appreciation to the participants and to the Egyptian Academy of Science for their written contributions to the Seminar.

24. Election of the Bureau

The meeting elected the following participants as members of the bureau:

President	: Dr. Fatma El-Gohary, Egypt
Vice-President	: Ms. Marie Thérèse Abela, France
Vice-President	: Dr. Martha Olga García, Dominican Rep.
Rapporteur	: Dr. Banoo Coyaji, India

25. Agenda of the Meeting

The Provisional Agenda outlined the items of the Seminar activities, identified the various areas relative to the topic of Drinking Water Supply and Sanitation, and underlined the measures to enhance the role of women in IDWSSD activities.

26. The adopted agenda was as follows:

1. Opening of the Meeting
2. Election of Officers
3. Adoption of the Agenda
4. Identification of the problems in water supply and sanitation as they relate to women in the areas of:
  - a) Socio-Economic development
  - b) Health and Sanitation
  - c) Science and Technology
5. Measures aimed at solving the problems and enhancing the role of women in activities of the IDWSSD - proposals for action at the national, regional and international level.
6. Adoption of the report of the meeting
7. Closing of the Seminar
8. Closing Statements

## II. CONCLUSIONS AND RECOMMENDATIONS

### Preamble

Bearing in mind the discussion that took place during the plenary sessions as well as the work of the three panels, the seminar unanimously approved the following conceptual framework, decisions and recommendations on the role of women in water supply and sanitation in the areas of socio economic development, health and sanitation, and science and technology.

27. When deciding on national development priorities, one of the primary criteria should be the extent to which a particular scheme benefits women and secures their participation.
28. Special efforts should be made to provide information, technical assistance and logistics support to self-help projects serving communities most in need of improved water and sanitation, particularly dispersed rural populations and isolated groups as they collectively account for a very large number of people who are often overlooked in water supply, sanitation and health programmes.
29. Special efforts should be made at national, regional and local levels to promote the provision of water supply, sanitation and environmental health education as a public responsibility in which all are involved.
30. A well directed health education programme for the community at large is necessary to make people aware of the relationship between unsanitary habits, disease and nutrition. This should form not only a part of the educational system, adult informal functional education but also be spread by all the media. Only then will there be a change of attitude and the necessary change in behaviour.
31. Self-evaluation was considered an effective tool in education. Therefore, women and communities should be encouraged to evaluate their own progress in water supply and sanitation activities in order to improve their role in this field. Along this line of thought, the education of a community after the formal completion of a project should be continued by establishing a community follow-up system.

32. Most countries in the world have endorsed the plan for "Health for all by the year 2000" through a primary health care approach with the full involvement of the population. A critical input of primary health care is an adequate supply of safe water and basic sanitation. IDWSSD achievements, if materialized, will affect the quality of life of all people - men, women and children. However, this would affect women the most, since they are the main haulers and users of water as well as managers of human wastes.
33. Water supply should be adequate in amount. This will relieve women somewhat of their impossible workload which involves sometimes as much as six hours or more a day carrying water from a distant source.
34. Basic sanitation is very important to health, since infective agents of most water borne and associated diseases are spread by the contamination of water with human waste. Unless adequate measures are taken for the treatment and disposal of waste-water, this infected water could increase the occurrence of disease among people who come into contact with it.
35. When a national policy statement acknowledges the major role of women as managers of water and human waste, it needs to be accompanied by statements of support for improving their role as managers of water and waste, along with recommended strategies encouraging flexibility and local coordination in the planning process. The road is then paved for programmes of local awareness, learning and action.
36. Two major constraints in providing adequate water supply and basic sanitation are: insufficient allocation of resources and lack of measures to ensure that water supply and sanitation facilities are properly used and maintained. Agreement among decision-makers at the national level and of donors to allocate needed resources will reflect their understanding of the importance of the problem and the need to provide such basic amenities.
37. Decision-makers can minimize these constraints by viewing them as challenges and by actively participating with primary users of community water supply and

sanitation systems, the women of the community. The allocation of resources for water and sanitation projects and their supporting programmes would be considered a significant investment in terms of not only improved health and living conditions, but also in the productive capacity of the community members.

38. Together with the men and women of the community receiving improvements through IDWSSD activities, decision-makers at the central levels can reasonably expect provision of these basic amenities to increase life expectancy; diminish debilitating diseases; and reduce lost working hours, thus increasing productivity of workers and enhancing the economic condition of both people and country.
39. International efforts can increase awareness in this respect since diseases associated with water and waste are not confined to national boundaries. It is necessary that women be encouraged, educated and assisted to take their rightful and proper place in policy-making bodies at all levels, as the primary managers of water and of human waste.

A. Recommendations in the Socio-Economic Development Area

A primary focus of procedures for planning and implementing development programmes, particularly for the improvement of water supply and sanitation, should be to motivate and mobilize community members (men and women alike) to be involved as partners in the process, not merely as recipients. Mass campaigning involving both sexes, for the mobilization of the people at large, should be promoted with the help of able organizers to motivate active community participation.

40. It is desirable for each sector working at the community level to encourage this involvement to improve household and community water supply and sanitation within the context of an integrated development programme.
41. Community participation involvement can increase by co-ordinating training and work programmes with those persons at the community and more central levels who are responsible for water supply, sanitation improvements, and environmental health education activities. Better yet is when agricultural extension workers, social workers, and school teachers provide environmental health information through their programmes of



steps should be taken to integrate national non-governmental organizations representing women in the policy-making and planning processes.

48. Efforts should be made to raise awareness among community members (men and women) of the implications, benefits and costs to the community of different project options in order to prepare them to choose among technological alternatives to improve their situation and also to help them feel that they were instrumental in the planning and selection of the system used.
49. In development projects, particularly those involving international assistance, special efforts should be made during the initial stage of the project formulation and design to represent the interests and needs of the communities to be served. Bilateral and multilateral donors are therefore urged to encourage the involvement of men and women at the community level in the project proposal and preparatory stage of projects.
50. Appropriate information on the role women have played and are currently performing in development activities should be provided. This would help to improve public attitude regarding women's image; more specifically, their image and role as active contributors and managers of improvements in water supply and sanitation. It would also show their overriding concern with the well-being of their families and the environmental health conditions in their communities.
51. Initiation of projects from the grass root level, that is, from the local people themselves, should be encouraged and supported.
52. Supplying homes in urban areas with adequate water, waste treatment and disposal is impeded by excessive cost. Individuals with low income and limited financial reserves cannot absorb and/or significantly contribute to the cost of extending water and waste disposal services to their dwellings. Thus, the extension of credit or other financial assistance, including organized fund-



raising campaigns to ensure adequacy of home water supplies and of domestic sanitation should be considered.

53. Similarly, the financial requirements for providing water and waste management systems to rural communities may require assistance provisions through the extension of loans or grants, or a portion of the income from income-generating activities which also serve to increase the availability of productive work opportunities in the rural area.
54. Whether in the urban or rural areas a governing agency is needed to effectively manage the terms of the various types of financial support required to meet the goals of the IDWSSD. It would be most desirable to organize this locally in the rural area. This may also prove to be effective in the urban context as well. The capacity of a private community, neighborhood groups, or local financial institutions to assume this responsibility should be examined on a case-by-case basis, and women should be involved in this investigation.
55. While objective and independent evaluation is viewed as an integral part of the project activity addressing both process and outcome, it is the evaluation of the involvement of women in the work of the IDWSSD and the contribution made by women to improvements in water supply and sanitation which should be the focus of evaluation. Evaluation should be based on both the quantitative and qualitative aspects of the projects, with emphasis on the qualitative aspects. The evaluation criteria serves the work best when it is decided jointly with the participants because the activity engaged in defining evaluation criteria becomes a part of the learning process for the participants. Moreover, it sets up a working relationship based on mutual respect.

B. Recommendations in the Health and Sanitation Area

56. As a means of integrating women in Water Supply and Sanitation activities the preparation and experimentation of pilot activities for sanitary education on the development and conservation of water supply systems, sewage disposal and food hygiene should be emphasized. Also, the development of pilot projects in primary education on health and sanitation in rural areas, by employing women's labour.
57. To guarantee water quality in accordance with approved standards, particularly in small and medium size communities, a sanitary survey of the operational conditions of the public water supply systems should be made and adequate preventive and corrective measures should be proposed.
58. Sanitation activities should be conducted by qualified technicians. In this respect, the person in charge of water treatment plants can be a woman who has been properly trained.
59. Women should be trained as users and managers of sanitation services in the following areas: <sup>(1)</sup>

(1) A most recent example of the above is the programme developed by "Companhia de Saneamento de Minas Gerais, in Brazil, which has been coordinated by women under a community development project. A new method of sanitary education is being introduced in schools and the pupils are being taught how to take care of their bodies and health and how to identify community problems in the field of sanitation, contributing to cut down infant mortality rates.

- a) Adequate utilization and care of latrines by the family members particularly children;
- b) Proper disposal of feces, how to wash hands after defecating and before preparing or touching food;
- c) Adequate recovery of wastewater and excreta
- d) Adequate maintenance of sewage systems by means of supervised services and daily conservation and repair operations;
- e) Inspection of domestic, regional and municipal systems- contacting local authorities in charge of the public services as well as training other community members and the family itself.

At the Planning Level

- 60. The following methods should be used in order to fully involve those responsible for development programmes:
  - a) Exposure to new disciplines in sociological studies;
  - b) Living for periods of time among the communities where studies and works are being carried out, thus identifying suitable methods of approval based on first-hand experience and knowledge;
  - c) Community consultation being made a necessary component in planning projects.
- 61. Political leadership should be provided to inform on:
  - a) how capital investments remain unused due to failure to involve beneficiaries in planning;
  - b) how capital investments have depreciated over a very short period of time due to the fact that people's participation was not considered at an early stage;
  - c) how major capital investments were spent needlessly in situations where local consultants as well as local materials could have been used.
- 62. The preparation of a policy paper on the "Approaches to Planning", approved by the government, is important so that officials will be obliged to consult beneficiaries at the planning stage. Equally important is identifying the need

in a community through consultation with both men and women, thereby promoting greater women's involvement, as well as identifying suitable methods to ease the drudgery associated with women's tasks, thus making them more appropriate for sharing by men. In this manner, the status of women will be somewhat enhanced and they will have more time to participate in planning.

63. Adopt planning methods that require only a minimum in literacy levels, i.e. simplifying counting and measuring methods.
64. Identify support and/or establish suitable associations for women, to meet their needs in various sectors, and further develop this process to be used in planning activities and programmes in the Water Supply and Sanitation area.
65. Include health education as an integral part of all water supply and sanitation programmes as noted and prescribed by Primary Health Care objectives.

At the Implementation Stage

66. Divide each contract into three components: labour, materials and equipment, and ensure that contributions under each component are discussed and arranged with the community before any contract is awarded to a private contractor.
67. Get political leadership to take lead in obtaining community participation and joining the community in support of their work
68. Identify and support suitable voluntary organizations to assist in the implementation of objectives, activities and programmes.
69. Initiate community meetings to obtain contributions from people of more available means, to meet the expenses incurred in the organization of voluntary work. In cases where beneficiaries are too poor, make suitable arrangements to provide assistance.

70. Select suitable women to be trained as care-takers and health volunteers, to organize training workshops, etc.

At the Evaluation Stage

71. Prepare appropriate evaluation designs and tools, taking into consideration the literacy standards, social structures, and other case-specific matters.
72. Train voluntary women's organizations in the use of evaluation methods and place more emphasis on the collection of suitable qualitative data.

C. Recommendations in the Science and Technology Area

Communication/Information/Dialogue- Provision should be made for:

73. Finding out about local needs through participatory research and continuing consultation at the community level, especially with women, not just formal leaders.
74. Sharing the results of this research and communication with the communities and making these results an integral part of planning, implementation, evaluation and training for IDWSSD activities at local, national and global levels.
75. Providing a learning situation in which the community members, especially women can familiarize themselves with the various technologies and become aware of the cost and value of alternatives for solving their defined needs in water supply and sanitation through public hearings with women participating in groups and as individuals.

Choice of Technology

76. Research should be carried out to adapt existing technologies and develop new and appropriate technologies to be introduced, to satisfy long and short

introduced to the general technical and economic aspects, with orientation and preliminary training on their future role as users and managers of water supply and sanitation resources and services.

81. National policy and programme should acknowledge women as managers of water and waste.
82. Women should be trained to maintain community and household facilities and at the village level to care for and do preventive maintenance of water supply and sanitary facilities.
83. An accessible inspection system should be established where women can report breakdowns and faults promptly, if they are unable to repair on the spot.
84. Women should be encouraged to raise the necessary funds to cover the construction, operation and maintenance costs of community water supply and sanitation systems.
85. Women, village-based workers should be trained to carry out the following tasks:
  - i) Encourage women to overcome cultural and traditional barriers against the use of new facilities.
  - ii) Encourage women to learn to correctly use the facilities.
  - iii) Organize women to keep the pump and latrine surroundings clean, utilize run-away water, hygienic storage of water, personal hygiene, etc.

D. Recommendations - General

Training and Promotion

86. Promote and support the training of women in the Regional Health, and development plans by means of the following areas of action:

i) organize and conduct experiments of pilot activities for sanitary education, water and food hygiene, the development and conservation of water supply systems, and the proper and safe disposal of sewage and solid wastes.

ii) Develop pilot projects in primary education on health and sanitation in rural areas by employing women.

iii) Train women in rural and urban areas to enable their participation in the planning and the application of projects involving water supply and sanitation .

iv) Technical training of women to carry out operational, maintenance, and repair services of water supply and sanitation systems, so that they can fully participate in the operation and ensure quality control of these facilities.

v) In order to support training efforts a programme for the training of trainers (including women), should be planned and carried out.

vi) In planning training programmes for women, special requirements such as child care, location and scheduling should be taken into account.

vii) Outreach training programmes and mobile training units should be developed to support the local training needs and efforts.

87. Well formulated mass media programmes addressing the role of women should be emphasized and focus should be made on the following issues:

- Awareness of the relationship between unhygienic practices and disease .
- Avoiding water waste and emphasizing water conservation and re-use
- Avoiding contamination of water
- Appropriate and safe disposal of wastes.
- Primary health care.

88. National governments should consider developing radio programmes directed at the village level, stressing the importance of adequate water supply and sanitation facilities and the role women play in development.
89. Demonstrations and other experiences as well as audiovisual and other learning materials should be developed, reviewed and disseminated among the community training programmes.
90. Rural men and women should be consulted and invited to participate in the choice of learning experiences and materials developed in order to ensure their effectiveness in the learning process.

#### Evaluation and Assessment

91. The evaluation and assessment of water supply and sanitation projects should, apart from the usual considerations of technology, place emphasis on women as the main beneficiaries. Women have an important evaluation role. They should be involved in the design and evaluation process, at all stages for feedback. Evaluation should be made regarding the:
- i) Impact of projects on women and families
  - ii) Impact of women's participation on the project, including women's opinion on:
    - a) Reduction of the drudgery and physical effort endured by women before the construction of the works.
    - b) Increase in the leisure and income-generating activities of women.
    - c) Improvement in the health status of women and the community



d) Satisfaction with women's integration in water supply and sanitation programmes.

e) Performance of the women involved in construction, operation and maintenance of the works.

#### Coordination Between National Organizations

92. The multisectoral nature of water and sanitation activities involving women requires appropriate co-ordination among the national institutions and authorities involved in water, health, sanitation, agricultural, and rural development programmes, as well as bodies in charge of education and training.
93. Appropriate co-ordinating bodies at the national level (such as steering committees or project managing committees) should be made instrumental in the co-ordination between responsible ministries.
94. When established, the national committee for the IDWSSD should pay particular attention to the role of women.
95. National machineries for the advancement of women should assist and be consulted for securing pragmatic action at the national level.
96. The co-ordination with regional/local authorities, such as health and adult education within their activities in relation to women, should be promoted.
97. Local community organizations should be identified and the role of women should be promoted in the planning and implementation process of water supply and sanitation programmes and projects within the recognized social framework of the community.

#### Global

98. Maximum efforts should be made at the international, global, regional and

sub-regional levels to secure the incorporation of issues relevant to women in water and sanitation related activities. These issues should become integral parts of the on-going and future work of the existing institutions active in the field.

- 99 . Governments, regional and sub-regional as well as global institutions, should incorporate specific reference to women whenever discussing achievements and impediments relevant to the improvement of water and sanitation, particularly in developing countries.
100. Global, regional and sub-regional campaigns should be carried out in both, developed and developing countries in order to create and raise public awareness of the problems facing women in the field of water and sanitation. In this respect, the most modern information and communication technology should be used for awareness raising campaigns, as well as for training the population in general and women in particular.
101. Manuals should be prepared and advisory services carried out aimed at those responsible for decision-making in the water and sanitation field referring to the need to involve women in water and sanitation, and leading to more integrated development approaches.
102. INSTRAW and other concerned agencies should be assisted in the task of ensuring that existing knowledge on the role and situation of women related to water and sanitation be compiled in a more systematic manner and widely disseminated.
- 103 . National, regional and global information exchange programmes on water supply and sanitation (such as REPIDISCA in Latin America, ENSIC in South East Asia at the National-regional level, and POETRI at the national/global level) should include issues on women's involvement as a specific topic of their exchange work.

104. Agents at the global level to be incorporated in the promotion of women's participation are:

- UN Steering Committee for Co-operative Action
- National water and sanitation authorities
- Technical associations and federations
- Public information media
- National and international women's associations
- Women's Development groups, to assist in securing pragmatic action and disseminating information

Bilateral Donors

105. Bilateral donors and other funding agencies should include in their requirements for funding, projects criteria which would lead to consultations with women before projects are initiated.

106. "Request for Proposals" (RFP) issued by donors and AID programmes should include the requirement of addressing women's issues and their active participation. This ensures bidders to respond and address women's water supply and sanitation needs.

107. Bilateral and multilateral donor agencies and organizations, should give priority to activities which are beneficial to women and their families, and should contribute to the promotion of long-term perspectives securing the adequate financial means in order to meet women's needs and insure their participation well beyond the IDWSSD.

108. In consultation with national governments, donor agencies should consider allocating a firm percentage of their available funds for the promotion and support of women's participation in water supply and sanitation activities including research and training.

109. Care should be taken to avoid women's participation from simply becoming a catch-phrase by programming funds from bilateral agencies into well-defined

and researched women's activities which will have positive and long-lasting effects, not only in water supply and sanitation projects, but also on the status of women in general.

III. GENERAL DEBATE

1. Identification of the problems in water supply and sanitation as they relate to women in the area of socio-economic development, health and sanitation, and science and technology. (Agenda Item 4).

110. The Chief of Research and Training of INSTRAW, Mrs. Mervat Tallawy, introduced Agenda Item Four, stating that the purpose of the meeting was to discuss the multifaceted problem of drinking water supply and sanitation as it relates to women, with the aim of finding solutions in order to ensure that women's role and needs are taken into consideration at all levels of the design and implementation of water supply and sanitation projects. She stated that the traditional role given to women in many developing societies as water carrier, supplier, user and manager, is the reason why it is necessary to include a women's component in any such project.
111. Like all development problems, the issue of water supply and sanitation is multi-dimensional. The problem lies not only within the socio-economic sphere but also in the technical, scientific, health and sanitation and environment spheres. Moreover, all these areas are interconnected, with a problem existing in one influencing the evolution and outcome of the other.
112. She indicated that the seriousness of the problems involved in the area of water supply and sanitation is alarming, and that the demand on these types of services is growing tremendously. The financial resources required to face the problems are of great magnitude. These points lead to other pertinent questions, namely, how to manage these types of complex development problems with all the multiplicity of issues involved? Who determines what priorities? How co-ordination among the various parties concerned can be achieved? So far, there is no clear cut answer toward solving these problems. However, from the available literature, including the papers submitted to this meeting, the following areas are emphasized as means toward possible answers to part of the problems:

- The importance of community participation at all levels, including the grass root level.
- Raising awareness and sensitization of public opinion to the problems.
- Training, particularly in the area of equipment maintenance and primary health care.
- Education, whether formal or informal, and life-long education
- Appropriate choice of technology, working in harmony with the developing society.
- Importance of planning of activities involved in water supply and sanitation and connected with the overall planning process. Therefore, methods of management co-ordination, implementation and follow-up have to be derived.

113. In concluding, Mrs. Tallaway expressed the Institute's interest as action-oriented, a move beyond identification or definition of the problems and constraints, where emphasis is on action and in the most economical way because of the difficult economic situation facing developing countries.

114. The consultant to the Institute introduced the overview paper and explained the Institute's attempts to promote the objectives of the International Drinking Water Supply and Sanitation Decade by addressing the role of women and the problems of drinking water supply and sanitation.

115. In preparing the paper, a thorough review was conducted of the existing literature dealing with the subject of women and drinking water supply and sanitation within and outside the United Nations. This coverage included the events leading up to the proclamation of the 1975 World Conference of the International Women's Year and its consequences, the commitment of the 1976 United Nations Conference on Human Settlements (HABITAT), the 1977 United Nations Water Conference in Mar del Plata, followed by the 1978 Alma Ata Conference, and culminating at the 1980 World Conference of the United Nations Decade for Women which adopted Resolution 35/18 on Women and Water.

116. Literature surveyed outside the United Nations included publications issued by many organizations and institutions, including Water and Sanitation for Health Project (WASH), Organización Panamericana de la Salud (OPS), Centro Interamericano de Ingeniería Sanitaria y Ciencias del Ambiente (CEPIS), International Association of Water Pollution Research, World Water, the International Reference Centre for Community, the Society for Applied Anthropology, Earthscan, Water Research Center (WRC), American Water Works Association (AWWA), International Water Supply Association, Water Supply and Sanitation (IRC), among others
117. The paper was organized into four sections. The first section was the introduction describing a brief overview of the world situation in the area of water supply and sanitation as it relates to women.
118. Section two covered the legislative mandate in the area of water supply and sanitation leading up to the importance placed on finding the methods and strategies which would afford women the same opportunities as men to actively participate in the development process. Section three presented the objectives and programme of activities of the Institute, and the last section presented a general discussion of each topic area on the agenda of the seminar.
119. The hope was expressed that the seminar would serve as a departure point for an international process of consultation and exchange of experiences and co-operation on the role of women in water resource and health and sanitation management.

A. Socio-Economic area

i. Community Participation

120. In addressing the topics of the Seminar, particularly the existing problems in water supply and sanitation as they relate to women, discussions focused on the importance of women's participation as main beneficiaries of water supply and sanitation projects. The consensus opinion of the participants was that women's participation in IDWSSD activities is essential.

121. Women were perceived as already active participants in these activities and cannot possibly be expected to participate more, thus, the seminar should correct the false impression that what is needed is to further involve women. What is more accurate in this regard is the need to make women's participation more effective, easier, and more productive by taking into account women's needs and requirements at all levels of the planning, design and implementation of water supply and sanitation projects.
122. Alleviating women's burden as main carriers, users and managers of water was an issue of discussion. The challenge, therefore, was to improve their role in this field in view of all the existing financial, socio-economic and technological constraints.
123. The involvement of women in water supply and sanitation mainly concerns community participation; the people, their culture, their behaviour and their values, while the design of treatment plans or the parameters that go into the quality of water are of secondary consideration to be included into the main theme of community participation. Therefore, the emphasis should be on the social and anthropological aspect .
124. Information on people's perceptions, beliefs and attitudes concerning both quantity and quality is important before planning any water system. The evaluation process should involve the members of the community, men and women alike, in order to ensure the success of the methods used.
125. The involvement of community at the planning stage, starting with the choice of source, helps in taking account of local beliefs in using certain sources. An example given, was the case where rural people in an area refrained from drinking from a well believing that the water contained spirits of their ancestors. Another case is that the males of a community filled a water well with stones, on the grounds that the nearness of the source allowed the females too much time to spend contriving against their husbands. there has also been a case where the women did not appreciate the supply location in an open and exposed field, when other supply points which were located under trees shades would afford them some comfort.



These and many other aspects generally ignored are vital to the success of a water supply project and can be successfully worked out through consultation with the community to be served.

126. Community participation needs not focus on material and labour contribution alone, but should also be oriented towards making the community feel a sense of ownership and responsibility for the installations. The community should feel that the water supply systems are there because they desire them and not because they are an outside imposition. It follows that it is in their own interest to attend to the proper use and maintenance of the facilities. People from villages, districts and provinces should therefore be involved in the planning, construction, operation and maintenance of water supply and sanitation installations.

ii. Perception and Social Values

127. It was indicated that the topic of the seminar includes two major subjects: One is water supply and sanitation, and the other is how to involve women in this area. This last problem cannot be separated from its social context in the community as a whole. In many developing countries social values are not conducive to accept the changing role of women, in this case to take part in planning and managing water supply projects.
128. Women need to be made more aware of the important role they play in the provision of adequate water supply and sanitation in order for them to effectively participate in activities in this area. It was stressed that men should also become aware of the need to alleviate women's burden as the main carriers and users of water, and that awareness of both men and women should be raised starting from the grass-root level of society.

129. In recognition of the fact that women are not a homogenous group, it was stated that women in developing countries and those in developed ones play different roles as far as water supply is concerned. This same difference exists between socio-economic classes and urban and rural areas in developing countries.
130. Education and training were components considered necessary for a more effective participation of women in water supply and sanitation projects at all levels. In this respect, high level community participation in a number of countries was perceived to be the result of high literacy rates.
131. Training of both urban and rural women to involve them in water supply and sanitation activities such as health education programme planning and maintenance, was emphasized. Suggestions were made that the meeting should establish a special panel on training, in the areas of equipment maintenance and primary health care. Emphasis was also place on training for women at the local level rather than at the national level, enabling a greater number of women to attend.
132. Since women are an integral part of any society, the problems they face and the role they play in development activities, including the provision of water supply and sanitation, concern the society as a whole and not women alone. Therefore, methodological approaches, which would address the two tasks of women as water suppliers and water consumers, should be developed in order to solve their problems in this area.
133. The question of methodology and approach should be clarified to be able to answer why women need to be involved in water supply and sanitation.

134. Distinctions were also made regarding women and men's relationship to water supply and consumption. Although men and women have the same roles in water consumption, their roles diverge in relation to its supply in developing countries.
135. Women play two different roles in water supply and consumption. These roles depend on the level and the stage of development of the society at large.
136. Women's role in water consumption is the same in both developed and developing countries. Women are consumers. However, in water supply women and children are the main labour source in developing countries, while in the developed countries, water supply is not a labour-oriented problem any more.
137. Discussions also focused on the differences existing between rural and urban areas, pointing out that the nature of the problems are not the same in each area. The availability of water resources as well as the potability of water are the main problems prevailing in the rural areas. On the other hand, in the urban areas water is available but the problem is how to dispose of it once it has been used, which leads to health and sanitation problems.

Institutional Framework

- 138 . Deficiencies in the institutional and policy-making frameworks were considered among the major constraints facing developing countries. In some countries there is no appropriate institutional framework to plan, programme, implement and monitor activities for the IDWSSD, while in others there is duplication and overlap of authority among the institutions. The idea of having a fourth panel on institutional framework was also presented.
- 139 . A number of institutional mechanisms were examined in order to determine the institutional framework which is most conducive to integrating women in development in general, and more specifically, to devise a more effective solution to the problems that women confront in water supply and sanitation. In this respect, it was stated that although the special machineries on the role and the status of women which have been established in many countries have undertaken many successful activities, they run the risk of isolating women's needs from national development priorities. Therefore, women's issues need to be treated as an integral part of all socio-economic and cultural development activities and programmes.
- 140 . The Sri Lankan administrative set-up at the village level was presented as a possible model for institutional framework which provides for a sectorial integration of women's issues. It was stated that since village councils in Sri Lanka include the presidents of all voluntary organizations, including both women's groups and groups concerned with water supply and sanitation, women have been able to participate in the planning of water supply and sanitation activities, such as site selection, health and management.
- 141 . The creation of national machineries and national action committees with

clear terms of reference and given the necessary authority and resources, was believed to help in alleviating organization and co-ordination problems.

142. In this regard, women's organizations should be instituted at the national level with the common objective of advancing the socio-economic progress of their country, in an integrated manner and with the full support of governments. Such a centralized approach would avoid the danger of the mushrooming of women's organizations which compete against each other and often work in an ad-hoc and disorganized manner with no common objectives, ultimately resulting in weakening their potential capacity.
143. Women, were seen as the target group to focus on, for it is the active participation of this large group who comprise the majority of users of domestic water supply which could add a useful dimension to the Decade. With some training, this group could form a huge potential force which would facilitate the completion of the various activities required for the provision of water supply systems.
144. The overall discussion of socio-economic factors, indicated that this area covered a wide range of issues including institutional problems, development criteria, per capita consumption of water, overall demand in a particular community, etc. Therefore, the socio-economic factors need to be clearly identified by social scientists to facilitate the task of the technician in finding a common denominator, level of technology, etc.

ECA, ECLA, ECWA and ESCAP Regions

145. The following paragraphs reflect the situation of water supply and sanitation in the ECA, ECLA, ECWA and ESCAP regions, based on both the contributions to the discussion by the representatives of the regional economic commissions and their papers submitted to the seminar.
146. ECA. The countries in the Africa region, like all developing countries, are suffering from the impact of global economic recession, growing cost of manufactured goods, high interest rates and the escalating price of oil. This situation, coupled with the paucity of funds from domestic sources, has impeded their capability for implementing the larger water supply projects. Moreover, maintenance and operation of the water supply and sanitation systems have suffered greatly due to lack of funding.
147. WHO reported that the development of adequate manpower is one of the most urgent tasks facing the countries in Africa, in the preparation of plans for the Decade's activities. There is an extreme and urgent need in 42 countries (91 percent) to develop manpower. This will require staffing studies and training programmes of sector personnel at all levels.
148. The ECA region perspective perceived the topic under consideration as involving two problems; on the one hand, water supply and sanitation, and on the other, the involvement of women in the development process.
149. ECLA. At the beginning of the International Drinking Water Supply and Sanitation Decade it was suggested that governments should place emphasis on providing service to the unserved low-income rural and urban-fringe population.

Unfortunately, in Latin America as a whole, the expansion of services planned for the Decade will leave at least two-thirds as many rural women and children without clean water and adequate sanitation in 1990 as in 1980 and the number of urban women and children without adequate sanitation will hardly change. It is only in the provision of drinking water in urban areas that a significant reduction in the numbers without service is planned.

150. It is puzzling, at least on the surface, that the provision of clean water and sanitation to the rural, and to the urban poor, has not become a more central part of the IDWSSD programmes in most of the countries of the region. The provision of service in rural areas uses known and relatively simple technology, well within the technical capability of all the countries of the region. The explanation cannot be sought in the direct opposition of any particular interest group, nor in the lack of the appreciation of the benefits to be obtained, nor in any change in the level of external assistance. The explanation appears to be in a particular combination of internal and external factors which have influenced the policy towards the IDWSSD in Latin America.
151. The internal influences of most significance appear to be the strong urban bias of water supply and sanitation institutions in the countries of the region coupled with an absence of specific institutions for rural water supply and sanitation. In general, this has led to the adoption of what can be described as high technology solutions to the provision of water and sanitation with a strong emphasis on efficiency.
152. Externally, the urban focus has been encouraged and even led by a strong emphasis on sector policies directed toward the development of water supply and sewage systems so managed as to generate revenues in sufficient quantities to cover both operating and maintenance costs and to finance new capital investments. These concerns have overshadowed activities of international organizations directed towards rural problems.

153. A means must be found to redress the balance so as to breathe new life into the Decade and make it possible to extend water supply and sanitation to the most neglected people in the region. It is suggested that here is perhaps where women's organizations, both national and international, could direct their efforts. Strong advocacy is required for the establishment of water supply and sanitation institutions concerned with solutions suitable for the country dweller, hand pumps and latrines or other forms of individual or small group arrangements. Without an appropriate institutional framework it cannot be anticipated that any change will be achieved in the present focus of water supply and sanitation policies.
154. ECWA. Nearly all of the ECWA region consists of arid and semi-arid areas, characterized by scarce rainfall and limited groundwater resources. Only three countries have sufficient surface water resources in the form of large rivers (Egypt, Syria and Iraq). Only in locally limited areas and at higher altitudes precipitation is high enough to be suitable for groundwater recharge (Lebanon, Oman, Syria, the U.A.E. and the Y.A.R.) With the exception of these countries, the rest of the region basically depends on groundwater for their supply, which often is not sufficient to meet the demands of densely populated areas. Therefore, new water resources have to be identified in order to meet the increasing demands.
155. The water supply and sanitation problem, as seen from the ECWA region perspective, is the following; water engineers face the dilemma of high rate population growth, accelerated rate of urbanization, lack of water resources that affect 30% of the population in Western Asia, inadequate knowledge of water potential, insufficient local capacity for sector construction and installation work, including the provision of certain materials, lack of basic data and basic planning, such as a water resource master plan and sectorial plan, lack of adequate information systems, lack of co-ordination of activities among authorities, lack of national standards on basic data collection and difficulty in adjusting water tariffs to reflect rising costs and to achieve balance cost and revenues.



156. Policies have mostly given priority to the expansion and restoration of the urban water-supply systems, preferably in the capital cities, which are severely affected by high population densities and high population growth rates, partly due to inward rural emigration. In most of the capitals, a modern sewage system with treatment plants is in the planning or construction stage.
157. By the early 1980's, well over 90 percent of the urban and over 50 percent of the rural population in the ECWA region were supplied with safe water. According to the available information and considering the programmes at hand, it appears that the goals of the Decade will be achieved in nearly all urban areas of the region, although special attention should be given to the requirements of rural areas.
158. Efforts are being made in all countries to set up closed distribution systems between the place of extraction and the consumer. Also all efforts are being exerted by water authorities to provide enough safe water at any time with adequate service pressure. Such systems are operating in all ECWA countries, however, mainly located in cities and not always serving all the city area.
159. There are forty United Nations Decade for Women projects in the region, many of them oriented towards sociological factors and public awareness in order to bring to the attention of the people the merits of safe water supply. As a result, some villagers took upon themselves to share collective water costs to have safe water near their homes. Both men and women in the community where safe water was made available confirmed that the health of their children was better and the conditions of their houses had improved and women had more time and looked better kept.

160. It was stated that in the ECWA region water supply, although functioning at a slow rate, was quite satisfactory. On the other hand, sanitation was completely neglected in rural areas due to several factors.
161. Perceptions were deemed determinant of the types of designs and equipment of water supply utilized as well as the sanitation practices. An example was given of Egyptian villages where water provided by standpipes was perceived as good since it was provided by the government. On the other hand, villagers were hesitant to use chlorinated water for cooking since they felt it tasted bad.
162. Although the countries in the ECWA region have come a long way towards achieving the goals of the International Drinking Water Supply and Sanitation Decade, the hard task of securing safe water supply for all of their population and providing adequate sanitation systems still remain to be done.
163. ESCAP. It was pointed out that the need for community participation and the development of realistic training programmes adapted to the needs of a target group are required to improve the water supply and sanitation situation in the ESCAP region.
164. There are a number of island countries, as well as landlocked countries where procurement of material and equipment involve considerable delays caused by transport bottlenecks as well as high costs.

## B. Health and Sanitation

### i. Health

165. In addressing the area of health and sanitation, the provision of more adequate safe water supply and basic sanitation services was considered as an essential element to improve the social and health status of the population. Often, it is the physical labour of women and children that must be exerted

to obtain water and carry the weight to their homes from the water sources.

- 166.. Women's role in water consumption is decisive in both developed and developing countries, as well as in traditional and modern families. This role is decided in accordance to the family structure and division of labour by sex. Therefore, the proper attitude of women toward safe and adequate water and sanitation is a pre-requisite for a health care policy to be effective.
- 167.. Concerning the effective and productive participation of women, it was stated that since there is a close correlation between health, water quality and availability, and sanitary conditions of the environment, there is a need to bridge the gap between all of these factors. This is where the effective participation of women is needed to enhance health and erradicate water-borne diseases that are so common, particularly in tropical and semi-tropical areas of the world.
- 168.. Studies show that women as water carriers in many societies, and by virtue of their domestic functions, are in constant touch with water which is often polluted. Therefore, women were perceived as being the group most vulnerable to water-related diseases, which according to WHO statistics, were accountable for eighty percent (80%) of all diseases in the developing world.
- 169.. Studies also show that water-borne diseases are a major cause of high infant mortality rates. Water related diseases also account for 15% of all hospital deaths. Women as mothers are the ones most likely to influence the family in health and sanitation matters. Turning to the community, at least 16% of children under 5 have diarrhea on any given day a survey is carried out and around 5 million children in the world die every year due to diseases carried by water.
- 170.. In Sri Lanka, a high incidence of disease resulting from poor environmental conditions was mentioned. In the government health care system, greater emphasis has also been curative rather than preventive medicine. The result

of this imbalance is seen, for instance, in the fact that while the mortality rate declined dramatically from 1952 to 1981 from 10.4 to 6.1, the diarrhoeal disease morbidity rate remained practically constant during this same period.

171.. The reduction of undernutrition is one of the benefits derived from water supply programmes. It has been estimated that on the average 9% of the total calorie intake is used to provide water. Calorie intake was estimated to be 2,840 calories per day, this estimate being higher than the findings for most women in developing countries, and the amount of energy used in obtaining water could be as high as 15-27%.

172 . The provision of adequate water as near the house as possible frees some of the women's time and creates a potential for their involvement in the preventive aspects of health as well as development activities. During this time, women can attend maternal and child health clinics, where they can be trained on conditions associated with childbearing and pregnancy and where immunizations are carried out and risk factors identified.

ii. Pollution and Contamination

173 . Discussions also dealt with severe environmental problems caused by arsenic, where considerable health problems related to drinking water containing high concentrations of arsenic have been observed in regions of Taiwan and Chile. Peripheral vascular disorders with gangrene (blackfoot disease) are common in Taiwan and peripheral vascular disease in the form of Raynaud's syndrome, in Chile.

174. Pollution or contamination of water supplies could be caused by neglect of the simple task of periodically cleaning storage facilities, i.e. water storage tanks, pump wells, and regular maintenance of the pump. Cleaning of the drainage ditch to keep dirty water from backing up and contaminating the well water is also important. Finally, keeping the surrounding areas in the vicinity of the well clean and sanitary is also important to prevent the well water from being contaminated.

175. In regards to the problems of water contamination by chemical wastes, misuse, etc., many diseases were attributed to the use of pesticides, and was considered a major problem in developed countries.

176. The large expansion of modern industry has created a new source of pollution - uncontrolled, untreated industrial wastes. The implications of such massive pollution for the health of a nation are extremely serious. It was mentioned that as an outcome of modernization, the extension of irrigation has created suitable breeding grounds for disease carriers, including the mosquito that spreads the fatal disease of Japanese encephalitis, (the case of India).

177. Environmentalists are currently concerned by the negative effects caused by toxic chemicals used to control the transmission of waterborne diseases. There was widespread agreement among the participants in that many similar rickets caused by cadmium pollution, have appeared in Japan, called "Itai-Itai".

178. A close synergistic interrelationship between under-nutrition and infections on unsanitary environments was mentioned. Undernutrition increases the susceptibility to infections and infections aggravate malnutrition by further reducing the intake and absorption of food. This malnourishment coupled with infection is the cause of a high incidence of 40% low births in Indian neonates.

### iii. Sanitation

179. Improvements in practices of excreta disposal are crucial for raising public health levels. Inadequate facilities for excreta disposal reduce the potential benefits of safe water supply by transmitting pathogens from infected to healthy persons. Over 50 infections can be transmitted from a diseased to a healthy person by various direct or indirect routes involving excreta.

180. Pathogenic organisms discharged by persons harbouring intestinal parasites or suffering from infectious diseases, or excreted by carriers, are always potentially present in domestic sewage and render it dangerous. Therefore, to prevent pollution of water bodies, domestic sewage must be subjected to treatment before its discharge.
181. It was also expressed that health hazards can be classified into 2 main categories: hazards from biological agents and hazards from chemical pollution.
182. The ECLA region's perspective expressed that it is undeniable that the present policies have both improved and increased the access of the population to protected potable water and to sanitation. This is particularly true in the urban areas and, in some countries, in rural villages. The most eloquent proof, perhaps, lies in the contribution that water supply and sanitation have made, and continue to make, toward the reduction in the occurrence of diarrheas amongst young children, which has considerably lessened the number of deaths.
183. As an example, a recent study in Chile confirmed the connection between water supply and the occurrence of diarrheas in young children, showing four times the rate of visits to rural clinics for this reason in villages without water supply. It is true that diarrheas remain the major cause of death amongst children under 12 months of age and that infant death rates are still much higher in most countries of the region than in Europe or North America.
184. The high infant mortality rate in Latin America is of obvious concern to the women in that region. It is probably the most serious consequence of having a large part of the population without proper sanitary facilities. It is not, however, the only effect. Adults also suffer from water-borne and water-related diseases. Additionally, the work of fetching water in Latin America, as elsewhere, is almost always women's work and the difficulties of living with limited water fall almost entirely on women, as it is household tasks which are most affected.

185. The ECWA region perspective noted that the sanitation sector is not usually assigned the same importance as the domestic water supply in the region. Generally speaking, sanitation is neglected in the rural areas, mostly due to the fact that:

- a) sanitation is given very low priority by the rural population;
- b) basic health education, public enlightenment and the proper institutional framework are lacking in some countries.

C. Science and Technology

186. Discussions in the area of science and technology made reference to the fact that to ease women's burden in developing countries of being the main water carriers, realistic and appropriate technologies which take into account the cultural and social specificity of the target group as well as their financial constraints, have to be developed.

187. Simple and appropriate technology would free women from having to walk long distances in search of water, in addition to carrying the water jug on her head, as well as serving the purpose of changing the social roles of women and men labour distribution within the household.

188. Appropriate water supply technology in developing countries should be quite simple. These simple rudimentary water supply methods are used even in the most advanced countries. These methods are interim solutions to the problems connected with water supply.

189. The use of simple technology made out of local materials for the provision of adequate water supplies in developing countries was deemed as essential in view of its low cost, and the possibilities it provides for a greater and more effective involvement of women. It also allows for greater self-reliance from the community level to the national level. It diminishes the burden on



women and begins to change the rules within the family, adjusting the distribution of labour between men and women. An example of this is the use of a cart or an animal.

190. Another example of simple rudimentary methods only applicable in areas which get rains throughout the year is the use of rain collected in large pans and kept in storing tanks at the household level. The advantage of this method is its cost effectiveness, not requiring an elaborate type of planning or government intervention or allocation of financial resources, nor special maintenance, etc. This system makes use of locally available materials and can be built with skills that are already locally available or that women can easily master.
191. Another advantage of introducing simple technology is that women will have a greater involvement than in the case of advanced technology. It will increase the potential of self-reliance of the community, since the use of high technology financed by foreign aid risks termination once the aid is withdrawn. Moreover, management and maintenance costs of simple technologies would be within the range of the community's financial capabilities.
192. With reference to the question of simple technology, the representative from UNDP mentioned that the organization is presently engaged in women's projects developing appropriate technologies. One is concerned with sanitation (pit latrine) in Zimbabwe, East Africa, another is on low-cost village maintenance of hand pumps, and the third on resource recovery and the use of biogas.
193. When deciding on the site of the water system it is important to be far from a contaminated area in order not to falsely believe that the hand pump system is free of contamination.
194. Regarding belief that hydraulics and water engineers seldom give due attention to the inclusion of a women's component in water supply projects, a view expressed that this constituted a dilemma for engineers due to the complexity of the problem in the ECWA region, as an example.



2. Measures aiming at solving the problems and enhancing the role of women in activities of the IDWSSD - proposal for action at the national, regional and international level. (Agenda Item 5

195. Bearing in mind the nature of Agenda Item 5 as one geared toward finding measures and solutions and enhancing the role of women in activities of the IDWSSD, the following discussion should be read in conjunction with Section II, Conclusions and Recommendations (page 7).
196. In addressing Agenda Item Five, the discussions emphasized action-oriented proposals, and views expressed that political-will be a prerequisite for the effective involvement of women in water supply and sanitation activities. This political-will could be translated into action through a national plan.
197. The plan of action to provide these services would require financial resources, whether from local or international sources.
198. Financial resources should therefore be spent on priority areas, particularly for the under-served population that efficient management of these resources is vital. The national plan should make provisions for intersectorial co-ordination and appropriate technology.
199. To enable women to participate in the activities indicated in the plan of action, provisions must be made for women to take part in high-level decision-making.
200. When establishing separate ministries for women or formulating separate projects a danger of isolating women's issues was perceived. A women's component needs to be introduced into the governmental institutional framework in charge of water supply and sanitation, as well as into all ongoing and future water supply and sanitation projects.
201. A number of views supported the active participation and involvement of non-governmental organizations in promoting women in water supply and sanitation projects.

202. Non-governmental organizations' institutional structures are advantageously flexible in that they allow for experimentation bringing more immediate results from water supply and sanitation projects on the target group, particularly when the non-governmental organization is clearly recognized and acknowledged by the national government.
203. Greater communication between NGO's and governmental organizations should be established in order for the government to benefit from NGO experiences in the water supply and sanitation area.
204. The case of Japan was referred to as a successful example of water supply and sanitation system. In 1955 only 37.7 percent of the population was served with water supply and sanitation systems. Today the percentage is 97.2 served.
205. According to the statistics of the Ministry of Labour before the introduction of water supply and sanitation, a woman in Japan walked 18,000 km. in her lifetime to carry water, and consumed almost two hours a day in carrying water.
206. At present, women in Japan are still very active in water supply and sanitation systems through their membership in voluntary organizations in rural communities where she organizes a systematic savings to make a water works fund, called aid savings account or consulting wife savings account.
207. In accordance with the objectives of the Steering Committee and the Inter-Agency Task Force on Women and the IDWSSD, the representative of UNDP presented its project INT/83/003 entitled: "Promotion in Support of Women's participation in Water and Sanitation Activities", referring to it as a possible format to the solutions of water supply and sanitation problems as they relate to women.
208. UNDP presented its project, stating that its primary aim is to influence decision-makers to integrate women's needs and requirements into sectorial projects. The strategy is not to undertake a separate women's project, but

rather build into an existing project in the water sector so that the women's issue becomes an integrated part of the decision-making process. Incorporating a women's component into projects relieving women's existing burden as the main water carriers, raising women's status and increasing the well-being of both women and their families. Furthermore, the project also includes an income-generating component.

209. High illiteracy rates among women was considered to represent constraints to their participation in the policy and planning stages of water supply and sanitation projects. In response, a view was expressed that water is too crucial to women's survival, and illiterate women constitute too great a majority for illiteracy to act as an obstacle to their participation.
210. The training component used as a method to increase the participation of women in water supply and sanitation activities should take into account women's multiple roles. For example, the scheduling of seminars, workshops and other training activities for women should accommodate these multiple roles, and, therefore facilitate women's participation
211. The observation was made that duplication exists in ongoing research and projects on water supply and sanitation as it relates to women, therefore an effort should be made to co-ordinate the activities of the United Nations and agencies. INSTRAW as a catalyst concerned with all aspects of women's lives should take a leading role in this co-ordination, as well as disseminate collected information and data in this regard.
212. The need to undertake action at the country-level in water supply and sanitation was emphasized. In this regard data collection of case studies of successful projects should be formulated, showing their positive outcome resulting from the participation of women in water and sanitation projects.

213. Both men and women should actively address issues on water supply and sanitation, for it is not solely a women's issue. Men's involvement in these issues is of particular importance since most decision-makers in water supply and sanitation are male.
214. It was further expressed that a possible way to involve women in the preparation of water supply and sanitation projects and activities is to consult them regarding water supply equipment, site selection, sanitary facilities and types of technology.
215. A training component for women in water supply and sanitation activities, should be built into the design of the project in order for women to acquire this training. therefore, this participation of women should be addressed at the top policy planning levels.
216. The need to establish legal mechanisms for the participation of women at all levels of decision-making, from village councils to national governments was emphasized.
217. In terms of bilateral and multilateral assistance in the areas of improved water supply and sanitation, a request was made for more information to be provided to women in developed countries on the problems that confront women in developing countries in this area. The present limited assistance in this field was deemed not only due to the lack of political will as much as to the lack of awareness of the existing realities.
218. In order to make women agents of change in health areas, it is necessary to train women as birth attendants and health workers.

ANNEX I

List of Participants attending Interregional Seminar on  
WOMEN AND THE INTERNATIONAL DRINKING WATER SUPPLY AND SANITATION

DECADE

Cairo, Egypt, 12 - 16 March, 1984

I. EXPERTS

Eklas Abdel Megeed  
Executive Office for Environmental Information  
Academy for Scientific Research and Technology  
Director  
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Marie Thérèse Abela  
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France

Dharm Anand  
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Ibrahim Badran  
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Gordana Cerjan  
Conference for the Social Activity of Women of Croatia  
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Changjie Chen  
Department of Environment Hygiene  
Institute of Health  
China National Center for Preventive Medicine  
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Banoo Coyaji  
King Edward Memorial Hospital  
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