

## A CRITICAL ANALYSIS OF GENDER STRATEGIES IN THE OPERATION AND MAINTENANCE OF RURAL WATER SUPPLIES

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### Women's Centrality in Water Supplies

A recent WHO report, "Women, Water and Sanitation" (Mills 1992) presents a review of a number of studies detailing the many responsibilities that women hold in water and sanitation, and of the impact that these responsibilities have on women's health, daily work burden, and status in a number of Third World countries.

The report confirms that women are the primary collectors of water and that men typically only assist women when water sources are very far away. While men usually have access to some form of cart, donkey, wheelbarrow or bicycle transport, women depend solely on foot transport. Water collection is a major part of the day's work for women, with distance and quantities needed constantly being juggled against time and energy available.

Women are also responsible for caring for the sick (many of the diseases are water and sanitation related) and are exposed to a much greater degree to such diseases than are men. The long hours women spend in water collection and in all of their many daily tasks render them chronically tired, further deteriorating the health of women who may already be undernourished, anaemic, or requiring additional food due to frequent pregnancies. The negative effects of carrying heavy loads of water on the skeletal health of women and children and of the dangers that water collection holds for pregnancies are also discussed in the WHO report.

The report stresses that too often the psychological and emotional stress involved in juggling time, energy, and family needs is overlooked. Women often feel guilty when they cannot complete all of the tasks expected of them and this conflict between expected roles and physical limitations adds considerably to women's stress and feeling of personal (in)adequacy.

However, while the centrality of women as the collectors and users of water supplies is recognized by most, if not all development agencies, the centrality of women to operation and maintenance strategies is not always recognized. In the WHO report it is written:

Women are the traditional managers of water systems, yet as new water technologies are introduced to communities these roles are taken away by assumptions that men should be trained in the maintenance of the facilities. Women are in the best position to take care of these facilities, as they are aware of when they cease to function and have the most *interest* in their repairs. Studies have shown that women are capable of performing such roles but are often impeded by community attitudes which restrict their roles in community affairs". (Mills 1992 p.10)

Development agencies have become increasingly more committed to integrating women into formal operation and maintenance strategies for water supply systems. Many initiatives have been undertaken and these deserve due recognition. However, these initiatives also need to be evaluated in terms of how successful they have been, not only for project goals and community needs, but also

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for the improved well being of the women. Have these initiatives, for example, added to women's work burdens or placed women at social or physical risk? Why have women in some instances refused to participate? Are projects justified in using the excuse of "difficult to involve women in this cultural context" to exclude women from operation and maintenance systems? There needs to be a recognition of the possibility that the strategies undertaken may not be meeting the needs of the women even though they may be meeting the goals of the project.

In order to examine these strategies, it is useful to place them within an analytical framework which tries to simplify the many complexities involved with "integrating women into development". For this purpose, general gender development concepts are reviewed.

### **Gender Development Concepts**

Theories and practices to include gender in development have been employed in response to the perceived need to equalize the development process for both women and men. The wide range of approaches, policies and projects utilized since the 1960's have become popularized under the general heading of "Women in Development" or WID. However, although the main purpose of each is to assist women in the Third World, wide differences in their underlying assumptions exist. This holds important implications for the type and impact of the strategies formulated from each. Some recent gender development analyses by Caroline Moser (1989), Eva Rathgeber (1990) and Gita Sen & Caren Grown (1987) provide a wealth of concepts, issues and difficulties surrounding the process of equalizing the development process for women. A review of these will help in the construction of a conceptual framework which can be used to analyze existing initiatives to "integrate women into operation and maintenance of water supply systems".

#### **Caroline Moser**

Moser identifies and classifies five different approaches to "Women in Development" which have been formulated in response to changes in macro-level economic and social policy approaches to Third World development; from modernization policies, through the basic needs approach, to social programmes tacked onto structural adjustment policies. These approaches include the welfare, equity, anti-poverty, efficiency and empowerment approach.

Moser evaluates each of the approaches in terms of two criteria. The first is whether it recognizes one, two or three of the roles (reproductive, productive and community management) that women undertake in their everyday lives. Moser argues that if the approach does not recognize that women juggle all three roles on a daily basis, programmes that are intended to help women will add further to the burdens of their already heavy workload, and thus not address women's real needs.

The second criteria is whether it meets practical or strategic gender needs; strategic gender needs being those which are needed to create a more equal organization of society and which challenge the nature of female-male relationships, and practical gender needs being needs which meet the immediate perceived necessities of women within a specific context. While practical gender needs do not in themselves challenge unequal gender relations within society, they may be used in conjunction with an overall strategic gender needs policy to this effect. However, Moser argues that to implement practical gender needs programmes in isolation of the overall goal of creating a more equal society, such programmes do not empower women and can in fact work against the long term

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needs of women by overshadowing the need to make fundamental changes in the structure of patriarchal society.

Of the five approaches discussed by Moser, the empowerment and equity approaches are the only two which recognize the need for major structural change to occur before the position of women can be truly improved. Both approaches recognize the triple role burden of women, and the need to work for the realization of long term strategic gender needs utilizing a variety of practical gender needs, and short term strategies. While the equity approach has its genesis within a western feminist perspective, and advocates state, top-down intervention to reduce female-male inequities in social, economic and political spheres, the empowerment approach is grounded in the feminist writings and grassroots organization experience of Third World women and relies on the empowerment of women through bottom-up mobilization around practical gender needs. Both approaches which fall outside of mainstream development theory and practice, are thought to be threatening, and are largely unsupported by governments and agencies alike.

### Eva Rathgeber

Rathgeber differentiates between three main gender development perspectives; WID (Women in Development), WAD (Women and Development), and GAD (Gender and Development). WID refers to the process whereby women are integrated into mainstream, development thinking and projects which are based on the modernization paradigm that with increased economic growth, development would trickle down to all segments of society. The WID perspective places primary emphasis on egalitarianism and on the development of strategies and actions which will minimize the disadvantages of women in the productive sector. It does not question the acceptability of the existing unequal social/gender structure and focuses solely on how women can be better integrated into ongoing development initiatives. WID programmes typically focus on income generating projects, with the assumption that greater access to income and skills will allow women to become more equal to men. Women's reproductive roles are not taken into account and women trying to participate in WID programme activities frequently experience stress while trying to manage their already overburdened schedule.

The WAD approach is grounded in a combination of neo-Marxist, feminist and dependency theory and begins from the assumption that women's position in society will not improve until oppressive global political and economic structures becomes more equitable for women and men alike. Unlike the WID approach, WAD argues that women have always been a central part of development processes, but to integrate women into a structure which holds women and men alike in conditions of inequality will not solve the problems of poverty and women's oppression. While WID focuses on strategies which will integrate women into the development process, WAD focuses on the relationship between women and the development process. Both WID and WAD focus solely on women's productive roles and tend to create income generating programmes without taking into account the time burdens that such strategies place on women.

GAD finds its theoretical roots in socialist feminism and links production to reproduction. Socialist feminism questions the validity of the sexual division of labour and why women have been systematically assigned inferior and/or secondary roles. Unlike the WAD and WID approaches, Rathgeber argues that the GAD approach does not focus singularly on women but rather on the social construction of gender and the assignment of specific roles, responsibilities and expectations on women and men. The GAD approach welcomes the potential contribution of men who share

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concerns for issues of equality and social justice and that women and men need to work together to fundamentally change power structures.

Rathgeber points out that the majority of mainstream development programmes have strategized for the equality of women from a WID or WAD perspective, and rarely from a GAD perspective. Development programmes have sought to solve identified problems for women by applying a specific intervention strategy such as appropriate technology, family planning, or credit and extension services. However, no programmes have questioned the fundamental inequalities of an international system that perpetuates dependency of the South on the North, or of the social construction of gender that subordinates women to men. Projects formulated from a GAD perspective would be designed to empower women and to give them an equal voice by recognizing the full spectrum of their knowledge, experience and activities, including both productive and reproductive labour. They would question traditional views of gender roles and examine how the sexual division and responsibility of labour places both physical and psychological stress on women. Projects which provide women with labour saving technologies may enable them to carry out their workload with less effort, but do not work to breakdown existing stereotypes and unequal patterns of female-male relationships. Thus there is a need to change men's roles and responsibilities as well.

#### Gita Sen and Caren Grown

Sen and Grown represent the DAWN perspective (Development Alternatives with Women for a New Era) which Moser refers to as the empowerment approach. DAWN finds its origins in the feminist consciousness of Third World women who, because of their experience of grassroots organization at the community level, have come to affirm that it is through the lives of poor women in the Third World who undertake the daily struggle to ensure the survival of themselves and their families, that the clearest lens for an understanding of development processes is achieved.

DAWN challenges the belief that women's main problem in the Third World is insufficient participation in the development process. DAWN research shows that the socioeconomic status of the great majority of Third World women has worsened considerably throughout the UN Decade for the Advancement of Women. DAWN questions not only the viability of the WID approach used by mainstream development agencies to improve the conditions of women in the Third World, but also the nature of the development process into which women are being integrated.

The DAWN perspective argues that there have been basic flaws in the general approach of "integrating women in development" in that it has been assumed that the development strategies being pursued are generally beneficial to the poor; thus women's only problem is that they have been marginalized from the development mainstream.

In order to improve women's conditions, DAWN recognizes that their strategies must be aimed at challenging prevailing structures and making governments accountable to the people. Short-term ameliorative approaches to improve women's immediate conditions must be combined with long-term strategies which will reestablish people's, especially women's control over the economic decisions which affect their lives.

The structures which create and perpetuate inequalities between gender, class and nations and which act as barriers to development processes responsive to the needs of the people must be broken. The needs of the poor, and the recognition of the centrality of poor women's work to the

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development process must become the central focus of planning. Women's voices must enter the definition of development and the making of policy choices.

### Common Principles

It is clear to see that gender analyses are varied and complex. Each works from unique underlying assumptions which hold immense implications for policies and programmes fashioned from within their perspective. However, it is also possible to simplify these analyses to find a number of common principles.

These include:

- 1) A focus on women alone is not sufficient. Instead, it is crucial to take on a holistic approach where the relationship between women and men becomes the focus, and where women's and men's roles are seen to be traditionally defined and not immutable. The gender perspective thus sees that traditional attitudes must change so that the responsibilities and burdens of family maintenance are shared more equally between women and men. The value of women's work must also be recognized.
  - 2) Society is constructed from unequal economic, politic, social and gender structures. Fundamental changes to these structures are required if equality for women and all peoples is to be achieved.
  - 3) Existing development processes have not been used to effect fundamental change in society. However, development processes developed from within a GAD or empowerment approach can be used to work towards women's equality.
  - 4) Development processes which maintain the status quo will not only perpetuate women's subordination, but will further reduce women's access and control over resources, opportunities and income.
  - 5) The effectiveness of traditional development approaches to "integrate women into development" is challenged. Including women into a process which is inherently unequal does not address why women are in a subordinate position in the first place.
  - 6) The methods used in effecting change can be varied. The DAWN perspective sees the grassroots organization of poor women not only to be a means of effecting change, but also as the means of women's self-empowerment. Caroline Moser and Eva Rathgeber provide an analysis of the First World, development planner's perspective and concur that the need for an empowerment and GAD approach is needed.
  - 7) Strategies to meet short-term/practical gender needs can be used as an entry point to meet long-term/strategic gender needs. Planners must have an understanding of global feminist goals and be aware of whether their programmes and policies are inhibiting or encouraging these goals.
  - 8) Women's knowledge and experience need to be legitimized, documented and translated into a language that development planners and practitioners can no longer
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ignore and marginalize. Women's knowledge, views and experience must become an important component of national decision making processes.

- 9) Gender initiatives which take on a strongly feminist orientation are considered too threatening by state and development agencies. They are often criticized as being "exported Western feminism" and as an unacceptable interference into domestic and cultural sovereignty. These agencies must be made aware that Third World women have long organized around issues within a feminist consciousness. They must also be made aware that the activation of women's organizations is key to the potential betterment of all the poor, for women and men alike. Thus women must be given the opportunity to gain access to and control over the resources and decisions which affect their lives.

These common principles can be applied to an analysis of gender initiatives in operation and maintenance strategies in water supply projects.

### **Gender Strategies in Operation and Maintenance**

Most development agencies operate on the assumption that women and men have the same need for an improved water supply system and will take on equal responsibility for its operation and maintenance. However, it has been shown that when assessing personal and community needs, while women state that water is one of their top priorities, men frequently do not even consider water to be a need, or place it well down on their list of priorities. Men do not appear to have an equal interest in ensuring the continued operation and maintenance of water supply systems.

Hoffman (1992) reports on a FINNIDA water project in Western Kenya:

Providing water for the household is the woman's responsibility, so the availability of a convenient supply of water is a daily concern for the woman mechanics, just as it is for the other women in the village. A pump breakdown usually results in a long and arduous walk to a traditional water source: a task that can add an additional two to four hours to a day that already begins at dawn. Given the women's already heavy workload, any additional time spent in water collection means less time for sleep at night. This social reality explains the high degree of motivation that these female mechanics have. (p. 19)

The project illustrates the difficulties water projects can experience because of the marginalization of women in the operation and maintenance system. While men were trained and fully employed as handpump mechanics, women were trained only as handpump caretakers and were expected to contribute their labour on a strictly volunteer basis. The male mechanics soon found better jobs with their new skills and ensuring handpump maintenance became increasingly more difficult. The project then trained women as mechanics but did not pay them although the men had been paid. The women soon found that although they enjoyed the status that their new role gave them in the community, they lost two full days to waterpoint maintenance and subsequently had less time to engage in income generating activities necessary to manage their household and family needs. The women informed the male project staff and community members of their concerns, who had previously been unaware that the women's time and resources were being stretched too far by project activities. Yet the loss of the women as mechanics would mean the ineffective operation and maintenance of the new water supply system.

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This project provides just one example of some of the many ways in which women are marginalized when it comes to operation and maintenance.

A recent SIDA study (Raditloaneng 1991) examined why women's participation in the water sector in Botswana was so limited. This study provides a unique perspective on women's participation in that instead of focusing on women's participation at the village level, it examines women's participation in the water sector at the institutional level. The study found that women's participation in the government agency responsible for water supply development (District Council Water Department) was mainly concentrated in the lowest clerical positions with sparse representation in the highest policy making positions. The women who did occupy positions which required technical skills and which gave them authority within the Council (and over men), were isolated and did not experience opportunities for promotion as did men in equal positions. The study found a number of reasons why women's participation was limited, including:

- 1) Traditional attitudes dictate a strong correlation between type of work and gender. Technical work is seen to be a man's job; clerical work is seen to be more appropriate for women.
- 2) Women's interest in technical occupations is not encouraged or cultivated.
- 3) Very few women go for training in technical institutes.
- 4) Very few women as compared to men are recruited for technical government positions.
- 5) Although recruitment and selection procedures are "non-discriminatory", traditional attitudes cannot be excluded. There are many individuals in the government who feel that women cannot perform technical jobs at all, or as well as men. There are no affirmative recruitment policies in effect.
- 6) Women, because of their lesser technical training and skills, are most often relegated to the lowest technical positions which are less financially rewarding and which have less progression routes than do professional and engineer positions which are mainly occupied by men. Women become discouraged and easily lose their motivation to stay in government work.
- 7) Women have low levels of self-esteem and self-confidence and do not recognize their potential and worth. They often perceive that they cannot make meaningful contributions to what they think are "men-oriented jobs".

Projects, however, are becoming increasingly committed to integrating women into operation and maintenance systems. One approach used by development agencies to "integrate women into operation and maintenance" has been to establish female/male quotas for participation in water and sanitation committees. In cultures where it is inappropriate for women and men to participate in decision making processes together, or where women's public participation is restricted almost entirely, projects have attempted to establish women/men only committees, or to involve women only in hygiene education programmes while the operation and maintenance systems are left entirely to men.

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In addition, women have been trained by some projects as handpump caretakers to perform simple preventative maintenance measures while in others, women have been trained as handpump mechanics to perform major repairs. Women have also taken on the responsibility for water tariff collection or have become treasurers in charge of the management of rotating and reserve funds. These are the standard responsibilities which have been assigned to women and represent the typical strategies that project planners have employed in their concern to integrate women in operation and maintenance and "enhance their participation" in water supply projects.

However, while these initiatives have, in many cases promoted the success of project goals, they have also had some negative effects on the women. A number of problems have emerged in projects attempting to integrate women into operation and maintenance strategies (Hoffman 1992; Yacoob & Walker 1991; Hannan-Anderson 1990; Karp, Martin & Guild 1990; Versteyley-Leyzer 1991; Carr & Sandhu 1988; Kamminga 1991; Jonsson & Rudengren 1991; Chachage, Nawe, & Wilfred 1990; Grady 1991; van Wijk 1992). These include:

- 1) The work burden of women increases when women are expected to maintain their traditional responsibilities as well as take on new responsibilities as educators, mechanics, collectors, etc. Women have complained that they often need to hire extra help to assist them in their household chores.
  - 2) While male mechanics are usually paid for their work, women are often expected to work on a volunteer basis. Women often agree to work without pay because of the stake they have in maintaining access to a safe and convenient water supply. Not paying women undermines the status of women in the community for it gives the message that women's work is not of equal value to that of men.
  - 3) While women are often expected to take on these new responsibilities, they are usually not accorded recognized status or accompanying authority. They are still placed in a dependent position whereby they must report to a higher (usually male) authority, and frequently have to turn over collected funds to (all-male) community decision making bodies with no direct control over these funds.
  - 4) In most societies, women tend to be less confident than men and typically have a low self-esteem, a product of societal stereotyping about the value of girls and women. Projects sometimes expect women to take on non-traditional roles, such as technical handpump maintenance or repairs but do not assist these women in coping with negative feelings coming from members of the community who feel that these roles are not appropriate for women. Awareness raising programmes for boys and men, as well as confidence building support for women are not typical project activities.
  - 5) Women are less mobile than men. Women may be culturally forbidden to travel outside of their home area, or be constrained due to fears for their physical and sexual safety. Projects however, often expect women to be able to travel from village to village, just like men. They may also be expected to work alone rather than in pairs for mutual support.
  - 6) Some projects assume that women will put a lot of time into project activities because of the expected increased health benefits. However, often women's
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perceptions of the project are more influenced by the economic benefits they can derive from the project. Projects do not often study how women's time schedules are related to their economic potential and how projects can assist women in turning increased time and health benefits into economic benefits.

- 7) Women may be expected to pay water tariffs equal to men, without recognizing that female headed households exist, or that women may not have control over the household cash income. Even when women are appointed a smaller nominal contribution, they are likely to spend a relatively greater proportion of their income than men. Women almost always have a lower cash income generation potential than men. Income generating projects for women are not often included in water supply projects<sup>2</sup>.
- 8) Projects often ask women to participate in water or sanitation committees. However, in some cultures, women are not encouraged to participate actively in community meetings and depend on representation by a male member of the household. Other times, women cannot attend meetings because they clash with their other responsibilities during the day or husbands may be reluctant to allow their wives to attend gatherings that they feel are a waste of time or an interference with their wives' other duties. Thus, water committees may not be the most appropriate strategy for projects wishing to key in on women's central roles.

The question must be raised. Have women merely been used as an inexpensive means to achieve better functioning, use, hygiene and finances of water supplies and then left to cope with whatever negative effects such participation incurs?

These problems represent a summary of the psychological, social, cultural, political and economic constraints which are faced by women when participating in the water sector throughout the developing world. Agencies have implemented many different measures to mitigate these problems, to remove all possible constraints to women's participation, and to minimize the negative impacts that project activities have had on women. However, very few agencies have questioned whether the nature of their project design is suitable for women to be integrated in to. When difficulties with women's participation are encountered, the problem is perceived to be with the women rather than with the project design.

A number of evaluative questions about the nature and impact of "WID" initiatives in projects can be raised:

- 1) Do the initiatives utilize and mobilize women's indigenous knowledge and experience?
- 2) Will the project increase the status of women within the community?

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<sup>2</sup> However, income generating projects in themselves are often problematic for women. They frequently aim to increase women's productivity in activities traditionally undertaken by women instead of introducing them to new skills and areas of work. More often than not, they are small-scale with limited funding, tacked onto integrated rural development projects, or poor designed in terms of production capacity and viable and profitable marketing strategies.

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- 3) Are the project and the specific WID initiatives committed to long-term/strategic needs (feminist) goals or do they maintain the status quo?
- 4) Are women really empowered within the project and what criteria are used to define and measure empowerment?
- 5) Are women given extra responsibilities without accompanying status and authority?
- 6) Do the initiatives increase women's workload?
- 7) Will women's self-esteem and self-confidence be increased as a result of the project?
- 8) Does the project expect women to take on non-traditional responsibilities without giving appropriate support?
- 9) Will community (both women and men's) attitudes towards women and the value of women changed by project activities?

These questions provide a framework which combines both a conceptual, and a practical understanding of the strategies needed to work towards women's equality. Initiatives intended to "enhance women's roles and participation", "empower women" and "integrate women into project activities" need to be examined critically in order to understand the full effects that they will have on women's lives in relation to themselves, men, and society.

### **Alternative Strategies**

Alternative strategies for improved WID initiatives in operation and maintenance can take two directions. The first approach would be to strengthen the initiatives already being implemented to integrate women into operation and maintenance systems. This would require that the many problems women experience in water supply projects be mitigated to ensure that all negative impacts on women are eradicated.

To this end, much more attention should be paid to conducting detailed and comprehensive gender analyses, and to **have these analyses more equitably integrated into project design and implementation**. In too many cases, "women's issues and concerns" are not considered to be central to project goals and the recommendations coming out of gender analyses have been marginalized in project planning processes. Gender analyses should not only be directed to examining what impact women's participation has on project goals and community well being, but just as importantly, what impacts women's participation have on women's well being; their social status, self-confidence, self-esteem, time, work burden, economic position, political power, and on the attitudes that the community holds towards women and the value of women's work.

An second and alternative approach to improving WID initiatives in operation and maintenance systems would be to reconceptualize and redesign such systems from scratch. This paper has summarized the many problems experienced by development agencies and women alike in trying to integrate women into operation and maintenance. The possibility of integrating women while simultaneously ensuring that women suffer no ill effects in the face of all these problems

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needs to be seriously questioned.

For example, would it be possible to organize meetings, conferences, or workshops by women and strictly for women; women from villages and communities, government agencies, universities, non-governmental organizations, and external support agencies, where the one question on the agenda would be: "How would you maintain the sustainable operation and maintenance of water supply systems?" Could a large number of meetings, conferences and workshops, held at local, regional, national and international levels be held so that all women's voices can be heard. Very importantly, the question would not be: "How would you integrate women into operation and maintenance systems?" Thus, the meetings could start with a clean conceptual and practical slate, with the participants able to create and design appropriate O & M strategies based upon their skills, experience, and knowledge. The ideas coming out of these meetings could then be combined with other ideas and strategies to form the backbone of local and national operation and maintenance strategies.

The concept of a meeting or conference where only women would take an active role addresses two important issues related to the possibilities of women's equality within the development process. The first is that the majority of conferences and meetings which are held to define and enact policies which will affect women's lives, tend to be dominated by men in senior management, professional and political positions. Very few women achieve positions which grant them entry into such meetings and it cannot be expected that these few women can adequately represent the wide diversity of women's needs, interests and skills. The women's perspectives which are most needed, those grounded in the daily struggle for survival, are almost always excluded.

The second issue is that women have a very different way of interacting amongst themselves than with men. Women have different ways of organizing, holding dialogues, processing information, making decisions and resolving conflicts. Women's interactions tend to be more open, democratic, and non-hierarchical and are very often based on a need to share personal pain and experiences. Women do not often feel safe in environments which are created and controlled by men. Spaces which are safe for women need to be established in order for women's perspectives to be forthcoming. Mechanisms which would allow these perspectives to then become policy **equal to male defined perspectives** also need to be established. It can no longer be assumed that the WID approach whereby men's needs, interests and solutions are given full access to resources while those of women are marginalized and given "special attention" will allow true development for all people to occur.

Within the conceptual framework discussed in this paper, it can be seen that the first approach is more of an ameliorative one, whereby women are still being integrated into top-down, externally planned and designed interventions. Women are not truly empowered by such an approach in the sense that they are still given **limited roles to perform**. Such an approach still takes on the perspective that women are somehow peripheral to the management of water supply systems and the whole development process.

The second approach, by contrast, is committed to women's empowerment. It recognizes the skills, experience and abilities of women to define their own problems, and to create and enact the solutions needed to solve these problems. It creates a mechanism whereby specific project goals, community needs and women's empowerment are taken care of simultaneously.

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