



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



United Nations
Department for Development Support
and Management Services

In cooperation with
Department of Water Affairs
Ministry of Agriculture, Water and Rural Development
Government of Namibia



National Training Seminar on Women, Water Supply and Sanitation

20–25 November 1994
Windhoek, Namibia

In association with
Deutsche Gesellschaft für Technische Zusammenarbeit
GTZ

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NOTES

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Abbreviations used

CCN	Council of Churches of Namibia
CHW	Community Health Workers
DDSMS	Department for Development Support and Management Services
DRWS	Directorate of Rural Water Supply
DWA	Department of Water Affairs
FINNIDA	Finnish International Development Agency
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
IABP	Integrated Area Based Programme Approach
IDWSSD	The International Drinking Water Supply and Sanitation Decade
INSTRAW	United Nations International Research and Training Institute for the Advancement of Women
MEP	Minimum Evaluation Procedure
MRLGH	Directorate of Community Development, Ministry of Regional and Local Government and Housing
OXFAM	Oxford Committee for Famine Relief
PROWESS	Promotion of the Role of Women in Water Supply and Environmental Sanitation Services
RWEO	Rural Water Extension Officers
RWS	Rural Water Supply

UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
UNIFEM	United Nations Development Fund for Women
USAID	United States Agency for International Development
VIP	Ventilated Improved Pit Latrines
WHO	World Health Organisation
WID	Women in Development
WPC	Water Point Committees
WSS	Water Supply and Sanitation
WSSPOR	Water Supply and Sanitation Project

TABLE OF CONTENTS

A.	Opening of the Seminar	2
B.	Adoption of Agenda	2
C.	Substantive Issues	2
1.	Overview of Training Methodology and Seminar Procedures	2
2.	Technical Session I: Presentation and Discussion of Module I: The International Drinking Water Supply and Sanitation Decade (IDWSSD) and Beyond	3
3.	Women in Community Management of Water Supply Systems, Directorate of Rural Water Supply (DRWS), Department of Water Affairs (DWA)	5
4.	Technical Session II: Presentation and Discussion of Module II: Participation of Women in Planning, Choice of Technology and Implementation of Water Supply and Sanitation Projects	10
5.	Technical Session III: Presentation and Discussion of Module III: Role of Women in Hygiene Education and Training Activities for Water Supply and Sanitation (WSS)	15
6.	Waste Management in Windhoek with Special Reference to the Single Private Contractor System in Katutura	20
7.	Technical Session IV: Presentation and Discussion of Module IV: Involvement of Women in Management of Water Resources, Water Supply and Waste Disposal	25
8.	Technical Session V: Presentation and Discussion of Module V: Women and Waste Management	32

9.	Integrated Area Based Programme (IABP) Approach	34
10.	Technical Session VI: Presentation and Discussion of Module VI: Role of Women in the Evaluation and Monitoring of Water Supply and Sanitation Programmes	37
D.	Adoption of the Report	40
E.	Closing of the Seminar	40
Annexes		
	Annex I List of Participants	43
	Annex II Opening Statements	49
	Annex III Agenda	59

I. REPORT OF THE SEMINAR

1. The national training seminar on Women, Water Supply and Sanitation was held at Hotel Continental in Windhoek, Namibia from 20 to 25 November 1994.

2. The seminar was organized by the United Nations International Research and Training Institute for the Advancement of Women (INSTRAW) and the United Nations Department of Development Support and Management Services (DDSMS) in cooperation with Department of Water Affairs (DWA), Ministry of Agriculture, Water and Rural Development, Government of Namibia.

3. It was attended by thirty-four participants from various government departments. The following United Nations organizations were represented: the United Nations Children's Fund (UNICEF); the United Nations Development Programme (UNDP); and the United Nations Development Fund for Women (UNIFEM) (see Annex I).

A. Opening of the Seminar

4. The Seminar was opened with statements by the Deputy Permanent Secretary, Ministry of Agriculture, Water and Rural Development, the GTZ Advisor to the Department of Water Affairs, the UNDP Senior Economic Adviser and by the representatives of both INSTRAW and DDSMS (see Annex II).

B. Adoption of Agenda

5. The provisional agenda for the Seminar was adopted by all the participants (see Annex III).

C. Substantive Issues

1. Overview of Training Methodology and Seminar Procedures

6. The INSTRAW representative, Ms. Borjana Schieber, introduced the modular training package on Women, Water Supply and Sanitation. The package was designed to target three audiences: senior officials of Ministries of Labour, Human Services Social Security, Public Works, Communications, Regional Development and Health; development planners and authorities in charge of water supply and sanitation technologies; and women's organizations active in water projects and programmes.

7. The flexibility of this training package was attributed to the fact that different target audiences may be trained simultaneously and the adaptability of the training material to the user's needs. Each modular unit is supplemented with audio-visual support material (transparencies and sound-slide packages); additional reading materials and bibliographies; key-issue checklists for group work; evaluation forms; and a trainer's guide.

8. The training packages were designed to suit national needs and were field-tested in developing countries. They can be adapted and modified at the community level by national staff. Instead of a conventional training text, the modules comprise oral and visual media that have specifically defined objectives and provide for extensive group work.

9. Each module, covering a given subject area, was a self-contained training/learning unit designed so that it could either be used in full or in part for introductory training and for other courses. Each session was accompanied by instructions on the materials required, so that local instructors could coordinate their lectures with the accompanying sound-slide package.

10. Each module covers one particular topic, in audiovisual or printed form, to facilitate both teaching and learning and is accompanied by an "Instructor's Guide for the Trainer/Lecturer".

2. Technical Session I: Presentation and Discussion of
Module I: The International Drinking Water Supply
and Sanitation Decade (IDWSSD) and Beyond

11. Module I, the International Drinking Water Supply and Sanitation Decade (IDWSSD) and Beyond, was presented by Ms. Margaret Howard, Officer-in-Charge, Office of the Under-Secretary-General, DDSMS.

12. Ms. Howard noted that some progress has been made in terms of increasing service coverage, particularly in the rural water and sanitation sectors and with regards to raising awareness on critical issues that impeded women's involvement in water and sanitation activities. However, a number of problems stemming from inadequate water supply and sanitation facilities still remain in developing countries. These problems had severe consequences on health conditions and also bear economic and social costs. At a time when women were already overburdened with time-consuming water collection tasks, these problems contributed to further loss of women's productive time and energy.

13. Such problems require multi-disciplinary approaches that focus on the linkages between the various aspects (such as socio-economic, technical, agricultural, health, environmental) of the management and coordination of WSS activities. These approaches must ensure that women's energies and time can be directed to more productive objectives. They must, therefore, take into account the crucial role of women when planning the following: the maintenance and financing of water and sanitation facilities, achieving health benefits, broadening economic and social development, community development activities and income-generating initiatives.

14. Ms. Howard further explained that the International Drinking Water Supply and Sanitation Decade, launched by the UN General Assembly in 1980, directed the attention of the international community and governments toward a number of issues. Its basic principles stipulated that access to safe water and sanitation facilities was a fundamental human right, without which populations cannot achieve a quality of life consistent with human dignity. In urging an improvement in the standards and levels of water and sanitation services, the UN General Assembly resolution called upon governments to respond in terms of establishing policies, setting priorities, strengthening institutional frameworks and in heightening public awareness on the need to intensify the involvement of women in planning water supply and sanitation activities.

15. The United Nations system of organizations was likewise called upon to provide financial and technical support to these efforts. In response to the IDWSSD's basic precepts, a number of initiatives and mechanisms were set up.

16. INSTRAW, with its mandate of supporting the advancement of women and their integration into development process through research, training and dissemination of information, undertook a number of training activities during and after the Decade.

17. IDWSSD's achievements contributed to improving coverage in the rural water and sanitation sectors; but coverage in the urban sectors was expected to be lower by the year 2000. Thus, given the paucity of sector funding, the key objective of the 1990s must be to make greater and more effective use of available budgets, by reducing costs and increasing outputs. Therefore, while lowering costs, approaches should ensure the enhanced involvement of women in the execution of local maintenance activities; increased flexibility in technology and service levels; improved decentralization of decision-making to the field level by involving women and communities as "partners" in programme planning and implementation; active participation of women into local financial systems; and in the design and implementation of cost recovery measures. To achieve greater water supply and sanitation service coverage, support at the country level, within the framework for cooperation, is provided by the Resident Coordinators.

18. Two United Nations system-generated events carried important implications for the role of women in sustainable development- the International Conference on Water and Environment held at Dublin, Ireland, in January 1992, which included women in one of the main principles, and the United Nations Conference on Environment and Development (UNCED) held at Rio de Janeiro, Brazil, in June 1992. The role played by the United Nations in the water sector with regard to women's concerns were emphasized in the document which resulted from UNCED - Agenda 21 (Chapters 18 and 24).

19. In concluding, Ms. Howard, stressed the principal measures needed to strengthen and broaden the role of women: namely, their involvement in project preparation teams; in identifying implementing organizations for community participation; and the need to make budgetary provisions for these aspects in the Water and Sanitation Sector (WSS) programmes.

20. Following the presentation of Module I, participants addressed the current problems women face at all levels of water supply and sanitation projects and programmes; and identified some solutions to overcome these problems. They concluded that there was little involvement of women in the planning, programming, implementation and evaluation of projects in the WSS sector and that more attention should be placed on the training of trainers. Furthermore, they concluded that safe water supply and sanitation services were scarce or unavailable and that communication on exchange of information and experience was essential.

3. Women in Community Management of Water Supply Systems
Directorate of Rural Water Supply (DRWS),
Department of Water Affairs (DWA)

21. The DRWS embarked on the challenging task of strengthening critical areas in this sector. The strategy, which included inputs from rural communities, defined the various inter-sectoral associations necessary to ensure effective management of the sector. The DWA representative presented an overview of the structure of the Department of Water Affairs.

Structure of the Department of Water Affairs (DWA)

Minister
 Deputy Minister
 Permanent Secretary

Deputy Permanent Secretary

Department of Agriculture

Department of Water Affairs

and Rural Development

Investigation and Research

Water Supply

Water Infrastructure

Administration

Rural Water Supply

Water and Sanitation Sectoral Policy

22. The overall objective of this sector was social development with a focus on providing safe drinking water and improved hygiene in rural areas at acceptable costs. The more specific objectives were:

- * to provide access to essential WSS services to all Namibians at an affordable cost;
- * to achieve equitable improvement of services through the combined efforts of the government and the beneficiaries, based on community involvement in a participatory process of shared responsibility;
- * to promote an enabling environment for the participation of both the private sector and support organizations;
- * to ensure that the system is demand driven, i.e., communities should have the right, within the framework of resources available, to determine solutions and service levels acceptable to them;
- * to consider water supply as an economic commodity and use good business management principles; beneficiaries should contribute towards the cost of services for basic needs, at increasing rates for services exceeding the levels required;
- * to improve water supply as a means of improving public health as well as reducing the burden of collecting water; improved sanitation should ensure better health and a hygienic environment in the community;
- * to protect water sources from pollution while promoting water conservation; and promote community based sanitation services taking into account the role of women and their basic needs;
- * to improve the water supply and sanitary system in order to stimulate the economy.

Operational Strategy

- * to develop reliable and accessible sources of safe water, with sufficient capacity on a sustainable basis so as to serve all homesteads and settlements at affordable costs.
- * to ensure the safe and affordable disposal of all human and other obnoxious wastes, including sewage and industrial effluent.

Priorities

23. The establishment of priorities for the allocation of water to competing demands could become increasingly difficult in the future. Therefore, the following priority ranking was recommended:

FIRST PRIORITY: water for domestic purposes, including livestock watering for subsistence and economic farming.

SECOND PRIORITY: in each individual case the priority for activities such as mining, industries and irrigation will have to be determined by their respective value in relation to the overall national development objectives and plans.

Sectoral Plan

24. The strategy for the operationalization of the policy was spelled out, i.e., how the policy should be implemented and the action plans that quantify the strategy in terms of resources, utilization, human resources, time and costs.

Responsibilities

25. Responsibilities need to be mutually shared, as a continuous process, between the beneficiaries and the authorities. For instance, in rural areas, the ownership and management could belong to the community and the rural water tariff policy principles could be laid down by the authorities.

26. DWA ensured community participation at all levels by successfully training Rural Water Extension Officers (RWEO). The RWEOs facilitated participation in planning, operation and maintenance of rural WSS schemes, and eventually, in the management of the water source by the owner/user community. However, only 44 RWEOs were appointed for the 10 water regions. Since a range of technical and managerial skills were required for organization, the department also provided special staff training for computer skills, technical water skills and managerial skills.

27. DRWS supported the involvement of users in rural water supply and sanitation activities through the formation of Water Point Committees (WPC), Local Water Committees and Central Water Committees. These committees identified their water and sanitation needs to the Directorate and were vital partners to the government in the decision making process. DRWS designed a training strategy to serve the needs of the community (such as the water committees, community groups, etc.) as well as the various categories of the Directorate's staff (such as maintenance teams, and the secretarial staff up to the top management).

Profile of Women in the Water Sector

28. The DRWS proposed to appoint as well as train staff on gender sensitivity. Within the Directorate itself, there were no women engineers, trainers or senior managers. There was one woman at the middle management level. Women were primarily employed only in support services as secretaries and clerks.

29. The distribution of women within the Water Point Committees was revealing. For instance, out of the 100 Water Point Committees that were set up (at both the local and central levels), 96 chairpersons were men; women generally occupied positions as support staff, i.e. secretaries, treasurers or ordinary members, even if they had literacy and numeracy skills. These conditions continued to exist even four years after Independence, despite safeguards, such as a constitution which guaranteed equal rights and equal access to women in all spheres of life, an official policy of affirmative action and a woman-specific policy document (WASP) in the Department of Water Affairs.

Cultural Context

30. The "culture" and "social structure" of the DWA reflected the cultural milieu of the society. It was generally perceived that women cannot and should not do heavy or technical work and were at their best in supportive positions. In addition, senior management positions required engineering and technical qualifications but as women were not encouraged to pursue technical careers, they could only be employed as support staff.

31. The structure and approach of the newly established DRWS differed radically from that of the DWA, even though the staff continued throughout the process of institutional restructuring. Under the new institutional set up, the following tasks were undertaken:

- * defining the mission, goals & strategies of the new DRWS;
- * building a new Namibian DRWS culture and structure based on principles of consultation, participation and management;
- * planning appropriate activity programmes;
- * training and retraining staff, nationally and overseas, on the new approach;

- * developing local training approaches and training materials for rural communities;
- * building national capacity at all levels;
- * developing and implementing new structures to fit the new approach;
- * identifying appropriate indicators and methods to evaluate and measure impact;
- * coordinating activities in the field of water supply;
- * developing criteria and guidelines for appointing persons who understand community development.

Group Work and Discussions

32. **Group I** discussed the structure of the DRWS in the context of the water retaining system and the process involved in obtaining access to water supplies by the community. An application had to be made for supply and retention though there was not much awareness of DWA's services or its efforts to meet community needs. As a result, optimum use of the system was not being made.

33. Further, the group recommended that since the DWA could not determine the needs of distant communities, the communities themselves should identify their needs and priorities. This could be accomplished through the Central Water Committees which could function effectively only if all representatives participated in prioritizing water development. Generally, the water sector gave a lower priority to areas with scarce population and a higher priority to the more populated areas. Therefore, the need for the services of RWEOS was emphasized. Although only 45 RWEOS were available, the services of 265 RWEOS were expected to be made available.

34. **Group II** discussed the training programmes and the shortage of extension workers resulting in the extension workers and community workers being shared with non-governmental organizations. The group agreed that this situation had to be improved.

35. The group made the following recommendations. The lack of coordination between the various groups working at the community level presented a problem. Nevertheless, it was necessary to support these existing standards rather than set up new ones. Problems also occurred when people collected water from a private point so there was a need to differentiate between private water points and general water points. As the government required metric payment for services, communities that could not afford the payments would be subsidized.

36. Group III discussed the role of women in community management. They examined the measures adopted by DWA to ensure that the burden on women of carrying water decreased with the provision of water. Communities had to become self-reliant in managing their own water requirements and the DWA had to examine different technologies by which the water burden could be decreased and time saved.

37. The group recommended the coordination of activities with other ministries, such as the Ministry of Health, in order to better integrate the approach to working with communities. This would also contribute to improved management of the RWEOS work load.

38. In sum, the group discussions focussed on using participatory methods in water management schemes to ensure the community's involvement, with a focus on women, with a view to making the schemes sustainable.

4. Technical Session II: Presentation and Discussion of
Module II: Participation of Women in Planning,
Choice of Technology and Implementation of
Water Supply and Sanitation Projects

39. Module II, Participation of Women in Planning, Choice of Technology and Implementation of Water Supply and Sanitation Projects was presented by Ms. Hilma Kapweya, FINNIDA, WSSPOR.

40. She explained the main objectives of this module were the following:

- * to identify ways and means of involving women in the planning and implementation of water supply and sanitation projects in different cultures;
- * to develop effective strategies for women's involvement in various types of projects; and
- * to identify the various steps for increasing women's involvement in water supply and sanitation projects or programme activities.

41. The session focussed on examining the role of women in the use of water and in influencing the family's sanitary habits in the context of improved planning, functioning and use of facilities. As there were specific advantages to the participation of women as decision makers, strategies should train, support and equip women for these roles efficiently.

42. Women's participation in water supply and sanitation should be seen in the overall context of development. Improved water supply, in terms of quality, quantity and access, had a direct bearing on other socio-economic sectors. Direct benefits could be realized in

terms of reduced time for water collection tasks, improved health, nutrition and food supply, and environmental protection all of which directly influenced traditional roles assigned to women. Therefore, women should be considered as active partners (not as target groups alone) who could contribute to the realization of the benefits. But the ultimate success of involving women as active agents, depended on deliberate, concerted and integrated efforts at national and local levels by both the government and non-governmental organizations. These agencies should play critical roles to ensure women's participation by:

- * mainstreaming women into the management aspects of sustainable water supply and sanitation activities;
- * ensuring that women's concerns are integrated into the process of identifying community and national development needs;
- * providing opportunities for women, alongside men, to contribute actively towards development.

Role of Development Planners

43. Ms. Kapweya emphasized that in order to ensure women's active participation, development planners and engineers should adopt policies that encourage women's roles and responsibility. For instance, women-specific projects should be encouraged. Funds should be earmarked for training women. WID specialists should be included in project preparation. Care should be taken to link project objectives to the role of women. Job descriptions should be reviewed accordingly, adapted and appropriate training provided. Evaluation and monitoring systems involving women should be established.

Women's Participation in Water Supply and Sanitation Projects

44. Ms. Kapweya reiterated that the overall objective was to enhance coverage in serving communities, so that planners at the national level will increasingly use women's organizations and agencies in implementing national programmes. Thus, women will be increasingly involved in improving their own situation. Some approaches were recommended.

45. Ms. Kapweya also pointed out that the position of women in each community varied; therefore, no single model was appropriate for women's participation. In each area the status of women should be studied. This presented various different scenarios, for example, where:

- * women were involved actively in economic production, such as food production for the family and for the market;

- * the tasks for men and women differed, and areas of responsibilities and contacts were strictly divided;
- * women had no immediately visible role in decision-making, either at home or in the community;
- * there were a large number of female-headed households, such as in most rural areas.

46. Ms. Kapweya stressed the importance of the project size. It was important to develop systematic and tested procedures for community participation and involvement of women in large scale projects. However, these procedures could be tested on a pilot basis before larger implementations.

Group Work and Discussions

47. Group discussions focussed on women's low attendance in meetings and on how their participation might be encouraged. The group concluded that when meetings were announced, extension officers should emphasize women's participation and specify the benefits of the meetings. In attending meetings, women often acted as silent observers and were not articulate. RWEOs should deal with such problems appropriately.

48. Furthermore, women were often not treated as a target audience in water activities. Most organizers were not aware of the significance of women's participation or how their personal problems (such as alcoholism) impacted on their participation. Meetings were generally targeted towards well educated villagers and, as a result, they often bypassed women. This context was compared with women's meaningful participation in meetings convened by church leaders. It was observed that women's participation resulted when there was a sense of comfort in meetings and confidence in effective participation. This experience provided valuable lessons for replication in water projects.

49. Group I discussed women's problems in participation, such as the cultural inhibitions since women were generally too shy to speak in meetings that were attended both by men and women. At times, problems in the family or work situations, such as alcoholism were overwhelming; or women themselves were reluctant to change. Often rural communities were not used to the concept of participatory management. Other problems were management oriented, such as convening meetings when it was not convenient for women to participate. At times, the attitude of the field workers themselves presented problems for women's participation. In addition, there were conflicting interests between urban and rural women. The group acknowledged that only some cultural elements could be changed in the short run.

50. The group made the following recommendations for improving the involvement of women in water projects. Field workers should be trained to communicate with the community. Local conditions should be taken into account in planning activities. People must be made aware that change is a long process and, therefore, extension workers and agencies must be patient with the slow pace of change in communities.

51. The group also speculated on the context of change, i.e., "how long is too long". It concluded that communities would take a long time to accept and change behaviours since ideas on women and community management were externally introduced.

52. Group II discussed the problems women encountered in assuming leadership roles, such as a lack of confidence in chairing sessions, assuming responsibilities, being accountable, caretaking, planning, decision making, etc. Though women played a prominent role in the management of their household and domestic affairs, they were unable to participate effectively in visible community roles due to prescribed norms and traditional beliefs. Their marital status and domestic problems affected their ability to participate. The group noted that especially amongst poor families, the problems encountered by female-headed households were more severe. These problems had to be addressed if women's participation was to be enhanced.

53. The group recommended that capacity building exercises be undertaken to sensitize and build awareness in the community. Women could be empowered through workshops, literacy programmes, informal discussions and formation of women's groups/clubs. Women could be trained in teamwork. In order to accomplish this, the number of extension officers and workers needed to be increased and the extension officers and workers trained in communication skills.

54. It was important to build skills in disseminating information on successful water projects through the mass media (such as radio, pamphlets, bulletins, etc.) The level of coordination amongst relevant departments and NGOs needed to be improved.

55. Group III discussed more specific problems amongst women, such as male domination in discussions; unfamiliarity with certain subjects; cultural constraints that inhibited women's participation; and lack of community support and encouragement. The impact of the extension workers' approach, appearance and language when inviting women's participation was also noted. On the whole, there was a lack of appreciation of the realities affecting women's lives (such as their work load) as well as a shortage of appropriate mobilization strategies. These aspects had to be strengthened.

56. The group recommended that women needed to be made aware of their rights and responsibilities. Community meetings had to be followed up by home visits, so that women would gain confidence and would be encouraged to participate in Water Projects Committees. Education, training and literacy classes needed to be built around women's daily routine to facilitate participation. More women had to be encouraged into leadership positions in Water Projects Committees. Extension workers had to adopt a bottom-up approach in ensuring sustained participation, so that women could occupy positions of authority in DRWS.

57. Topics that women were unfamiliar with had to be identified, so that special attention could be paid towards ensuring that women comprehended these discussions. Extension officers had to ensure that the topics presented were relevant to the needs and interests of the community. In order to accomplish this, they needed to understand the community and establish a rapport.

58. The group recommended that extension officers needed more skills and techniques on communication and community mobilization. Extension officers needed more skills for integrating into the communities. Therefore, the design of teaching and training material needed to be bottom-up and participatory.

59. **Group IV** identified the problems women confronted in community participation, such as too much work, household tasks, lack of authority and decision making, lack of ownership of cattle or land for farming, etc. Such problems weakened their roles and positions resulting in women's lack of confidence in participating in meetings, especially in the presence of men. Furthermore, there was a cultural "fear" or "respect" that restricted their ability to share their concerns or contribute to discussions. Generally, women were unaware of their rights and therefore did not attempt to improve their situation. Often they either showed no interest in the subject or did not comprehend the relevancy of the subject under discussion to themselves. Organizers had to take these concerns into account in setting the timing and venue of meetings. However, the group noted that as RWEOS are not appointed.

60. The group made some recommendations. On training, it was recommended that the division of responsibilities should be changed to reflect increased flexibility in sharing of roles between women and men. Efficiency in household work should be increased through the introduction of new technology. Decision-making should involve both women and the extension agencies. The cultural dimensions of the local community should be considered in designing and implementing activities, such as those dealing with the concepts of "ownership" of land and work in the culture. Organizers need to be sensitive to the rights of both women and men in formulating income generating projects for the "have nots".

61. The group recommended that organizers should take special care in fixing the timing and venue of meetings if women's participation was to be encouraged. Affirmative action was to be strengthened in the community. Women should be motivated to advance into the market where jobs were available for them.

**5. Technical Session III: Presentation and Discussion of
Module III: Role of Women in Hygiene Education
and Training Activities for Water Supply and Sanitation (WSS)**

62. Module III, Role of Women in Hygiene Education and Training Activities for Water Supply and Sanitation was presented by Ms. Elfriede Kalira, Chief Community Liaison Officer, Kavango Region.

63. Ms. Kalira pointed out that learning took place gradually and with repetition. Over time, such constant repetitions contributed to behavioural changes, with respect to water and sanitation facilities within communities. For instance, some of the main problems in the country were diseases caused by water and sanitary conditions. Some of the more common diseases caused by contaminated water were bilharzia, cholera, diarrhoea, dysentery, giardia, guinea worm, malaria, typhoid, etc. According to the World Health Organization estimates, these diseases accounted for 80% of all sicknesses in the developing world. About five million children in the world died annually from diarrhoeal diseases. However, these diseases could be controlled by inducing behaviour modification with respect to water and sanitary habits.

64. Ms. Kalira emphasized the importance of women's personal awareness and practices in significantly influencing the nature of water and sanitation-related diseases. For instance, scarcity of water was a major factor in the transmission of diarrhoea, and skin and eye diseases. Wherever women walked far to fetch water, they were constrained to limit the amount of water collected and therefore used less water for personal and domestic hygiene.

65. Bacteriological contamination of drinking water occurred for several reasons. Water could be contaminated or polluted due to inadequate protection of water sources, absence of proper excreta disposal facilities, contaminated behaviour at the source and/or during water transport, storage and drawing in the home.

66. Water could also be polluted by urine and excreta of humans and animals; dead or decaying animal and/or other matter; waste products of industrial processes, chemicals, and pesticides; and refuse.

67. Ms. Kalira stressed the lower priority given to sanitation by the rural population and its consequent neglect. In addition, public awareness and proper institutional framework were also lacking in this sector.

68. The importance of hygiene education was emphasized. Health benefits could not be realized by the installation of improved water and sanitation facilities alone. To achieve improved health, all sources of major risks by which water and sanitation-related diseases were transmitted in the community had to be eliminated. However, this was not feasible when half the population could not or would not use an improved water supply or latrine facility, when unhygienic conditions developed around the water-points or when safe water collected at the top was re-contaminated during transport, storage and drawing in the home. To maintain sustainable hygienic conditions, the cooperation and involvement of the community is required. For instance, latrines were effective only when used hygienically by all and when used for the safe disposal of infant's excreta.

69. Ms. Kalira emphasized that latrines should not become sources of new health hazards because of poor maintenance by contaminating clean groundwater or because of its location near wells or hand pumps. Mothers should ensure that latrines were kept clean and used hygienically. Water and soap for hand washing should be kept handy and hand-washing should be practiced. Furthermore, latrines should also be used for the disposal of the young children's excreta. Each latrine should have fly-covers over the hole and hot ashes should be used for bad odors. In sum, the need for clean water supply, improved sanitation and hygiene education should be satisfied in order to ensure lasting and effective family health.

Role of Women in Hygiene Education in the Family

70. Women, emphasized Ms. Kalira, were the main providers of health care for their families. They influenced the nutritional status of the family by deciding on the food to be produced or purchased from the market. They were responsible for providing water for the household as well as ensuring the general sanitary and hygienic conditions of the home. As mothers, they conveyed their own values and understanding of health issues to their children. They dealt with health problems within the family, decided on the nature of health care to be selected outside the home and chose between traditional and modern medicine.

71. Women provided other kinds of traditional health services in their communities. For instance, they often functioned as traditional birth attendants. They also disseminated old and new health information through their networks as well as influenced other women on new facilities or practices. In many areas, they looked after traditional water sources and informally managed community water use. Therefore, it was important to involve women in health education programmes both as trainees as well as planners and trainers.

Women as Planners, Users and Trainers

72. Ms. Kalira emphasized women's role as planners. Due to their familiarity with local conditions and practices, women often comprehended the reasons behind the adoption of particular customs and patterns of behaviour. This comprehension contributed to a better use of indigenous knowledge when women were involved as planners. Their involvement helped in setting appropriate priorities, defining objectives, selecting easy-to-measure indicators, and monitoring progress and results.

73. Women in their various roles, such as mothers, mothers-in-law, eldest daughters, sisters-in-law, baby sitters, etc., were also important in implementing hygiene education programmes. For example, as baby sitters, they played a major role in the toilet training of children and could influence behaviour.

74. Women were also effective promoters and trainers of other women in health and hygiene concerns. Many communities trained women as village health workers. Mature women, in particular, were stable and effective communicators and motivators of health improvements in the community.

75. Generally, programmes involved the local men and women in planning for their health needs as well as setting priorities and assessing community responses to particular changes. But for women in segregated cultures, access to health education was difficult. Therefore, socio-cultural factors had to be taken into consideration before planning activities, such as calling for meetings at points and places where women gather on a routine basis (like open markets, water points and religious gathering places).

76. Women's organizations played an important role in helping rural and low income urban communities improve hygienic conditions and practices. As these organizations were traditionally health-oriented and generally linked up with national women's development programmes, such as literacy and health programming, they could have a more comprehensive approach.

Training Activities in WSS Projects and Programmes

77. One of the most important lessons learned in the water sector was the need for an inter-sectoral and inter-disciplinary approach to WSS issues. WSS education and training needs should not be considered independently of other needs in the community. Training had to be carefully planned in order to ensure that trainers, both men and women, were actually able to use their newly-acquired skills within the water sector in order to ensure productive employment and engagement of the trainees.

78. There were several areas in the WSS sector where training was required: orientation training for newly-recruited staff, on-the-job service training, training on specific project/programme skills and training of trainers. At the national level, women had to be trained to participate at the national and local levels. In addition, the sector had to respond to specific requests for training activities on WSS, provide short-term advice to various communities, review education and training materials on WSS aspects, provide fellowships and arrange visits to successful projects.

79. Women also had to be trained for local maintenance and management tasks, such as caretakers and mechanics, and in latrine construction and maintenance, etc. Training had to focus on the "action-learning" approach, so that women were able to cope with the demands of the tasks. In programme training, it was necessary to ensure that women's training needs were appropriately identified and that women were encouraged to participate by providing them with equal opportunities. Adequate care had to be taken to ensure that appropriate numbers of women were involved in training courses and programmes, so that special efforts could be adopted to involve more women. Similarly, in allocating fellowships, care was to be taken to provide women with an adequate number of fellowships.

Group Work and Discussions

80. The discussion focussed on the causes of pollution in rivers and the diseases prevalent in them, such as schistosomiasis. Therefore, women had to be cautioned against using the river water. In planning for training programmes, it was necessary to identify the training needs of the community, select participants (i.e., the target group), identify the trainers, ensure the training workplan was based on the level of education and awareness of the target group, determine the approach to the training programme and develop appropriate training materials, such as audio-visual, written, etc., based on the age and educational levels of the participants.

81. There were several effective forms of hygiene education. The didactic approach was not recommended for such activities, as it was based on a one-way flow of information, such as the lecture style, and was not participatory. Instead, a participatory approach could be used to identify needs in hygiene education and then promote appropriate behavioural actions to improve conditions. This could be combined with the participatory approach wherein a joint assessment of needs and problem solving could be adopted. In addition to the needs assessment, it was necessary to comprehend the traditional knowledge in the community, so that an informed decision could be made on the technologies, practices and health interventions that could be sustainably adapted to the community's needs and situation.

82. **Group I** discussed the role of women in health/hygiene as planners, educators, trainers and maintainers. The main components of the WSS training programmes were identified as health and hygiene education for the community and staff members, with a focus on parents educating children; and management, maintenance and security of WSS projects and programmes.

83. The group identified the main constraints that prevented women from participating in training programmes, such as the inconvenient choice of the time and duration of training courses (which were generally set during the periods when women were expected to perform their household tasks), the cultural and traditional norms and role expectations, and the lack of enthusiasm to change these patterns or adapt to role modifications amongst women themselves. The group recommended that the projects address these concerns.

84. **Group II** examined the role of women as mothers and housekeepers. In their roles as mothers, women could be trained to educate their households as well as manage the health and hygiene care of their families and the community. For instance, they could be trained to keep the water points (such as wells, boreholes, etc.) clean, adopt better methods of transporting and storing water for domestic purposes (eg. appropriate technologies, water harvesting, aqua rollers, etc.), use hygienic practices (such as boiling water before use, ensuring that water containers were covered and stored in a safe place) and promote (where applicable) traditional methods for health/hygiene practices.

85. The group identified the major constraints to training women, such as the level at which technical training was offered, selection of the training venue, fixing of the time and duration of training, poor availability of transportation and the distance involved, lack of support from husbands and family members, quality of child care facilities at the training site, work load in the household, lack of funds for women's WSS training programmes, etc. It recommended that some of these problems could be overcome with careful planning for training women, taking into consideration seasonal events such as the rainy season, ploughing or other field work requirements, etc.

86. **Group III** scrutinized primary health care needs for women and areas where training for trainers needed to be strengthened, such as health issues related to Ventilated Improved Pit (VIP) latrines, cures for common ailments (eg. treating diarrhoea through salt and sugar solutions, boiling water before use, etc.). Though training in constructing Ventilated Improved Pit Latrines (VIP) toilets, well-lining and handpump installations were provided to both sexes, there was a male domination as well as gender insensitivity in the job market; in addition, the level of trainers was not taken into consideration. All these factors further deterred women from gaining the skills necessary for these tasks.

87. The group recommended that appropriate care be taken on the use of technical language in training programmes as they could further discourage women from participating, especially in topics such as the lubrication of oil system, water cooled engines, etc.

88. **Group IV** examined the role of women in health and hygiene in the family. It was noted that women in their traditional roles prepared food, provided the hygiene education, educated children, etc. Thus, they could be trained to run programmes designed around their own roles, such as managing the food preparation, undertaking cleaning tasks in school hostels, taking care of the sick at home, etc.

89. The group recommended prioritising certain areas of the training programme, such as personal hygiene and cleanliness, information on how latrines work and their proper use, importance of clean water, protection of water sources, etc. This would facilitate involving women in the planning and designing of water sources in the community as well as motivating them to take up key positions in management tasks.

6. Waste Management in Windhoek with Special Reference to the Single Private Contractor System in Katutura

90. This session on Waste Management with special reference to the Single Private Contractor System was presented by Mr. N.M. Kauari, Cleansing Supervisor, Katutura, City Council of Windhoek; it was compiled by Mr. C. L. Opperman, Manager, Cleansing Services, City Council of Windhoek.

91. The City Council of Windhoek, as part of its waste management and environmental pollution strategy, experimented 3 years ago with the privatization of household waste in a part of Katutura. This system endeavoured to take the custodial and functional aspects of waste management to the grassroots level. The experiment was such a success that it was expanded first to 24 wards and subsequently to 72 wards.

Introduction to the Cleansing Services

92. Waste management was an extensive field of operation in the Council area of Windhoek. A system that was effective, financially affordable and consumer friendly was selected. The Cleansing Section was responsible for the collection and removal of various types of refuse so as to prevent health hazards and promote an aesthetically acceptable locality. To accomplish this, the Cleansing Section relied on the following four basic factors: personnel, vehicles and equipment, finances and a service standard.

I. Personnel

93. The Cleansing Section operated on a personnel strength of 214 members which were classified as follows:

Manager Cleansing	1
Superintendent Cleansing	2
Supervisor Cleansing	3
Administrative Staff	2
Operators	6
Drivers	33
Workers	167
TOTAL	214

II. Vehicles

94. The following vehicles were used in the daily refuse removal process:

i.	Compactor Trucks 19m3	x	13
ii.	Compactor Trucks 11m3	x	2
iii.	Tipper Trucks 5m3	x	16
iv.	3 Ton Truck	x	1
v.	Front End Loaders	x	6
vi.	1 Ton pick-up trucks	x	5
vii.	Sedan motor car	x	1
viii.	Tanker 11m3	x	1

III. Finances

95. The Cleansing Section operated on a budget of approximately N\$16,000,000,00 for the current year. The section operated as a trading service, thereby earning money to cover its expenses by charging tariffs for services rendered.

IV. Service Standard

96. The Cleansing Section maintained a service standard in line with the needs of Windhoek by rendering the following services:

- a. Conservancy tank removals which entailed the cleaning of conservancy tanks on request in locations as far as Luiperdsvallei.
- b. Night soil pails were provided and serviced for use by the builders at their premises; at public functions, night soil pails or chemical toilets were rented out.

c. Household refuse was currently removed by four methods:

- * Plastic bag systems which operated in Windhoek and Khomasdal. This system, however, was also not the ideal solution and was expected to be replaced by the 240 litre bin system.
- * Refuse drum system which was in operation in the greater part of Katutura but, like the plastic bag system, did not offer the ideal solution.
- * Collective point system which was used in the squatter areas to lower the tariffs for refuse removal in those areas.
- * Single private contractor system

There were 72 wards serviced in Katutura by single private contractors but this was expected to expand to cover another 24 wards in the near future.

V. Removal of Carton Boxes, Wrecked Cars

97. Garden refuse, building rubble, large quantities of refuse (eg. carton boxes used by businesses and industries) and wrecked cars were removed upon request for a cost. In addition, all litter and animal carcasses on streets, open spaces and in public toilets were removed by the Cleansing Section. This function was entirely subsidized by revenue from the household refuse removal activities.

VI. Businesses and industries

98. Industries generating large quantities of refuse were serviced by "Spricos" (1100 litres) or 240-litre mobile containers, compared to the 85 litre capacity of the normal refuse bin.

99. All functions and operations of the Cleansing Section were prescribed by law under the Municipal Health Regulations GN 285 of 1952.

The Single Private Contractor System

Background

100. About 3 years ago, the City Council of Windhoek selected nine wards (about 100 houses each) and contracted with private persons to collect refuse from residential houses, streets and open spaces. The private contractor then bought plastic refuse bags from the City Council that, in turn, offered payments for refuse collected. As the measure for payment was a full plastic refuse bag, the contractor collected refuse in his/her ward; then, the refuse was sold to the City Council at a given price.

Selection of Contractors

101. The City Council had a set of criteria for identifying contractors who could render effective refuse removal services for the community. As the contractor was usually chosen from the community itself, community-based groups like church organizations, women's action groups, community leaders, etc., were involved in the selection process. In choosing a contractor who lived in the ward, accountability to the residents of the ward was ensured.

Sub-contractors

102. Once the contractors comprehended the concept of private enterprise, they rapidly appointed sub-contractors for refuse collection.

Collection and Storage of Bags

103. Refuse was collected on Saturdays and Sundays but as the City Council only removed the bags between Monday to Friday, the contractor had to store his bags during weekends. Each contractor selected regular pick-up points in the ward. The City Council then counted these refuse bags and removed them from the pick-up points.

Payment of Contractors

104. The payments for these one-man private contractors were made as fortnightly deposits into their bank accounts.

The Involvement of Women in the Cleansing Section

105. Until recently, the Cleansing Section had an all-male personnel section. About two months ago, the first female was appointed as a clerk. The absence of female employees can be partly explained by the type of work involved and the traditional perception that some kinds of work were suited only for men. For instance, the handling of heavy bins and sprico containers required physical strength, whereas other types of work, like cleaning streets, open spaces and toilets did not require such strength. The problem, however, was that should the staff engaged with the more strenuous types of work go on leave or fall ill, the Cleansing Section could not find substitutes as they were limited with regards to relief personnel.

106. However, the one-man private contractor scheme offered much scope for women's participation. There were three promising dimensions to women's involvement in the Cleansing Section: actual participation, health/environmental education and community mobilization. The work of a contractor or a sub-contractor was not physically strenuous as it involved management of their wards and, therefore, could be done by women.

107. The health/environmental education and community mobilization aspects of the scheme brought the contractor in contact with households in the ward, at least twice a week. The dissemination of information could be easily transferred to households in specific wards, either orally or by means of information brochures. Such situations were ideal for women who contracted their services as Managers and engaged sub-contractors to discharge their work.

108. In conclusion, the participation of women in the solid waste management system of the city council was neglected earlier due to various reasons. The one-man private contractor scheme, however, provided opportunities at the grassroots level to involve women in waste management.

Group Work and Discussions

109. Discussions centered around the need for a basic clarification of practices, such as the contrast between providing black bags to Khomasdal and drums to Katutura where there was a high unemployment level; whether the municipality proposed to recycle the waste, for instance with food vendors; and if the one-man contractor scheme was being extended to other areas. Since there was a programme to recycle waste such as cans and bottles that companies trade with South Africa, the group recommended that awareness campaigns be launched to educate communities on disposing and recycling cans and bottles.

7. Technical Session IV: Presentation and Discussion of Module IV: Involvement of Women in Management of Water Resources, Water Supply and Waste Disposal

110. Module IV, Presentation and Discussion of Training Module IV: Involvement of Women in Management of Water Resources was presented by both Mr. Barry Mwifi, OSHIP, and Ms. Kauna Ekandjo, Ministry of Regional Local Government and Housing, Directorate of Community Development.

Sustainable Water and Sanitation Development

111. Mr. Mwifi observed that globally, water and land resources were gradually being degraded which has led to a growing concern on the sustainability of the current way of life. However, in the context of sustainable water and sanitation development, water demand management and water quality management, the following critical information on water availability on earth was presented: 97.20% of the water was in the ocean and was therefore salty; only 2.80% of the water on land was fresh water; 0.65% of fresh water was both on land as well as in the air; and that 2.15% of the water was frozen. Out of the 0.65% fresh water on land and air, 0.16% existed in air, 0.8% in soil moisture and 1.5% in lakes, rivers and streams.

112. The Water Resource Department strived to meet the demand for water in the community, eg. providing sufficient potable water. It also attempted to solve problems caused by floods, soil erosion and sedimentation as well as ensure that water projects, such as dams, hydroelectric power, etc., were designed to enhance social and economic development of the community.

113. Some of the advantages of the water resource projects were that they could supply water for rural, urban and industrial areas and they could be used for cooling thermal electric-power plants, such as boilers, and irrigate small/large scale projects. They could also generate hydroelectric power, facilitate navigation, serve recreational needs as well as promote commercial fishing and trade. Furthermore, water resource projects also helped control floods, prevent damage, manage water quality (eg. provide clean water to people), provide better drainage systems (eg. prevent sedimentation) and stabilize land, so that soil erosion might be prevented.

114. Mr. Mwifi further pointed out that water use had social and environmental impacts, such as overgrazing at dam sites, etc. Some countries even had water rights, such as where and how many boreholes to drill, how much water was pumped out of the boreholes, etc. As water tables affected the vegetation, adequate care had to be taken to ensure that they did not drop by protecting against water pollution, water depletion due to climatic changes, green house warming (which caused high evaporation), sea level rise (which caused the spill of salt water into fresh water) and knowledge about the availability of water supply, how much water remained and where it was available.

115. Mr. Mwifi emphasized that the agricultural policy made an impact on the water resource system; for instance, good land tenure was important to preserve soil moisture. In the event of a natural disaster, a contingency plan had to be prepared to deal with such eventualities. Some of the threats to the system were the following:

acid rainfall contained dissolved tussock which contaminated fresh water;

destruction of forests resulted in climatic changes causing desert like conditions which contributed to low rainfall;

urbanization rapidly placed a heavy burden on the water resources; waste removal and disposal could also cause pollution of resources in urban areas;

destruction or pollution of coastal ecosystem was caused by growing industries that polluted water resources at the coast.

116. Mr. Mwifi explained the concept of sustainable water and sanitation systems in the context of small communities that preferred to be self-reliant in managing, maintaining and financing the water systems.

117. Sustainable water supply was required in low-income urban areas since more than half the urban populations were from the lowest income sectors. As these consumers could not afford conventional metered-house connections, a combination metered-house connection with paid private connections and free public stand posts, was better suited for them.

118. Mr. Mwifi pointed out that even during the designing stage, shared private connections and sanitary blocks serving clusters of houses should be included. The metered group connections should be managed by a group committee. A semi-autonomous system should be built with a self-owned distribution system.

119. He recommended that a sustainable sanitation programme should be set up by establishing latrines in ways so as to reduce water pollution and preserve the nearby fresh water source.

120. He also recommended that the local production and marketing of latrines should be undertaken through the private sector, village health workers and cooperatives.

121. In view of the considerable scope of water management, Mr. Mwifi suggested that the topic of water demand management should be divided into two categories: supply management including traditional activities; and demand management including water use and the tools to promote more desirable levels and patterns of use.

122. Mr. Mwifi explained the concept of demand management which included improvement of the overall water resources management. Though increased water use was a benefit derived by demand management, there were other reasons to pursue this strategy, such as the need to gain some control over the deterioration of available supplies, cost of developing new sources, critical water shortages, need for cost reductions, reduced carrying capacities, cumulative damages and over-exploitation of natural water supplies.

123. Demand management was the collection of techniques, such as the improved allocation of water among competing users, expansion of use into growth promotion areas, drought management, reduction in unnecessary use and wastage, conservation of resources, water quality control and sustainable development.

124. To cope with the growing demand for water, against a stable or diminishing availability, Mr. Mwifi made the following suggestions: a reversal of past trends in water consumption; finding innovative ways of conserving, reusing and recycling water; developing new water resources, eg. rain water harvesting, brackish water and treated waste water for some applications.

125. Mr. Mwifi also pointed out that these areas were the responsibilities of the water and health authorities; however, he emphasized that the following aspects should be considered: assessment of the environmental impact before the project commenced; economic incentives to reduce pollution, eg. in locating industries; pollution control standards; involvement of the community in protecting local water sources; environmental hygiene at water points; improvement of community sanitation; and key issues for group work. In addition, it was necessary to examine the methods by which the new approaches would be applied to water resources developing in the country, the economic tools for water demand management and the necessity for improving water quality in the country.

126. This section of the module was presented by Ms. Kauna Ekandjo, Ministry of Regional Local Government and Housing, Directorate of Community Development. It focussed on the approaches used in water resource development and recommended strategies to include women into WSS management.

127. Ms. Ekandjo highlighted the various ways by which women were involved in the managing the WSS sector. In low-income urban areas, women participated as managers of communal water points and latrines, and as members of local committees that manage communal taps or sanitation facilities. They looked after the taps, collected user payments, supervised the proper use of water and often planted flowers around waterpoints to make them more attractive. Women's participation in tap management often reflected the approach taken by the project teams in establishing them. For instance, when the project team contacted men, the committees were dominated by men; but when the project team consulted women more frequently, the composition of the committee reflected this approach with more women, out of a sense of ownership, being active in committees.

128. Women were also active as managers of water vending stations. For instance, in countries such as Honduras and Kenya, because of the high water prices of private vendors and license holders, women in low-income urban neighbourhoods managed their own licensed water vending points. Some of the advantages of owning water vending points were a lower and fixed water price, provision of part-time employment to poor single women with children and use of the group's surplus for neighbourhood projects.

129. Ms. Ekandjo highlighted women's active role as organizers and managers of autonomous water systems. In some countries such as Brazil, Kenya and Mexico, poor urban women were united by their needs for both water and income. So, they helped organize either their own local water supply or financed a connection to the municipal network. Water was used to generate income for activities such as beer brewing, tea shops, launderettes, etc. Some of these practices were also adopted in some parts of the country.

130. As promoters of household latrines, women participated in the construction of latrines, soak pits, protected wells, small water supplies, food hygiene and soap making. They worked with local women in constructing and maintaining latrines.

131. As managers and collectors of recyclable waste, women took care of the voluntary collection of human waste from their neighbourhoods. Subsequently, the municipality collected the waste from the local depots for central recycling outside the city. In this context, Ms. Ekandjo referred to the one-man contractor scheme and pointed out that, in Mexico, women were the main participants in cooperatives which managed community waste recycling plants. An elected committee managed, maintained and financed the operation and maintenance of the plants. Compost and treated waste water were used to grow vegetables and the surplus compost was marketed. Women in the group united to buy food collectively from the wholesale market. The surplus proceeds were used to construct a children's playground.

132. She emphasized that, in rural areas, women as managers of communal water points took responsibility for the management of water use and hygiene. They acted as members of the local WSS management organizations and were specially involved in the local water management as well as in the financial aspects of management, i.e., as treasurers and rate collectors.

133. Ms. Ekandjo emphasized that community management was strengthened when it was based on traditional management systems. Studies showed that women often managed water sources carefully when water was scarce and that these sources were shared among close-knit groups of households. However, despite such insights, traditional management arrangements were utilized insufficiently when strengthening community management systems.

134. She cautioned that traditional management often remained hidden. Partly because of the informal character of traditional management, the domestic rather than public aspects of water use by women was emphasized. Furthermore, because of the socio-cultural distance and restrictions on local women, external technicians are often unable to communicate directly with women on water use and management.

135. Ms. Ekandjo emphasized the need to involve women, as a group, in planning the management set up. Effectiveness of local management was related to the degree to which women, as a group, were involved in making locally appropriate arrangements. The clarity between rights and duties, and the involvement of women in management decision making, besides physical work, was important. Experience showed that site maintenance could be effective if the community was first involved in project planning and subsequently in making detailed arrangements for upkeep and maintenance.

136. A strong two-way communication with other parts of the local management system was essential. Improved two-way communication would also make women's involvement in water and sanitation more effective. If women were expected to contribute to maintenance by reporting problems, the local operators or management committees should inform them about matters of relevance. Linkages should be formed with higher-level management.

137. Simultaneously, she indicated, it was necessary to ensure that the full management burden was not placed on women alone; for instance, a choice could be made between mixed or all-women committees. Although separate women's committees were sometimes an advantage, they did not always assure a role for women in management decision-making. Moreover, sometimes they placed the full burden of maintaining community water supply on women. Evidence showed that women themselves were aware of the most appropriate approach to their society. Other factors that contributed to the success of either mixed or segregated organizations were identified as the level of awareness of women's common interests, and the extent of cooperation and support they received from the project.

138. Ms. Ekandjo indicated that more data and documentation was needed on the positive impact of managerial performance and participation, such as the quality of preventive maintenance, length and frequency of breakdown, financing of recurrent cost, upkeep of hygiene and new development initiatives. The experience in Bangladesh demonstrated that women made special efforts to keep water points clean and the system functioning. Management capacities needed to be built throughout the project cycle. She observed that projects did not focus adequately on building local management capacity, so that local organizations could manage completed water systems, sanitation and hygiene. For instance, users and committees often did not fully understand the duties and responsibilities of a local water management organization; problem-solving, decision-making and negotiation got little attention; and women did not yet fully take part in local management decisions.

139. Ms. Ekandjo stressed that in concerns related to water resources development and environmental protection, women were more often victims than actors. Because women were in charge of domestic water, fuel provision and the production of food crops, they were

adversely affected by negative developments. Some of the issues that directly affected them were the over-use of water sources due to population growth, commercialization of wood fuel, and the lack of feedback between local authorities and the community. Further, since women's concerns were often represented by men (who generally did not relate to their concerns), they were not adequately presented. Currently, women were still excluded from both the environment and river based development projects, eg. projects related to soil conservation, agricultural extension and credit for water conservation activities.

140. Ms. Ekandjo recommended greater involvement of women in planning and implementing water resources and environment-related projects and highlighted the various advantages. For instance, the effectiveness of projects was enhanced through the use of women's knowledge and commitment which contributed to visible environmental changes in the project area. The additional income earned by women was used for primary family needs. All this contributed to improving women's self-image. In the long run, it provided new areas of cooperation between donors and NGOs.

141. At the country level, she recommended that the preparation of country programmes, reviews and the formulation of national conservation strategies should include an analysis of women's positions on environmental management. This would give the countries a stronger basis on which to negotiate for new projects. It would facilitate the formulation of national conservation strategies and help analyse positions of women in environmental management.

142. At the project level, she recommended that the impact on women's environmental interests should be assessed by examining concerns related to how women could be assisted in their role as environmental managers (eg. by special training, equipment, credit), the implications of environmental projects for women (eg. pollution reduction, income-generation), enhancement of benefits of environmental projects for women, and the safeguard and use of women's traditional environmental knowledge.

Group Work and Discussions

143. The group pointed out that they benefitted from these presentations by learning about the new concepts used in water development and management and about women's role in the sector.

144. Group I discussed the approaches used in water resource development. Discussions focussed on the structure and composition of the committee, assignment of duties to members, identification and prioritization of problems and needs.

145. Recommendations included the involvement of the community in the planning and decision making processes of WSS Management. Women should be sensitized on their role in WSS. Women had to be trained in environmental hygiene and health as well as in financial and technical management of WSS projects.

146. **Group II** discussed the approaches used in water resources development and the need to build awareness in the community.

147. The group recommended strategies for inclusion of women in WSS management. The process of motivating women had to be integrated into the WSS management mechanism. Women needed training in management skills and equal rights, and this had to be followed up by ensuring that management tasks were assigned to women. Community members (both women and men) at all levels had to be involved in the planning stage and in the consideration of resources, activities and tasks to be carried out. Implementation had to follow the actions proposed in the plan.

148. **Group III** discussed the various approaches used in water resource development, such as the promotion of earth dams, water from seasonal rivers, water harvesting, utilization of local human resource to help in lowering the cost and rehabilitation of traditional wells.

149. The group recommended that the effort to include women into the WSS management should focus on the following areas: education and motivation of women; involvement of women in policy making, planning, formulation of projects and programmes; providing technical training; inclusion of women in the operation and maintenance of WSS schemes and projects; and participation in the environmental awareness and health education campaigns.

8. Technical Session V: Presentation and Discussion of Training Module V: Women and Waste Management

150. Module V, on Women and Waste Management, was presented by Ms. Mary Liao, INSTRAW National Coordinator.

151. Ms. Liao defined waste management and provided a summary of the seven components of waste management, including sanitation, solid waste disposal, liquid waste disposal, gaseous wastes, industrial wastes, hazardous and toxic wastes, and waste reuse. An introduction to the concept of involving women in the waste management process was provided. She emphasized that women played a central role in safeguarding the health of the family and had a deep concern in maintaining a clean environment for the household. A number of case studies accompanying the module were presented to demonstrate ways by which women were successfully involved in waste management projects around the world.

152. Ms. Liao focused on the concept of environmental sanitation. As all activities involved the transmission of water and sanitation-related diseases, environmental sanitation was defined. It was classified into six components, including water hygiene and consumption of safe water, human waste disposal, safe waste water disposal and drainage, proper solid waste disposal, proper personal hygiene behaviour and food hygiene. The importance of environmental sanitation, as part of the waste management process, was emphasized. Over 80% of the diseases encountered in the developing world were related to water and sanitation, and were caused by the improper disposal of human, animal and household wastes (liquid and solid). The central focus of the session was the crucial role that women play in influencing and changing the family's hygienic behaviour patterns. It was only through the hygienic use of new facilities could the health benefits of the improved water supply and sanitation facilities be delivered. Thus, women in their traditional roles (as care-givers and managers of household and family health and hygiene) were at the centre of any water supply and sanitation intervention programme. It was also emphasized, however, that children and men could take on more pivotal roles in these interventions.

153. The main behaviour patterns which affected environmental sanitation conditions were categorized into five main behavioural domains of health and hygiene interventions. These included the disposal of human wastes, use and protection of water sources, water and personal hygiene, food hygiene, and domestic and environmental hygiene. Women's roles in environmental sanitation projects were outlined using a number of case studies which accompanied the module.

Group Work and Discussions

154. The participants formed three groups and addressed the following questions:

- * the main problems of waste management or environmental sanitation in the area/country;
- * identifying any environmental sanitation/waste management projects in the area/country;
- * roles played by women, men and children in these projects;
- * ways by which the active roles of the women and the community in waste management could be ensured;
- * ways by which the extension officers or community development officers could ensure that communities receive information about proper environmental sanitation conditions.

155. **Group I** agreed that there was no proper information awareness or campaigns undertaken to identify the main problems in waste management and environmental sanitation in the country. The capacities of the municipalities were at different levels, with some municipalities being better developed than others. However, there were a limited number of women involved in the planning of waste management.

156. The group was aware of some environmental sanitation waste management projects in their area. Urban areas had transports, usually employed by the local government, to carry their waste to dumping areas. But in small settlements, there were private contractors who generally made a living from these projects but had no proper training for the task.

157. The group made recommendations on enabling women and the community to take on more active roles in waste management. For instance, a strong programme to train individuals from the same communities was necessary. More women needed to be included into the training programmes with a focus on giving women leadership roles. Further, the school syllabi should be revised to include topics in waste management. Furthermore, proper facilities should be provided by the government for waste removal.

158. As extension officers and community development officers, the group members should ensure that communities received information about proper environmental sanitation by sundry means. For instance, various task groups could be set up, such as intersectoral community committees and community meetings. The media, such as radio messages, could be utilised to spread the information; in addition, church announcements could act as a resourceful medium of communication. Furthermore, activities such as workshops, seminars and discussion groups could be held on the subject.

159. **Group II** indicated that information was lacking about environmental sanitation. No institutions existed to promote environmental sanitation on waste management. There was considerable ignorance and cultural taboo on the subject. Further, they emphasized that there was no law regarding waste management or environmental sanitation. However, women and children played a role in these projects as they dug toilets, raised funds, recycled waste and maintained cleanliness.

160. The group recommended that more information and technology on environmental sanitation was necessary. Communication with other local and foreign institutions had to be improved, so information could be disseminated to the community. The problems experienced with the community had to be shared with the superior officials, so that assistance could be obtained. An awareness campaign on waste management and sanitation had to be launched in the community.

161. Group III discussed topics such as littering of bottles, cans, plastics, animal bones and scraps, such as old cars; industrial waste, leather/skin fabrics and the dam sewerage system. The main focus of the discussion was on the level of threat presented to the human habitation by the allocation of the environmental sanitation system.

162. It was pointed out that while informal settlements in urban areas lacked sanitation facilities, in rural areas sanitation was almost non-existent.

163. The group made recommendations on setting up a one-man/woman contractor system, promoting Pupils' Clean-up Competitions as well as Cleaning Days. Furthermore, a needs assessment survey could be first undertaken in all communities; based on its findings, programmes to educate and motivate the community could be designed. The mass media, such as radio, television, drum/play, church, newspapers, pamphlets and bulletins, could be used to reach out to the community. In addition, the children's groups at schools (such as the youth clubs), public meetings and house-to-house visits could be employed to reach out to community members.

9. Integrated Area Based Programme (IABP) Approach

164. This presentation was made by Ms. Hertha Niilonga the Water and Sanitation Officer, IABP-Tsandi.

165. The Integrated Area Based Programme (IABP) was launched in 1990 at the Uukwaluudhi district of Omusati region, in Northern Namibia, where there was an estimated population of 35,000. The project was funded by UNICEF, CCN and the Directorate of Community Development, Ministry of Regional and Local Government, and Housing (MRLGH).

166. Most problems in rural areas were interlinked at the community level; so improvements in any one service, such as water supply, necessitated simultaneous improvements in other services also, such as food security, health, etc. Therefore, the project adopted an integrated approach. It had five main components: Education, Health, Agriculture, IGAs, and Water and Environmental Sanitation.

Objectives of the Water and Sanitation Component

167. The overall objectives were to assist the community in improving access to safe drinking water and promoting the use of sanitary means of excreta disposal.

168. To accomplish these objectives, different technologies were used, such as the construction of "ferrocement" tanks for rain water harvesting; shallow wells protection, aqua-rollers, sand filters, construction of VIP latrines and "sun-plats" known in the area as Ombili platforms.

Strategy Employed to Involve Women

169. The IABP first focussed on building awareness in the community with an emphasis on the link between poor sanitation and unsafe drinking water. When the programme was launched, community members were trained in the construction of water catchment tanks, VIP latrines, Ombili platforms, protection of shallow wells, etc. A number of women were trained so as to ensure the effective functioning and use of improved water supply and sanitation facilities. This strategy also ensured the active involvement of the women who were the main users and carriers of water for domestic needs as well as the principal care takers of the family's hygienic habits. Thus, women were involved in project preparation and decision making early in the project cycle.

170. Local artisans were trained; demonstrations and units were constructed at strategic points, such as churches, schools, health facilities, etc. Community Health Workers (CHWs) were also trained and provided with medical kits and bicycles. Furthermore, demonstration units were set up at the households of some community health workers which included water catchment tanks, Ombili platforms and aqua-rollers. The CHWs were subsidised by IABP. These strategies contributed to the CHWs active participation in dissemination of information on hygiene and environmental sanitation as well as in promoting the construction and use of the improved facilities.

171. Women were involved in identifying their needs for which appropriate technology could be adapted, as they were the users who had to operate the adapted equipments without undue efforts.

172. Training programmes were designed along gender sensitive participatory approaches. Generally, training for short durations was conducted in proximity to where the women lived, as women could not easily stay away from their households for long periods of time. Experience showed that in agricultural societies, eg. Ukwaluudhi district, the off-season period, when women had more time, was the best time for training and meetings. Special arrangements were made whenever training was held outside the area, such as providing transportation, arranging for child care, etc.

Community Organization as the Key Issue for the Sustainable Development of Water and Sanitation in IABP Areas

173. To ensure sustainability of the WSS projects, community involvement was strengthened through the Ukwaluudhi District Development Committee, the water and sanitation sub-committees, and the water point committee (in which the majority were women). These bodies participated fully in the planning and selection of technology and decision making.

Conclusion

174. The IABP programme successfully enhanced community structure and management of WSS projects. However, there was a need to strengthen hygiene education, in areas such as water use and storage, personal hygiene, etc. The integrated approach to area-based programmes effectively led to community responses in WSS projects. With an integrated approach to problems and the willingness of the community to get involved and participate in the water and sanitation programmes, it is certain that the overall goal for improving access to safe drinking water and the use of sanitary means for excreta disposal and improvement of health condition of the community will be achieved.

175. Following this presentation, an UNICEF video entitled "A day to Remember" was presented to the group members.

Group Work and Discussions

176. The participants reiterated that UNICEF should undertake the continuation of activities in all regions in the country. It was illustrated that in this particular region, UNICEF launched a pilot project which developed into a full project. In the implementation stage, the project was transformed into a community project.

177. The project had some difficulties in being fully implemented. The structure of the project was redirected into an integrated approach, which included health, water and sanitation, education, income generation and agriculture.

178. In such community projects, it was the women who took the initiative to mobilize and secure assistance, though they were not the first to be approached by government or non-governmental institutions. For instance, in the northern part of the country, during the war, women's health suffered critically. Therefore, a group of women went to CCN and the health department to be trained in simple medical procedures; and the Red Cross assisted by supplying some medicines and bandages.

10. Technical Session VI: Presentation and Discussion of Module VI: Role of Women in the Evaluation and Monitoring of Water Supply and Sanitation Programmes

179. Module VI, Role of Women in the Evaluation and Monitoring of Water Supply and Sanitation Programmes, was presented by Ms. Borjana Schieber, Social Affairs Officer, INSTRAW.

180. Ms. Schieber explained the conceptual differences in approaches to evaluation in the 1960s and in the 1980s. In the 1960s, evaluation was donor-oriented; it was limited to the identification of beneficiaries and to cost-benefit analyses with a bias toward cost. Projects did not involve beneficiaries and

there was inflexibility in execution as well as a lack of monitoring and evaluation. But by the 1980s, evaluation was expanded to include the benefit-side and a number of issues were addressed, such as what to measure, how to collect information at a reasonable cost and in a timely manner, and who should undertake it. As a result, the question of building gender-sensitive evaluation strategies into project designs was raised since women's issues had not been built into programme and project designs.

181. INSTRAW had organized the consultative meeting on "Evaluation Methodologies for Programmes and Projects on Women-in-Development (WID)" to discuss the evaluation of programmes and projects - both mainstream and women-specific with a view to promoting the integration of women in all aspects and phases of mainstream activities. It was also intended to enhance the effects of women's projects on development. One of the crucial components of evaluation methodologies for WID was the principle of economic analysis of projects and programmes. There was difficulty in applying the cost-benefit analysis with precision as there were a number of WID programmes and projects that had been evaluated as too costly in terms of narrowly conceived cost-benefit analysis, without taking into account wider socio-economic objectives and developmental changes advocated by WID approaches.

182. The areas for improving evaluation methodology of programmes and projects on WID were identified as: effect/impact analysis; data bases; cost effectiveness of data collection; types of expertise and evaluation; human/cultural factors in evaluation; purpose of evaluation; institutional constraints; sustainability and community-based approaches.

183. Ms. Schieber explained the difference between the functions of evaluation and monitoring of water supply and sanitation projects. Evaluations involved an assessment of the achievements of a project and of the activities, methods and financial inputs by which these achievements had been reached. They were carried out at specific points in time in the project cycle, eg. at the end of a pilot stage, at mid-term and at the administrative end of a project. They consisted of the scheduled collection of information on project management to follow the progress of the project, to assess users' reactions, to keep track of trends and new developments, and to collect factual data as inputs for periodic evaluations. The differences between conventional and participatory evaluations and the purpose of participatory evaluations were also highlighted.

184. With regard to evaluating women's involvement in water supply and sanitation projects, a checklist for involving women in project preparation, planning, implementation, training, evaluation and follow-up was presented. The evaluation of water and sanitation projects had two dimensions: assessment of the impact of projects of the users and the impact which women's involvement had on the projects. Improved water supply and sanitation projects had many

benefits for women, such as: reduction in the time and energy consumed by water collection; easier management of their daily tasks; and greater use of water for cooking, cleaning and small-scale production. However, projects might also have negative impacts on women, such as serious social and economic consequences; and greater involvement of women in carrying out the full burden of installation, maintenance and repair.

185. Ms. Schieber pointed out that one of the new emerging trends was the evaluation of project sustainability. That meant assessing or measuring the ability to keep up the establishment, functioning, use and benefits of improved facilities and practices, without detrimental effects on the environment, especially after special assistance was phased out. As no community remained static, sustainability could only be achieved by strengthening problem-solving capacities in communities and by addressing changes in demand, interest, capabilities, finance, natural resources and policies. The key in this process of achieving sustainability was building human and institutional capacity in communities and partnership agencies.

186. Ms. Schieber stated that evaluating sustainability involved measuring capacities and development in four main areas: on-going implementation of functioning and used facilities, and hygiene education by agencies and communities; development of human capacities at community and agency levels; building of institutional capacity in groups, communities and agencies; and continuation of inter-organizational cooperation.

187. In conclusion, it was reiterated that the evaluation and monitoring of water and sanitation projects were important management tools. They served to improve the implementation of projects, especially their effective life, after completion of the installation operations. Project evaluation was becoming less an external judgement tool on whether investments had been well spent and more a means of learning from programmes and improving project inputs and processes.

188. In both monitoring and evaluation, women and development workers were important partners, as they had personal experiences with local water and sanitation conditions, and much of the work involved was socio-culturally appropriate for them. However, this partnership could be effective only when the design of evaluation and monitoring systems took cognizance of women's roles and made provisions to enable them to participate.

Group Work and Discussions

189. The group discussed the main components of evaluation and monitoring in water supply and sanitation projects and the problems in implementing water projects. The members also made some recommendations for decision makers to improve women's involvement in water and sanitation projects in the country.

190. **Group I** concluded that the number of women and men sitting in water committees, as technical staff and as extension workers, constituted the main components of evaluation and monitoring in water supply and sanitation projects. There were numerous problems in implementing water projects including maintenance and transport requirements, the water shortages, the lack of training for management and involvement in such activities, the scattered nature of communities, the inadequate numbers of extension workers, the fact that home owners and farm employers do not attend such meetings, and the procedural problems involved, such as the lack of authority to use government vehicles during weekends when it might be more convenient to get together.

191. The group recommended that decision makers could improve women's involvement in water and sanitation projects in the country by the following means. In designing programmes, it was necessary to consider the important role played by women in water and environmental sanitation in the society. Women should be consulted before any decision was taken. The importance of feedback could not be emphasized enough. The decision makers needed to support women so as to encourage their participation.

192. **Group II** concluded that the main components of evaluation and monitoring in water supply and sanitation projects depended on an assessment of whether the objectives were achieved in the areas of organizing communities, empowering people, access to clean water, degree of women's involvement, economic benefits and hygiene improvements.

193. There were problems in implementing the projects due to local circumstances, such as women declining to take the chairperson's position or the headman usually wanting to be a chairperson. The lack of community involvement in decision making, transportation for field workers, coordination among extension officers and communities and support from the management further exacerbated the situation.

194. It was recommended that women be involved in all stages of the project. Furthermore, the involvement of headmen, councillor, governors, pastors and other local leaders helped motivate people in development activities. It was recommended that legislation be enacted to control pollution.

195. Group III concluded that the main components of evaluation and monitoring in water supply and sanitation projects depended on whether the goals were achieved, if the project was on schedule, how effectively the community (beneficiaries) was functioning and how the resources (human, money and materials) were being utilized. Problems in implementing water projects included the lack of information, the population density, the livestock concentration, demand exceeding supply, the commercialization of projects and the lack of prioritization, eg. recent water shortage in Windhoek, Katutura hospital versus the Windhoek Breweries.

196. The group made recommendations emphasizing the importance of consulting women's organizations, encouraging women to join development committees, prompting women to take up positions in various committees and training women for decision making.

D. Adoption of the Report

197. The seminar adopted its report by consensus on 25 November 1994.

E. Closing of the Seminar

Department of Women's Affairs

198. The representative of the Department of Women's Affairs, Ms. Nashilongo Shivute, reiterated the importance of the workshop and the recommendations for implementation. The workshop had addressed very pertinent policy issues that needed to be considered to support the implementation of the policy directives.

199. The Department of Women's Affairs recognized the need to focus on coordinating and mainstreaming gender efforts as well as the requirements of monitoring and evaluating progress and impact. The establishment of 10 gender sector committees, that constitute the gender decentralization strategy for Namibia, have just been completed. This will form the basis for the gender policy guidelines to be developed in Walvis Bay from November 27 - 2 December 1994. The development policy guidelines will be based on consultations with all parties involved or implicated throughout 1995.

200. The workshop, therefore, fits in with the proposed gender decentralization and gender sensitization strategy that is expected to take place within every sector. However, there must be continuous consultations to avoid duplication and overlap.

201. Ms. Shivute emphasized on the importance of closer cooperation in the area of women and water to help achieve a gender balanced society. She thanked the organizers for the workshop and declared the workshop closed.

Department for Development Support and Management Services

202. The representative of DDSMS, Ms. Howard, reviewed briefly the wide range of issues addressed by participants, citing the importance of involving women from the very beginning in the planning and implementation of WSS programmes, and of consulting women in the kind of technologies to be used and how they should be installed. She further reiterated the need to draw upon the experience of women in hygiene education and training and to train and educate women in these areas. She emphasized that women must participate closely, with full involvement of communities in the management of water resources and water supply, in the very critical aspects of waste management, and in the monitoring and evaluation of projects to ensure that progress is achieved and mistakes are not repeated.

203. She conveyed warm appreciation to all participants for their dedication to the difficult tasks at hand, and expressed the strong hope that the momentum of this meeting be maintained, and that funds could be raised for two additional training seminars to be organized in the northern and southern regions of Namibia in 1995.

204. On behalf of DDSMS, she conveyed gratitude to Ms. Borjana Schieber for her significant contribution to the conduct of the Seminar and to Ms. Mary Liao, INSTRAW National Coordinator, and to Dr. Harry McPherson, GTZ advisor to the Department of Water Affairs, for their valuable assistance.

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205. On behalf of INSTRAW's Officer-in-Charge, and on her own behalf, the representative of INSTRAW, Ms. Borjana Schieber, conveyed her appreciation to the Government of Namibia for hosting the training seminar, particularly Department of Water Affairs, Ministry of Agriculture, Water and Rural Development, and GTZ officer in Namibia, as well as Department of Women's Affairs. She expressed her appreciation to Ms. Margaret Howard, representative of the United Nations Department for Development Support and Management Services (DDSMS), for co-organizing the training seminar. She thanked national lecturers and participants for working so hard during the week to produce so many significant recommendations. She also expressed gratitude to Ms. Mary Liao, National coordinator for organizing the training seminar.

206. Ms. Schieber pointed out that the success of the seminar will be judged, not only on the basis of what had been learned during the session, but also, and more importantly, on the basis of how many similar training seminars the participants will be able to organize in their respective communities. She further noted that success would also be judged by the extent and number of women the

participants can motivate to participate actively in water supply and sanitation projects. She expressed INSTRAW's interest in following up on the results of the seminar and in ensuring a multiplier effect.

207. She noted that as soon as the report is published in final form, each participant would receive a copy.

208. Finally, on behalf of INSTRAW she expressed gratitude to the support staff for their invaluable technical assistance.

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ANNEX II

Statements

A. Mr. Richard Fry, Deputy Permanent Secretary
Ministry of Agriculture, Water and Rural Development

Introduction

I welcome you to the seminar hosted by DWA, organized by INSTRAW supported by DDSMS and GTZ.

The provision of water and disposal of waste are critical problems world wide. One billion people lack access to clean water and 1.7 billion have no sanitation facilities. This leads to an estimated 3 million deaths and 900 instances of diseases every year.

Namibia, particularly in communal areas, is actively striving to provide clean water and sanitation to its people as a priority.

DWA has a mandate for water resources and water supply management in the country.

In November 1993, a water and sanitation sector policy paper was approved by the cabinet. Key long term sector objectives are:

- Essential water supply and sanitation services should become available to all Namibians and should be accessible at a cost which is affordable to the country as a whole.
- This equitable improvement of services should be achieved by the combined efforts of the government and the beneficiaries based on community involvement community participation and the acceptance of a mutual responsibility.
- Communities should have the right with due regard for environmental needs and the resources available to determine which solutions and service levels are acceptable to them. Beneficiaries should contribute towards the cost of the services at increasing rates for standards of living exceeding the levels required for providing basic needs.
- An environmentally sustainable development and utilisation of the water resources of the country should be pursued in addressing the various needs.

These long term sector objectives stress that communities must be fully involved in improving the water supply and sanitation facilities in the country.

The community members most directly affected by water and sanitation are women. However to date still not enough attention has been given to women's needs and requirements. Their water related activities are taken for granted and denied an economic and social value. Women are often excluded from the planning and implementation of water supply and sanitation decisions and projects. Present institutions do not always permit women's participation in planning, operation and maintenance of water related technologies. They are not trained to operate and maintain water technologies and these projects usually lack health education and sanitation components. This indicates an urgent need to reconsider development strategies and activities in order to benefit from the participation of women in the planning and development of water, environment and resource management.

- In Namibia in DWA we recognize the need to fully involve women in our community management approach to the provision of water.
- That is why we welcome this training seminar which will assist us in training people who will work with communities in providing water and sanitation in a gender sensitive manner.

INSTRAW is the major advocate for women, water supply and sanitation within the United Nations system. INSTRAW has developed in cooperation with United Nations Department for Development Support and Management Services (DDSMS) and ILO Turin Centre multi-media training package on "Women, Water Supply and Sanitation".

I welcome the assistance and I declare the national training seminar on "Women, Water Supply and Sanitation" officially open.

B. Mr. Adama Guindo, UNDP, Deputy Resident Representative

Mr. Fry, Deputy Permanent Secretary, Ministry of Agriculture Water & Rural Development; Dr. McPherson of GTZ; Ms Margaret Howard DDSMS (UN Department for Development Support and Management Services),

It is a great pleasure and privilege for me to address you today at the opening of the National Training Seminar on "Women, Water and Sanitation". My special welcome goes to the INSTRAW team headed by Ms Borjana Schieber. I would also like to welcome the representatives from the Ministry of Agriculture and representatives from local NGOs involved in the sector.

We are especially pleased that this seminar is unfolding here in Namibia. Namibia is known for its dry and arid nature and its sensitivity to low and unpredictable rainfalls which even culminated in serious droughts in recent years. In general terms, I think we can say that Namibia's water supply is one of the most important factors for the overall development of the country and its ability to support the rapidly growing population.

A holistic approach towards water resources, development and management is therefore a prerequisite for effective sustainable development. However, it is only recently that the crucial role of women in the field of water, supply and sanitation has begun to be understood and acknowledged.

Women are the primary users, carriers, family educators and managers of water and thus they have a vested interest in securing safe drinking water and adequate sanitation. Despite this strong linkage, to date still not enough attention has been given to women as the primary human resource and the ultimate users of water. Sadly, their water-related work is taken for granted and denied an economic and social value. Women are often excluded from planning and implementation of water supply and sanitation projects. Local women's customs, preferences and traditions are often not considered when the technical design and location of many projects are chosen.

UNDP has been advocating worldwide, that Governments should strive for sustainable human development. What we mean is development that brings about true improvement of people's lives, and is not exclusively measured in terms of economic growth. Such development will aim at empowering the disadvantaged to make their own choices and to create conditions that allow them to participate in decisions that ultimately govern their lives and the environment they are living in. As such, sustainable human development is most closely linked to the advancement of women and the conservation of the environment for future generations.

In this regard, I congratulate the Government of Namibia for hosting and having organised this training seminar, which is another indication of its commitment to strengthen the role of women in sustainable human development. I also wish to thank INSTRAW for its efforts in developing this training package and joining us here in Namibia to present it and discuss it with us. Let this not be a one-shot affair.

I hope that this seminar will demonstrate how women's involvement at all levels and stages of environmentally sound and sustainable water supply and sanitation programmes can be made more effective, easier and more productive.

I wish you a productive and a lasting outcome. Thank you.

C. The United Nations Department for Development Support and Management Services, Ms. Margaret Howard, Officer-in-Charge, Office of the Under-Secretary-General, Department for Development Support and Management Services

Your Excellency, Mr. Resident Representative, esteemed colleagues of UNDP and the international community, distinguished participants,

I am very pleased and honoured to be present at this auspicious gathering, and to participate, together with INSTRAW, in the conduct of this workshop on behalf of the United Nations Department for Development Support and Management Services, and its Task Force on Women in Development. Our collaboration with the UN International Research and Training Institute for the Advancement of Women is of long standing, and my Department is most appreciative to INSTRAW for having requested our presence here in Windhoek.

I would like to convey my deep appreciation to the Ministry of Agriculture, Water and Rural Development and the Department of Water Affairs for instigating this meeting - the first of its kind in Namibia - and to the Government of Namibia for hosting it. My Department, too, is indebted to the Resident Representative of UNDP, and his staff, for their assistance and support.

The holding of this meeting in Namibia is particularly appropriate and timely, inasmuch as its Government has demonstrated its strong commitment to the goals of the United Nations, and has recognized that the full participation of women in development is one of the crucial elements for achieving sustainable national development objectives. Namibia has furthermore identified water and rural development as priority sectors, and as Mr. Fry clearly indicated a few moments ago, Namibia is taking impressive measures to identify problems and implement solutions in these areas. Since women are the primary users of water, particularly in rural areas, and in view of women's broad experience in the planning and management of water resources, women and water go hand in hand.

I believe it may be useful to take a moment to explain the functions of the Department for Development Support and Management Services, and to try to place this meeting within the context of our role and activities. I should also say at this point that the holding of this Workshop is particularly significant for us, as it represents a collaborative effort. Our predecessor Department was instrumental in providing substantive and financial support to the revision of these training modules, working in the closest collaboration with both INSTRAW and the International Labour Organisation, whose training centre in Turin played a major role in the completion of this work. I believe that such collaboration is essential if activities in support of sustainable development are to be successful. It is in this context that I am here today.

Since the last such workshop was convened in Thailand two years ago, a further phase of the restructuring of the economic and social sectors of the United Nations Secretariat was undertaken, establishing DDSMS as one of three major UN Departments addressing economic and social issues. DDSMS is the main "operational arm" of the Secretary-General, with a mandate to provide technical assistance to developing countries and economies in transition in the broad fields of integrated development and public management. Specifically, we provide integrated multisectoral technical advice to governments in the fields of public sector management and capacity-building, economic policy and management, social development, natural resources and energy planning and management, and private sector development. We are also participating increasingly in the broad strategy of the United Nations aimed at linking economic and social dimensions with the peace-keeping and humanitarian aspects of the UN's overall mandate - known as the "development continuum". One cannot achieve peace without sustainable development; one cannot have development without peace and security. This concept lies at the heart of the work of the UN, now and into the future.

Our activities in the water resources sector aim to assist countries in developing and managing their water resources in a sustainable, environmentally sound manner, which will safeguard future supplies. Thus our overall programme entails four main areas of work - first, that of finding and developing water resources, involving well digging and drilling in rural areas, installing handpumps, and training local communities in sanitation and simple maintenance, with a particular focus on women who are most actively involved in water, sanitation and health issues. Second, that of providing assistance in the planning and management of existing water supplies, a main focus of our current mandate. Third, that of protecting water supplies for future generations through assistance in formulating laws and pricing policies which will encourage efficient water development and minimize water loss. Finally, and perhaps most important, a key element in our work is that of human resources development and capacity-building, which we are trying to achieve through seminars and workshops on all aspects of water use and management. Workshops such as this are examples of this area of our work.

Our Task Force on Women in Development, which was established in 1982 and is the oldest such entity in the UN system, has endured and grown throughout the restructuring process, and has continued in its efforts to promote the involvement of women in development process. We believe that this can only be achieved by focusing fully on the need to involve women in the planning and implementation stage of development projects, particularly at the country level, to ensure that programmes in which DDSMS cooperates with developing in countries, will fully incorporate women's concerns. However, we believe that since project identification is based upon the main objectives and priorities of individual

governments, the role of women will be reflected only to the extent that governments are willing to consider the issues of women in development as relevant or applicable.

This Workshop comes, in my view, at a critical juncture. On the one hand, it can be considered as one of many sequels to the Dublin International Conference on Water and the Environment, held in 1992 which my Department was closely involved, and which established the principle that women play a central role in the provision, management and safeguarding of water, and that policies are required to address women's specific needs and to equip and empower women to participate at all levels in water resources programmes, including decision-making and implementation. I would like to suggest that this meeting also constitutes one of many steps along the road from the UN Conference on Environment and Development held in Rio de Janeiro over two years ago, from which derived the principle that women have a vital role in environmental management and development, and that their full participation is therefore essential to achieve sustainable development. This road leads to the Fourth World Conference on Women, to be held in Beijing in September 1995, which is expected to reaffirm the advancement of women on the world's agenda. Your Workshop is a manifestation of that important commitment.

Distinguished colleagues, this meeting here in Windhoek is expected to address some basic questions: what advantages can be derived from women's participation in water supply and sanitation programmes? What training methodologies should be adopted for water supply and sanitation programmes? What training methodologies should be used? How can women become more directly involved. And how can we best approach, train and support women in designing, implementing and evaluating water supply and sanitation programmes.

Your views, your knowledge and your experience will be invaluable in addressing these issues.

I very much look forward to discussing them with you.

D. United Nations International Research and Training Institute for The Advancement of Women, Ms. Borjana Schieber, Social Affairs Officer

Honorable Deputy Permanent Secretary Mr. Fry, UNDP Representative Mr. Aboagye, distinguished participants, ladies and gentlemen,

On behalf of the Officer-in-Charge of INSTRAW, it is a pleasure to welcome you to this INSTRAW training seminar on Women, Water Supply and Sanitation. INSTRAW is particularly grateful to Department of Water Affairs for requesting the Institute to organize the first national training seminar on this issue in Namibia. INSTRAW is greatly indebted to the Government of Namibia for hosting the training seminar. I would like to express thanks to UNDP offices in Namibia for providing logistical support to this seminar. I would also like to express thanks to Dr. Harry McPherson to assisting in the organization of the training seminar and particularly to Ms. Mary Liao, INSTRAW national coordinator to her efforts in preparation of the seminar. I would like to thank Ms. Margaret Howard from Department of Development Support and Management Services (DDSMS) for cooperating in the conduct of the seminar.

In welcoming the national lecturers and participants, I would like to reiterate INSTRAW's appreciation to you who will share with us your experiences and provide advice and guidance for future action.

Water is a prerequisite for the survival of human beings and their sustainable development. It is one of the main pillars of environment. Water is a renewable but finite natural resource. Current and projected problems with freshwater resources arise from the pressure to meet the agricultural, human settlement, food and industrial needs of a fast-growing global population. The multi-sectoral nature of water requires appropriate coordination among the communal, local, national and international institutions and authorities concerned with water, agriculture, industry, health, rural development, environment as well as among agencies in charge of education and training.

The statistics from the World Health Organization (WHO) tell the story. Water scarcity is going to be the dominant issue in the 21st century. One billion people lack access to clean water and 1.7 billion have no sanitation infrastructure. Lack of appropriate food and nutrition, decent shelter, access to energy services and other missing vital elements of development, these problems lead to about three million deaths every year and another 900 million cases of disease. Two million of these deaths could be prevented if adequate sanitation and clean water were available. As estimated by the World Bank, water extraction worldwide is expected to grow by four to eight per cent a year to meet the growing need. Within the next

generation, water needs will have grown by 600 per cent. Two billion people live on less than a dollar a day on total expenses.

A holistic approach toward water resources, development and water management is a prerequisite for the effective sustainable development of nations. It implies the development of human societies and economies and the protection of natural ecosystems of which the survival of humanity ultimately depends. This includes not only the need to look at the water cycle but also to intersectoral needs, ecological issues, alleviation of poverty and disease, sustainable rural and urban development and protection against natural disasters.

Women are the primary users, carriers, family educators and administrators of water and thus they have a vested interest in securing safe drinking water and adequate sanitation. Their water-related work is denied an economic and social value. Women are excluded from the planning and implementation of water supply and sanitation decisions and projects. Usually, such projects lack elements of communication and information on women and how this affects women lives and requirements as well as the relation between water, sanitation and health. Very few women are trained to operate and maintain water technologies. Local women's customs, preferences and traditions are not considered in choosing the technical design and location of many projects. In many parts of the world women play a central part in household and rural water resources handling and yet they are most vulnerable to changes because they are rarely consulted by policy-makers. They have less access to education/training, credit, extension services, and technologies than do men. There is an urgent need to reconsider development strategies and activities in order to benefit from the participation of women in the planning and development of water, environment and resource management.

Since 1982, INSTRAW has given priority to addressing these problems women face in the developmental area of water supply and sanitation. During the past decade, INSTRAW has conducted a number of training seminars on this topic at regional and international levels.

It is only recently that the crucial role of women in the field of water supply and sanitation has begun to be understood or acknowledged. During the International Conference on Water and the Environment, held in Dublin, Ireland, from 26 to 31 January 1992, four guiding principles were adopted which are devoted to women, and it states that "Women play a central part in the provision, management and safeguarding of water". The linkage between women, environment and sustainable development in the context of water resources has been reiterated in Chapters 18 and 24 of Agenda 21—a dynamic, change-oriented action programme for the 21st century, emanating from the United Nations Conference on Environment and Development (UNCED). It has been recognized that without the

participation of women and their needs and requirements in development decisions, sustainable development will not occur. The Earth Summit in Rio also acknowledged the close link between poverty and environment, and called for concerted action to reduce global poverty through improvements to the global environment.

INSTRAW in cooperation with DDSMS and the ILO-Turin Centre, completed in June 1991 a training package on women, water supply and sanitation. An additional modular unit was completed on women and waste management in November 1993. The training package reflects INSTRAW's seven years of research and its experience in the training of more than 400 participants worldwide. INSTRAW's work has included a survey of materials, projects and activities undertaken in the field of water supply and sanitation both within and outside the United Nations system. The training package is based on a modular approach using participatory techniques. It is aimed at different target groups: senior officials and development planners of ministries in charge of water and health; engineers and trainers; researchers and academic professors and representatives of women's organizations active in this developmental area.

We hope to achieve through this seminar a demonstration of how women's involvement at all levels and stages of environmentally sound and sustainable water programmes and projects can be made more effective, easier and more productive.

Specifically, the seminar aims at: contributing to a new approach in the organization and management of sustainable water supply and sanitation and waste management programmes through the integration and consideration of women's needs and requirements; increasing awareness and sensitizing planners, officials, engineers, trainers and experts in charge of water resource management policies, programmes and projects for involving women in WSS planning, management and evaluation of programmes and projects; and creating a core group of facilitators and educators trained to conduct similar seminars at universities, vocational and training institutes at national and community levels, thereby ensuring a multiplier effect.

I look forward to your active participation and hope you will share openly your experiences, problems and solutions.

In conclusion, I would like to say that I am confident that the outcome of this seminar will be successful and hope that your experience here will prove useful to your country in carrying out their activities in the field of women and water resource management.

E. Ms. Nashilongo Shivute, Department of Water Affairs

Madam/Chairperson, Distinguished Ladies and Gentlemen,

It is an honour for me to have been requested to close this important meeting.

It is an important workshop because it deals with water which is a very scarce commodity in Namibia. A natural resource that all Namibians have no access to! This is no doubt due to poor planning systems that did not include and recognize the existence of the majority of the people - the rural folks - which we have inherited. And a challenge for us in our independent Namibia.

Your discussion this past week has focussed on analysing the situation, the existing resources, the constraints and you have come up with good strategies to respond to the situation. And we look forward to seeing it implemented. The workshop no doubt has addressed very pertinent policy issues that need to be considered to support the implementation of the policy directives which you have come up with.

We, in the DWA, have over the past four and a half years come to recognize that our role will very much focus on coordinating and mainstreaming gender efforts and to monitor and evaluate progress and impact. The DWA has just completed the establishment of 10 gender sector committees which constitute the gender decentralization strategy for Namibia which will form the basis for gender policy guidelines to be developed in Walvis Bay from Sunday November 27 - 2 December 1994. Our understanding of developing policy guidelines is that it should involve consultations of all parties involved or implicated - and this we plan to do throughout 1995.

Your workshop, therefore, fits in the proposed gender decentralization strategy very well because it is our belief that this kind of gender sensitization should happen within every sector. Yet, there must be continuous consultations to avoid duplication and overlap.

We look forward to closer cooperation in this important area of women and water, and we also look forward to further support to INSTRAW and to help Namibia achieve a gender balance society in accordance with our constitutions.

At this junction, Chairperson, let me once again thank the organizer for inviting us to close the workshop. We look forward to participate in similar workshops in the future to enable us all, from different sectors, to understand the issues at hand and, thus, to render the necessary support. It is, therefore, my distinguished honour to declare this workshop closed.

Annex III

Agenda

1. Opening of the session.
2. Adoption of the agenda.
3. Overview of training methodology and seminar procedures.
4. Technical session I: Presentation and discussion of training module I, The International Drinking Water Supply and Sanitation Decade.
5. Department of Water Affairs experience in Women in Community Management of Water Supply System.
6. Technical session II: Presentation and discussion of training module II, Participation of women in planning, choice of technology and implementation of sustainable water supply and sanitation projects.
7. Technical session III: Presentation and discussion of training module III, Role of women in hygiene education and training activities for water supply and sanitation.
8. Waste management in Windhoek
9. Technical session IV: Presentation and discussion of training module IV, participation of women in management of water resources, water supply and waste disposal.
10. Technical session V: Presentation and discussion of training module V, women and waste management.
11. The IABP Experience
12. Technical session VI: Presentation and discussion of training module VI, evaluation and monitoring of water supply and sanitation programmes and the involvement of women.
13. Adoption of the report of the seminar and closing session.

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