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WOMEN, WATER SUPPLY & SANITATION

a national training workshop

Lagos, Nigeria
10 - 16 May 1989

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NATIONAL WORKSHOP
ON
WOMEN, WATER SUPPLY AND SANITATION

Lagos, Nigeria, 10-16 May 1989

Sponsored by

The United Nations International Research and
Training Institute for the Advancement of Women
(INSTRAW)

And

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In collaboration with

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Workshop, on Women, Water Supply and Sanitation, held
at the Senate Chamber, National Assembly Complex
Tafawa Balewa Square, Lagos, 10 May 1989

I. ORGANIZATION OF THE WORKSHOP

A. Introduction

The National Workshop on Women, Water Supply and Sanitation was held at the Senate Chambers, Tafawa Balewa Square in Lagos, Nigeria, from 10-16 May 1989.

The Workshop was sponsored by the United Nations International Research and Training Institute for the Advance of Women (INSTRAW) and ZONTA International in collaboration with the Federal Ministry of Social Development, Youth & Sport.

Thirty participants represented 17 states of Nigeria. Eighteen participants also represented seven federal ministries, departments and agencies. Also participating were 31 representatives of 10 agencies and organizations (see Annex I for list of participants).

B. Opening of the Meeting

The opening of the Workshop was co-ordinated by Ms. Victoria N. Okobi, Assistant Director of Women and Children's Programmes in the Federal Ministry of Social Development Youth and Sport. Welcoming statements were made by Mrs. Stephani Scheer on behalf of INSTRAW and its Director and Chief Folake Solanke, SAN, on behalf of ZONTA International.

The meeting was then officially opened by the Director-General of Social Development, Youth and Sport on behalf of the Honourable Minister (see Annex II for welcoming and opening statements).

C. Officers

The workshop was chaired by Chief Folake Solanke, assisted by Mrs. Stephani Scheer.

D. Adoption of the Agenda

The agenda was modified and then adopted (see Annex III for agenda as adopted).

E. Closing of the Meeting

Several brief statements were made at the closing of the meeting as well as a vote of thanks to the sponsors. A communique was also issued (see Annex IV for communique).

II. SUBSTANTIVE ISSUES

The following presentations were made at the International Workshop on Women, Water Supply and Sanitation.

A. Women, Water Supply and Sanitation by Stephani Scheer, INSTRAW Consultant

Recognition of the seriousness and the vital importance of improving water supply and sanitation was finally underlined by the international community at the United Nations Water Conference held in Mar del Plata, Argentina in 1977. The delegates felt that access to clean water and sanitation should be a basic human right and that half of humanity should not be subjected to the drudgery of carrying water for hours, and the scourge of water-related diseases. As a result, a special one-day session of the General Assembly launched the Water and Sanitation Decade on November 10th, 1980.

Further, to give guidance to the international community in its efforts to achieve the goals of the Decade, a Steering Committee for Cooperative Action was established comprising of eleven relevant United Nations specialized agencies and organizations. The objectives of the Steering Committee were to put into operation mechanisms designed to help match projects with external sources of funds, to exchange technical information between countries, to shape global plans for investment planning, and to assemble comparable data for progress reporting as well as public information on the Decade.

The ultimate goal for the Decade originally was access to clean drinking water and sanitation facilities for all people by 1990. The emphasis was on coverage, national targets, national plans and relatively expensive hardware solutions. The World Bank estimated cost for reaching all people at 600 billion dollars over the course of the Decade. Each country set targets and different Decades were launched in each country. It was expected that the major financing for projects would come from the countries themselves.

Unfortunately, such lofty goals were unrealistic in the face of the economic realities of the 1980s. The world-wide recession during the first half of the Decade, crippling external debt facing the Latin American and African countries, and much lower levels of assistance provided by external support agencies left most countries far short of their goals. Other problems included the "hardware bias" with many agencies providing only technology, and the lack of institutional arrangements for management and follow-up.

In 1985 , a review was made of the progress in the Decade in the form of a report to the general Assembly.

The data used in the report came from the Decade monitoring system created and managed by the World Health Organization, and material available to other organizations within the United Nations system.

While some modest improvements in drinking water supply and sanitation were achieved, especially in the rural areas, it was clear that at the mid-point of the Decade, over a billion people still needed safe drinking water and nearly two billion people still lacked adequate sanitation. These numbers of unserved people represent more than twice the number of people provided with clean water, and more than 20 times the numbers reached with adequate sanitation.

The consequences of this situation are extremely evident. Less evident, though vital in consideration of the situation, is the role of women.

Women are the carriers of water, managers, users, family health educators, motivators and agents of change. They are responsible in this regard not only for themselves, but also for the numbers of their families and the community at large.

Women usually spend hours a day hauling water over long distances, for many kilometres. In terms of opportunity cost, the time wasted and energy expended in this drudgery is incredible, and leaves little room to perform the many other chores and functions demanded of women and vital to their families' survival.

Moreover, by virtue of their domestic functions and regularity in touch with water which is often polluted, women are particularly vulnerable to water-related diseases which, according to WHO, account for 80% of all sickness and diseases in the developing world.

These health consequences, of course, carry along a set of economic consequences. Millions of working days are lost every year through sickness due to these diseases. Annual costs in terms of medical treatment and lost productivity further perpetuate the circle of poverty.

Yet, despite their important and multiple roles, women are still not adequately involved in water supply and sanitation activities. The following represents some of the problems identified that prevent their full and effective participation.

- Not enough attention has been given to women as a primary human resource. Women's work in water portage and sanitation is taken for granted in societies and not recognized as issues of concern, or given an economic value.

- Women are often excluded from the planning and implementation of water and sanitation projects, even though it is they who often determine a project's success or failure.
- Water supply and sanitation programmes lack elements of communication and information to women on the relation between water/sanitation and health, and on the complementary health practices which must be introduced if improved water supply and sanitation facilities are to have an impact on health.
- Water supply and sanitation technologies often do not take into consideration the cultural context and level of know-how of the communities to which they are introduced. In addition, they are not cognizant of women's needs and physical capabilities or limitations.
- Insufficient provision is made for maintenance and repair of systems, which are areas of crucial importance, and where women's involvement could be extremely valuable.
- Social development programmes, including improved hygiene and sanitation projects, are not dealt with in an integrated approach to involve all members of the family and to lend support to women's responsibilities.

Any strategy for women's participation needs to consider water supply and sanitation as an integral part of the entire development process along with other socio-economic sectors. Improved water supply and sanitation facilities can have many direct benefits, such as reduction of the drudgery of water collection, and improvement in health, nutrition and food supply. Moreover, there are indirect benefits in the form of improved potential for economic and social development, such as rise in productivity, incomes and improved standard of living.

Women are more than target groups, they are active agents who can contribute to the Decade efforts in : decision making, generating ideas in policy, mobilizing labour, providing resources, disseminating information and implementing innovations. By involving women, particularly in the planning, operation and maintenance, training and evaluation stages, water and sanitation projects can be expected to be more effective in achieving their ultimate objectives of improved water quantity and quality.

Within the international community, one of the mechanisms established to address the question of the role of women in water supply and sanitation, is the Inter-Agency Task Force on Women and the IDWSSD. The Task Force was initiated by UNICEF and INSTRAW, and established by the Steering Committee in 1982.

In conceiving the Task Force, it was mandated to carry out the following: to develop a strategy for the enhancement of the role of women

within the IDWSSD; to assist in activities in support of the Decade programmes in relation to the role of women; to act as a mechanism for collaboration in the development and implementation of activities at international and national levels; and to monitor, evaluate and report on implementation of Decade policies and programmes related to women.

Strategies for involving women have been identified at the planning stage, in the design and choice of technology and in implementation of water supply and sanitation projects, they are incorporated in the modules. These strategies have been field tested by the UNDP projects PROWESS which stands for Promotion of the role of Women in Water and Environmental Sanitation Services. The lessons learned from small-scale PROWESS field projects are often used as the basis for Task Force recommendations. Priorities for the Task Force are to make sure the following are included as an integral part of any water supply and sanitation project: sufficient staff, time and financial resources for community participation; specialists in community development and participation early in the preparation phase of the project; and the acceptance of community responsibility for the project.

During the course of the Decade some very important lessons were learned as a result of the inability to achieve coverage goals. Not only was money lacking, but systems installed were rarely functioning properly. Emphasis shifted from coverage to sustainable development, and from initiation of projects to responsibility for effective use of water systems. The lessons learned evolved into new approaches and have direct bearing on the role of women.

These approaches focus on providing a more realistic and lower-cost basis for extending coverage to larger number of people. They emphasize commitment of the community to the new facilities. They include practical on-site training techniques and they advocate mobilizing funds locally to support operation and maintenance.

Even though the Water Supply and Sanitation Decade has been less than spectacularly successful, it has been one of the best examples of inter-agency collaboration in the United Nations system; and in order not to lose the momentum of the Decade, a "Framework for Collaborative Action" was established at the Hague in November 1988. It is intended to serve as the basis for follow-up to the Decade. The Collaborative Council will include any external support agency in the water supply and sanitation field that wants to participate. This includes UN agencies and organization, bi-lateral donor agencies, development banks and non-governmental organizations. Collaboration would be carried out mainly at the national level, using the UNDP Resident Representatives as focal points.

As we move beyond the IDWSSD, it is expected that the new Framework for Collaborative Action will provide greater co-ordination among all donors, leading to less wastage and overlap, as well as less "tied" aid.

It is hoped that the decade of the 1990s will be one in which sustainability and efficient use of scarce water, human and financial resources will be stressed. But, the high rate of failure of projects during the early years of the 1980s must be reduced through the enhanced involvement of women at all levels and stages of water supply and sanitation programmes and projects.

B. Nigeria-Development of Water Resources towards the achievement of the IDWSSD: by Okeke E. O. and Osuocha P. C., Federal Department of Water Resources, Federal Ministry of Agriculture, Water Resources and Rural Development.

1. Background

Nigeria has the land area of 1 million square kilometres harbouring a population of over 100 million people for which about 70% dwell in rural areas while about 30% reside in the urban centres.

The climate of the country is tropical with two main defined seasons, viz: the rainy season which occurs between October and March. The peak rainfall ranges between 500mm in the far North and 3000mm in the extreme south.

The Niger, Benue and their tributaries constitute the major drainage systems for the entire country which is underlain by about 50% of basement complex and about 50% of sedimentary deposits.

From the foregoing, therefore, it appears water occurs in relative abundance in most parts of Nigeria. However, good drinking water which is a basic necessity for human existence, could be considered a rare commodity in the country, particularly in the rural areas, owing to inadequacies in funding, improper institutional arrangement and probably poor management of resources. Nevertheless some improvement has been recorded since the adoption of the United Nations' International Drinking Water Supply and Sanitation Decade (IDWSSD) objectives in 1980. For instance, before actual implementation of the IDWSSD programme, less than about 30% of the population had access to potable water while less than 10% had access to good sanitation in Nigeria; but today up to about 55% of the country is being provided with potable water supply at 60 litres per capita per day (LPCD) for urban population and 25 LPCD for rural dwellers.

Sanitation has not improved significantly because of lack of understanding of what is involved, since so many still consider sanitation to be only refuse disposal.

2. Water supply in Nigeria

As a result of the inadequate attention given to the sector previously, water supply activities in the country were uncoordinated such that in some states up to about six different agencies participated in the provision of water supply to the rural areas. However, arising from the recommendations in the Water Supply and Sanitation Sector Memorandum prepared by the World Bank and its subsequent adoption by the National Technical Committee on Water Resources (NTCWR) for approval of the National Council on Water Resources whereby the agencies involved in the rural sector are to be streamlined, the State Governments would be advised to set up appropriate State Water Agencies (fairly autonomous and commercially viable) to handle urban and semi-urban water supply while rural water supply should be gradually transferred to the Local Government Authorities to manage.

In the meantime the following agencies are participating in water supply in Nigeria:

at the federal level

The Federal Government's involvement in Water Resource matters was first obvious in the early 1970s during the prolonged drought of the North which necessitated the establishment of Chad and Sokoto Rima River Basin Development Authorities (RBDAs). The Federal Ministry of Water Resources was also created in 1975 to monitor and co-ordinate the activities of the RBDAs. Nine other RBDAs were created between 1972 and 1976 (see Table 1).

a) Federal Department of Water Resources (FDWR)

The Federal Government co-ordinates water resources management through the Federal Department of Water Resources (FDWR), which is one of the eight departments in the Federal Ministry of Agriculture, Water Resources and Rural Development. Its responsibilities include policy advice and formulation, data collection, monitoring and co-ordination of water resources development (of which water supply is a component) for the Federal Government.

In a bid to achieve the desired optional performance in potable water supply and sanitation FDWR has embarked on the following activities:

i) National Council on Water Resources

The Federal government in 1981 inaugurated the National Council on Water Resources comprising all State Commissioners in charge of water resources.

matters and with the Minister of Agriculture, Water Resources and Rural Development as Chairman.

The National Technical Committee is the advisory body which is made up of the Sub-Committee on Water Supply and Sanitation which includes all Chief Executives of State Water Authorities. The National Council on Water Resources is the highest policy making body for water resources matters.

ii) National Borehole Programme

In 1981 the Federal Government through the Federal Department of Water Resources initiated a borehole programme intended to assist the State Governments in the realization of the objectives of the IDWSSD programme and to extend potable water supply to rural dwellers.

So far, in the first phase of the programme 1,023 boreholes have been drilled nationwide out of which 885 were productive while 168 were abortive. All the boreholes were inch diameter deep boreholes to be fitted with submersible pumps. Each had a twenty five thousand (25,000) gallon overhead tank, one generator and five taps to be provided within the vicinity of the overhead tank. The schemes were handed over to the State Water Agencies to manage after commissioning. These agencies are to carry out the reticulation of the water within the Communities.

iii) National Water Supply Policy

Recently the FDWR has prepared a draft National Water Supply Policy which would ensure application of proper water supply regulations, water quality standards, adoption of a proper level of service for the urban and rural water supply, equipment standardization and adequate funding. This policy derives from the Water Resources act which is now being processed. The policy has been discussed by the National Sub-Committee on Water Supply and Sanitation, the National Technical Committee on Water Resources and the amended version would be submitted to the National Council on Water Resources for deliberation.

iv) Water Supply Through Dams

The eleven River Basin Development Authorities (RBDAs) created under the Federal Ministry of Agriculture, Water Resources and Rural Development are charged with the responsibility of providing bulk water through all available sources (dams, boreholes and direct pumping from surface water) for irrigation (agriculture) and water supply to both rural and urban dwellers.

TABLE 1

LIST OF RIVER BASIN DEVELOPMENT AUTHORITIES (RBDAS)

R B D A S	HEADQUARTERS
1. Chad Basin	Maiduguri
2. Sokoto Rima	Sokoto
3. Hadejia Jama'are	Kano
4. Upper Benue	Yola
5. Niger River	Minna
6. Lower Benue	Makurdi
7. Ogun-Oshun	Abeokuta
8. Anambra-Imo	Owerri
9. Cross River	Calabar
10. Benin Owena	Benin
11. Niger Delta	Port-Harcourt

In the past 13 to 16 years of their existence the RBDAs have pursued the task of bulk water supply vigorously by constructing big, medium and small dams in various parts of Nigeria. About eight of these big dams have been completed and commissioned by different RBDAs in seven states of the Federation (see Table 2A). It is estimated that the eight dams together would store about 6.274 billion cubic metres of water. An additional five dams, which are expected to boost the total water storage capacity would soon be completed. Various other small and medium earth/rockfill dams whose total water storage capacity is less than 20 million M³ have been completed. So many others are under construction purely for rural water supply in different parts of the country.

TABLE 2A

BIG DAMS ALREADY COMPLETED

	NAME OF DAM	LOCATION- STATE	YEAR OF COMPLETION	AMOUNT OF WATER IN MILLION CUBIC METRES (M3)
1.	Tiga Dam	Kano	1974	1,980
2.	Bakolori Dam	Sokoto	1982	450
3.	Oyan Dam	Ogun	1982	270
4.	Goronyo Dam	Sokoto	1986	960
5.	Dadin Kowa Dam	Bauchi	1988	2,400
6.	Tungan Kawo Dam	Niger	1988	22
7.	Doma Dam	Plateau	1988	22
8.	Zobe Dam	Katsina	1983	170

TABLE 2B

SMALL & MEDIUM EARTH/ROCKFILL DAMS

	LOCATION	OPERATING RBDA	STORAGE CAPACITY IN MILLION CUBIC METRES
1.	Acida	Sokoto Rima	5
2.	Koza	"	5
3.	Jido	Hadejia Jama'are	5
4.	Akko	Upper Benue	5
5.	Sepeteri	Ogun-Oshun	5
6.	Eniosa	"	5
7.	Oke Odan	"	5
8.	Ofike	"	5
9.	Are	"	5
10.	Naka	Lower Benue	5
11.	Omogidi	"	5

v) Nationwide Water Supply and Sanitation Rehabilitation Project:

Due to the deplorable state of some of their water supply schemes and the consequent reduction of potable water supply to the states, various state governments applied to the World Bank for loans through the Federal Ministry of Finance. This led to the involvement of the Federal Department of Water Resources who eventually developed the rehabilitation project which is aimed at assisting the state reactivate some of their obsolete and non-functioning water supply schemes.

The feasibility study for the project has been completed and a seminar held on the study. The next stage which is the detailed design and identification of projects would soon commence. It is hoped that adequate potable water and good sanitation would be provided to more members of the urban communities when this project is completed. The project is being financed by World Bank and all the states of the federation including Federal Capital Territory would benefit.

vi) Local Manufacturing of Water Supply Devices and Treatment Chemicals

The panel on Water Supply Inadequacy in Nigeria set up by the National Council on Water Resources in 1981 identified the huge off-shore component of water supply in Nigeria, as one of the factors militating against provision of adequate potable water to the populace. As a result of the Panel's report and in an effort to curtail the off-shore component, the Federal Department of Water Resources initiated actions for local manufacturing of water supply requirements.

- global handpump field testing

In 1986/87 the FDWR in collaboration with Directorate of Food, Roads, and Rural Infrastructures (DFRRI) and the Defence Industries Corporation (DIC) in Kaduna produced prototype village level handpump called the RUWATSAN handpump. The testing of this handpump and the Volanta, Afridev, India MK II and III which are produced abroad is being carried out in conjunction with DFRRI, BASIRDA, UNDP, UNICEF and

FACU in Bauchi State. The essence of the testing is to ascertain which of the pump would meet village level operation and maintenance (VLOM) and can also be manufactured locally. When the pump testing is completed in 1989 and the manufacturing eventually commenced, more easily affordable handpumps would become available and would enhance provision of potable water to more rural communities.

- treatment chemicals

Some studies have been concluded by FDWR on the local manufacturing of lime; promotional activities have been embarked upon to attract investors to participate.

FDWR also initiated another study with the assistance of a WHO consultant for the possibility of producing alum, chlorin and all other commonly used treatment chemicals. The detailed study for the quantitative and qualitative analysis of kaoline and brine which are the basic raw materials needed would soon be embarked upon.

b) National Water Resources Institute Kaduna

The Institute was created under the Federal Ministry of Agriculture, Water Resources and Rural Development in 1977 to carry out manpower training and research activities in the field of water resources.

In a bid to achieve the objectives for their existence the Institute embarked on the following activities:

- i) the building of laboratories which are about 75% completed
- ii) a UNESCO funded project aimed at providing facilities for research into ground water, surface water, water quality and all other environmental engineering problems all over the country
- iii) procurement of some computer equipment for their data bank and establishment of a library (which is being stocked with technical books and recent journals) to assist students and staff members

iv) conducting the OND Ordinary Diploma and the Higher National Diploma Programmes for Water Resources Engineering.

c) Directorate of Food, Roads and Rural Infrastructures (DFRRI)

The Directorate of Food, Roads and Rural Infrastructure was established in 1986 under the Office of the President to accelerate rural development through provision of infrastructure, one of which is water supply development. The provision of water supply was planned in stages with the ultimate aim of reaching every rural community. The first stage involved provision of water to 250 rural communities in each state through simple technology that could be managed by such communities. Groundwater from wells and shallow boreholes is the main source of water supply which is abstracted mainly with handpumps.

In a few cases, small earth dams and piped extensions from urban water supply were considered.

d) at the state level

Since independence successive regional governments realized the importance of water resources and so established their individual regional water authorities. Being the sole responsibility of the state governments, potable water supply to urban and semi-urban areas of Nigeria is being managed by 21 State Water Agencies plus the water supply section of the Federal Capital Territory. Some of these water agencies are also involved in the provision of rural water supply but many consider it unviable particularly now that some of them have been asked to go commercial. Each State Government commits as much as it can afford every year for the provision of water supply. However, the trend has not been very encouraging since only about 20 - 30% of what is budgeted for water supply is released by the State Government. This therefore, hampers the supply of adequate potable water supply to satisfy potential demands. It is also worthy to note that the water supply situation had recorded some improvement since the launching of the International Drinking Water Supply and Sanitation Decade in 1980 particularly in urban areas where an estimated 0.8 million cubic metres of water is supplied as against only 0.35 million cubic metres supplied to the rural areas where 70% of Nigeria's population resides (according to Iwugo, 1988) Table 3 shows roughly the number of water supply schemes in Nigeria managed by State Water Agencies:

TABLE 3

STATE WATER SUPPLY SCHEMESAccording to the report on Nationwide Rehabilitation Study

	State	No. of Urban Schemes	No. of Rural Schemes	Total No. of Schemes
1.	Anambra	46	7	53
2.	Bauchi	14	28	42
3.	Bendel	48	46	94
4.	Benue	14	18	32
5.	Borno	180 b/h	8	188
6.	Cross River & Akwa Ibom	15	2	17
7.	Gongola	8	30	38
8.	Imo	10	78	88
9.	Kano	2	289	291
10.	Kwara	12	17	29
11.	Lagos	11	6	17
12.	Kaduna	4	6	10
13.	Katsina	5	-	5
14.	Niger	12	9	21
15.	Ogun	10	32	42
16.	Ondo	18	-	18
17.	Oyo	25	4	29
18.	Plateau	15	11	26
19.	Rivers	12	29	41
20.	Sokoto	22	153	173
21.	FCT	3	-	3

About 20% of water supply systems in Nigeria are through surface sources out of which 50% have provision for full treatment (some of which are package treatment units) while others have partial treatment.

The other 80% are dependent on underground sources (boreholes, well, etc.) which do not need much treatment. However, a few of these are treated for iron and manganese removal and for general disinfection. The various state water agencies produced masterplans which gave indications of their activities aimed at supplying water to its entire population over a period of time. These targets were never met owing to the way they were planned, which made them unrealistic and unattainable. The situation is not helped by the poor financial allocation to the sub-sector by the state governments. So many other factors like the uneconomic tariff structure,

poor rate collection, machinery, lack of adequate spare parts and chemicals and constant government interference in their operations, hamper the effectiveness of the State Water Boards in the supply of water.

Given the difficult times and the present financial squeeze in the country, the various State Water Agencies have resorted to borrowing money from local and international financial institutions to finance their water supply schemes particularly for urban areas. As a result of the unviability of the rural water supply schemes the state water agencies concentrate more on urban schemes while neglecting the rural sector. Other agencies like UNICEF, DFRRI, UNDP, etc., have therefore come into rural water supply to improve the life of the rural dwellers, and with the establishment of DFRRI a lot has been achieved.

international agencies

Many international agencies have been involved in the planning and actual execution of rural water supply projects in Nigeria. Such organizations include:

a) UNICEF

UNICEF is intervening in the rural areas through their rural water supply and sanitation projects (WATSAN projects). They are in six states of the Federation namely, Imo, Kwara, Cross Rivers, Anambra, Niger and Gongola State. The Watsan Projects provide boreholes disposal through the construction of VIP latrines. So far UNICEF rural water supply and sanitation schemes have about 1500 boreholes fitted with handpumps.

b) WORLD BANK

Has contributed by way of loans to the development of over 6000 handpump equipped boreholes for rural areas through the Agricultural Development Projects (ADPs) Sokoto, Kano, Bauchi, etc. It has also given loans for projects through some State Water Agencies for improvement of urban water supply in Kaduna (\$92m), Anambra (\$67m), Borno (\$72m) and Lagos (\$173.3m).

c) UNDP (RUSAFIYA PROJECT)

Has completed plans to embark on pilot projects in four states and the Federal Capital Territory (FCT) of Abuja. The name RUSAFIYA is an acronym, in Hausa language meaning Water, Sanitation and Health. It is UNDP assisted to provide water supply and sanitation to the rural communities. So far the socio-economic survey aspect of the project has been carried

out in Nassarawa Local Government in Plateau State. The terms of reference for boreholes drilling has been prepared by UNDP and is being processed to enable drilling to commence.

at the local level

As a result of the continuous pressures by the rural communities for water, the local government authorities (LGAs) embarked on some projects to provide water. The water, eventually provided by LGAs is based mainly on small earth dams, hand dug wells and boreholes or even piped extensions from urban water supplies.

3. Sanitation

Whereas provision of potable water supply to the Nigerian populace has made tremendous progress, provision of basic sanitation has not fared as well comparatively. For instance at the start of the IDWSSD in 1981, about 58% of the urban population had access to potable water supply; about 53% of urban population had basic sanitation; about 22% of rural population were served with water supply and about 20% of rural population had basic sanitation. However, by the middle of the Decade (1985-86) 65% of urban population had access to potable water while about 70% had basic sanitation and in the rural areas about 25% had access to potable water, while about 24% had basic sanitation. Although the target was "water and sanitation for all by 1990" the current progress reveals that this target is not achievable. The target of sanitation is not only environmental cleaning but also includes provision of healthy excreta disposal systems, establishment of proper storm drains, proper management of industrial wastes and general health education, among others. It would seem as though the manifestations of all aspects of sanitation are not yet noticeable.

a) National Sub-Committee on Water Supply and Sanitation ((NSCWSS)

One of the means to achieving reasonable targets for the sanitation sub-sector is the establishment of the National Sub-Committee for Water Supply and Sanitation (NSCWSS) as one of the five Committees of the National Technical Committee on Water. The function of this sub-committee includes policy advice and planning of sanitation matters nationwide.

b) Federal Environmental Protection Agency (FEPA)

The decree establishing FEPA in Nigeria was promulgated within the first quarter of 1989. Embodied in its function is the responsibility of ensuring the protection of the country's environment from factors capable of hampering the healthy

living of the Nigerian populace. As a first step towards setting up proper goals and objectives for itself FEPA in collaboration with United Nations Development Programme (UNDP) organized a workshop, 25-26 April 1989 in Abuja, on Environmental and Sustainable Development in Nigeria.

c) Task Force on Eradication of Guinea Worm in Nigeria

It should be noted that guinea worm, whose vector is by water is a flea-type crustacean (snail-like) and has become endemic in most parts of Nigeria (e.g., in Abakaliki in Anambra State, Obubra in Cross River State, in parts of Bauchi, Kwara, Niger, Ondo and Imo State). So many other states are also affected and to facilitate identification of affected areas various state task force units and the co-ordinating Task Force at the Federal Ministry of Health have been formed. The Task Force which meet from time to time to collate necessary information is being funded by Global 2000 inc, Usa, Federal Ministry of Health and the State Governments. Realizing the gravity of the guinea worm problem the Task Force is recommending that guinea worm infestation be used as indicator for potable water supply in Nigeria.

Conclusion

Many international agencies have also committed huge sums of money for education of water supply and sanitation schemes in Nigeria. Such organizations include:

a) UNICEF

In addition to rural water supply activities UNICEF has sanitation programmes comprising provision of VIP latrines and health education activities which are executed together with water supply within the WATSAN Projects.

b) WORLD BANK

Is about to sponsor the nationwide rehabilitation project in Nigeria which has sanitation components. It has already carried out a study on the rural water supply and sanitation situation in Nigeria.

The Federal Government has also declared every last Saturday of every month an environmental sanitation day during which every citizen is expected to clean his immediate surrounding for three hours starting from 7:00 a.m.

As part of its contribution for the attainment of the goals of a healthy people in a healthy environment, the Federal Ministry of Health has intensified its health education programme by carrying out a four day programme titled "Lets talk Health".

This and many other programmes enhance the progress in the provision of basic sanitation in Nigeria.

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C. Participation of Women in Planning Water Supply and Sanitation Projects and Programmes: by Victoria N. Okobi, Assistant Director, Women's & Children's Programme, Federal Ministry of Social Development, Youth & Sport.

Preamble

Statistical evidence from UNESCO reports indicates that women constitute more than two-thirds of the population of the developing countries, and in fact, of the world. More so, they form a greater proportion of the rural dwellers and are considerably involved in water supply and family hygiene.

The average rural women is responsible for walking several kilometres to fetch water from stream, rearing children, keeping the home clean and tidy, participating in farming activities, engaging in food production, processing, preservation, storage and marketing of farm products. This no doubt is a clear indication that the rural women play a vital role in the society. In fact, women constitute a major productive force.

In this regard, the importance of water, as a major factor of production cannot be overlooked. Apart from being used domestically, water is vital for agricultural and industrial purposes. Invariably, scarcity of water due to weather and drought often affect the welfare of not only the rural dwellers, but also the urban people.

The need therefore arises to study and evaluate women's participation in planning water supply and sanitation projects in Nigeria and to initiate actions geared towards harnessing their human potentials and providing them with better health and living conditions. More so, there is the urgent need for our social values, norms and culture to reflect the true aspirations of the women in the population.

In planning water supply and sanitation projects, women's participation can be said to be minimal as compared with their counterpart in other parts of the world. Reasons for this are not farfetched. First, there are problems standing in the way of integrating women in development projects.

Factors militating against integration of women in economic development projects

Women constitute a significant proportion of the labour force in the rural areas. Invariably this commendable role of the rural women in economic development is not given the kind of encouragement its deserves. They are not adequately introduced to modern labour and time saving devices

to ease their enormous workload. Another factor militating against effective and efficient performance of women in economic activities is lack of credit facilities to finance small scale businesses. Also the system of land tenure prevents women from engaging in agricultural ventures.

a) education/social

It is pertinent to remark here that ignorance, poverty and disease are major factors confronting women in rural communities. Though most women are economically active, they lack the basic education and training to enhance their status and standard of living. In fact lack of access to education at formal and informal levels have led to a high rate of illiteracy.

Women are also restricted in mobility due to age-long customs and traditions and thus have not been able to participate in development projects. They have considerable control over their children but quite often submit to the will of their husband and other relations in the extended family. This tends to encroach on their personal freedom thus affecting their pursuit of academic and vocational training capable of enhancing their condition of work.

b) political

It is only recently that women started emerging on the political scene. Mostly in developing countries, women are not allowed to express their political views. The need therefore arises to educate women on political issues and also allow them to participate in political leadership so as to be able to express their grievances and desire for reforms.

c) health

In the rural communities, the standard of hygiene is very low. Women lack access to health services and rely much on traditional medicine. The women hardly understand the danger inherent in poor hygiene and poor diet. More so, the extended family system poses problems to the health of women. Quite often, frequent pregnancies affect the family's food budget leading to serious malnutrition among women and children. It therefore becomes difficult to take care of the family adequately.

Since women constitute the major drawers of water from streams, they quickly spread the effects of water-borne diseases to

various homes. It is obvious that children are the most vulnerable to this hazard of contaminated water which often leads to sudden death. In this connection, Guinea-worm and other water borne diseases still plague very much the rural dwellers. In fact, Nigeria has the greatest number of affected people in the world, with more than one million victims according to WHO.

Activities of government, non-government groups and United Nations Agencies in planning water supply and sanitation projects and programmes in Nigeria

Having analyzed the problems standing in the way of integrating women in development projects, it is important to focus attention on the immediate and urgent actions undertaken by various government, non-government groups and United Nations agencies in the area of water supply and sanitation projects and programmes.

In Nigeria, the Government has embarked on measures aimed at improving the lot of the rural dwellers with regard to water supply and sanitation projects. The main objective is to improve the water and health facilities of the rural inhabitants. However, most of the projects are jointly undertaken by men and women with no special preference given to women who could be regarded as the main users of water supply systems and principal overseers of sanitation facilities in rural communities.

a) Federal Ministry of Social Development, Youth and Sports (Community Development Department/UNICEF)

The Community Development Department of the Federal Ministry of Social Development, Youth and Sports despite the limited resources at its disposal was able to accomplish a great deal in the area of rural drinking water and sanitation. In collaboration with UNICEF a replicable system was adopted to provide 20-40 litres per day of safe drinking water.

Furthermore, the system was defined around the central function of people's participation and community ownership. In its health programmes it aimed significantly at reducing water and sanitation problems related to morbidity and mortality of infants and children.

In various states of the Federation especially in Imo, Borno and Gongola noticeable progress was made through consolidated Task Forces which formulated and implemented all policies with regard to water supply and sanitation projects and programmes.

Members of the Task Force were made up of officers from UNICEF, Federal Ministry of Social Development, Youth and Sports, State Ministries, Community Development Departments Trade and Co-operatives, Health, Public Utilities, Education, Economic Development, Planning and Local Government. States projects were under three teams mainly:

- i) community mobilization
- ii) drilling/technical aid training
- iii) data collection and evaluation team

Functioning boreholes were certified fit for domestic use by a UNICEF Hydrologist. Demonstration pit latrines were built by the technical team while village-based workers were trained. With the aforementioned the Ministry in collaboration with UNICEF and other related Ministries was able to monitor supply of potable drinking water, provide pit latrines and disseminate information and ideas about hygiene and healthy environment. However, efforts could still be geared towards providing services in water supply and sanitation projects with women as the main target group.

b) Directorate of Foods, Roads and Rural Infrastructure (DFRRI)

Since the government has rural development as one of its priorities the Directorate of Foods, Roads and Rural Infrastructure was established to achieve self sufficiency in food production, provide roads and other rural infrastructure. The main objective of rural development by the Directorate includes, among other things, improving the value and nutritional balance of food intake, improving the quality of rural housing, raising the living and working environment in the rural areas, rural health, education and manpower development, community/social mobilization programme, rural industrialization and rural technology development.

Considerable progress was made in fish farming, electricity water projects, dams, boreholes and rural feeder roads. Since lack of water often makes life unbearable and economic ventures unproductive the Directorate of Foods, Roads and Rural Infrastructure embarked on the provision of potable drinking water in order to ensure healthy living conditions for the rural dwellers. Collaboration with River Basin Authorities was considered an important factor. The Directorate ensured that the River Basin Authorities supplied water for agricultural purposes through dams and also provided potable drinking water.

The construction of rural feeder roads across the country is also one of the priorities of the Directorate of Foods, Roads

and Rural Infrastructure. The Government has so far disbursed a sum total of 200 million Naira for the construction of 30,000 kilometres rural roads in the country.

However, in 1987 the Directorate organized a workshop on women in rural development at Abuja, the Federal Capital Territory with the First Lady, Mrs. Maryam Babangida as the Special Guest of Honour. The workshop brought the policy makers, planners and executor of rural development programmes to jointly discuss with the rural women concerned. To this end, it is obvious that Government recognized the potential role of the womenfolk considering the fact that they constitute a majority in the rural communities.

The state of health care delivery system in Nigeria

The Federal Government introduced the primary health care delivery system to improve the quality of health facilities in Nigeria especially for women and children. It is however pertinent to mention here that the amount earmarked for health care delivery in Nigeria falls short of the recommended percentage stipulated by the World Health Organization (WHO). In this regard, inadequate funds due to the economic situation of the country has affected the health care delivery system.

Despite this shortcoming the Federal Ministry of Health was able to outline a definite health care policy.

The health care system was done in collaboration with state government and local governments. It involves the training of village health workers and traditional midwives to improve their skills so as to provide adequate and affective health care services.

The Expanded Programme on Immunization is a major component of the primary health care scheme. It is aimed at protecting children from the six deadly diseases of measles, tuberculosis, poliomyelitis, diphtheria, tetanus and whooping cough. So far 304 local government areas have been covered by the Federal Ministry of Health in collaboration with UNICEF. Children have also benefitted from the national immunization campaign. The introduction of oral rehydration therapy in the rural/urban slum areas has saved the lives of several children suffering from diarrhoea, gastroenteritis. Family planning is also one of the on-going programmes fast gaining wider acceptance among the womenfolk.

From the above mentioned, it is obvious that the Government depends greatly on women in its health care programme. Government should therefore endeavour to incorporate women in implementing the primary health care scheme. It is also glaring that despite the efforts of Government to improve health services not much was done to find out what exactly are the health problems and need of women. Efforts are only geared towards curative rather than the preventive side of the problems.

Strategies for enhancing women's participation in planning water supply and sanitation projects and programme

Government with technical assistance from international organizations could undertake strategies in enhancing women's participation in planning water supply and sanitation projects with emphasis on the following:

- provision of potable drinking water
- labour/time saving devices, e.g., cheap irrigation equipment
- introduction of transport facilities for portage of water, thereby easing women's enormous workload
- adaptation and developing technologies appropriate to women's work with department of engineering of various universities and colleges of technologies

Village action

In villages, women's organizations could be used to improve and enhance the health and living condition of women and children. However, women's participation could be part of community efforts in planning water supply and sanitation projects, e.g., involving men and women to tackle the problems for effective project operations the communities could be grouped into sections each to provide the following services:

- potable drinking water
- health, food and nutrition services
- environmental sanitation
- pre-school education
- clinic and training of community health workers

In performing the aforementioned duties, mobilization of women becomes imperative to generate effective awareness and thereby enhance women's participation in development. The need to consult women as to their needs therefore becomes important at the planning stage of the project. Since rural women usually walk several kilometres to fetch water from streams, they are well informed about the situation of water supply either during dry or wet seasons. They could assist in decision-making and generate ideas on policies related to planning of water supply and sanitation projects. They could also help mobilize fellow women and disseminate information and implement innovations when provided with adequate education, training and support. They could develop the skills needed to organize the community water supply and health services by teaching other women of the need to boil and filter water as well as keep their environment clean.

However, women's participation in planning water supply and sanitation projects differs from one community to the other depending on the economic, socio-cultural and political perspective of each community.

As part of the strategies to enhance women's participation in planning water supply and sanitation projects, workshops could be organized at village levels in local languages for the health services workers to enlist their co-operation for effective and efficient health care services. In addition, workshops on water supply and sanitation could be organized for volunteer women in leadership training. At the end of the training, women leaders would go back home to impart skills acquired at the workshop to other women. For this purpose the country could be grouped in zones for effective training. Exchange visits could also be encouraged among women leaders or co-ordinators of women's programmes to share experiences on community water supply and health services.

However, problems associated with water supply and sanitation, should not be regarded mainly as social, but also, as economic, since substantial amounts of national budgetary allocations are required for effective implementation. More so, general community participation alone will not enhance water supply and sanitation projects. Adequate financial provision for the rural communities is needed to provide basic health facilities, install and maintain water pumps, pipelines, boreholes and irrigation projects. It suffices to say that despite the limited number of women in technical and professional jobs, more women could be trained to operate and repair handpumps, taps, pipelines and other technical equipment for maintaining water systems, thus enhancing their participation in water supply and sanitation projects.

With the assistance of UNDP, technical education could be given to young girls and women. There should also be a communication link between the communities concerned with national authorities responsible for water and sanitation projects. This would enhance the success of projects because the community water design could only be determined by the users. Also, since labour, material and equipment are the three essential components during the implementation stage of projects, they have to be exhaustively discussed with the community before the contracts are awarded. Women have to be taken into consideration in the choice of technology because of their knowledge of the water and sanitation aspect of the environment. This would no doubt enhance the role of women as active planners, implementers and evaluators of water supply and sanitation activities.

National action

To further enhance women's participation in planning water supply and sanitation, firm commitment at the national level of Government is very essential. Concerted and integrated efforts of government, non-government

groups and international organizations are vital to the success of national water supply and sanitation activities. To this end, therefore, it is recommended that government should:

- a) devote a substantial amount of its budgetary allocations as a matter of priority to water supply;
- b) ensure the involvement of women in all aspects of human endeavour by integrating them into the mainstram of national development processes;
- c) mobilize women through the media and generate government commitment to self-reliance;
- d) intensify efforts to collect data on women for realistic planning;
- e) encourage research on women in areas of water supply and sanitation activities (funds could be given to departments of engineering of various universitites and colleges of technologies for research on technologies appropriate to women's work);
- f) give financial backing to community self help projects especially in the provision of potable drinking water and health facilities (privileged women in the society could also be encouraged to donate generously to self-help projects).

Having focused attention on the situation of women's participation in planning water supply and sanitation projects in Nigeria, it is hoped that concerted efforts of government, non-government groups and international organizations will bring improvement to the status and standard of living of our womenfolk.

D. Women's Activities in Health and Hygiene Education in Water Supply and Sanitation Projects and Programmes: by Dr. Dele Adedeji, Assistant Director, Women's Programmes, Primary Health Care Department, Federal Ministry of Health.

Water-related diseases are common health problems in Nigeria. They are the major cause of high infant mortality. Studies have shown that women as water carriers in many homes, most especially in the rural areas are in constant touch with water which is often polluted. Therefore, women are perceived as being the group most vulnerable to water-related diseases, which according to statistics of the World Health Organization are accountable for 80% of all diseases in the developing countries. Water-related diseases also account for 15% of all hospital deaths and often cripple the work force.

The methods of excreta disposal are also poor in Nigeria. Inadequate facilities for excreta disposal reduce the potential benefits of safe water supply by transmitting pathogens from infected to healthy persons.

In the rural areas, the sanitation sector is not usually assigned the same importance as domestic water supply. It is given very low priority by the rural population; and basic health education and public awareness are greatly lacking. The goal of health for all by the year 2000 is through primary health care.

Primary health care is essential health care made universally accessible to individuals and families in the community by means acceptable to them, through their full participation and as a cost that the community and country can afford. Primary health care addresses the main health problems in the community providing promotional, preventive, curative and rehabilitative services accordingly. It includes amongst other things an adequate supply of safe water and basic sanitation.

The Federal Government of Nigeria launched primary health care in 1987. The Federal Ministry of Health, in collaboration with State Ministries of Health and Local Government Authorities should implement the Health for All by the year 2000; scenario in 1986 with a Primary Health Care programme (PHC) which started with the selection of 52 Local Government areas (LGA's). In 1988 to bring the number to 110 implementing LGA's the Federal Ministry of Health provided technical and financial support to these LGA's. By 1992 all the LGA's in the country would have been duly covered.

Women have many important roles to play in primary health care to bring about their intended benefits. They decide what kinds of food to buy or cook, pass health education on to children. They are the first to deal with health problems within the family and decide between traditional and modern medicine; they provide health care as traditional birth attendants and voluntary village health workers.

Because of these activities their skills should be upgraded through education and training to improve the quality and enlarge the scope of their practices. It is necessary to involve women's organizations in planning and implementation of health projects. Social habits and traditional practices which affect the health of women should be changed by women within the society. There is a high level of illiteracy among rural women and there is a negative relation between illiteracy and women's health. Lack of primary education makes introduction of appropriate technology difficult.

Health education and hygiene should be related to the knowledge about diseases, promoting positive attitudes to storage, providing receptacles at prices which are affordable and also practice of water handling, excreta disposal, and food preparation.

When expected behavioural changes and health impacts do not occur, health education is used to promote the desired use of water and sanitation facilities. Generally women are the main target group for these programmes. In teaching health education, one must not only teach the women that they "should" or "must" change their behaviour. They also need to know how to detect problems, repair equipment, seek outside help, protect water sources, keep latrines clean, keep food safe, etc.

If women must use soap and water to wash, they must have access to both. Linking education on water and sanitation to income-earning activities for women is a way to bring about these changes. Education materials should illustrate a positive image of women: women as nurses, teachers, managers. Education should also be directed at men to share the responsibilities to improve the welfare of the community.

The first condition for impact is that health education programmes reach those for whom they are intended. For example, health workers work during the day when women are away on the farm and go home in the evening when the women return from the farm. Practicing at health centres is not adequate because of lack of transport. In some cultures where women demand privacy health education is also difficult.

Role playing by local people, locally made posters, gathering at water collection sites and market places, discussions in women's groups, radio broadcasts are among the channels of communication. Women themselves have been found to be most effective promoters and educators in programmes where they are the primary focus.

The Federal Ministry of Health in collaboration with the State Ministries of Health and local governments have trained village health workers and traditional birth attendants who are mostly women. Community health workers should work closely with local school teachers.

Sometimes cultural division of labour and responsibilities do not permit women to make decision or carry out improvements in all aspects of hygiene. Latrine, kitchen and well construction are usually carried out by men. Therefore in the development of health education programmes, separate issues for men and women need to be identified.

The involvement of school children in health education is often stressed because they are the generation of the future. Health education programmes should form part of the school curriculum, especially information about the causes, transmission and prevention of water and sanitation related diseases.

In conclusion, working with women's groups has many advantages. Women's groups are traditionally health-oriented and provide channels for women-to-women communication. At the national level, women's organizations can link up with national development programmes by including water and sanitation topics in women's education campaigns and women's health programmes.

E. Role of Women as Participants and Beneficiaries in the Choice of Technology and Training for Water Supply and Sanitation: by Mr. Carel de Rooy, Chief Water and Sanitation Section, UNICEF.

The presentation dealt with the subject in the context of the UNICEF - assisted Water and Sanitation Programme in Nigeria and therefore focused mainly on rural women.

The three most time consuming tasks which affect rural women in many countries are:

- a) Provision of fuel for cooking (firewood)
- b) Food processing
- c) Water collection and "purification"

Any intervention directed at these issues will substantially reduce the labour and energy spent by women on daily and inescapable chores. The subject matter treated during the presentation focussed on the latter. A recent study undertaken by UNICEF in a rural portion of Cross River State, Nigeria, indicated that women undertake approximately 50% of the water collection while children assist with 35%. This substantiates how important safe and nearby accessible water supply can be to women - and children - in remote rural areas of developing countries.

1. Water Supply

1. a) surface water versus ground water development in rural areas

The advantages of ground water development (in most cases) as compared to surface water were pointed out:

- Usually no need for treatment and therefore less dependency on foreign exchange for chemicals;
- Use of low cost extraction equipment such as handpumps is frequently feasible;
- If handpumps are used the cost of maintenance becomes affordable to the users and the technology to undertake maintenance at village level can be transferred to them;
- The breakdown of a large surface water scheme with distribution lines to tens of thousands of people will cause much more problems than breakdowns of individual handpumps which serve a maximum of 500 people.

1.b) low costs versus expensive technology

From the above paragraph it is clear that for the sake of sustainability and self-reliance whatever technology is selected for water supply (or for that matter any other intervention), it should preferably be affordable and accessible to the community.

2. Sanitation

Inadequate excreta disposal in rural areas of developing countries is the major cause for frequent diarrhoea among young children which can cause death due to dehydration if not properly treated .

The transfer of technology backed by institutional support in the form of trained artisans and availability of subsidized latrine slabs can gradually bring about a change in attitudes and lead to acceptance and use of improved means of excreta disposal in individual households. This is particularly so when government simultaneously provides latrines in public places such as market places, schools and clinics, because the frequent use of improved facilities will gradually increase the expectations of people.

The technology being promoted by UNICEF in Nigeria consists of the Ventilated Improved Pit (VIP) latrine which has the advantages of not requiring water for flushing, trapping flies and eliminating odor when properly managed and maintained.

3. Community mobilization and health education

Women can play a fundamental role in mobilizing communities and in particular other women - a step which should precede all others in the implementation process. Improved health/hygiene practices can be obtained through the transfer of basic knowledge to women.

The establishment and use of Mothers Clubs is a strategy being used by UNICEF in Nigeria over the past 18 months and it is proving to be a very good channel for improvement of health/hygiene education.

4. Training of women

Women can participate in most of the implementation components discussed, and have proven to be indispensable if satisfactory results are to be expected. It is therefore necessary to thoroughly train trainers initially so that they can continue the task.

Training of women should be preceded by identifying needs, and carefully selecting the women to be trained. Strong lobbying should be undertaken to place women in key positions in planning, budgeting and implementation of water and sanitation projects so that the views and concerns of rural women can be properly represented at higher levels.

F. Women's Activities in the Operational Stage of Water Supply and Sanitation Projects: by Eng. Ebele O. Okeke, Assistant Director (Water Supply), Federal Department of Water Resources, Federal Ministry of Agriculture, Water Resources and Rural Development.

In the past, many water supply and sanitation projects have been implemented in Nigeria without the involvement and participation of women.

The result is that most of the facilities were neglected and subsequently abandoned for lack of care and wrong usage.

In realization of the importance of women in project maintenance at the rural level, in the present strategy being pursued, through the various water supply and sanitation (WSS) projects executed by FDWR/DFRRI the emphasis has been, on appropriate technology and full participation by women.

Planning

The strategy is to mobilize from the inception of the project the affected community. The LGA chairman, the leaders and members of the community meet with the government (or NGO) officials. The idea is to elicit fruitful discussions from the villagers; the ideas gotten from them enhance the project. The community is duly informed about the benefits of the project. The health benefits are also enumerated.

The community then sets up the village WSS Committee of which they must have at least two women members. Members are normally chosen for their expertise, interest and commitment to the idea (project). Children and women can be trained to be demonstrators (through lectures and drama) of health education; children are very effective.

Choice of technology

The technologies to be adopted must be easily fabricated, and as much as possible use should be made of locally available materials; they should be easily operated and maintained by the villages especially the women who are the main users of the WSS facilities. Most importantly, the choice of technology must be acceptable to the villagers (socially and culturally).

There are types of technologies already manufactured, using mainly local materials and which can be maintained by the village artisans, including women. These are:

- a) Ruwatsan Handpump - the prototypes were fabricated in Nigeria by FDWR/DFRRI using Defence Industries, Ltd. The prototype is based on India MK III handpumps. The pump is now being manufactured locally.
- b) Rainharvester - This is not a new principle, only modified for the rural dwellers to collect better quality water. This is very easily maintained by the women.
- c) Tripod Drilling Rig - This is for shallow borehole drilling. This can be operated easily by the villages including women. Women can easily be trained.
- d) Iron Removal Plant - for handpump boreholes which take iron contamination. More often than not ground water is potable and does not need any treatment.
- e) Simple Intake Structures - for the abstraction of surface water. These are the most easily operated by women.
- f) VIP latrines - ventilated improved pit latrines.

Women involvement in project execution

From the foregoing it is quite obvious that the trend is to involve women in project planning through execution and in maintenance.

This is presently being practiced at the Bauchi Handpump Testing Project. The programme is for the testing of five handpumps locally manufactured within and outside Nigeria. The pumps are the Ruwatsan, Volanta, Afridev, India MK II and III handpumps. FDWR, DFRRI, BASIRAA, FACU, World Bank, UNDP and UNICEF are the agencies involved.

The activities handled by women are:

1. Siting or location of projects
The women are very much affected and because of this they know the best locations to be developed.
2. Construction
The only way that rural communities can afford the cost of WSS improvements is by:

- a) contributing their labour
- b) collecting locally available material that will be needed.

This contribution is very important as it cuts down the required financing.

In the handpump programme the main activity in which the villagers including the women can participate in are:

- cleaning the site
- carrying sand, blocks and water
- constructing the apron, washing bathing places and the cattle troughs
- providing food for the workers
- sweeping and keeping the sites clean
- turning the cross bar of the rig during drilling (women are good at plastering).

Maintenance

This can be broken down as:

- a) minor maintenance (preventive)
- b) major maintenance

Women who have been trained can carry out preventive maintenance such as:

- greasing the chain of the handpump
- tightening of bolts
- dismantling the pump for minor repairs
- detection of cracks and leaks
- sweeping the areas (vicinity of the pump, the VIP latrine) etc.
- sweeping and washing the VIP latrines.

For major repairs the women should immediately alert the area or zonal mechanic who has been trained for the particular item.

G. Communication/Information Strategy in Water Supply and Sanitation Projects: by Mrs. Ekanem Bassey, Editor, "Nigeria Review", Federal Ministry of Information.

Preamble

I will begin by quoting Professor Curtis Macdougall, author of "Interpretative Reporting", who wrote that "a journalist ordinarily cannot be a participant in the events of which he writes or his viewpoint will be decidedly warped". This explains why after initially attending the workshop on a regular basis, I decided to be irregular at sessions. It was clear to me that participants tended to look at communications/information strategy needed in the implementation of their envisaged programme purely through the use of familiar mass media facilities. If I had not disappeared from the scene, I would have given the verdict that this august body had already done the job for me. But that is not quite so. Planning a communication/information strategy for any programme involves more than mere selection of media channels.

Identifying vital groups

Having said this, I will start off by identifying the groups which will be involved in actualizing the concept "Women, Water Supply and Sanitation". From my study of some papers already presented, I have identified three main groups; this does not rule out the possibility of more emerging in future, that is why there is the need to constantly review strategies for any programme. For now, these are the governments, the opinion leaders (that is the body here gathered) and finally the masses.

Groups I: In referring to group one as the governments I have in mind the three-tier-system of government viz: the Federal, States and Local governments who are the policy planners and decision makers.

Group II: The second group, i.e., this body including those who may join hereafter are the opinion leaders.

Group III: The masses, those on whose behalf this body is acting and who are expected to be the main beneficiaries from the third group.

Communication strategy

- A. It is pertinent to point out at this stage that group-to this body- is actually the motivating force which has the responsibility of changing "women, water supply and sanitation" from mere concept to a concrete programme approved and implemented by the governments and equally seeing to its acceptability by the masses. To achieve this objective this body should not regard the workshop as an end but only as means to an end. There is a need for continuous communication between the organizers of the workshop and the participants, not only

on individual basis but also as a group. In this respect, I am floating the idea of setting up a standing committee which will sustain the tempo already generated here. It is then and only then that you will enjoy regular exposure from the mass media.

This body must not be shy of publicity. You will have to be seen and heard before you are given attention. To buttress my point that regular publicity will assist in winning support for you I will wind up this portion by quoting Professor Alfred Opubor's opinion in a paper he presented at a meeting of the National Council on Information in 1979 that "The mass media are pivotal institutions around which revolve those processes of public communication which are fundamental to the development and survival of Nigerian society".

- B. When you have put your house in order you will be able to deal with the governments as an organized body. Effective public relations will in that case be the strategy to be adopted by the body. This tool is what Dr. Sam Epelle in his book "Effective Public Relations" described as "deliberate, planned and sustained effort on the part of any organization to win over its target audience on any particular issue". In applying this strategy, repeated written requests, dialogue through representation and lobbying are some of the options available to you. A confrontational stance is absolutely irrelevant as it will only prove counter-productive. After all, the aim of this body is to contribute its own quota towards the realization of "Health for all by the year 2000". You should strive to prove that as enlightened mothers you have advanced beyond the stage of shouting for women's liberation and that your primary interest is to contribute towards the development of the nation health-wise.
- C. We have now arrived at the all important stage of mapping out a communication/information strategy for the masses who will be the chief beneficiaries of the water supply and sanitation programme. My first reaction here would be to ask that you treat this issue as a hypothesis for now. All along you have been working on the assumption that the masses will accept these programmes. But suppose the educated ones among them say they are using it as a stepping stone to gain political power; what if the common man shouts "na e own chope e de look for", how will you explain? A good strategist does not only look at things from the positive point of view but also examines the unpleasant probabilities. It is only then that he can consider himself "combat ready".

That notwithstanding I will now move on to examine the available alternatives for you to choose in communicating with the masses.

Certain precedents exist when nation-wide campaigns have been so credibly executed that in some cases neighbouring countries have had to seek our expert advice.

1. The change-over to right hand traffic - 1971.
2. The change of our currency from pound sterling to Naira which was not a mere change in name but equally involved educating every Nigerian on the use of decimal currency - 1973.
3. The change to the metric system - 1973.

What this means is that we have the experience and the technical know-how to handle the communication/information strategy should the country decide to execute this envisaged programme.

On that bright note then let us examine some available strategies we could choose from:

1. Propaganda - this invariably has a short term effect since the tendency is to pressure people to accept what is being put forward. When people sit back and reflect on the rationale of accepting such ideas, doubts begin to set in.
2. Education through mass media - this has the disadvantage of being intermittent since often too many campaigns go on at the same time which also results in conflicting information.
3. Campaign/internalization - campaign has the advantage of combining most, if not all, the known strategies in publicity and mass mobilization. It involves the use of mass media channels, mobile cinema vans, public address systems, community viewing centres, posters, handbills, pamphlets, incorporation of ideas in school programmes, dialogue with community leaders, person-to-person campaign, performing artists, etc. Internalization, which goes with campaign strategy, is the prolonged use of some of these approaches in a subtle manner; by so doing the idea is implanted in the person and the desired change in attitude brought about without friction.

Suggested agencies for urban publicity

Print and electronic media, Federal and State Ministries of Information and performing artists.

Suggested agencies for rural publicity

Federal and State Ministries of Information through their Public enlightenment Departments, State radio stations, MAMSER Directorate and editors of community newspapers.

Conclusion

May I emphasize here that the type of change your programme intends to bring about will cut across societal values, religious, cultural and ethnic beliefs. Therefore in adopting any of the above-mentioned strategies a careful study of the ethos and taboos of any chosen locality must first be carried out by your designated publicity agent, the goodwill of those who will be assets in the implementation of the programme should be ensured and the timing of the campaign well considered. These will be some of the major components of his feedback to the planners.

Finally I have endeavoured to make you appreciate the special relationship between communication and development and the effects of the mass communication process on the development of society. I do hope that if the recommendations you make here are acceptable to the governments you will appreciate that to carry the masses with you successfully it means you have to change attitudes, which in some cases are primordial.

You will therefore need articulate mass communicators to work alongside the doctors, technologists, health inspectors and all others who will labour to see your dream come true.

H. Communication and Information Strategies for Women in Water Supply and Sanitation: by Mr. Mike Osunde, Principal Correspondent, News Agency of Nigeria.

I have been asked to consider communication and information strategies for women in water supply and sanitation. If I understand the topic, I believe what we are talking about is how best women can use communication to improve water supply and sanitation in our communities. If I may I will ask, "Why the emphasis on women? Before I answer this question, I would like to draw your attention to a speech by a Regional Director of the World Health Organization (WHO), Dr. Hiroshi Nakajima, last month during the World Health Day celebration at WHO Headquarters in Geneva, Switzerland. He was talking about the important role of communicators in health programmes.

He said, "We need good communicators who are able to talk and get others to talk about health".

I have chosen to quote this sentence because the WHO Director has in his speech my own perception of the kind of communicator that I would recommend you use to achieve the goals of improving water supply and sanitation.

In so doing, I am counting cost, knowing the economic climate in the country. Even the Director acknowledged the economic factor in the same speech I referred to earlier. Again I quote, "But talking health also means talking of serious repercussions on health of the economic plight of certain countries, especially those of the developing world. It is sometimes forgotten that the measures taken by developing countries to repay their external debt often involve financial restrictions that prevent them from obtaining essential drugs".

What he is saying, in other words, is that because of the economic climate, one should count cost even in talking. So if I might borrow the words of the Director, what we need in discussing this topic is "good communicators who can talk, and get others to talk about" the benefits of water supply and sanitation in the overall interest of the community. Now, to the question of "why the focus on women?", I am sure your guess is as good as mine. In our traditional society, the women's role is such that the burden of looking for water for everyday use is hers and that of her children. So also are sanitation chores around homes. The man is assumed to be the lord and master of the home.

In addressing the topic, it is important that we realize that in the Nigerian context, we have a number of targets that our messages must reach.

These targets have diverse cultures, customs and languages. In packaging our messages therefore, it is important that several, if not all, of these targets with their idiosyncrasies are addressed. Here, I will want to identify the urban and rural dwellers as two of the targets in our society today. While in the urban areas it will be possible to reach the public through the print and electronic media, using one or two languages, one cannot say the same for our rural dwellers.

In identifying groups "who are able to talk and make others talk" therefore, I suggest that instead of paying so much for advertising in the print media and jingles in the electronic media, more attention should be paid to such groups as women's societies (in churches, clubs and markets), age-groups and town criers to carry our messages.

I have deliberately chosen these groups to cut cost, and they will be doing the "talking and make others talk" for the benefit of our society in the supply of water and to improve sanitation.

- I. Evaluation for Water Supply and Sanitation Projects: by Dr. O. A. Adelaja, Deputy Director, Disease Control and International Health, Federal, Ministry of Health.

Introduction

The immediate and most important consequence of lack of sanitation is ill-health. Ministries of Health therefore have a primary responsibility in promotion of sanitation.

The Federal Ministry of Health, through its Environmental and Occupational Health Division has been entrusted with the responsibility of promotion of Rural Water Supply and Sanitation in the context of the programme of the International Drinking Water Supply and Sanitation Decade (IDWSSD) and as an integral part of the Primary Health Care (PHC).

The Division has been assisted in its programme as follows:

- a) WHO has provided the services of a consultant Public Health Engineer for the period 1977-85 and again in 1988.
- b) UNICEF has assisted the Division by providing portable H₂O testing kits for bacteriological and chemical analysis of drinking water.
UNICEF has also drilled a borehole and installed a handpump on the Division's premises and has constructed an alternating type of VIP latrine for demonstration purposes.
- c) The Division's work in the field of rural sanitation received a boost with the starting of the project "UNDP NIR/85/070 Water and Sanitation Adviser to the Federal Ministry of Health". Under this project, the services of one water and sanitation adviser were made available to the Environmental and Occupational Health Division. The project was funded by UNDP and executed by the World Bank.

As the Environmental and Occupational Health Division had the advantage of working on the UNDP project, it was decided to impart the knowledge gained in the training and actual construction of VIP latrines to health personnel from various states. The Federal Ministry of Health agreed to fund a training programme on VIP latrine construction in all schools of health technology in Nigeria. Six schools included in the programme for the year 1988 are the following: Schools of Health Technology at Ilesha (OYO), Offa (Kwara), Maiduguri (Borno), Gombe (Bauchi), Idah (Benue), Jos (Plateau). In each of the above States, a two-week workshop was conducted and two VIP toilets, one single deep pit VIP and one alternating type VIP latrine were constructed, as demonstration mode. It is expected that this programme will continue and by the end of 1990, all the schools of health technology in the country will be covered.

UNICEF and UNDP/World Bank are active in the field of rural water supply and sanitation with the Federal Ministry of Health, the State

Government and the Local Government Authorities (LGAs). UNICEF through WATSAN Project is active in the States of Imo, Anambra, Gongola, Kwara, Niger, Cross River, while the UNDP/World Bank through the Rusafiya Project has recently taken up projects in Abuja, Bauchi, Borno, Plateau and Benue. In all these programmes, the Federal Ministry of Health is the Federal Government counterpart.

Note: UNDP Rusafiya Project (Rural Water Supply and Sanitation Project NIR/87/011) is funded by this Ministry, UNDP and some States. Rusafiya is the acronym of RUWA - Hausa for Water; SABTA - Sanitation; LAFIYA - Health.

Rusafiya project will be implemented in the five States named earlier. In each LGA a RUSAFIYA unit will be established and project activities in each LGA comprise construction of hand-dug wells, hand-drilled boreholes and mechanized drilled boreholes as appropriate construction of demonstration VIP latrines and hygiene education. Emphasis is on getting communities to participate.

It is now proposed that in 1989 the Federal Ministry of Health should emphasize VIP latrine construction and health education in a few LGAs selected from some States not covered so far by any of the projects above and whose need is the greatest.

Also proposed is to select three LGAs from each of the States to be served in the year 1989.

Monitoring and evaluation of the project will be carried by the Federal Ministry of Health/States Ministry of Health team periodically and at the end of the project.

As little is known about effective planning and organization of women's participation in sanitation activities, monitoring of the process is therefore essential. Evaluation can also be useful for checking on the commonly made assumptions that:

- a) women participants will benefit from their efforts; and
- b) the project will benefit from women's participation.

In order to understand the essential components of an evaluation procedure, the module in the training package use Evaluation Procedure (MEP) produced by WHO as a demonstration on an:

- inexpensive
- simple, and
- quick procedure.

Purpose of evaluation

Evaluation is systematic way of learning from experience and of using the lessons learned to improve the planning of future projects and also to take corrective action to improve:

- the functioning
- utilization, and
- impact of existing projects.

The evaluation should also include recommendations of the following types:

- a) actions that need to:
 - get a non-functioning facility into operation,
 - improve a functioning facility,
 - improve the utilization of facilities;
- b) complementary activities for benefits to materialize or increase;
- c) modifications needed for future projects;
- d) actions to ensure that lessons learned are conveyed to other programmes and other agencies.

These recommendations have been labelled "Minimum Evaluation porcedure" or MEP.

Scope and purpose of MEP

The ultimate objectives of allocating resources for water supply and sanitation investments are to improve health, welfare and economic status of the users of the facilities constructed. These objectives cannot be fully achieved unless the facilities are firstly functioning in the correct way and secondly utilized by the community. Thus MEP is designed to:

- a) evaluate functioning; and
- b) utilization and concludes with a discussion of impact study methodology and findings from documented impact studies.

Evaluation can be continuous or at special points in time when maximum use of the results can be expected. Guidelines do not recommend research-oriented sophisticated methods of establishing the linkage between clean water, adequate sanitation, hygiene education and health; nor is cost/benefit analysis included.

Emphasis is rather on the collection of basic information, on the functioning and utilization of projects, and the employment of this information to improve project and programme performance.

Procedure for evaluation

The main steps involved in carrying out an evaluation are the following:

- a) decide to evaluate;
- b) select persons responsible for the evaluation;
- c) establish terms of reference for the evaluation;
- d) desk study - person responsible needs time to study documentation about the project;
- e) field visit to plan the evaluation;
- f) decide on focus of evaluation;
- g) collect data on results - three main types of data need to be collected:
 - i) data on functioning of the facilities and educating services,
 - ii) data on utilization of services,
 - iii) institutional and financial data related to the project;
- h) assessment of data,
- i) preparation of recommendations and establish priorities;
- j) review of the report;
- k) initiate follow-up action.

Evaluation of women's participation

Self-evaluation is suggested as it has worked well in some notable projects and could be applied more frequently. Self-evaluation is an effective tool in community education. Therefore women and the community should be encouraged to evaluate their own progress in water supply and sanitation activities in order to improve their role in this field.

A preliminary framework for monitoring and evaluation of women's participation includes three dimensions:

- a) monitoring the process of women's participation;
- b) evaluating its impact on the project;
- c) evaluating the project's impact on women.

Sources of data and data collection techniques would be varied and include:

- a) review of project records;
- b) analysis of existing background data observation;
- c) interviews with informants;
- d) interviews with women participants themselves.

Implication for evaluation design

Warner (1975) has suggested that evaluation of water and sanitation improvement should be viewed in three stages:

Stage 1 - Project Operation

Functional and engineering aspect of the project are assessed.

Stage 2 - Project Performance

This stage concerns a process evaluation of the use of facilities in which individuals and communities as users form the object for evaluation.

Stage 3 - Project Impacts

This final or end-stage evaluation encompasses measurement of the health social/organizational, economic and administrative effects of the facilities on individuals, household and communities.

At each stage of the evaluation, one must account for the role of women as diffusers of knowledge, attitudes, and behaviour associated with water and sanitation technologies.

III. RECOMMENDATIONS

The following recommendations were adopted by the participants to the National Workshop on Women, Water Supply and Sanitation, held in Lagos, Nigeria, on 10-16 May 1989.

A. Participation of women in planning for Water Supply and Sanitation (WSS)

1. At the local level

- a) Organization: identify women's groups through traditional and/or religious leaders at grass-root level.

- b) Information/consultation/education:
 - i) agency proposals should be discussed at village level
 - ii) the community must express its needs clearly
 - iii) information should be passed by word of mouth through town criers on market days and during religious assemblies
 - iv) sanitary inspection services must be maintained
 - v) health hazards should be highlighted with visual aids

- c) Participation: male leaders in the community should be encouraged to co-operate with the women in working with the agencies.

- d) Women should be involved in:
 - i) choice of technology
 - ii) water treatment
 - iii) siting and accessibility of technology subject to expert advice over the preference of interest groups

- e) Sanitation:
 - i) sanitation agencies have become over-specialised and should be reviewed
 - ii) an awareness campaign should be handled by women for women
 - iii) VIP latrines should be established and maintained

2. At the state level

- a) Directives should be issued to all States to set up uniform Steering Committees to plan water supply and sanitation projects and programmes. The Steering Committee should be comprised of the Water Board, agricultural development projects, DFRRRI, UNICEF, Ministry of Health, Women's Affairs Department, Better Life Committee and women leaders at the state level
- b) Collection, storage and use of data on water supply and sanitation should be emphasized to improve consultation
- c) Women should be educated on methods of water storage and treatment, e.g., rain water for future use
- d) Boiling of water and use of easier sterilizing methods should be encouraged and promoted
- e) Women should be encouraged to use locally available materials, e.g., pots and cloth filtration
- f) Government should provide deep, cemented, treated and well-covered wells where boreholes have proved impractical
- g) Government should embark on mass enlightenment campaigns on the role of women in planning for water sanitation, using MAMSER and mass media
- h) Women should be trained in the use of existing WSS systems to enable them to participate in planning
- i) Voluntary and service organizations should be encouraged and involved, e.g., clearing and damming streams to make them safe and durable
- j) The possibility of providing water from perennial springs should be explored and utilized
- k) Maintenance committees should be set up at the village level, and encouraged by the State governments, to monitor the use of these boreholes or wells, where they do not exist

3. At the federal level

- a) Government should accelerate the establishment of the proposed National Women's Commission to function as a channel through which the input of women will be reflected

on policy and programme planning for water supply and sanitation. It should also:

- i) assess policies and programmes
- ii) ensure co-ordination of women's activities
- iii) promote collaboration and co-operation among governmental and non-governmental agencies, and the communities
- iv) engage in dissemination of information for the participation of women in planning water supply and sanitation

B. Women's activities in health and hygiene education

1. Different channels through which women can be educated in health and hygiene

Health and hygiene education for women as the ultimate users of water is crucial to ensuring the health impact and general success of water supply and sanitation projects and programmes. A variety of channels already exist for disseminating information on health and hygiene issues.

These channels include:

- a) Electronic media - radio and television are used to reach urban and rural dwellers (where facilities are available) through jingles, drama and discussion groups on health and hygiene practices
- b) Print media - posters, billboards, cartoons, handbills (in local languages) are also used in focussing women's attention on health and hygiene practices
- c) Government agencies
 - i) MAMSER Directorate with its staff in the rural areas has assisted tremendously in propagating information on health and hygiene practices

ii) Ministries with extension workers such as Health, Agriculture, Social Development have proved to be effective channels in disseminating information on health and hygiene

iii) Better life Committees through their interaction with rural women have served as an effective channel in educating women on health and hygiene

iv) Women's Education Committees have served as effective channels through their practical demonstrations on health, hygiene and nutritional practices

- d) Health centres - antenatal and child welfare clinics have served as avenues for health and hygiene campaigns and demonstrations on food preparation
- e) School Education - the inclusion of basic health and hygiene practices in the school curriculum has in fact made this channel compulsory for all school children
- f) Co-operative societies - meeting held by co-operative societies have served as useful avenues for disseminating information on health and hygiene issues
- g) Market rallies - rallies, organized in local languages have served as very effective channels for educating women on health hygiene practices
- h) Viewing centres/
mobile cinema - women have been exposed to health/hygiene aspects through documentary films which leave lasting impressions on women for sustained health/hygiene impact

- i) Religious groups - whether in groups or in churches this channel has proved very effective in information dissemination to all classes of people
- j) Civic/multi-purpose/adult education/home economics centres - these centres apart from educating women on good health/hygiene practices, are effective in exposing women to good nutritional practices such as education of women on the dangers of consuming rotten agricultural products
- k) Primary health care workers - Traditional Birth Attendants are educated for dissemination of information on health and hygiene to women in rural areas because of their closeness to women
- l) Age groups - this channel has proved very effective in dissemination of information on health and hygiene issues through the different age groups
- m) Parents/teachers associations - the parents teachers association as well as parents at home do play a vital role in exposing youths to health and hygiene practices
- n) Women leaders, market women leaders, wives of traditional rulers - as influential members of the society these groups by mobilizing community members through town criers, have been very effective in enforcing weekly sanitation practices in their surroundings
- o) Non-governmental organizations - these agencies, ZONTA, NCWS, etc., do assist in enlightenment programmes on sanitation practices

Improvement on the Channels

The effectiveness of these channels could be improved through the following ways on:

- a) arranging conferences, workshops and seminars for urban and rural dwellers by government and non-governmental organizations
- b) practical examples on health and hygiene practices by influential people and groups such as women leaders and voluntary organizations over sanitation practices, e.g., burning or digging of pits for effective refuse disposal
- c) government should be requested to enforce the teaching of hygiene lessons in schools for sustained health/hygiene impact

2. Women's role in educating the family and community in health and hygiene for WSS

- a) at the family level, women should:
 - i) teach children basic health education, table manners, use of toilets
 - ii) be encouraged to immunize their children
 - iii) teach children to avoid water wastage
- b) at the community level, women should:
 - i) organize training for women trainers on WSS
 - ii) mobilize women through women's organizations to embark on clean-up of their immediate environment
 - iii) encourage inter-personal communication at the local level to improve WSS
 - iv) encourage and strengthen home visits/informal-education
- c) encouraging and strengthening of b) and c) can take place through:
 - i) formation of women's co-operative groups

- ii) enlightenment through mass media
- iii) introduction of incentives
- iv) use of refuse burner in homes, markets, etc.
- v) use of VIP latrines and wells through self-help schemes
- vi) use of filtering pots with tops to ensure safe drinking water

3. Materials for health and hygiene education, the role of women

a) the following training tools and facilities were identified:

- visual aids, e.g., posters, charts, pictures, etc.
- mass media (print and electronic)
- literature and pamphlets
- traditional aids, e.g., muslin cloth, ash, alum and limes
- first aid, e.g., ORT
- human resources, e.g., discussions, workshops, demonstration, sanitary inspectors, health education personnel, extension workers, parents, parent/teacher associations and mothers
- pilot schemes and projects
- models/specimens of equipment, e.g., VIP latrines, soak away pits, dish racks

b) the role of women could be:

- practical demonstration by women
- involvement of women in the design of visual aids
- articulating cultural habits to render training tools acceptable to the community

- reintroduction of traditional sanitation aids, e.g., woven towels, traditional cloth, soap-making, dishracks and calabashes
- close co-operation with trainers, e.g., extension workers
- organization of training of trainers workshops

c) General recommendations

- funds should be made available to promote and encourage the above
- international assistance should be sought, particularly for pilot and self-help schemes, analysis and providing the necessary materials

C. Women's involvement in choice of technology and training

1. Improvement of maintenance through involvement of women

- a) women should be involved at the planning stage, e.g., choice of site, design and selection of technology, construction safety, operation and maintenance of the system
- b) women should be involved in the process of base-line survey, data collection and analysis
- c) the women selected as enumerators should be literate, and acceptable to the women in the community
- d) for proper maintenance responsibilities should be rotated if the system is used generally; this is to ensure a high sense of responsibility and peaceful interaction by all users
- e) the culture, beliefs and habits of all users should be taken into consideration
- f) the funding of the system should be the collective responsibility of Government, NGOs and community members
- g) workshops and seminars should be organized to update and introduce current technology in the construction and use of the system

- h) government should intensify the use of locally available materials

2. Training and using women to construct VIP latrines

The importance of VIP latrines in a community health system cannot be over emphasised. Consequently, women have a role to play in the building of VIP latrines in their environment. There are, however, various stages involved in the proper construction of a VIP latrine namely:

- a) project initiation - women should participate in identifying the project; they should be involved to ensure acceptability of the project. NGOs have proved very useful in the initiation stage as well
- b) baseline survey - data collection is useful in determining the fate of the project
- c) planning and funding - women should be involved; this could be in cash of the project
- d) implementation - women should play the supportive role such as supplying water, sand, etc.; the future generation should be involved more and more to participate in technology choice and construction, i.e., women should encourage their daughters to participate
- e) training - people should be trained to use the facilities properly; organise talks on their use
- f) maintenance of VIP latrines - a management committee should be set up and charged with the following:
 - i) participate in cleaning of toilets on a rotational basis
 - ii) oversee maintenance of latrines

It was recommended that:

- a. NGOs should organise workshops at both the state and local government levels
- b. Women should be employed (job opportunities)
- c. rates are fixed; money is collected and used to maintain the latrines where applicable, e.g., market places

3. Village-based workers: solving the problem of high drop out rates

The role of the village-based workers (VBW) is an important one, so, because of economic difficulties, it should be recognised and remunerated .

a) Definition

The VBW is a UNICEF concept; it exists only in UNICEF assisted projects and its main function is: maintenance of handpump-equipped boreholes and VIP latrines, to teach basic health education and to report to the appropriate authorities any problem that might arise. The concept was extended to include Village Health Workers (VHW) because of the high incidence of their dropouts there as well.

b) Criteria for selection

- i) they must know that it is voluntary service
- ii) they must live in the community
- iii) they should be married and established in the community
- iv) they should have a steady source of income
- v) they must be interested
- vi) they must be functionally literate and respected in the community

c) Incentives

- i) remuneration through a revolving fund
- ii) recognition and motivation
- iii) full community participation
- iv) encourage association of VBWs
- v) articles of trade
- vi) exchange of visits

- d) Role of NGOs
 - i) help in re-training and refresher courses
 - ii) assistance in articles of trade

D. Women's role in the operational stage

1. Areas of conflict in management of WSS facilities

- a) planning - women should actively be involved in the planning and implementation of projects on WSS in the community
- b) cultural taboos - there is need for proper education for both men and women on WSS to eliminate problems emanating from cultural taboos
- c) maintenance - for effective maintenance of WSS, responsibilities should be the concern of all beneficiaries; this could be achieved through team effort or rotated responsibility
- d) family orientation - parents, particularly mothers, have a role to re-orient the thinking of their own children, especially the males, in their participation in the maintenance of WSS
- e) finance - financial responsibility of provision and maintenance of WSS should be borne collectively by government, community, NGOs and private interested individuals

2. Mobilization strategies for women during the operational stage

It was presumed that women had already been actively involved at the early stages of project planning and implementation.

The following recommendations were made:

- a) commissioning - involvement of women, including non-resident women, at this stage should be encouraged particularly to promote sense of responsibility through sense of ownership

- b) supervision - village committees should be set up to supervise maintenance and light repairs as well as general cleanliness of facilities and surroundings
- c) training - women should be involved in post-project commissioning and training in usage, maintenance, light repairs, etc.; also to detect faults and defects and report to the Village Maintenance Committee
- e) monitoring - women's involvement in monitoring, i.e., through periodic checks, should be encouraged
- f) education - women should educate minor children on the proper use of WSS systems

3. Strategies to ensure that sanitation is properly entrenched

Women have a very important role to play in ensuring that sanitation is entrenched, if given the opportunity. By so doing, "Health for all by the year 2000" can also be ensured.

Ways to achieve this include:

- a) sanitation strategies should begin in the home
- b) children should be involved in efforts by training and by personal example
- c) women in health, education, information, NGOs, etc., should all be involved through group discussion, handbills, television, posters and radio programmes
- d) there should be seminars/workshops/and conferences organised by women for women at all levels, but especially at local level
- e) it should be compulsory that local government, NGOs and market women's associations organise cleaning campaigns of markets, motor parks, and all public institutions on a weekly basis
- f) there should be competition organised by women leaders on environmental sanitation, on a local government basis, to encourage healthy rivalry
- g) state governments should promulgate an edict/by-law to make it compulsory that every public institution provide toilet facilities and water supply systems

- h) government and NGOs should provide more waste disposal systems -dust bins and incinerators at strategic positions in all States

E. Information and communication strategy for water supply and sanitation

1. How to convince the population that WSS is necessary

Participants to the workshop should submit reports to appropriate authorities and proposals for workshops at the state and local government (LG) levels. The following bodies should be involved at the state level: MAMSER, DFERRI, Women's Affairs Departments, NGOs, Mother' Clubs where they exist and other relevant government agencies.

Contact should be made with the following groups: L. G. Chairmen, traditional rulers, Village Development Committees, women leaders, market women; religious groups, voluntary organizations, school teachers, age groups, health extension workers, community extension workers.

The programme should be co-ordinated by the Women's Affairs Department in each state. Enlightenment campaigns should be organized at the LG level using the town criers and using the following: MAMSER, Public Enlightenment Unit of the Ministry of Information at the Federal and State levels, religious gatherings, age groups, youth clubs, posters and handbills, radio and television discussion programmes in local languages, jingles, drama sketches and songs in local languages..

The following recommendations were made:

- a) The Federal Government should evolve a national policy on women and WSS with specific reference to communication/information strategies.
- b) The State Government should implement the national policy by providing funds and charging the women's affairs departments with the responsibility of formulating communication, information and implementation strategies.
- c) NGOs should identify themselves with and participate actively in disseminating information in WSS programmes.
- d) LGs Authorities should give adequate financial support to women as it affects WSS programmes.
- e) Women should be involved in the dissemination of information to the entire community through personal contact.

- f) Market rallies should be organized as a strategy to educate people on the need for women in WSS.
- g) Adult education centres and extension workers should assist in the dissemination of information on women and WSS.
- h) PTAs should assist in the dissemination of information on the importance of women in WSS.

2. The benefit of communication strategies to women in WSS communication strategies:

- a) propaganda - e.g., a drama or sketch to sell the idea to the community, music in the native language, etc.
- b) education through media - print media, electronic media, pictorial posters in the dialect of the community
- c) campaign/internalization - posters in native dialects with more pictures, dialogue, mobile cinema, community viewing centre, religious leaders, NGOs, teachers, health/social workers

benefits:

Women will benefit tremendously from all of the above mentioned communication strategies if from the planning stage women's interest has been enlisted and sustained.

During the implementation of the project, women have been involved in, e. g., construction, they would be able to operate and maintain the facilities provided.

recommendations:

- a) Women should participate in the planning stage of communication strategies for WSS programmes.
- b) Women should be involved in advertising the goals and activities of national WSS programmes.
- c) Two-way communication should be encouraged within the various women's groups throughout the country to promote WSS activities.
- d) Review the education and training materials in communication strategies to ensure the involvement of women's matters in WSS.

- e) Existing information services should focus on the role of women and highlight it with a view to promoting their roles.
- f) Exchange of information will serve as an instrument to improve the role of women in WSS.

3. devising a strategy to enlist support of international agencies

Once the local community has presented its needs to the appropriate state body, the body will visit the community to assess the magnitude. A proposal for assistance will be sent through the appropriate channels to reach the Federal Government.

At Federal level, a meeting should be convened to discuss the details, financing and logistics. A comprehensive proposal should be developed stating the background, a brief on the community involved as well as anticipated benefits to the community at large.

The following recommendations were made:

- a) It should be ensured that the proposal is highly comprehensive so as to elicit a favourable response.
- b) Interviews between the agency and community should take place to determine type and amount of assistance actually required.
- c) Efforts should be made to bring together all parties concerned to work effectively as a team.
- d) Demonstration and workshop should be organized for women on operation and maintenance of handpumps.
- e) Certificates of award should be presented to the participants to boost morale.
- f) There should be provision for back up services in the areas of training. Procurement of spare parts and other relevant needs.
- g) Re-enforce training with handbooks and manuals that depict the various components of the handpumps and instructions on how to operate/maintain them.

F. Evaluation of WSS

1. Basic steps to evaluation

a) decide to evaluate

The department responsible for women's affairs should initiate the evaluation in collaboration with whichever agency is responsible for water supply and sanitation projects in the various states.

b) selection of persons

The evaluation committee should comprise representatives from agencies in charge of water supply and sanitation, e.g., Department of Women's Affairs, DFRRRI, MAMSER, Education, Health, LG and NGOs.

c) terms of reference:

i) objectives - this should define each item to indicate the benefit of the project; the project should reflect the felt need of the area

ii) project area - this is where the project should be sited

iii) design of study - this is to show the impact of the project on the lives of the people and also the benefit for which it is designated

iv) methods - the WHO method (MEP) is the standard measurement

v) organization and human resources - the committee responsible for the evaluation should decide on the human resources to be utilized

vi) reporting - reporting should be brief and concise

vii) time schedule - the time schedule of the evaluation should depend on the financial resources available

viii) financial requirements - how much money should be involved in the evaluation of the project

d) desk study

The evaluation committee should study all the documents relevant to water supply and sanitation activities in the State.

- e) field visit
Visit the actual project.
- f) focus of evaluation
This will be decided by the Committee after the field visit.
- g) collection and assesment of data
Members of the Committee should assess the data and make recommendations based on their findings.
- h) prepare recommendations and establish priorities
The Committee should base their recommendations and level of evaluation on the terms of reference.
- i) review report
The Committee should follow up to see that their recommendations are accepted and implemeted.

2. Collection of Data

Data will be collected in the following areas:

- a) functioning of the facilities and educating services
- b) utilization of services
- c) institutional and financial data related to the project
- d) impact

Data can be collected on functions of facilities and educating services by the use of: opinion poll, questionnaires on breakdowns, physical inspection, random interviews on quality/quantity of water.

institutional and finacial data related to the project

- what is the Post Project Cost
- has it been very high to maintain
- do you suggest change of pump
- do you contribute to cost of maintenance
- do you change for the use for facility
- do women contribute to cost of maintenance

data related to impact

The method of collecting data is the same except that the health workers play a very important role in providing information on the health of the community.

Questions such as these could be asked to elicit the desired information:

- what has this facility done to the community
- has it reduced time used in fetching water
- do you have more time for your family, farming, trading, cooking and attending meeting than before
- are the children happier, do they have more time for school work
- is the family happier
- are they healthier than before
- do you make more money
- do you have fewer incidences of water borne disease, e.g., diarrhoea and vomiting, dysentery, cholera and guinea worm

A N N E X I

LIST OF PARTICIPANTS

A N N E X I

LIST OF PARTICIPANTS

A. States Representative

1. Akwa - Ibom

- Mrs. Bassey E. Akpan, Senior Social Welfare Officer, Ministry of Social Development, Youth and Sports.
- Mrs. Mary A. Ebong, Principal Personnel Officer, Coordinator, Better Life for Rural Women Programme, Directorate for Rural Development, Office of the Military Governor.

2. Anambra

- Mrs. Veronica V. Ezejiofo, Chief Social Development Officer, Ministry of Social Development, Youth and Sports.
- Eng. L. N. Mba, Acting Director (Civil), Office of Commission for Special Duties, Office of the Military Governor.

3. Bauchi

- Mrs. Leah Ameh, Principal Social Welfare Officer, Ministry of Social Development, Youth and Sports.

4. Bendel

- Mrs. C. O. Tuyo, Ministry of Social Development, Youth and Sports.

5. Benue

- Mrs. Priscilla M. Gbillah, Chief Matron, Ministry of Health.
- Mrs. Josephine Hembadoon Kombal, Assistant Chief Social Welfare Officer, Ministry of Social Development, Youth and Sports.

6. Borno

- Mrs. Elizabeth Bwala, Principal Social Welfare Officer, Ministry of Social Development, Youth and Sports.
- Mrs. Maryam I. Gana, Zonal Inspector, Agency for Mass Literacy (Women's Programme).

7. Cross River

- Mrs. Josephine V. Ogar, Chief Education Officer, Co-ordinator, Zone A, Better Life for Rural Women Programme, Women's Education Unit, Ministry of Education, Calabar.

8. Federal Capital Territory

- Mrs. Rachel Alikali, Social Welfare Officer, Social Welfare Unit of Federal Capital Development Authority.
- Mrs. Mary Danfulani Barau, Social Welfare Assistant, Social Welfare Office, Kuje Local Government Area, Kuje.

9. Imo

- Mrs. R. N. Erowele, Assistant Chief Social Welfare Officer, Ministry of Social Development, Youth and Sports.
- Mrs. Nkechi B. Osundu, Principal Social Welfare Officer, Ministry of Social Development, Youth and Sports.

10. Kaduna

- Mrs. Rhoda Afuwai, Programme Inspector, Women's Programme Division, Ministry of Social Development, Youth and Sports.
- Mrs. Cecilia Agbah, Principal Programme Inspector, Women's Programme Division, Ministry of Social Development, Youth and Sports.

11. Kwara

- Mrs. Ruth Olayemi Adegboye, Assistant Chief Community Development Inspector, Ministry of Social Development Youth and Sports, Community Development Division.
- Mrs. Josephine Moni Sanusi, Assistant Chief Dental Therapist, Ministry of Social Development, Youth and Sports, Community Development Division.

12. Lagos

- Mrs. Cecilia K. Akintolayo, Youth Development Officer, Ministry of Social Development, Youth and Sports.
- Ms. Dorcas Olayinka Tasetire, Principal Community Development Officer, Ministry of Social Development, Youth and Sports.

13. Niger

- Mrs. Hussaina Charity Ato, Assistant Director (Information) Directorate for Social Mibilization.
- Mrs. H. K. Mamman, Deputy Chief of Social Welfare, Ministry of Social Development, Youth and Sports.

14. Ogun

- Mrs. Lucia Tolorunso Adegbe, Community Development Officer, Ministry of Social Development, Youth and Sports.
- Mrs. Mary Omolara Lesi, Community Development Officer, Ministry of Social Development, Youth and Sports.

15. Oyo

- Mrs. E. B. Adeyemi, Social Welfare Officer (Women's Affairs Department), Ministry of Social Development, Youth and Sports.

16. Rivers

- Mrs. Margaret Nwidadah, Administrative Officer, Ministry of Community Development and Environment.

- Felicia F. Okoh, Senior Community Development Inspector, Ministry of Community Development and Environment.

17. Sokoto

- Sa'ah Abubakar Augie, Community Development Officer, Ministry for Social Development, Youth and Sports.
- Mrs. Fati Musa B/Keobi, Principal Community Development Officer, Ministry for Social Development, Youth and Sports.

B. Representatives of Federal Ministries Departments and Agencies

1. Agricultural and Rural Development

- Mrs. E. Harry Akponwei, CAO Home Economic, Federal Department of Agriculture and Rural Development, Facu Regional Office, Benin, Bendel State.
- Mrs. Sylvia Nkiru Ozobia, Principal Agricultural Officer, Home Economics and Community Development Division, Federal Department of Agriculture and Rural Development, FPMU, Oko Oba, Agege, Lagos.

2. Education

- Mrs Halima J. Abubakar, Adult Education Section.
- Theresa W. V. Ajufu, Assistant Chief Education Officer.

3. Finance

- P. O. Opabiyi, Principal Personnel Assistant.

4. Health

- Mrs. N. Akerele, Senior Programme Officer (WATSAN)
- Dr. O. T. Alabi, Environmental and Occupational Health Division.
- Rosemary Ubaru, Medial Lab Technologist.

5. Information

- Mrs. Okujogu, ACIO.

6. Social Development, Youth and Sports

- Mrs. V. N. Okobi, Assistant Director
- Mrs. A. F. Famodimu, Principal Social Development Officer
- Mr. O. D. O. Bello, Social Development Officer
- Mr. Silas T. Kubak, Social Development Officer
- Mr. B. N. Obi, Social Development Officer
- Mrs. B. Badejo, Principal Social Development Officer
- Miss R. Orororo, Social Development Officer.

7. Directorate for Food, Roads and Rural Infraestructure

- C. E. Ozo, National Co-ordinator, Community Development.
- Mr. M. O. Idowu, National Co-ordinator, Sanitation and Health.

C. United Nations Agencies and Organization

1. INSTRAW

- Miss Stephani Scheer, Consultant, New York

2. UNICEF

- Ms. Comfort Yetunde Aderemi, Health Educator, Kwara
- Mr. Carel de Rooy, Chief Water and Sanitation Section, Lagos
- Mr. Lloyd Donaldson, Water Supply Officer, Lagos
- Mr. Odediran Olufemi B. C., Sanitary Engineer, UNICEF, Lagos.

3. UNDP/ILO

- Mrs. Bukola Oni, National Project Director, Income - Generating Activities for Women.

D. Non-Governmental and Other Organization

1. Africare

- Dr. Bob Pond, Health Consultant

2. Archdiocese of Lagos

- Dr. Bob Pond, Health Consultant

3. National Council of Women's Societies

- Dr. Dorothy Anamah, National Secretary
- Mrs. O. O. Otujo.

4. Nigerian Girl Guides Association

- Mrs. Lydin Omo - Osagie, National Secretary

5. Nigerian Red Cross Society

- Sister Dinah-Nnama C. Nwankwo, VAD Executive Office

6. Young Women's Christian Association of Nigeria

- Mrs. Agnes Ajinwo, National Programme Secretary

7. ZONTA International

- Mrs. Frances Adebajo, Lagos II
- Mrs. Doris Adesanya, Director United Nations Committee, Lagos I
- Mrs. Juliet Adebowale Adewakun, Lagos II
- Phoebe Chiadi Ajayi-Obe, Legal Practitioner, Ibadan

- Mrs. Juneke Anifowoshe, Lagos II
- Jadesola Akande, Professor, Lagos State University, Lagos
- Mrs. D. O. M. Assaf, Lagos II
- Mrs. H. M. Fayiga, General Secretary, Lagos I
- Patricia N. Fola Olumide, Architect, Ibadan
- Mrs. Omatoyo Morgan, Ibadan
- Dr. W. G. Ogunyemi, Lagos
- Chief (Mrs.) Agnes A. Ojehomon, Ibadan
- Agnes Beky Onianwah, Chief Matron, Akure
- Pauline Oriola, Club Recording Secretary, Akure
- Joke Ososanya, Ibadan
- Mrs. Julie Asunkiyesi, Director, International Relations, Lagos I
- Chief (Mrs.) Folake Solanke, SAN, Director, International Foundation Board, Ibadan
- Mrs. Olufemi Thomas, Ibadan

8. Independent Observer

- Mrs. Julie Oyegun

E. Resource People

- Dr. M. Dele Adedeji, Assistant Director, Primary Health Care, Federal Ministry of Health
- Dr. O. A. Adelaja, Chief Consultant and Deputy Director, Disease Control and International Health, Environmental and Occupational Health, Federal Ministry of Health
- Mrs. Ekanem Bassey, Information Officer and Journalist, Editor, "Nigeria Review", Federal Ministry of Information

- Mr. Carel de Rooy, Chief, Water and Sanitation Section, UNICEF, Lagos
- Mr. Lloyd Donaldson, Water Supply Officer, UNICEF, Lagos
- Eng. L. C. Nwaezike, National Co-ordinator, Water Supply, Directorate for Food, Roads and Rural Infrastructure
- Eng. Ebele O. Okeke, Assistant Director (Water Supply), Federal Department of Water Resources, Federal Ministry of Agriculture, Water Resources and Rural Development
- Mrs. Victoria N. Okobi, Assistant Director, Women and Children's Programme, Federal Ministry of Social Development, Youth and Sports
- Mr. Mike Osa Osunde, Principal Correspondent, News Agency of Nigeria
- Ms. Stephani Scheer, Consultant, INSTRAW, New York.

A N N E X I I

O P E N I N G

A N N E X II

OPENING STATEMENT BY THE INSTRAW REPRESENTATIVE, Ms. Stephani Scheer

Good morning ladies and gentlemen.

On behalf of the Director of INSTRAW and myself, I would like to say that it is a pleasure to be with you on the occasion of the workshop on women, water supply and sanitation. For those who do not already know, INSTRAW stands for the United Nations International Research and Training Institute for the Advancement of Women. INSTRAW welcomes the opportunity to work with countries like Nigeria in its efforts to enhance the role of women in development. We are particularly grateful in this case to the Ministry of Social Development, Youth and Sports and to ZONTA International for both technical and financial assistance.

Since the proclamation in 1980 of the International Drinking Water Supply and Sanitation Decade (IDWSSD), a great many actions have been initiated, programmes elaborated and projects carried out in an effort to achieve the goals of the Decade. It is only recently, though, that the crucial role of women in water supply has begun to be understood or acknowledged. Because women are the primary users, carriers and managers of water, they have a vested interest in securing safe drinking water and adequate sanitation. Evidence does in fact show that by including women, water supply and sanitation projects can achieve their objectives more efficiently. Yet, the extent and importance of women's involvement with water often remains elusive to policy-makers, planners and even the general public.

Now though, we are beginning to witness a major change. Almost at the end of the Decade, women are finally becoming legitimate actors and agents. Finally, involving women has ceased to be an empty phrase and become an urgent need.

To address this issue, INSTRAW has prepared the training package on Women, Water Supply and Sanitation that we will use for this workshop. It was prepared jointly with the ILO centre for Advanced Technical and Vocational Training, and financed by the Government of Italy.

The package reflects five years of research by INSTRAW, including a survey of material, projects and activities undertaken in the field of water supply and sanitation, both within and outside the United Nations. It is based on a modular approach and aims at two major target groups: national development officials and women's organizations.

We all know that women already participate in the drudgery of water supply and sanitation. What this workshop hopes to achieve is to show how women's involvement at all levels and stages of programmes for improved water supply and sanitation will make women's work more effective, easier and more productive.

Specifically, the workshop aims to:

1. Create awareness of the need to involve women among policy-makers, planners, programme directors and project managers.
2. Also to provide the skills and capability for women to participate effectively, particularly with regard to planning, implementation, operation, communication, education and evaluation; and
3. To create a core group of facilitators trained to conduct similar workshops at state and local levels, thereby ensuring a multiplied effect.

I am pleased to see so many of the states of Nigeria represented as well as women's organizations involved in water supply and sanitation. I look forward to active participation on your part, and I hope you will share openly your ideas as well as experiences.

In conclusion, I would like to say that I am confident that the outcome of this workshop will be a successful one and hope that the experience will prove useful for Nigeria in carrying out its activities in the field of water supply and sanitation.

Introduction of ZONTA International at the INSTRAW/ZONTA WORKSHOP - ON WOMEN WATER SUPPLY AND SANITATION at the Senate Chamber, Lagos, Nigeria on 10/5/89: by Chief Folake Solanke San, Director, Zonta International Foundation Board.

As Zonta's Liaison Officer for this Workshop, it is indeed a pleasure for me to introduce Zonta International at this important historical event. After months of intensive and extensive preparations, I hereby proffer my congratulations to Stephani Scheer - INSTRAW Representative and Mrs. V. N. Okobi of the Federal Ministry of Social Development Youth and Sports for all their efforts in respect of the Workshop being opened today.

I would like to indulge in the confidence that Zonta is well known in Nigeria - even if I say so!! Zonta is a world-wide organization of business and professional executives. Zonta has supported the work of the United Nations since 1945 when the UN was funded. In 1946 Zonta voted to include support for UN - in Zonta's policy. Since that time, Zonta's resolutions and programmes themes have constantly voiced support for UN activities and have encouraged the observance of special UN events.

In 1963 Zonta was granted 'roster-level' consultative status with the UN Economic and Social Council (ECOSOC) having regard to Zonta's

statute and the scope of its international services projects. In 1969 Zonta was granted Category II Status and in 1965, Zonta achieved the height of Category I Status which allows Zonta to present in-depth statement to the UN Commissions and to offer suggestions for 'agenda items' thereby having an impact on world issues.

Zonta has also supported the UN Children's Fund (UNICEF). In 1976 UNICEF adopted the 'Basic Services' Strategy as the best way of meeting the essential needs of children worldwide. Under this strategy, UNICEF assists governments to plan, develop, and extend low-cost, community-based services in the fields of maternal and child health care, nutrition clean water and sanitation, education, etc. In 1972, Zonta was granted consultative status with UNICEF and Zonta's first international service project undertaken in co-operation with UNICEF was in Ghana. In the 1972-74 biennium Zonta contributed \$86,000 for the purchase and equipment of mobile medical units for children and mothers in rural areas. During the 1982-84 biennium Zonta's international project was the Zonta/UNICEF Sri Lanka Well Water Project under which Zonta clubs contributed \$880,000.00 for 4,000 wells to improve the quality of life in the Dry Zone Area of Sri Lanka - each well cost \$220.00. The international project was carried over to the 1986-88 biennium for completion.

The Workshop being held today with INSTRAW is in the same perspective with the history of Zonta with the UN. Water supply and sanitation are special areas of concern and interest for women. INSTRAW - the UN International Research and Training Institute for the Advancement of Women has therefore targeted on women as the primary users, carriers and managers of water.

We all have a stake in securing safe drinking water and adequate sanitation. The objective of this Workshop is to involve women more efficiently at all levels of water supply and sanitations. This Workshop is in support of the UN International Drinking Water Supply and Sanitation, Decade which commenced in 1980 and out of which the Sri Lanka Well Project was evolved.

The six objects of Zonta International are:

- a) To encourage high ethical standards in business and professions.
- b) To improve the legal, political, economic, and professional status of women.
- c) To promote and supervise the organization of Zonta clubs throughout the world.
- d) To increase the service and value of Zonta clubs to their respective members, their communities, and to the world.

- e) To foster the spirit of good fellowship among Zontaians and Zonta clubs.
- f) To work for the advancement of understanding, goodwill, and peace through a world fellowship of executive women in business and professions, united in the Zonta ideal of service.

In implementing Zonta's objectives, Zonta participated fully in the UN programmes of IWY the Decade for Women including the Nairobi Conference where the Nairobi Forward-Looking Strategies for the Advancement of Women were formulated.

Paragraphs 174-188 of the documents deal with 'Food, Water and Agriculture'. Zonta had a meaningful input at the Decade Conference. Paragraph 188 called on Governments to pay greater attention to water supply and to relieve the burden placed on women in the task of fetching water. Zonta International through its local projects in Nigeria has focussed on efforts to provide clean water to some villagers. Apoku - the adopted village of the Zonta Club of Ibadan has enjoyed clean well water since 1972 when our club adopted the village. Water-borne diseases were eliminated. The Zonta Clubs in Lagos have also been rendering such community service for clean water supply.

Zonta has sponsored the Workshop at a most auspicious time having regard to the emphasis on rural development through MAMSER (Directorate of Mass Mobilization for Self Reliance Social Justice and Economic Recovery) as DFRRRI (Directorate for Food Roads Rural Development and Infrastructure).

Zonta International hereby calls on all other Service Organizations to complement and supplement governmental efforts in rural development for better life not only for Women but for all.

With all due modesty, I would like to repeat my favourite statement that before MAMSER, DFRRRI and the current focus on women in the rural areas, Zonta blazed the trail in rural service at Apoku in 1972.

Let each service club in each town or city adopt a village for rural service. Such a collective effort will have a good impact on rural development.

Zonta International like other Service Organizations should take the opportunity of this workshop and use the deliberations here to start 'clean water projects' in the rural areas.

Clean Water is a sine qua non for a healthy and progressive nation and better quality of life for all.

Zonta International says to the Services Organizations "Go rural for Community Service".

A N N E X I I I

A G E N D A

A N N E X III

NATIONAL WORKSHOP ON
WOMEN, WATER SUPPLY AND SANITATION

Lagos, Nigeria 10-16 May 1989

AGENDA

1. Opening ceremony
2. Adoption of the agenda
3. Introduction of the International Drinking Water Supply and Sanitation Decade and the International Research and Training Institute for the Advancement of Women (INSTRAW).
4. Participation of women in planning water supply and sanitation projects.
5. Women's activities in health/hygiene education in water supply and sanitation projects and programmes.
6. Role of women as participants and beneficiaries in the choice of technology and training for water supply and sanitation projects.
7. Women's activities in the operational stage of water supply and sanitation projects.
8. Communication/information strategy in water supply and sanitation projects and programmes.
9. Evaluation of water supply and sanitation projects.
10. Closing ceremony.

A N N E X I V

C O M M U N I Q U E

NATIONAL WORKSHOP
ON
WOMEN, WATER SUPPLY AND SANITATION

Lagos, Nigeria 10-16 May 1989 .

ANNEX IV

NATIONAL WORKSHOP ON WOMEN, WATER SUPPLY AND SANITATION

Lagos, Nigeria 10-16 May 1989

C O M M U N I Q U E

The United Nations International Research and Training Institute for the Advanement of Women (INSTRAW) and Zonta International with the Federal Ministry of Social Development, Youth and Sports have just concluded a 7 day workshop on Women, Water, Supply and Sanitation .

Participants to the workshop were from the various States of the Federation, Federal Ministries of - Education, Health, Agriculture and Water Resources Information. There where also representatives from the Federal Capital Territory Abuja, Women Voluntary Organizations, National Council of Women's Societies DIFRRI, UNICEF and Nigeria Union of Journalist. The Workshop targeted on leaders of women's organizations and senior officials of the Federal and State Governments.

The objective of the Workshop

The major aim of the workshop was to involve women more effectively as active contributors at all levels of planning and implementation of water supply and sanitation projects and programmes throughout the period of the United Nations International Drinking Water Supply and Sanitation Decade (1981-1990) and beyond.

The following issues were deliberated on:

- i) Participation of Women in Planning Water Supply and Sanitation Projects and Programmes.
- ii) Communication/Information Strategy in the Water Supply and Sanitation Projects and Programmes.
- iii) Introduction of the International Drinking Water Supply and Sanitation Decade and International Reaserch and Training Institute for the Advancement of Women (INSTRAW).
- iv) Women's Activities in Health Hygiene Education in Water and Sanitation Projects and Programmes.

- v) The Role of Women as Participants and Beneficiaries in the Choice of Technology and Training for Water Supply and Sanitation Projects.
- vi) Evaluation for Water Supply and Sanitation Projects.
- vii) Women's Activities in the operational stage of Water Supply Projects and Sanitation.

At the end of the week long deliberations, the following major recommendations which would facilitate and enhance the participation of women in water supply and sanitation projects and programmes were made among others:

- i) There is need for follow up workshop at the state and local government levels for increased awareness on the participation of women in water supply and sanitation projects and programmes;
- ii) training women at all levels of government and women from the non-governmental organizations and grassroots on planning execution of water supply and sanitation projects;
- iii) involving women in the planning, execution and maintenance of water supply and sanitation projects;
- iv) Adequate communication between the relevant United Nations agencies and the various levels of government and women's organizations through the appropriate channel.

A N N E X V

PRESENTATION OF WATER SUPPLY AND SANITATION

ASPECTS FROM AKWA IBOM STATE

A N N E X V

PRESENTATION OF WATER SUPPLY AND SANITATION ASPECTS FROM AKWA IBOM STATE

INTRODUCTION

In Akwa Ibom State, three agencies are involved in the provision of water. These are:

- a) Akwa Ibom State water Corporation
- b) Directorate for Rural Development (DFRRI)
- c) Agricultural Development Projects (ADP)

Akwa Ibom State Water Corporation provides water mostly in the urban centres while DFRRI and ADP are preoccupied with the provision of water in the rural areas, largely through the simple handpump equipped borehole system. The simple technology employed is influenced by lack of electricity in most rural areas of the State, the need for wider spread in water supply, the low cost involved and the policies of the executing agencies.

- a) Participation of Women in Planning, Water Supply and Sanitation Projects

In Akwa Ibom State, women who are the main users of water are not involved during the planning stage on water projects. The choice of water project sites, for example, is mainly determined by the executing agencies. With respect to DFRRI, this is determined in liaison with the Chairmen of the Local Government Councils.

- b) Communication/Information Strategy in Water Supply and Sanitation Projects and Programmes

Before the commencement of work at the Sites, the Chief of the locality is always informed about Government's intention to provide water to the people. It is at this point that women are informed to take care of the social aspects involved in the projects, i.e. provision of food and entertainment to the drilling team.

- c) Women's Activities In Health/Hygiene Education In Water Supply and Sanitation Projects and Programmes

Women are deeply involved in the sanitation aspects of water supply by keeping the boreholes environments clean as well as ensuring the purity of water collected in their homes.

d) Role of Women as Participants and Beneficiaries in the Choice of Technology and Training for Water Supply and Sanitation Projects

In Akwa Ibom State women are not involved in the choice of technology used. Given a choice, it is likely that rural women would prefer provision of pipe borne water to the simple handpump equipped boreholes as the latter frequently breaks down. However, as mentioned earlier, there are constraints ranging from funding, lack of electricity in the rural areas to the policies of the executing agencies.

e) Women's activities in the Operational Stage of Water Supply and Sanitation Projects

Women by nature of their roles as housewives, are most actively involved in the operational stage of water and sanitation projects.

f) Evaluation of Water Supply and Sanitation Project

Water supply in rural areas remains an area to be tackled in the densely populated States. During Phase I of DFRRRI's water projects, 176 (one hundred and seventy six) handpump equipped boreholes were provided in different parts of the State. 148 of these were functional as reported by the Presidential Monitoring Team during the Final Comprehensive Inspection on water supply and sanitation. About 250 boreholes are to be provided with water during the second phase of DFRRRI's water supply and sanitation. While these will further assist in alleviating the suffering of rural women, many parts of the rural areas would remain unserved, unless assistance is provided by other agencies. Here we are calling on INSTRAW for assistance.

PROBLEMS

1. Frequency of break downs of the boreholes, remains the greatest problem of water supply and sanitation in Akwa Ibom State.
2. Lack of vehicles for frequent inspection and maintenance.
3. Lack of trainers on maintenance.
4. High cost of water supply materials.
5. Non availability of good handpumps for use.

SUGGESTIONS

1. Women should be allowed to participate in the planning stage of water projects. This will remove any politics in site locations and ensure that only areas in dire need of potable water are served.
2. Women should be trained in the use and maintenance of existing water systems.
3. The possibility of providing water from perennial springs should be explored and utilized.
4. INSTRAW should assist Akwa Ibom State in providing water in the rural areas for the benefit of women and children.

A N N E X VI

AN ADDRESS BY THE HONOURABLE MINISTER OF SOCIAL DEVELOPMENT,
YOUTH AND SPORTS, MR. TONYE GRAHAM-DOUGLAS AT THE OPENING
CEREMONY OF THE WORKSHOP ON WOMEN, WATER SUPPLY AND SANITATION
HELD AT THE SENATE CHAMBER, NATIONAL ASSEMBLY COMPLEX
TAFAWA BALEWA SQUARE LAGOS ON 10th MAY'89

The Chairman,
Honourable Ministers,
Honourable Commissioners,
Members of the Diplomatic Corps,
My Lords Spiritual and Temporal,
Representative of INSTRAW,
The President Zonta Club (Nigeria),
Distinguished Participants,
Ladies and Gentlemen.

It is with much pleasure that I welcome you all to this workshop. The need to eradicate water-borne diseases and maintain healthy citizenry has become a challenge not only to the government but also to the philanthropic and voluntary organizations. Over the years water-borne diseases especially typhoid, diarrhoea and guinea worm have remained a major problem in our health care delivery system. In spite of the concerted efforts by the State and Federal governments, UNICEF and the Directorate of Food, Roads and Rural Infrastructures (DFRRI) to stem this ugly tide through the provision of potable water in the rural areas, it has not been easy to reach every community because there are far too many of these communities which the available resources can support.

Needless to say that the availability of water sources is a prerequisite for improved sanitary conditions. Since women are more involved in domestic chores, it therefore means that the provision of potable water will not only ease their domestic burden but also enable them to devote more time to other income generating activities.

The critical nature of the problem faced by the rural communities in Nigeria in obtaining potable water and basic sanitation is well known. This problem can be meaningfully tackled through the inter-sectoral and inter-ministerial approach. There is no doubt that water supply and basic sanitation are essential components of primary health care which is the focus of the national health policy and the key to providing an acceptable minimum level of health care that will guarantee the average Nigerian, especially women, a socially and economically productive life.

Rural water resource development is a major thrust of health care system and is equally very significant in its sustenance. It may therefore be necessary to reinvigorate the Federal Steering Committee on Rural Drinking Water and Sanitation Project consisting of Federal Ministry of Social Development, Youth and Sports; Federal Ministry of Health,

Federal Ministry of Works and Housing DFRRRI, UNICEF, WHO, the World Bank and UNDP to facilitate the expansion of water supply and basic sanitation projects throughout the federation.

Similarly, health education is an important component of health care delivery system. Consequently, efforts should be made by women's organizations and community health workers to embark on enlightenment campaigns whose objectives should be teleguided to:

- (a) increase women's awareness of and interest in water and sanitation projects;
- (b) teach rural women about water-borne diseases, their spread, and prevention;
- (c) teach proper utilization of good water in order to facilitate the maintenance of good health; and
- (d) focus on individual and collective responsibility in the conservation of water and the maintenance of the water supply system.

Water supply and sanitation projects can only be meaningful within the context of active involvement of the user community. For this reason, particular recognition should be given to the importance and diversity of women's role in community projects as women are the main users of water supply systems and major overseers of sanitation facilities. It is encouraging to mention at this juncture that the monthly environmental sanitation programme initiated by the government has continued to make positive impact in both the urban and rural areas. To further boost this programme, it would be pertinent for women groups to organize environmental sanitation activities which may include the organized habit of faecal and garbage disposal as well as the promotion of personal and domestic hygiene. I am confident that in that way, village sanitation will be greatly enhanced.

Consequent upon our teeming population and the gross short-fall in water supply especially in the rural areas, the intensification of water supply and sanitation programme has become increasingly necessary because of its over-riding effect on health care system in the country. In consideration thereof, it is of great essence that water requirement of every community must be given priority by the various functional governmental agencies.

It is my hope that the discussions and the papers to be presented at this workshop will focus attention on realisable strategies for overcoming the problems of water supply and sanitation especially as they affect women. I wish to assure you that the recommendations and suggestions of the workshop will be given appropriate attention by the authorities.

Finally, I would like to express my sincere appreciation to INSTRAW and Zonta International for co-sponsoring this workshop. I hope that other voluntary women organizations and Philanthropic groups will emulate this noble gesture.

I wish you fruitful deliberations. Thank you and God Bless.

Federal Ministry of Social Development,
Youth and Sports
Lagos

10 May 1989.