

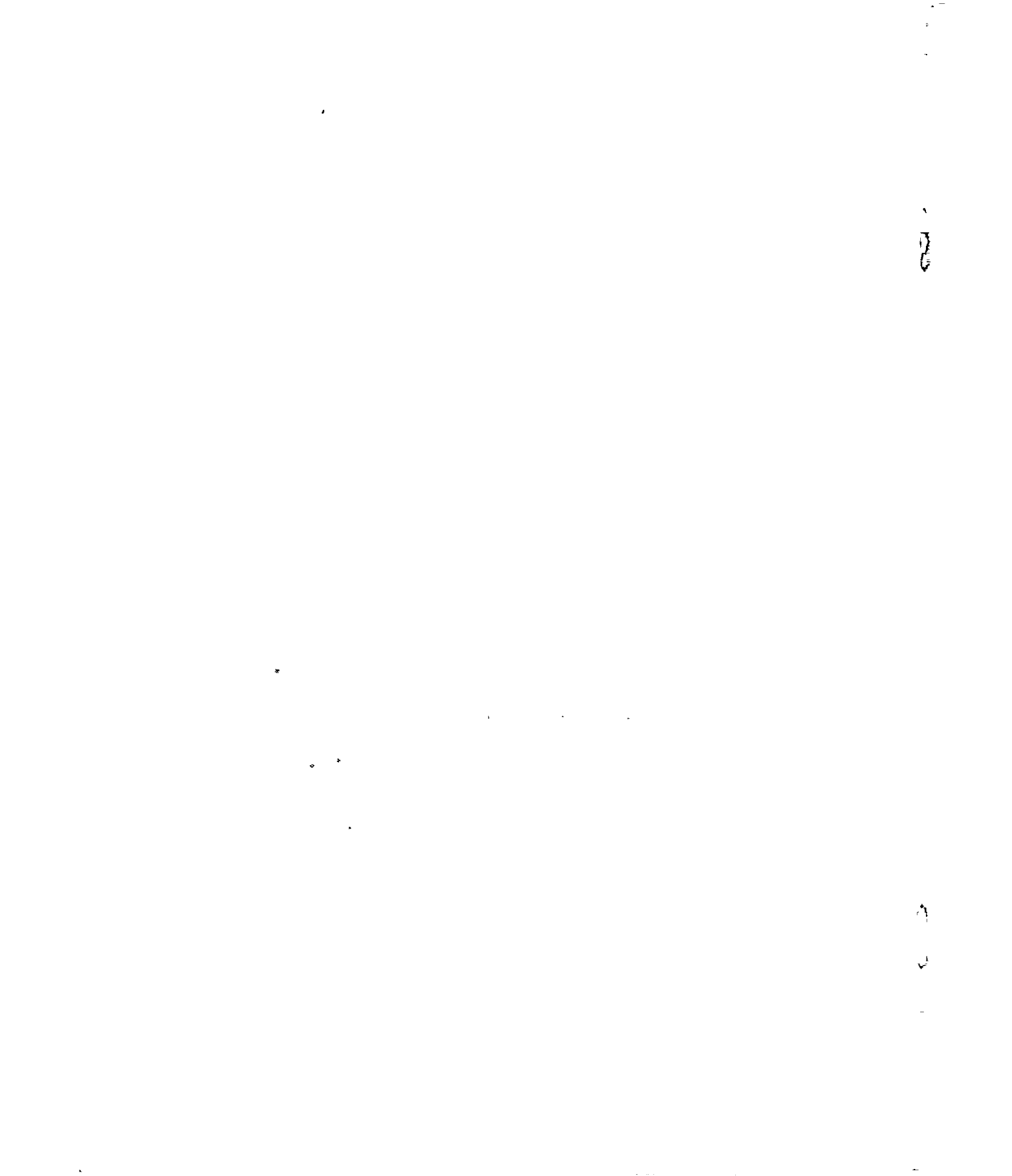
202.1 94LO

Looking at Gender, Water Supply and Sanitation



FINNIDA

202.1-94LO-12299



Looking at Gender, Water Supply and Sanitation

LIBRARY, INTERNATIONAL REFERENCE
CENTRE FOR COMMUNITY WATER SUPPLY
AND SANITATION (IRC)
P.O. Box 93190, 2509 AD The Hague
Tel. (070) 814911 ext. 141/142

RN: wh .12299
LQ: 202.1 94LO

PREFACE

Finland's Decision in Principle in 1980 assured women's participation in development cooperation. In 1988 FINNIDA, The Finnish International Development Agency, put into place a policy on women in development (WID). A coordinator was appointed to implement the policy and to advise on women in development issues. Since that time women in development has been expanded to include the concept of gender, the social constructs defining male and female lives. In 1990 The Rapid Gender Analysis (RGA) was developed to give guidance to FINNIDA personnel in project preparation, design and implementation. The RGA is part of the FINNIDA Project Preparation and Design Guidelines of June, 1991.

A review of the integration of gender aspects in FINNIDA water supply and sanitation projects and programmes was undertaken in 1993 by Dr. Mary Hill Rojas, with technical guidance from WIDAGRI Consultants, Ltd. The following seven FINNIDA-funded projects and programmes were reviewed:

- Tanzania: Mtwara-Lindi Water Supply Project
- Zanzibar: Zanzibar Urban Water Supply Development Project
- China: The Wuhan Waste Water Treatment Project
- Kenya: The Kenya-Finland Western Water Supply Programme
- Sri Lanka: Kandy District Water Supply and Sanitation Project
- Vietnam: Hanoi Water Supply Programme
- Nepal: Rural Water Supply and Sanitation Project in Western Development Region

In connection with the review, a sociology student from Helsinki University, Päivi Kärrä, developed country profiles on women and gender for Vietnam and Sri Lanka. She also served as editor for the review.

This paper is one result of the review. It includes practical information drawn from the seven reviewed projects and programmes. It is meant to help those personnel who are involved with the preparation, implementation and monitoring of water supply and sanitation projects and programmes, both rural and urban.

This publication constitutes the second sectoral review on gender by FINNIDA. The first, "Looking at Gender And Forestry", was published in 1992.



TABLE OF CONTENTS

PART ONE: AN INTRODUCTORY FRAMEWORK	1
Community Participation	1
Gender Analysis	2
Women and Development.....	3
A New Face For Water Supply and Sanitation	6
PART TWO: AN ENABLING ENVIRONMENT	8
“ENABLING POLICY”	8
“ENABLING INSTITUTIONS”	9
“ENABLING PROJECTS”	9
PART THREE: THE RURAL CASE	11
Women and Development Appears on the International Scene	11
A Chronology : From Construction to the Participation of Women	12
Women’s Inclusion: Questions to Consider	13
The Future: Beyond Efficiency	14
PART FOUR: THE URBAN CASE	16
Avoiding The Mistakes of The Past	16
Rural versus Urban	16
Why?	16
Some Suggestions	17
PART FIVE: THE PROJECT CYCLE	23
Project Identification and Preparation	23
The Project Document	28
Terms of Reference	30
Project Implementation and Monitoring.....	30
Project Review	31
PART SIX: THE WOMAN QUESTION.....	35
A WOMAN’S COMPONENT, OR NO?	35

PART ONE: AN INTRODUCTORY FRAMEWORK

WATER SUPPLY, SANITATION AND COMMUNITY PARTICIPATION

Community Participation

During the years of the International Drinking Water Supply and Sanitation Decade, 1980-1990, there was an international recognition of the urgent need to address the problem of the sustainability of water supply systems. There also emerged the realization that new water supply systems alone did not guarantee improved health. In response to these concerns water projects and programs were designed to more fully involve communities in managing their own water supplies. In addition, hygiene education was introduced through the communities to make the links between health, sanitation, and water.

Therefore, community participation, capacity building and institutional development increasingly have become a part of projects within the water and sanitation sector funded by the Finnish International Development Agency (FINNIDA). There has been a process of moving towards community responsibility for improving water supplies.(1)

The Kenya-Finland Western Water Supply Program developed in 1981 from the mere provision of point sources for water to the mobilization of communities for planning, construction and maintenance of water in 1991.(2)

Community participation is a strategy that includes beneficiaries sharing project costs, and assisting in the design, implementation, operation, maintenance and management of water supplies. It also encourages, through the participation, "an increased political awareness and influence over developmental outcomes." (3) It, therefore, is both a process and a philosophy.

Using community participation to assure the sustainability of water supplies and to make connections between water and health assumes the participation of men and women at the local level. It also assumes that the capacity of the community to manage their water supplies includes the talents of both men and women and that the institutions that support community participation reflect the interests of both men and women. It is also now clearly understood, and accepted, by the international development community that the roles, responsibilities and access to, and control over, resources for men and for women are often different. Gender analysis, identifying and analyzing these differences, therefore, becomes an essential ingredient of water and sanitation projects that are grounded in community participation.

Gender Analysis

Within recent years the term gender analysis has been used more and more frequently in development planning and implementation.

Gender Analysis recognizes the differences in the roles, responsibilities and access to, and control over, resources of men and women. It also recognizes the importance of the relationships between men and women and their spheres of authority. The goal then of gender analysis is to identify these differences and relationships in order to strengthen development projects.

In some villages people have small-scale home industry. Men do carpentry and Makonde-carvers have their workshops. Women plait mats and do pottery. The pottery enterprises are dependent on suitable water; prevalent saline water cannot be used for making pots." (4)

Generally speaking, gender analysis uncovers information that the women and development literature has long documented - that women have less education, less authority, less access to land, credit and training than do men. At the same time, gender analysis collects information on both men and women. This is particularly important with water and sanitation programs.

"There are practical problems and attitudes which prevent women from independent economic activities as well as from sitting on the decision-making bodies. Maybe the biggest problem from the woman's point of view is that the funds which women earn through primary productive work are usually controlled by men." (5)

Within the water and sanitation sector it has become the rule rather than the exception to focus on women. During The International Drinking Water Supply and Sanitation Decade it was stressed that "Women are 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 members of their families and the community at large. The extent of their involvement, however,

as well as the consequences, are virtually unknown either to the general public or to policy-makers".(6)

Yet it is clear that "men need to support and adopt improved hygiene practices as well...the responsibility for health and hygiene should not be placed on the women alone." (7)

Given this recognition, women have been targeted for health and hygiene education, trained to operate and maintain hand pumps, and included in project documentation as primary beneficiaries of water projects. There is now, however, a realization that for the most part, women have been targeted without the benefit of gender analysis. For example, hygiene education has almost exclusively targeted women because of women's obvious role with the health of the family. Yet it is clear that "men need to support and adopt improved hygiene practices as well...the responsibility for health and hygiene should not be placed on the women alone." (7) Gender analysis, rather than simply targeting women, helps diffuse stereotypes and unwarranted assumptions about both women and men.

"In looking at gender, many drinking water supply and sanitation projects draw the conscious or unconscious conclusion that while men are responsible for the public sphere and thus for public water supply and public sanitation, women are responsible for domestic water use and sanitation and hygiene at home. There are, however, strong reasons to assume that this is an oversimplification of reality". (8)

A gender approach to water supply and sanitation projects enhances the effectiveness of community participation by recognizing the differences in decision-making and in the division of labor between men and women in the local communities and in the institutions and policies that support the participation of communities.

Women and Development

The increasing popularity of gender analysis does not negate the importance of women and development.



It is now recognized that women around the world are often invisible to development planners. Therefore, to explicitly include women in project documentation, as agents of development and as beneficiaries, is important if women are not to be excluded.

An enormous body of literature has come out of the women and development movement about women in Asia, Africa, and Latin America that has been helpful to development planners in describing women's lives in such areas as agriculture, water, education, sanitation and health

Women in development research has had a major impact:

- It has shown the correlation between women's education and a declining birthrate. A chief economist of the World Bank has called women's education "The Most Influential Investment" because of its favorable impact on health, income, family planning, and the well-being of children and families. (9)

- It has shown the value of disaggregating statistics by sex. In Nepal the literacy rate, about 23%, when disaggregated is some 12% for women and 34% for men. (10) Such disaggregation identifies problems invisible in the aggregate.

Women in development has shown the value of disaggregating statistics by sex. In Nepal the literacy rate, about 23%, when disaggregated is some 12% for women and 34% for men. (10) Such disaggregation identifies problems invisible in the aggregate.

- It has shown the importance of studying the men and women within the household rather than using the household as the smallest unit of analysis. For example, men and women often spend household income differently - women tend to use their cash income for their families more so than do men.

Women in development advocates often have taken on issues that most development planners would rather leave alone: land rights of women, and discriminatory legislation against women; inequities inherent in the often strong, so-called "son preference" in many parts of the world, and inequities in education and health of girls and boys.

The women and development community argued initially that women should be more fully included in development for two reasons: first, as a matter of equity and second, as a matter of efficiency. It was inequitable that women should be excluded from the benefits of development and it was inefficient not to include women as they often were critical to the success of a project.

Currently, it is almost exclusively the efficiency argument that is being used in international development, addressing the "practical needs" of women and of the projects. Addressing the issues that place women in a subordinate position, "strategic needs", is often, nevertheless, a "hidden agenda" in development projects. (11) One objective of community participation is "increasing community empowerment (beneficiaries share power and increase their political awareness and influence over developmental outcomes)." (12) The "hidden agenda", therefore, has the opportunity to be made more explicit through community participation with the subsequent empowerment of women.

Addressing the issues that place women in a subordinate position, strategic needs, is often, nevertheless, a "hidden agenda" in development projects (11). One objective of community participation is "increasing community empowerment (beneficiaries share power and increase their political awareness and influence over developmental outcomes)" (12) The "hidden agenda", therefore, has the opportunity to be made more explicit through community participation with the subsequent empowerment of women.

A New Face For Water Supply and Sanitation

Community participation, gender analysis and women and development can change the face of water supply and sanitation projects and programs and the institutions and policies that support them:

Engineers and Community Participation:In a water supply project in Sri Lanka: "What can be said is that there was an evolutionary change in thinking, accompanied by appropriate action, toward more involvement of the institutions and people and that activities were driven less by the traditional "construction first" reflex of many engineers." (13)

Non-Traditional Skills: "The choice of women as pump attendants was surprising to many people in this rural area of Kenya where tasks are highly segregated...It didn't occur to a man that a woman can know what he knows or learn anything." (14)

"The choice of women as pump attendants was surprising to many people in this rural area of Kenya where tasks are highly segregated...It didn't occur to a man that a woman can know what he knows or learn anything." (14)

Urban Piped Water Schemes: In an urban water project in Hanoi it was found that "The sustainable water supply and sanitation systems require the full commitment of the users of those systems, as they have to assume an active role in the rehabilitation of internal installations, in ensuring proper use of systems, and in taking remedial measures against vandalism and illegal connections..." (15)

The Cost of Water: It was found from the Kenya Water Supply Programme survey that women were paying 74.7% of the water supply maintenance fee and men were paying 25.3%. (16)

Institution Building: In a water supply project in Zanzibar, "The participation of women in all training activities of the project must be emphasized. This does not mean only education at the community level, but also improvement of professional capabilities and the employment situation of women". (17)

Policy: One policy being followed by His Majesty's Government of Nepal within the water supply and sanitation sector is "People's participation to the maximum extent (and women in particular)". (18)

PART TWO: AN ENABLING ENVIRONMENT

FOR

GENDER ANALYSIS AND WOMEN

The term "enabling environment" has come to mean an institutional structure that enables a water project to be sustainable, and effective, for example the availability of a spare parts system, a technical advisory service or public health technicians. (19) Water policies, tariff policies and cost sharing are also important elements of an enabling environment. However, there is also an "enabling environment" for including women and for the use of gender analysis. It includes:

"ENABLING POLICY"

International Level Policy

For Example:

The Global Consultation on Water and Sanitation for the 1990s

"Women in most societies generally have the most to gain from, and have the greatest interest in, improved water and sanitation services, because of their traditional functions of child and home care and the importance of water and sanitation in the home environment. However, unless specific efforts are made, gender-related constraints often limit the participation of women. This is not the creation of special programmes for women only, but the recognition of the needs, demands and potential of women, and the necessity for their conscious incorporation into project planning and implementation in managerial, professional, community-based and household roles." (20)

Donor Level Policy

For Example.

FINNIDA: The Role of Women in the Finnish Development Cooperation

Finland will promote women's economic and social development in their countries where FINNIDA works. (21) The policy also notes that, "Women, in spite of their central role as the main users and collectors of water, rarely take part in planning and implementing water projects from the beginning". (22) Therefore, women need to be explicitly noted so as not to be overlooked

National Level Policy

For Example:

One policy being followed by His Majesty's Government of Nepal is "People's participation to the maximum (and women in particular) in all aspects of planning for, providing and maintaining water supply systems and sanitation facilities." (23)

"ENABLING INSTITUTIONS"

One lesson from The International Drinking Water Supply and Sanitation Decade is that institutions must be in place that are supportive of community participation and the inclusion of women.

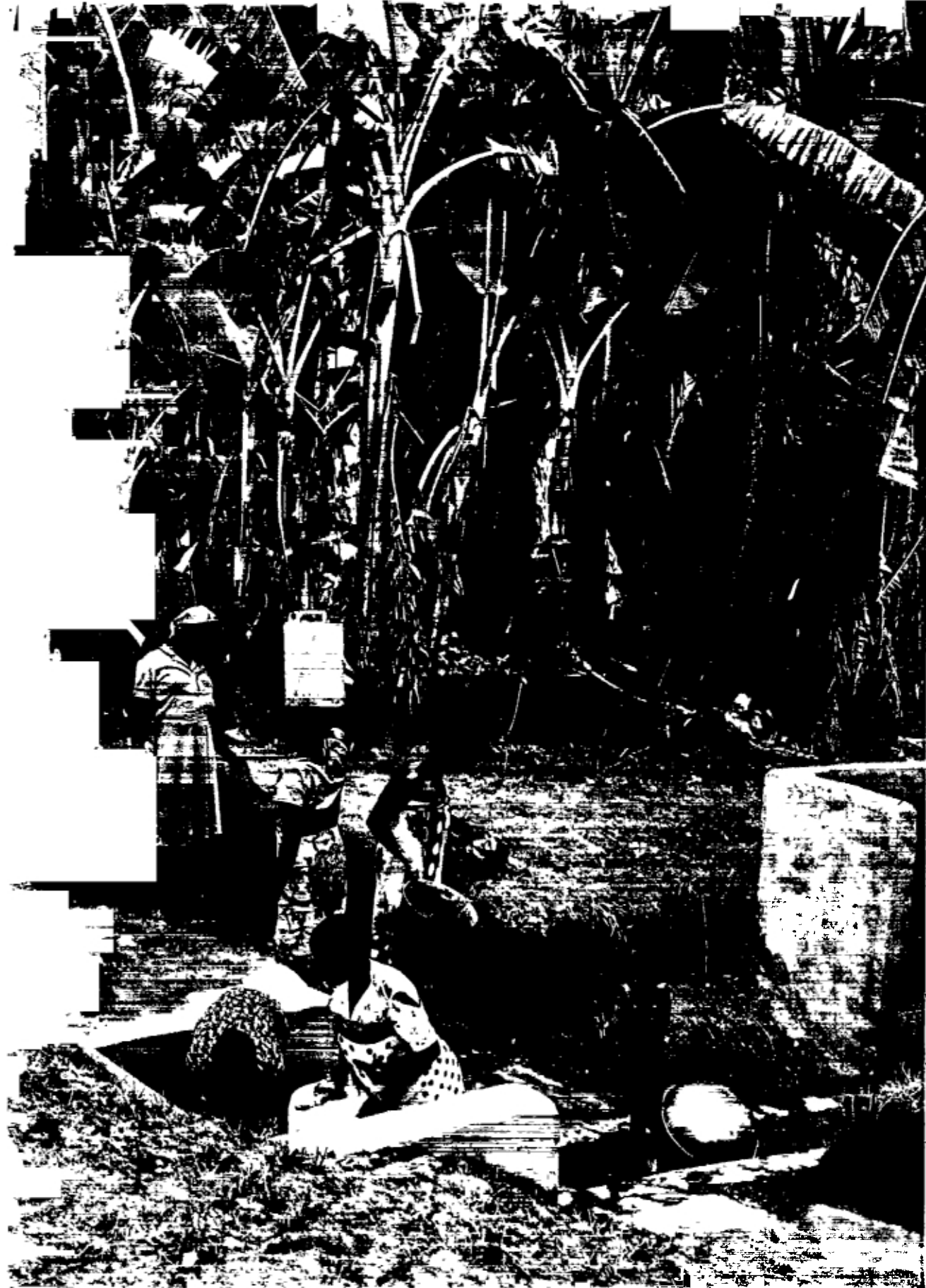
A water supply and sanitation project in Zanzibar did just that: "The participation of women in all training activities of the project must be emphasized. This does not mean only education at the community level, but also improvement of professional capabilities and the employment situation of women." (24)

Project documentation should stress the importance of creating "enabling institutions" for women. One way to do this is to ensure that women participate at all levels of water supply and sanitation projects in professional and managerial roles.

"ENABLING PROJECTS"

Projects, themselves, create an enabling environment for women by having specific objectives, strategies and achievement indicators to enable women's full participation in the project.

The Project Document for Phase I of a water supply and sanitation project in Nepal makes it clear that, "As many project issues address the tasks and role of women their special requirements shall be paid due attention. Gender-specific questions shall not have a separate status but be integrated in the general project planning and implementation." (25)



PART THREE : THE RURAL CASE

STRUGGLING TO INCLUDE WOMEN

The Tanzania Mtwara-Lindi Water Supply Project started in 1972 with the development of a regional master water plan and a feasibility study. There were several implementation phases beginning in 1978 with the objective of constructing water supplies in rural areas. In 1987 it was recognized that some 50% of the water supplies were not functioning. Phase V aimed to correct this by introducing, among other things, community participation. Phase VI continued this process. (26) The project ended in 1993 with the Tanzanian Government and the communities assuming full responsibility for the project.

The Mtwara-Lindi Water Supply Project, because of its longevity, experience, and similarity to other rural projects, provides an excellent example for examining the inclusion of "women in development" in rural water and sanitation projects.

Women and Development Appears on the International Scene

During the life of the Mtwara-Lindi Project, 1972-1993, women in development became a part of the international development agenda. First, from 1975-1985 the United Nations sponsored The Decade for Women with the three themes development, equity and peace. FINNIDA put in place during the Decade a women in development policy and hired a women in development coordinator to implement the policy. Second, during 1980-1990, the International Drinking Water and Sanitation Decade highlighted women's role with water and sanitation. Women were recognized as the collectors, users and managers of water and as those concerned with the sanitation and health of the family. (27) Third, at the same time there was a recognition within the water and sanitation sector of the importance of community participation to the sustainability and effectiveness of water supply systems. It seemed clear that if the community was to be involved with water supplies, and women were those within the community primarily involved with water, then women should be especially targeted as water project beneficiaries.

It seemed clear that if the community was to be involved with water supplies, and women were those within the community primarily involved with water, then women should be especially targeted as water project beneficiaries.

A Chronology : From Construction to the Participation of Women

Many water supply and sanitation projects have a similar history to that of the Mtwara-Lindi Project in Tanzania.

1. The Beginnings

The Mtwara-Lindi project, implemented by an engineering firm, for most of its lifetime had as its main objective the construction of water supplies. As a consequence, "when the project commenced, no socio-economic or socio-cultural study had been conducted in the area, although some general data gathering was done." (28)

2. Rural Women Introduced

In 1984, influenced by the United Nations Decade for Women, there a FINNIDA-financed study was conducted on the effects of the Mtwara-Lindi project on the lives of women. (29) The results of that study were as expected: a) that women's participation in the planning and implementation of the project had been very low and, b) that the proportion of women in the project training had been minimal. (30)

At the same time as the study there were several other studies on the effects of Finnish development cooperation on Tanzanian women. (31) The subsequent Mtwara-Lindi project documentation at no time refers to these studies in any substantive way.

3 Rural Women Targeted in Project Documents

Women were included in Phase IV of the Mtwara-Lindi Project but with few results: "The Project Document for Phase IV assumed a strategy according to which special efforts would be made to involve women in all stages and aspects of the Project, particularly in planning and maintenance of water supply and sanitation systems as well as health education. There is however, little evidence of special efforts actually made." (32)

4. Participation of Women Stressed

The Evaluation Mission of 1987 equated the success of the project with the participation of the rural women: "Efforts to improve water use practices in the villages should have the support of the women in order to be successful". (33) They expand the argument at another point by writing, "to encourage the participation of women, at all stages of water supply development from planning through implementation to operation and maintenance, is to be endorsed. If the Project fails to inform and involve this level adequately little actual benefit can be derived from the water supply facilities development however high their technical quality." (34)

5. From Rhetoric to Practice: A Slow Process

A. Following the 1987 Evaluation Mission's strong statements there is no mention of women in the Phase V Project Document for 1988-1990 and, taking their lead from the Project Document, the Evaluation Mission of 1990 makes no mention of women.

"Women were involved at later stages when the Village Water Committees had already received training for the project, rendering women committee members disadvantaged." (35)

B. In the final project phase of the project, 1991-1993, project personnel include women explicitly in the project document as a target group:

"Women of the region, as the main users of water, will be a special recipient group, and the success of the Project will greatly depend on their attitudes and participation. Being responsible for the hygienic handling of water and for the hygienic habits in homes they play a decisive role in the achievement of the health related objectives of the Project. In the present situation, economic development that can be foreseen to result from the improved water supply situation will be achieved mainly by the release of women's energy and time from long-distance water fetching to more productive activities." (36)

C. Finally, it is clear from project reports from the last and final Phase VI that systematic strategies for involving women are being put in place. For example, in the revised draft of the community participation manual strategies to reach women are included in the syllabus of a community participation course; a special course on women, water and sanitation is offered; the role of women in village participation is considered at some length; and statistics are beginning to be disaggregated by sex. (37)

Women's Inclusion: Questions to Consider

As the Phase VI Project Document indicates, the success of the project depends on the attitudes and participation of women, which begs the questions:

1) Rural women are seen in the project document as a "special" group. Does this imply that they are only included because they are the water collectors and managers of water?

2) Is it not also important to know how men use water so as not to inadvertently disregard their participation and responsibilities with hygiene education and water supplies?

3) Should women be viewed as the only keepers of the family health? In a nutrition program in Tanzania it was recognized that targeting only women with nutrition information was inadequate. Men needed to be involved, as well, as they were often the ones to provide the money for food. (38)

4) Is it valid to say women, released from water collection, would put their energy and time to more productive activities?

"Although fetching water is considered a woman's responsibility, men reiterated that they would give money to women to purchase water if paying for water would guarantee an easy access to a reliable source. This would free men from performing domestic chores. Men perform the chores when women have to walk long distances for water. But provision of a reliable supply of water through a system of water tariff would partly reduce the woman's workload. The workload in the cassava farms would still be a hindrance in their full participation in hygiene and water affairs " (39)

The Future: Beyond Efficiency

Overall, the project document statement reflects the efficiency argument of women and development, that women should be included to ensure the success of the project and maximize the benefits of a safe water supply. "The achievement of this goal would, of course, be of value to women. Nevertheless, it would be more positive for women if the attention being given to women was based on a clear objective to create equality between men and women. This latter objective is essential if water supply improvements are to fulfill the goal of improving the living conditions of one of the poorest groups in rural societies, i.e. women." (40)

Lessons Learned: The Rural Case

- 1) It is essential to include community participation in water sector projects during the preparatory phase of project development, using gender analysis to help in the construction of strategies and indicators for reaching women. These strategies and indicators should be consistently monitored and evaluated.
 - 2) In selecting an engineering firm for a water supply and sanitation project attention must be given to the firm's understanding of community participation, gender analysis and women and development.
 - 3) Many projects, including the Mtwara-Lindi Water Project, have available excellent studies on women within the project region. Project personnel should read and make use of them and they should be available for evaluation missions
 - 4) If the role and status of rural women is given priority in a project, the role and status of women as managers and professionals within the project should be examined. The project structure should reflect the project's goals.
 - 6) FINNIDA funded projects need to address the equity issues inherent in working with women in rural societies. "Thus as well as aiming to achieve the concrete benefits for women of reduced burden and improved health, water supply projects should also have the objective to improve women's position and status in rural societies, through involving them on equal terms as men." (41)
-

PART FOUR : THE URBAN CASE

GETTING STARTED

Avoiding The Mistakes of The Past

The lessons learned from The International Drinking Water Supply and Sanitation Decade included the importance of community participation to the sustainability and effectiveness of water supply systems and sanitation projects. Therefore, many projects within FINNIDA dealing with water supply and sanitation have adopted strategies for institutional development, human resource development and community involvement. They have done so to avoid the mistakes of the past: a) water supply failure once the project is terminated and b) the lack of improvement in health, even after the introduction of clean water supplies.

Rural versus Urban

Rural water and sanitation projects (constructing wells with handpumps, building latrines and providing hygiene education to villagers) have seemed more amenable to community participation than have urban, large-scale engineering projects (designing and building treatment plants and installing piped water systems for hundreds of thousands of residents). Also, often through gender analysis, women in rural areas have been recognized to be those who have most of the responsibility as collectors, users and managers of water and many projects have targeted them for special attention. A similar recognition of women's roles and responsibilities in urban areas is only now beginning to be defined. This is partly due to the differences between the urban and rural water supply and sanitation projects, namely rural projects deal directly with people, urban projects deal with institutions. This makes the whole concept of community participation more complex and the involvement of the individual community members, men and women, more difficult. As a consequence, many of the large, urban projects may pay lip-service to socio-economic studies and community participation, but fundamentally they remain engineering projects.

Many of the large, urban projects may pay lip-service to socio-economic studies, gender analysis and community participation, but fundamentally they remain engineering projects.

Why?

It seems large urban projects are late-comers to community participation for several reasons.

First, urban projects may have a sense of urgency about them: "As the poor water supply situation in Hanoi called for immediate improvements, a "crash" programme approach was chosen.." (42)

The response to the urgency is normally to put in place new water treatment plants, new pipelines, new house connections - the technical pieces of water supply. (43)

Second, engineering firms design and implement urban water supply projects. These firms are not specialists in community participation and can be uneasy about working across disciplines with those who are, sociologists, anthropologists, gender specialists. Also the counterpart institutions in developing countries are mainly formed of technical staff (mainly men), who are to provide technical solutions for water supply and sanitation. They lack the expertise and the human resources in understanding the final beneficiaries of water projects.

Third, there is not much experience in using community participation with large urban projects and often project leaders are unsure just when, where and how to begin.

Some Suggestions

The Hanoi Water Supply Programme in Viet Nam, serves as an illustration for examining means of incorporating community participation, gender analysis, and women into large urban engineering projects.

The Hanoi Water Supply Programme : A Case Study

Project Description

In 1985 The Government of the Socialist Republic of Viet Nam and the Government of the Republic of Finland signed an agreement to rehabilitate, upgrade and extend the water supply system of the City of Hanoi. The first two phases of the project concentrated on providing a technically sound water supply system. Phase III revised the project strategy to achieve more of a balance in "establishing a technically sound water supply system, serving the people at an affordable level of service, institutional development and the overall socio-economic and environmental impact of the project." (44)

A Recognition of The Need

"The problems and lack of consumers involvement was recognized in 1989. The sustainable water supply and sanitation systems require the full commitment of the users of those systems, as they have to assume an active role in the rehabilitation of internal installations, in ensuring proper use of systems, and in taking remedial measures against vandalism and illegal connections which often occur when improvements are perceived as inadequate or too slow. Until now the consumers have not contributed financially to the improvement. The more socio-economic and consumer oriented approach will be developed during Phase III." (45)

Community participation is often initially ignored in urban projects and only belatedly advocated. Such projects as the Hanoi Water Supply Programme begin to understand the necessity of community involvement and community education. Often, however, this does not happen until

several years into the project: "The problems and lack of consumers involvement was recognized in 1989. The sustainable water supply and sanitation systems require the full commitment of the users of those systems, as they have to assume an active role in the rehabilitation of internal installations, in ensuring proper use of systems, and in taking remedial measures against vandalism and illegal connections which often occur when improvements are perceived as inadequate or too slow. The more socio-economic and consumer oriented approach will be developed during Phase III." (45)

What To Do?

Phase III of the Hanoi Water Supply Programme does have a component that is to strengthen the information and education for water consumers and to involve consumers. The achievement indicators are: a) "increased awareness of general public and water consumers on the policies and strategies of the programme and, b) Increased involvement of consumers in the programme defined." (46)

By 1992 a public awareness campaign had begun but "no progress" was reported for increasing the involvement of consumers. (47) This may be a common occurrence in large urban projects - the media campaigns are understood and implemented, but the "community participation" is not. In the Hanoi Project a socio-economic study of consumers was being conducted so that community participation could begin "in accordance with the findings". (48).

So what to do?

Getting Started: Some Suggestions

1. The Plan

Begin to formulate a plan even though the socio-economic study is incomplete. Plans can be adapted to new information. The Plan should outline the objectives for community participation, indicating why this participation is needed and specifying each partner's role and who is responsible for what.

2. The Personnel

Put in place a team member skilled in community participation based on participatory approaches, including gender analysis. A part of this team member's job description should be to institutionalize participatory approaches and gender analysis. Therefore, it is important to identify counterparts who will work continuously with the community participation component. The University of Hanoi Sociology and Psychology Faculty which is conducting the consumer socio-economic study would be appropriate. (49)

3. The Preparation

A) Review the literature in areas such as anthropology, sociology, and geography relating to the men and women of Hanoi, the city's history and cultural background. Often there are

specialized studies on women in the project area. Universities are excellent sources for such literature.

B) Read all project documentation for clues to the social dimension of the project:

For example, in the Hanoi project document it is noted that, "Septic tanks provide the only treatment but their performance is reported to be poor due to overloading." (50) Who is directly involved with household septic tanks? Men? Women? How is overloading dealt with? What is the impact on hygiene education?

For example, in the final report of Phase I of the Hanoi project it is noted that, "60% of the population had to obtain their water from Public Stand Pipes. This meant long periods of time waiting in queues." (51) Who waits in the queues? Men? Women? Is "saved time" an incentive for participation in the maintenance of the new water supply? (52)

For example, another assessment notes that urban integrated aquaculture for vegetables and fish production depends on the nutrients and organic matter of Hanoi City waters (53) Who grow the vegetables? Men? Women? Who are the fish producers? How will the new water system affect their traditional system of growing and irrigating?

For example, an environmental assessment done for the Hanoi project notes, "Personal and food hygiene are on a high level in Hanoi and serious epidemics of water borne diseases have been avoided. Drinking water must always be boiled according to local tradition." (54) How can such indigenous knowledge be reinforced through hygiene education?.

C) Identify and consult with organizations that work with the local people in the city, i.e. non-governmental organizations, governmental organizations, women's organizations These organizations should be added to "The Vietnamese Organizations Connected With The Project". (55) All organizational charts should include them as a visible way of stressing that the project organization does not stop with the water authorities and the construction companies.

D) Conduct a systematic rapid urban assessment: informally talking with the men and women of households, industries, institutions and commerces about their water use; walking the streets observing water use and the users, both men and women; visiting the lakes, ponds and rivers of the city. There are many techniques for these rapid assessments. The whole project team should participate in this exercise as a multiplicity of disciplines enriches the informal assessment and promotes team unity.

E) Begin to analyze the involvement of women in the project structure and adopt sex disaggregated data on project personnel, trainees, consultants.

4. The Policy Statement

Draft a project policy statement that might include:

- A) A definition of community participation tailored for the Hanoi Water Supply Project.
- B) The understanding that community participation is not a separate project component, but is multi-disciplinary, cuts across all project components, and involves all project personnel
- C) The idea that community participation is both a process and a philosophy.

Community participation is not a separate project component, but is multi-disciplinary, cuts across all project components, and involves all project personnel.

Community participation is both a process and a philosophy.

- D) The recognition that central to community participation are the men and women of the City of Hanoi; therefore, gender analysis and women in development are core project concepts in the project.

The holistic approach of community participation can be both difficult and rewarding. A team leader, an engineer working with a water project in Sri Lanka wrote, "This was not as easy as it may sound and involved a complete change in orientation of both expatriate and Sri Lankan staff. Engineers who had spent their careers designing pipelines and pumping systems had to learn about development issues and work closely with social scientists. What can be said is that there was an evolutionary change in thinking, accompanied by appropriate action, toward more involvement of the institutions and people and that activities were driven less by the traditional "construction first" reflex of many engineers." (56)

- E) The realization that community participation and addressing the concerns of men and women depends on institutional and policy support at all levels.

- F) Include with the policy the community participation plan and the strategies and achievement indicators for carrying out the plan, noting especially strategies and indicators for reaching women at all levels of the project.

5. Initial Training

A) Develop an initial training course for project personnel, the counterpart staff and the members of the Peoples's Committee and the citizen's associations. The substance of the training should include the concepts and methods of community participation (participatory approaches, gender analysis and women in development), and a clear explanation of the utility of the approach to the Hanoi Water Supply Project.

B) Emphasize that the training of trainers should be a priority for capacity building and that women should be 50% of those trained as trainers and 50% of those trained by the project, in general.

C) Initiate a system to disaggregate all project training data by sex and develop strategies to involve more women in training.

6. A Pilot Area

The Hanoi Water Supply Programme has identified two pilot areas for special study, Ngo Si Lien and Tuong Mai Water Plant Influence Areas. Such pilot areas can be an integral part of a community participation program. The project team had hoped to study within the pilot area such things as water demand patterns, reasons for water leakage, domestic and industrial consumption, illegal household connections (57)

A) Consider how these studies can be an education for the community, itself, if they are involved in them from their inception - communities should learn to study themselves.

B) Consider how the pilot area can incorporate community participation: For example, in pre-testing media campaigns on water education; working with local organizations, especially women's organizations, to develop ways to involve men and women in managing their neighborhood and household water supplies; in developing and pre-testing community hygiene education approaches and environment education; and in assessing community response to increase tariffs.

7. The Socio-Economic Study

Socio-economic studies can be conducted at a variety of different levels. They are helpful at the beginning of the project to have an idea of the community, but they should be constructed only after a thorough reading of the literature, consultation with local experts, and observation of the city. They always should use gender analysis and any data gathered should be disaggregated by sex, male and female.

Socio-economic studies can be conducted throughout the life of a project with neighborhood men and women in order to test potential media campaigns, to identify issues of importance to the community related to water and to try out ways of involving communities with operations and maintenance of a water system.

Socio-economic studies should not be thought of as simply interviewing consumers, although this can be useful. For example, the Hanoi Water Supply Project clearly needs information specifically on women at all levels from local women, women personnel in the project itself, and numbers of women being trained by the project. Simple rapid assessment procedures can be used to gather such data. In a water project in Nepal 126 rapid assessments (RAP) were done to gather socio-cultural information as feasibility studies for well sites. Similar studies could be done in the neighborhoods of Hanoi. (58)

Lessons Learned: The Urban Case

1. Even if "crash" water supply construction is needed urgently, a community participation plan, based on gender analysis and the realities of the urban area to be served, should be developed at the inception of the project.
 2. The engineering firm that is to implement the urban water supply scheme should be chosen for its engineering expertise and for its understanding of community participation, gender analysis, and institution building.
 3. Often increased water fees and tariffs are an issue that demand an understanding by the engineering firm implementing the project of water consumers, both men and women.
 4. An urban project needs a gender and community participation expert as a team member from its inception to address community participation, environmental education, institution-building and consumer relations.
-

PART FIVE : THE PROJECT CYCLE

INCLUDING GENDER IN WATER SUPPLY AND SANITATION PROGRAMS

Project Identification and Preparation

The Enabling Environment

During the project identification and preparation stages the "enabling environment" (policy, programs, literature etc.) for including gender and community participation should be identified and built upon. Even with the differences between rural and urban water and sanitation projects individuals, both men and women are the ultimate beneficiaries. Therefore, conditions for true participation of people should be created from the beginning. Also this regard the role of the recipient country can not be over-emphasized. Only this way are conditions created for the efficient implementation of the principles of the Dublin Statement on Water and Sustainable Development of 1992, which emphasizes the importance of community representation of local water users.

Background information

Find Out: What are the official policies of the country concerning water supply and sanitation and the participation of people? What is the extent of commitment to community participation in urban and rural areas?

Read: Literature on socio-economic issues, gender and their relationship to water, sanitation and community participation abound. There are general texts: "Economic Benefits from Improved Rural Water Supply: A Focus on Women" (59) and journals: "Woman, Water, Sanitation. an Annual Abstract Journal" (60) There are project-specific studies: "Socio-cultural dimensions of Water Supply and Sanitation: A Study from Sri Lanka" (61) and "Innovative Approaches to Poverty Alleviation, with Specific Reference to Provision of Water to Rural Women in Kenya". (62)

The literature should be made available to both the project formulation team and the project staff in the field to be used individually and for in-service training.

Consult: Consultation with those who know of gender issues pertinent to the project goals is important. These consultations may include discussions with the FINNIDA women in development coordinator and the governmental agency in-country that deals with women's issues; they may be conversations with villagers, both men and women, with local men's groups and women's groups, with public health personnel, both men and women. International agencies also are useful.

An international agency, PROWESS, The Promotion of the Role of Women in Water and Environmental Sanitation Services, is a part of The United Nations Development Fund. It was created "in response to a widely perceived imbalance between policy commitment to the involvement of women and lack of concrete field experience" in water and sanitation. (63)

Observe: Whether with a rural or urban water project visits by the formulation team, and later by the project staff, to observe the communities is vital. A systematic observation plan should be developed by the team. Such plans should include overnight stays with families; leisurely walks in neighborhoods with local guides, both men and women; informal interviews of household members selected at random. To make sure women are reached one of the team should be a woman, the guides should include women and women should be interviewed by a woman apart from the men. The Nepal Water Supply Project uses continuously such a Rapid Assessment Procedure (RAP) as a means of gathering socio-cultural information for each potential water site area. (64)

The Team

The Team Leaders: Select leaders for the project formulation team and for the field staff who understand and feel responsible for the centrality of the social or socio-economic issues of the project.

The leaders need to understand what community participation and gender analysis is and see the value of it to water supplies and sanitation. Many water and sanitation projects are headed by engineers who may know little about community participation and gender analysis. It is suggested that the leaders have training in gender analysis before the mission begins.

The Team Members: Select project formulation team members and field team members who have credentials that indicate a sensitivity to socio-economic issues, gender analysis and women in development. These credentials may include: a) previous project work with women's groups or with the poor, both men and women; b) training, or a willingness to be trained, in gender analysis; c) a background in the social sciences; d) a familiarity with the concept and literature of women in development and an understanding of its importance; e) familiarity with the concept and practice of community participation; f) proven sensitivity to other cultures and an ability for cross-cultural communications.

Socio-Economic Studies

Socio-economic studies can occur at many points of a project; however, they are helpful during the project identification phase.

The Rural Water Supply and Sanitation Project in Nepal contracted such studies for the project identification team on "The Role of Women", "Sanitation" and "Health Education and Community Participation". (65) At the same time a detailed terms of reference was drafted for an in-depth study by a sociologist on the men and women of the communities within the project region.

Socio-economic surveys are necessary to answer the fundamental questions that gender analysis asks:

Who Does What? For example, in the Kandy District of Sri Lanka women clean the shallow wells and help men empty the deep wells. Men particularly clean the drinking wells. (66)

Who Has What? For example, in a study in Sri Lanka, "A women's organization, Mahila Samitie, which was established in the village 40 years ago, has now merged with the village development society. Women said that they did not need a separate society. The result of this is now the only female member in Gramodaya Mandala is the teacher of the weaving center who is without a vote." (67)

"A women's organization, Mahila Samitie, which was established in the village 40 years ago, has now merged with the village development society. Women said that they did not need a separate society. The result of this is now the only female member in Gramodaya Mandala is the teacher of the weaving center who is without a vote." (67)

What Factors Influence The Gender Arrangement? Here cultural, legal, and economic prescriptions are identified. In Sri Lanka, "It is customary to put flowers into the cleaned well...which in exorcist cults are commonly used to repel spirits. Owing to this ritualistic procedure women are not expected to enter the well for cleaning. At Mandandawala elders strongly held this view and even referred to an instance where the springs dried up because of women entering the well to clean it". (68)

How Are Public Resources Distributed? Again in Sri Lanka the necessity of having women as well caretakers has been emphasized by government agencies. However, it was found, "Women will only be accidentally recruited. This may be due to the emphasis on the respectability of the person to be chosen. Official or public responsibility will be given to men." (69)

Rapid Gender Analysis:

There are also rapid methods of analyzing gender aspects among the target population. In a participatory planning process for water supply and sanitation, Rapid Gender Analysis (see FINNIDA Project Design and Preparation Guidelines, Annex K) can be done to assess the Knowledge, Activities, Responsibilities, Incentives and Services connected to water supply and sanitation (WSS) at the household level: for men, for women, for boys and for girls.

KNOWLEDGE

Facilitate, in a participatory process with the people (men, women, boys, girls), definition of the types of knowledge the people consider as important for WSS and who within the household has that knowledge

ACTIVITIES

Facilitate, in a participatory process with the people (men, women, boys, girls), the definition of the activities needed to manage WSS and who does these activities within the household.

RESPONSIBILITIES

Facilitate, in a participatory process with the people (men, women, boys, girls) the definition of the responsibilities connected to WSS and who within the household is responsible for each

INCENTIVES/BENEFITS

Facilitate, in a participatory process with the people (men, women, boys, girls) the definition of the different incentives and benefits that clean water and sanitation brings and who within the household receives the incentives and benefits.

INPUTS AND SERVICES

Facilitate, in a participatory process with the people (men, women, boys, girls), the definition of the services and inputs for WSS and who receives them

Examples:

- knowledge on water sites; Knowledge on safe use of water; hygiene knowledge (water quality, good handling of water, clean household and clean environment); knowledge of latrines; knowledge on costs and cost sharing; knowledge on maintenance

Examples:

- collecting water
- storing of water
- tasks for improving water quality
- maintenance of the yield of the water source
- maintenance of the environment of the water source and protection against contamination
- maintenance of the physical WSS facilities
- cleaning of the latrines
- irrigation customs

Examples:

- overall responsibility of the household water supply or the activities listed above
- payment of water fees

Examples:

- clean drinking water
- water for productive use
- remuneration for the maintenance of wells and pumps

Examples:

- public education on improved WSS and hygiene
- training on maintenance of WSS facilities
- improved physical WSS facilities

By using participatory methods it is possible to measure what is each actor's (men, women, boys, girls) proportional share under each item,

The Project Document

In general, it is most important that the project strategy in the project document is clearly based on the idea of the participation of the men and women of the target population. It is also important that the roles of different partners, especially that of the counterpart organization and the consulting firm are clearly defined with regard to gender. The need for socio-economic studies from the beginning of the project as well as clearly stated links between the inputs and the objectives must be put explicitly stated in the project document.

There are five places in particular in the project document that it is particularly important to include gender issues:

Background and Justification

Start with the people, both men and women. For example,

"The negative effects of deforestation on the water supply have been felt most profoundly by the rural poor. The women, as the collectors of water, walk increasingly longer distances for water. The men must do both their own work and that of their wives as the wives time and energy is spent in gathering water." THEN describe the current water system, the latitude, the climate etc.

Make clear the interaction of the water supply, community participation and gender analysis. For example,

"Using community participation assures the sustainability of the water supply. The location of wells is very important to the women of the community and they should be involved from the project inception in helping not only with siting of wells but in their design. It is now clearly understood that the roles, responsibilities and access to, and control over, resources for men and women are often different. Gender analysis, therefore, should be an essential ingredient of any water and sanitation, such as this one, that is grounded in community participation, water and sanitation and capacity building."

Target Groups

Explicitly mention both men and women in the project document section on target groups:

"The target groups for the hygiene education program include women, who are central to the health and well-being of their families and men, who often make family decisions that affect the nutrition and health of their children."

If women are not explicitly mentioned in project documentation they are often overlooked.

Objectives and Achievement Indicators

It must not be assumed that because a project is based on community participation that women will be included. Therefore, project objectives and achievement indicators should read:

The Objective

"Promote the development and use of safe water supplies and improved sanitation through support to community water committees. Both men and women will be involved in the village water committees and strategies will be developed to assure the representation of women."

The Achievement Indicator

"Fifty percent of the village water committees members are women".

or

The Objective

"Government officers, community workers" and community members will be trained in the development and application of tools for effective community management, hygiene education and use of gender analysis. All training documentation will be disaggregated by sex so that it can be clear that women as well as men are being trained by the project."

The Achievement Indicator

"X number of male and Y number of female community members have been trained in community management, hygiene education and the use of gender analysis."

The two most essential places in the project document to include gender considerations and attention to women are the achievement indicators and the terms of reference of personnel, consultancies and project reviews.

Terms of Reference

Terms of Reference for all personnel should emphasize the importance the project puts on community participation and gender. For example,

The Appraisal Mission: "A crucial point is the sustainability of the water supply facilities. The Mission should, therefore, particularly be concerned with community participation and institution-building. This would mean an analysis of the social conditions, including gender issues, prevailing in the project region."

The Team Leader: "The chief technical advisor should have a degree in engineering with a minimum of ten years working with the construction and maintenance of water supply and sanitation systems in rural areas. The advisor must be familiar with community participation in the management of such systems and have a knowledge of gender analysis "

Project Implementation and Monitoring

1. In-service Training for Project Staff the Staff Involves in Project Implementation

To include:

- a) Reviewing literature on country-specific gender and women in development studies
- b) Presenting concepts and methods of participatory development.
- c) Seeing water supplies and sanitation from a gender perspective.
- d) Gathering of data needed for gender analysis.
- e) Developing workplans to include gender.

2. Preparing Workplans and Writing Progress Reports or Other Reports on the Data Gathered

A few questions to ask:

- a) Have participatory planning methods been used in the process of preparing the workplans?
- b) Are statistics being gathered disaggregated by sex?
- c) Have key areas of concern been considered:

For Example,

1. Have women been asked where their traditional water sources are? Can these sources be improved?

3. Have all the uses of water been considered? In Nepal water has been used after defecation as a ritual. Can this indigenous practice be built upon for hygiene education?
4. Do all socio-economic studies undertaken by the project look at men and women explicitly, not just "people", "households", "villagers"?
5. Have all documents been reviewed for sex-neutral language, disaggregation of statistics by sex, inclusion of women, sparing use of aggregate words (i.e. farmers, villagers)?
6. Has there been an assumption that there is no project that is not appropriate for gender analysis unless it in no way involves people?

In a water and sanitation project in Nepal gender analysis and women were central to the project at every stage. However, they were seldom, if at all, mentioned in workplans and progress reports.

Project Review

Project and program review is the point that allows identification of lessons learned and changes and redirections to the project or program. Therefore, it is extremely important to include in the review an assessment of how the gender perspective articulated in the project design has actually been implemented.

The assessment should consider the issues raised in these guidelines. The following are issues of importance to the review itself:

1. **The Terms of Reference:** The Terms of Reference are the basis for recruiting expertise for review and evaluation missions. They also specify the tasks that must be fulfilled by the Mission. Therefore, it is essential that the Terms of Reference of the team members include an explicit requirement to review the gender dimension of the project.

The Terms of Reference are the basis for recruiting expertise for review and evaluation missions. They also specify the tasks that must be fulfilled by the Mission. Therefore, it is essential that the Terms of Reference of the team members include an explicit requirement to review the gender dimension of the project.

2. The Team Members: The review teams should include one member who has a strong background, and commitment to, gender analysis and women in development.

3. The Team Review of Gender Analysis: The team members should each have a copy of these guidelines and the FINNIDA guidelines on Rapid Gender Analysis to review.

4. Some Critical Questions for The Team: The review team should consider the following questions: In what ways have gender and women in development been included in project documentation and implementation? How should they be included? How has gender been linked to community participation and water and sanitation? In what ways have men and women participated in the design and implementation of the project? What are the major difficulties and obstacles in the process of incorporation of gender? How do the people, both men and women, feel about incorporating gender considerations into the projects and programs? Are women included in the project personnel?

Are women being targeted without the benefit of gender analysis? It is important to know the roles, rights and responsibilities of both men and women with regard to water, sanitation and hygiene education.

5. Answering the Questions: A very useful way to begin to answer these questions is to have a team member or an outside consultant review all project documents and provide comments and recommendations on the project before the team leaves for the review.

Is gender being considered at all levels of the project? Within institution building and policy development, as well as at the field level?

Lessons Learned: The Project Cycle

1. If women are not explicitly mentioned in project documentation, they are often overlooked.
 2. Project data need to be disaggregated by sex.
 3. The two most essential places in the project document to include gender considerations and attention to women are the achievement indicators and the terms of reference of personnel, consultancies and project reviews
 4. Gender analysis, looking at the roles, responsibilities and rights of men and women with regard to water, should be conducted. It should not simply be assumed that women have primary responsibility for water, without regard for men's participation.
-



PART SIX : THE WOMAN QUESTION

THE SIX DANGERS

There are six dangers to be aware of when "including women":

Danger One: To include women as a separate activity is a risk. A project list, fish ponds, hand pump maintenance, women's activities, and village water committees, begs the question, "How are women included in the other activities"?

Danger Two: To not mention women in project documentation, especially in the achievement indicators, generally means their participation will not be carefully monitored.

Danger Three: To continue using project statistics not disaggregated by sex frustrates monitoring and evaluation efforts on behalf of women and of men.

Danger Four: To assume gender issues are taken care of by having a woman on the team is only part of the equation - many women know nothing of women in development or gender analysis.

Danger Five: The numbers of households headed by women is estimated to be one out three worldwide. It is an important issue and the high rate of women-headed households indicates a special need for gender-specific information of the target population. However, women should be fully included in projects whether or not they are "heads of household".

Danger Six: To consider women only at the field level and not in policy and institution-building means that once the project is over there is no foundation on which to sustain women's involvement.

Danger Six: To consider women only at the field level and not in policy and institution-building means that once the project is over there is no foundation on which to sustain women's involvement.

A WOMAN'S COMPONENT, OR NO?

Finally, there is the question of whether to have a completely separate project component for women. Experience shows that integrating women into the central activities of projects is generally more effective than a separate effort directed at women. However, this may vary.

The following list may help projects to evaluate when a "women-only" component is recommended.

- a) When there are strong taboos against unrelated males and females working together.
- b) Where the effects of past discrimination need to be overcome.
- c) Where many or most households are headed by women.
- d) Where women specialize in tasks that could be made more productive with outside help
- e) Where women request a measure of self-reliance to avoid conflict or competition with men
(70)

In a national colloquium on the role of women in water resource management in India, it was recommended that separate women's panchayats be established, "with well-defined functions and resources". At the same time it was recommended that standing committees on water and sanitation be formed as a part of the local panchayat and be composed of a minimum of 50% women. Therefore, women would have their own panchayat but also would be an integral part of the broader local government (71)

* * * *

REFERENCES

1. "Kenya-Finland Western Water Supply Programme. Project Document: Draft". FINNIDA. Helsinki, Finland. Oct. 1992 p.3.
2. Ibid, p 8.
3. "Global Consultation on Safe Water and Sanitation for the 1990's: Background Paper". UNDP: New Delhi, India. 1990. p.25.
4. Kivela, M. "Women and Water Technology: The Case of the Finnish Water Project in Tanzania". Institute of Development Studies, University of Helsinki: Helsinki, Finland. 1984. p.21.
5. Ibid, p.10
6. "Women and the International Drinking Water and Sanitation Decade". United Nations Research and Training Institute for the Advancement of Women and the United Nations Children's Fund: Santo Domingo, Dominican Republic. 1985. p.6.
7. van Wijk, C "Drinking Water Supply and Sanitation Projects: Impacts on Women". Woman, Water, Sanitation: Annual Abstract Journal, No.2. IRC International Water and Sanitation Centre and PROWESS/UNDP. 1992. p.1.
8. Ibid, p.2.
9. Summers, L. "The Most Influential Investment". Scientific American, Aug. 1992:132.
10. Shrestha, V.L. "Rural Water Supply and Sanitation Project, Nepal: Inception Study - Area: Health and Sanitation". Draft Report. FINNIDA: Helsinki, Finland. 1989. p.8.
11. Hannan-Andersson, C. "The Challenge of Measuring Gender Issues in Water and Sanitation". UNDP Workshop on Goals and Indicators for Monitoring and Evaluation of Water Supply and Sanitation: Geneva, Switzerland. 1990. p.9-10.
12. "Global Consultation on Safe Water and Sanitation for the 1990's: Background Paper". op. cit. p.25.
13. "Kandy District Water Supply and Sanitation Project: Phase I: Final Report". FINNIDA: Helsinki, Finland. 1987. p.11.
14. Kunguru, J. "Innovative Approaches to Poverty Alleviation with Specific Reference to Provision of Water to Rural Women in Kenya". Seminar Paper in Society for International Development, 19th World Conference. March 1988. New Delhi, India. Appendix 1, p.3.
15. "Hanoi Water Supply Project (HWSP): Phase II: Final Report". FINNIDA: Helsinki, Finland. 1991. p.27

16. Oenga, I. & P. Ikumi. "Mid-term Review for the Kenia-Finland Western Water Supply Project: Field Survey Report". FINNIDA: Helsinki, Finland. 1991. p.15.
17. "Zanzibar Urban Water Supply Project: Phase I: Project Document". FINNIDA: Helsinki, Finland. 1991. p.28.
18. "Nepal: Resource Mobilization Profile". International Drinking Water and Sanitation Decade: Kathmandu, Nepal. 1986. p.1.
- 19 "Background Report of the Appraisal Mission of Phase IV of Kenia-Finland Western Water Supply Project". FINNIDA: Helsinki, Finland. 1992. p.9.
20. "Global Consultation on Safe Water and Sanitation for the 1990's: Background Report". op. cit. p.x.
21. "The Role of Women in the Finnish Development Co-operation. Guidelines and Programme of Action". FINNIDA: Helsinki, Finland. 1990. p.15.
22. Ibid, p.35
23. "Nepal: Resource Mobilization Profile". op. cit. p.1.
24. "Zanzibar Urban Water Supply Project: Phase I: Project Document". FINNIDA: Helsinki, Finland. 1991. p.27.
25. "Rural Water Supply and Sanitation Project: Phase I: Project Document". FINNIDA: Helsinki, Finland. 1989. p.21.
26. "Mtwara-Lindi Rural Water Supply Project: Mid-term Review". FINNIDA: Helsinki, Finland. 1993. p.7.
27. "Women and the International Drinking Water and Sanitation Decade". op. cit.
28. "Mtwara-Lindi Rural Water Supply Project: Phase III: Report of the Evaluation Mission". FINNIDA: Helsinki, Finland. 1984. p.45.
29. Kivelä, M. op cit.
30. Ibid, p ii.
31. Swantz, M-L., A. Toivola, T. Stude, M. Kivelä, P. Kokkonen, T. Bertell, M. Boök. "Effects of Finnish Development Co-operation on Tanzanian Women". Report 1/85 B. University of Helsinki, Institute of Development Studies: Helsinki, Finland. 1985
32. "Mtwara-Lindi Rural Water Supply Project: Phase IV: Report of the Evaluation/Appraisal Mission". FINNIDA: Helsinki, Finland. 1987. p.15.
33. Ibid, p.15.

34. Ibid, p.35.
35. Chalinga, A.E "Study of the Institutional and Financing Agreements of Makonde Plateau Water Supply: A Report Prepared for Finnwater Mtwara". A paper in Makonde Plateau Seminar. Mtwara- Lindi Rural Water Supply Project: Draft Final Report: Phase IV. FINNIDA: Helsinki, Finland. Annex 11, p.47.
36. "Mtwara-Lindi Rural Water Supply Project: Phase VI: Project Document. Final Draft." FINNIDA: Helsinki, Finland. 1991. p.8.
37. "Mtwara-Lindi Rural Water Supply Project: Phase VI: Draft Final Report". FINNIDA: Helsinki, Finland. 1993. Annexes 3 and 4.
38. Private conversation with nutritionist Mary Materu.
39. Chalinga, A.E. op. cit. Annex 11, p.59.
40. Hannan-Andersson, C. "Domestic Water Supply Improvements in Tanzania: Impact on Rural Women". SIDA: Stockholm, Sweden. 1985. p.53.
41. Ibid. p.53.
42. "Hanoi Water Supply Project (HWSP): Phase I: Final Report". FINNIDA: Helsinki, Finland. 1989. p.1.
43. Ibid. p.8.
44. "HWSP: Phase III: Project Document". FINNIDA: Helsinki, Finland 1990. p 4.
45. "HWSP: Phase II: Final Report". FINNIDA: Helsinki, Finland. 1991. p.27.
46. "HWSP: Phase III: Project Document". op. cit. p.3.
47. "HWSP: Annual Report 1992". FINNIDA: Helsinki, Finland. 1993. p.19.
48. "HWSP: Work Plan 1993". FINNIDA: Helsinki, Finland. 1992. unnumbered p.4.
49. "HWSP: Annual Report 1992". op. cit. p.9.
50. "HWSP: Phase III: Project Document". op. cit. p.7.
51. "HWSP: Phase I: Final Report". op. cit. p.6.
52. Ibid, p.6
53. "HWSP: Study on Interaction between Water Projects and the Environment in Hanoi City. Draft". FINNIDA: Helsinki, Finland. 1990. p.31ff.
54. "HWSP: Environmental Enhancement and Impacts". FINNIDA: Helsinki, Finland. 1992. p.21.

55. "HWSP: Phase I: Final Report". op. cit. Appendix 6
56. "Kandy District Water Supply and Sanitation Project: Phase I: Final Report". op. cit. p.11.
57. "HWSP Plan for the Improvement of Service Level in the Water Distribution System". FINNIDA: Helsinki, Finland. 1991. p.11.
58. "Rural Water Supply and Sanitation Project, Nepal: Mid-term Review Report". FINNIDA. Helsinki, Finland. 1992. p.20.
59. Kamminga, E. M. "Economic Benefits from Improved Rural Water Supply A Focus on Women". Occasional Paper 17. IRC International Water and Sanitation Centre: The Hague, The Netherlands 1991.
60. Woman, Water, Sanitation: An Annual Abstract Journal. PROWWESS/UNDP and IRC International Water and Sanitation Centre. The Hague, Netherlands.
61. Jayasinghe, K.H. "Socio-cultural Dimensions of Water Supply and Sanitation". Report 3/83 B. Institute of Development Studies, University of Helsinki: Helsinki, Finland. 1983.
62. Kunguru, J. op. cit
63. Woman, Water, Sanitation: an Annual Abstract Journal No. 2. 1992. Preface. IRC International Water and Sanitation Centre and PROWWESS/UNDP: The Hague, Netherlands.
64. "Rural Water Supply and Sanitation Project, Nepal: Mid-term Review Report". FINNIDA. Helsinki, Finland. 1992. p.20.
65. Shrestha, V. op. cit.
66. Jayasinghe, K.H. op. cit. p.129.
67. Kelles-Viitanen, A. "Water and Wells, Symbols and Prestige, Power and Prosperity in a Sinhalese Village". Report 1/83 B. Institute of Development Studies, University of Helsinki: Helsinki, Finland. 1983. p.24.
68. Jayasinghe, K.H. op. cit. p. 129.
69. Kelles-Viitanen, A. op. cit. p.93.
70. Dixon-Mueller, R. and R. Anker. "Assessing Women's Economic Contributions to Development". International Labor Organization, Geneva. 1988.
71. "National Colloquium on Role of Women In Water Resource Management" Centre for Development Studies. New Delhi, India. 1990. p.19.

Photographs:

Cover: Leena Neuvonen, Nigeria

Page 4: Jorma Koponen, Vietnam

Page 10: Kristian Runeberg, Kenya

Page 34: Martti Lintunen, Mozambique



FINNIDA

Finnish International Development Agency

Ministry for Foreign Affairs of Finland
Katajanokanlaituri 3, FIN-00160 HELSINKI, tel. +358 0 134 161, fax +358 0 622 2576

