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Practical strategies for involving women as well as men in water and sanitation activities

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CONTENTS

	Page
EXECUTIVE SUMMARY	i
I INTRODUCTION AND OVERVIEW	1
1. Recent developments in the water and sanitation field	1
2. Gender issues in water and sanitation activities	2
3. Community participation and women	3
4. From 'involving women' to a gender perspective on water and sanitation	5
II LESSONS FROM EXPERIENCE	7
1. Planning and decision making	7
i Project planning and preparation	7
ii Data gathering	7
iii Institutional mechanisms for women's participation	9
iv Gaining the support of men	10
v Facilitating women's participation in planning meetings	11
vi Areas for involvement of women as well as men in decision making	12
2. Human resource development	15
i Areas of involvement of women in training	15
ii Making training accessible to women	15
iii Impact of women's training and employment	16
iv Training content and methods	17
v Training of project and support staff	17
3. Implementation, operation and maintenance	18
i Construction of facilities	18
ii Women and water committees	18
iii Women and financial management	19
iv Involvement and effectiveness of women in maintenance	19
v Problems in community based maintenance	20
4. Sanitation and health education	21
i Need for and limitations of health education	21
ii Involving women, men and children in health education	22
iii Media for health education	22
5. Monitoring and Evaluation	23
i Approaches to monitoring and evaluation	23
ii Bringing gender issues into monitoring and evaluation	24
iii Economic benefits and costs of WSS activities for women	24
III CONCLUSIONS AND RECOMMENDATIONS	26
i Generalising the experience so far	26
ii Policy and programme level interventions	26
APPENDIX: ORGANISATIONS INVOLVED IN WATER AND SANITATION ACTIVITIES ¹	28
BIBLIOGRAPHY ¹	31

EXECUTIVE SUMMARY

I Introduction and overview

Since the beginning of the International Drinking Water Supply and Sanitation Decade (IDWSSD), the emphasis of water supply and sanitation (WSS) policy has shifted away from top-down, technically-oriented, centralised provision, which has a poor record, to decentralised community based provision with communities bearing many of the costs of improved services.

Gender divisions of labour mean that women in developing countries are managers of WSS at household and often community level. They also have primary responsibility for informal health care and education. To ensure effective use of new services, it is important to draw on the skills and knowledge of women in their design and implementation. Women's expressed need for improved WSS services is high and they are an important resource for mobilising the community as a whole.

Not paying attention to community and particularly women's participation has a high cost in terms of project failure. Community participation is a loose concept which can be interpreted in terms of: cheap labour; cost sharing; contractual obligation or community decision making. Community participation does not guarantee women's participation. Even projects which have a strong community participation component may fail because of a lack of appreciation of time costs to communities by donors and governments. NGOs are increasingly involved as facilitators of WSS projects and programmes, but vary in their capacity to work in participatory ways.

Development agencies have often involved women in WSS in ways which increase their workload without bringing them any clear benefits. Both men and women should be involved and new responsibilities for women should not create new burdens without bringing commensurate gains in income or status. Gender roles and relations must be considered in project design and implementation. Although development workers often consider gender issues too sensitive or difficult to tackle, there are examples of WSS provision where women have been enabled to take on more public decision making roles. In such cases, not only are services usually more effective but significant changes in perceptions about gender may occur.

II Lessons from experience

1 Planning and decision making

A failure to consult women early in project preparation can result in non-use of facilities and to women being by-passed in later stages. Project documents need to make strengthening women's participation an explicit objective and specify the time, funds and mechanisms for doing this. Baseline data should be collected early on from both men and women on their own situations. Criteria for monitoring and evaluation of women's participation must be established early on. Participatory methods of data collection have considerable potential for involving local people and can increase women's confidence in their own capacities and knowledge; they may also elicit

more useful information than conventional surveys. Reporting back to the community on the results of data gathering and following this up with action are also important.

Attempts to involve women through official structures or general assemblies are problematic. Women are often excluded or marginalised from formal political institutions. It is often unacceptable or difficult for women to express their opinions in public. Specific strategies are needed to facilitate women's participation. Women themselves have insights about how to work around male dominated power structures. Informal women's organisations working alongside formal general institutions can be effective; so can working with existing women's organisations but the composition of these organisations may not represent all women and supplementary strategies may be needed. Women's representation at higher levels is needed to make grassroots participation more effective. Early consultation with men, especially community leaders, is important to promote positive attitudes towards women's participation. Men may resist women taking on new roles initially, but once the benefits have been demonstrated, their attitudes often change.

Practical measures are needed to ensure women's participation in planning meetings. The location, timing and structure of meetings may need adapting to facilitate women's participation. Key areas of decision making which should involve women are: identification of water sources and siting of facilities; choice of design and technology ; sharing arrangements; selection of care-takers, water committee members etc; choice and management of financing system. Cost recovery schemes bring in a danger of increasing women's financial burden or excluding certain groups, especially female headed households, since it cannot be assumed that men will pay. Income generation activities linked to WSS projects may provide women with the means to pay new charges. This needs to be considered early on in project planning as additional inputs may be required and the new water supply must be designed to incorporate small scale production uses.

2 Human resource development

Women have generally been trained, used as voluntary labour or employed in in WSS projects in roles which relate to their perceived traditional responsibilities or qualities. There is a need to involve women more in technical and managerial aspects of project operation and to train them accordingly. Training also needs to be made more accessible to women by recognising the constraints on their time and mobility. Selection procedures should not exclude certain groups of women unnecessarily. Support must be gained from men, family and the community for training women. Women only courses are necessary in some instances but integrated training is advisable.

Training and employing women as project workers has potential benefits for both service provision and women themselves. The value of training to women can be greatly enhanced if it is linked to paid employment. Training needs to be balanced between imparting skills and developing problem-solving capacity. Hands-on approaches work best and a variety of methods can be used to make training interesting. Project staff and staff of supporting agencies should also be trained in gender awareness.

3 Implementation, operation and maintenance

Women's involvement in the implementation of WSS projects has mainly taken the form of voluntary labour inputs in construction and participation in water committees. Quotas of women

on water committees are often not met and can lead to passivity on the part of women representatives. The quantity and quality of women's participation in water committees needs to be improved. Women representatives may need special training in leadership skills, confidence building and communication.

Women have been particularly active in fund-raising, fee-collecting, book-keeping etc. There is scope for greater involvement of women in the management of credit and revolving funds.

There is a need to involve women in technical aspects of operation and maintenance on the same terms as men doing equivalent work. Employing women as mechanics may have higher initial costs but in the longer term brings greater economic efficiency as well as other social benefits. The decentralisation of maintenance to village level and greater women's involvement can lead to cost savings and more efficient services. Adequate training, support, remuneration and equipment must be provided to women maintenance workers. Improved two way communication between maintenance workers and higher level authorities is vital. Better monitoring of maintenance systems, including their economic and social costs and benefits for the women involved is required.

4 Sanitation and health education

The installation of new facilities does not necessarily lead to improved hygiene practices. Health education needs to be integrated with WSS but cannot remedy poor project design. Many health education programmes have had limited effectiveness because of inappropriate methods and messages and a failure to recognise constraints on changes in behaviour. There is a need for the active involvement of women in discussion of health issues, in joint identification of problems and in developing appropriate solutions. However, men and children must also be involved in health education. The use of personal contacts or group discussions is more effective than one way information flows through lectures, films or other mass media.

5 Monitoring and evaluation

Monitoring and evaluation should be seen as a process and involve project workers and community members, including women, as recipients of and participants in evaluation. Internal project evaluations looking at the issue of women's participation can increase gender sensitivity. Improved monitoring and evaluation procedures require a range of data broken down by gender. Standard evaluation criteria need to be made more gender specific. Specific indicators are needed to monitor the level and quality of women's participation.

There has been little systematic analysis of the economic benefits and costs of WSS for women. It is generally assumed that time savings result and that these have an economic benefit for women. However, it is not always the case that time is saved; even where it is, the economic value of time savings may not be realised due to limited opportunities or other constraints.

III Conclusions and recommendations

The widespread adoption of the community participation approach to WSS activities should not be seen as a panacea; strengthening women's participation requires specific strategies. A gender based approach is needed to ensure that women's work or financial burden is not increased without commensurate gains.

Existing literature developed by donor and international organisations needs to be reviewed and updated in the light of new experiences. Ways of specifically involving women need to be more explicitly covered in the literature. The provision of check-lists, guide-lines and manuals do not in themselves lead to major changes unless supported by complementary strategies.

There is a need for greater involvement of women at policy making levels. Lack of co-operation of technical and software agencies is an obstacle to the development of more gender aware approaches. Water use policies and charging procedures need to be made more gender aware. Gender considerations need to be brought into WSS at all stages of programme planning and policy making. Strategic points of entry include project identification, project documents, evaluations and sector reviews.

I INTRODUCTION AND OVERVIEW

1. Recent developments in the water and sanitation field

This review is focused on water provision for domestic consumption at household and community level. Much of the literature relates specifically to rural water supply and sanitation and this is reflected here; there is less material on low income urban areas. Some discussion of sanitation provision and health education activities is included. Large scale water for production purposes - e.g. irrigation projects - are not discussed here, although some reference is made to productive uses of improved water supply.

Since the launching of the International Drinking Water Supply and Sanitation Decade (IDWSSD) in 1981, there has been increasing recognition that water supply and sanitation (WSS) facilities need the acceptance and support of their users in order to be effective. Until fairly recently, water and sanitation activities tended to be implemented through central government initiated projects and programmes (supported by external donors) targeting communities. Such interventions tended to be technically oriented, top-down turn-key projects. (Hannan-Andersson, 1990.)

However, simply providing new facilities does not necessarily lead to changes in usage or practices which lead to improved health. The original goal of the Decade, i.e. clean water for all by 1990, has not been met by a long way. Coverage increased during the Decade but failed to match population growth and urbanisation rates, so that 1 billion still lack access to an adequate water supply and 1.7 billion still do not have adequate sanitation facilities (World Bank, 1992). The programmes initiated early in the decade have proved to have a high failure rate (INSTRAW, 1989b). One view is that 'traditional public service agencies have failed and should move aside and create space for NGOs, user groups, local community bodies and the private sector' (Winpenny, 1992).

As a result, the original emphasis of the IDWSSD on national level plans and targets, technology and coverage has shifted to an emphasis on the effective use and sustainability of WSS services (INSTRAW, 1989b). The integration of water and sanitation activities, as well as health education inputs, is now recognised as a precondition to bring about real health improvements. There has been a shift towards decentralisation of provision, and much greater emphasis now given to NGOs and community based participatory approaches in project implementation, with government playing a facilitating rather than interventionist role. (Hannan-Andersson, 1990.)

Increasing concern with the depletion of groundwater sources has also led to a new emphasis on conservation and environmental sustainability, particularly in view of continued high population growth rates in some regions. Pricing policies for the allocation of scarce water resources are seen as a way of rationing water use efficiently. Considerable research has been done to examine the 'willingness to pay' for improved water supply and sanitation of under-served communities, which tends to suggest that even in poor communities people place considerable economic value on such provision. (World Bank, 1992: 98-105.) Moreover, the economic crisis in many developing countries has led to efforts to reduce government spending burdens, including various cost-recovery strategies in service provision. The policy agenda for WSS in the 1990s is geared towards a more decentralised, community based provision, with communities bearing at least some of the costs of improved services.

2. Gender issues in water and sanitation activities

Gender divisions of labour mean that most women in developing countries are managers of water supply and sanitation (WSS) at household level and beyond. They also have primary responsibility for informal health education and care in the home and the community.

'As domestic managers, women decide where to collect water for various purposes and in various seasons, how much water to collect and how to use it. In their choice of water sources, they make reasoned decisions based on their own criteria of access, time effort, water quantity, quality and reliability. In addition, much of the informal learning about water and sanitation takes place through interpersonal contacts between women.' (van Wijk-Sijbesma, 1985: 1.)

Women's role in WSS extends beyond the domestic level. 'Their involvement has included communal efforts and user agreements, arrangements by particular women or women's groups for the upkeep of shared facilities, and the exertion of influence on male community leaders and owners of source sites.' (*ibid.*, 1985: 2.)

Socio-cultural norms which require male/female segregation and/or women's modesty mean that the demand for sanitation facilities is closely tied to a desire for privacy of women. Moreover, 'women also maintain latrines or supervise maintenance by children, provide handwashing facilities, take care of excreta disposal and hygiene of young children and assist and educate them in correct latrine use.' (*ibid.*: 2.)

Thus, women in developing countries have an intimate knowledge of water sources, quality, reliability and of their own uses of and needs for improved WSS facilities. Projects or programmes which ignore the centrality of women in WSS activities are unlikely to succeed: 'many cases of rejection and problems in the functioning and use of [water supply and sanitation] can be explained, either partly or fully, by insufficient attention to the traditional roles and positions of women ... women have had sound reasons for non-use of facilities.' (*ibid.*: 3.) It is thus important to draw on the traditional skills and knowledge of women in project and programme design. (*ibid.*: 4)

A review of USAID water and sanitation projects from 1973-85 showed that projects in the sector generally had a very low level of women's involvement, and that a strong positive correlation existed between women's level of participation and the achievement of project objectives. (Mathews, 1992.) Increased awareness of gender issues through the activities and initiatives launched in the UN Decade for Women (1975-1985), as well as lessons learned from the failure of many water and sanitation projects, has led to greater attention to the role of women in WSS activities in recent years. It is now widely recognised that without involvement of women from the early stages of a water or sanitation project, the project is unlikely to be effective, and that women's involvement produces better services and financing. (UNDP/PROWESS, May 1990; IRC, 1992.)

The physical health of women and their families is placed under severe stress where WSS facilities are inadequate. Women spend many hours a week in the hard physical labour of collecting water - using up scarce time and energy resources. This affects their nutritional status, increases their exposure to water borne diseases, may lead to physical deformities from carrying heavy loads and possibly to miscarriages as a result. (IWTC, 1989: 18; INSTRAW, 1989a: 3; INSTRAW, 1989b: 2-3; van Wijk-Sijbesma, 1985: 36.)

Women's expressed need for improved water supply and sanitation is almost invariably greater than that of men. In the needs assessment of one project in Tanzania, 75-90 percent of women expressed a desire for improved water supply compared to 30-70 percent of men (IRC, 1992: 14). In sanitation provision, the support of women is even more important, as

men generally give low priority to new latrine facilities, whereas women emphasise their need for privacy. (IRC, 1991: 2.)

Women generally express a desire for improved water supply to reduce the heavy daily workload involved in water collection; to give them time for rest and home based activities; or to allow them opportunities to engage in productive activities and earn independent incomes. (IRC, 1992: 3.)

Because women themselves often feel a strong need for improved WSS facilities for themselves and their families, they have a history of organising, lobbying and protesting in order to effect change in this area. (van Wijk-Sijbesma, 1985: 46; IWTC, 1989: 26-29.) This motivation and self-organisation is a vital community resource in the development and implementation of new WSS projects and programmes.

3. Community participation and women

Typically, lack of community, and particularly women's, participation has led to project failure in the following ways:

- new water or sanitation facilities fall into disuse and/or disrepair if the community (women) have not been consulted about siting, technology etc;
- new facilities cannot be sustained financially by the community due to lack of consultation about affordability and financing mechanisms and/or lack of provision for maintenance and other on-going costs;
- sizeable sections of the community are excluded from benefits because charges have been set too high; this is often the case of female headed households who lack cash or labour to make contributions (van Wijk-Sijbesma, 1985: 49);
- in the absence of, or sometimes in spite of, health education programmes, health improvements do not occur as people (women) continue with, or revert to, behaviour patterns which facilitate disease transmission.

Realisation of these failures has led to an emphasis on the need for community and particularly women's participation in WSS activities. Although there is considerable institutional resistance to participatory approaches, including on time and cost grounds, **not paying attention to the social organisation aspects of projects clearly has a high cost in terms of project failure.** In the past, projects have typically engaged in community development activities at a late stage after implementation of technical aspects, as in projects in Swaziland, Maharashtra and Ghana (Hoffman, 1990; ODA, 1992; IWTC, 1989: 12-13). However, donors now place more emphasis on 'software' components at early stages in project development and the phasing of 'software' and 'hardware' elements (Hoffman, 1990; FINNIDA, 1992).

A gradual approach is needed when questions of social organisation, including gender relations, are being tackled. Although this may appear to delay implementation, it may save time later if the preparatory phase is not rushed. For example, in the South Coast Handpump project in Kenya, the rapid creation of water committees by technical staff led to their control by land-owners. (PROWESS/UNDP, 1988: 4.) On the other hand, delays in implementing hardware aspects of projects following community consultation or organisation can lead to a loss of momentum and disillusion. This was noted in a Maharashtra rural sanitation project. (Sundararaman, 1986: 184-6.)

Time and funding provision for software elements is needed in the early stages of a project. The costs of 'software' components have been estimated at around 10-25 percent of total budgets. (PROWESS/UNDP, 1988; INSTRAW, 1989: 10; IRC, 1992: 15.)

Community participation in WSS activities requires the involvement of a facilitating organisation. NGOs are generally considered to be the most effective channels for mobilising communities for development purposes, including WSS provision. However, NGOs are very variable both in their orientation - some have close links to local populations, others work closely with government - and in their capacity to work in participatory ways. The largest and most advanced NGOs are often overburdened with activities; it may be preferable to work with weaker NGOs and build up their capacity. Institutional strengthening of NGOs and training in participatory methods may therefore be necessary.

Considerable progress has been made in the elaboration of participatory methodologies for involving communities in decision making and in training workers in such methodologies (Srivinasan, 1990). These methods can speed up the process of 'listening' to communities and thus reduce the time needed for project preparation. PROWESS, set up under UNDP in 1983 to promote women's participation in WSS activities, has been particularly active in this area.

However, community and women's participation are rather loose concepts. Srivinasan (1990: 16-17) distinguishes four interpretations of community participation: cheap labour; cost-sharing; contractual obligation; and community decision-making.

The cheap labour concept sees community involvement primarily in terms of a voluntary labour resource for construction and maintenance of facilities. There is still a tendency for many agencies to view community participation, and particularly that of women, in this way. 'Women who are trained to manage and maintain community water systems often perform better than men because they are less likely to migrate, **more accustomed to voluntary work**, and better trusted to administer funds honestly.' (World Bank, 1992: 113, emphasis added.)

The cost-sharing approach sees community involvement in financing the project as a means of cost reduction and also a way of fostering a sense of responsibility for continued maintenance of facilities. Willingness to pay for services (which is usually greater among women than men) is taken as an indicator of commitment. In practice, cost-sharing may exclude some members of the community, or result in a reversion to traditional sources.

The contractual obligation approach centres on winning over local leadership and obtaining a commitment from the community to take on specific roles and responsibilities, e.g. through setting up water committees and training of maintenance or other operatives. However, equating community with local leadership overlooks the complexities of gender inequality and other power relations, particularly in heterogeneous and differentiated communities, and runs the danger of excluding many from benefits.

The community decision making approach advocates a process of on-going participatory community education as the means to involve a broad base of the community, including women, regardless of education levels, in decision-making. However, some question the time and resources and skills involved in such approaches, and doubt that they can be applied on a large scale.

In general, community involvement has tended to be interpreted uncritically as consultation with local (male) leaders, or with (male) household heads. (INSTRAW, 1989a: 6.) In some cases increased women's participation has been attempted through involving existing women's organisations, but poorer women, minority women and women heads of households may be effectively excluded from these. Setting up separate women's projects is one way of ensuring that women are involved, but this **may** be counterproductive in terms of generating resentment and opposition and/or by ghettoising women further into their traditional roles.

A recent review of projects with an apparently strong community participation focus suggests that such projects may still fail and that this is largely due to a **lack of appreciation of the costs of time to communities** by donors and governments. (IRC, 1992: 15.)

4. From 'involving women' to a gender perspective on water and sanitation

Promoting women's participation in WSS activities is now an accepted approach in most agencies. However, development agencies have often attempted to 'involve' women in ways which increased their workload without necessarily bringing them any clear benefits. Often, women's participation is viewed instrumentally, primarily as a way to achieve better functioning, financing and hygiene of projects, rather than as a way to meet women's needs.

Women have tended to be 'involved' primarily through physical labour or as passive audiences for health education, rather than in decision-making, technical and managerial roles, which are still often seen as the legitimate preserve of men. Women are often expected to work voluntarily in positions where men have previously been, or are being, paid. (Hannan-Andersson, 1990). Existing gender inequalities are not addressed, and sometimes are even reinforced, by such modes of involvement.

Often, women's prior involvement in community level as well as domestic public health provision and education is overlooked or undervalued in project design and implementation. Projects which build on and extend women's 'traditional' roles may have greater chances of success. In the Dodota project in Ethiopia, the training of women as water technicians was not perceived by men as threatening because 'After all, they're just doing what they have always done - taking care of water' (Narrowe, 1998: 25). Elsewhere, the training of women in latrine construction has built on their traditional activities in plastering and house construction. (IRC, 1991: 2.)

As illustrated above, **women are already involved** in water supply and sanitation activities. Thus, the issue is not one of simply increasing women's participation, but rather of 'making their participation more effective, easier and more productive.' (INSTRAW, 1989b: 3.) When creating new roles and responsibilities for women, or extending existing ones, it is essential that the work involved does not create new burdens without bringing commensurate economic or social benefits in terms of income or status gains. (IRC, 1992: 3.)

It is clear from experiences to date that in order to be successful, WSS and health education projects need the support and participation of both men and women. Rather than a perspective which aims to 'involve women' as a special target group, both men and women need to be involved in ways which do not reinforce existing inequalities or create new ones. This implies consideration of **gender roles and relations** in project design and implementation. (IRC, 1992.)

Development workers often perceive gender issues as too sensitive, too difficult, or too time-consuming and costly to address. However, various experiences have shown that, under certain conditions, it is possible to challenge existing socio-cultural patterns and support women, as well as men, to engage in more public managerial and decision making roles in community based water and sanitation provision. (IRC, 1992: 2.)

- The Dodota project in Ethiopia trained and employed women in pump maintenance and management, with considerable impact on perceptions of women's roles (Narrowe, 1989; Poluha et al, 1990); this has created positive conditions for the participation of women in other WSS activities in the region (personal communication, Catherine Johnson, WaterAid) and for women's aspirations and self-development more generally;
- KWAHO (Kenya Water and Health Organisation) has succeeded in promoting women in technical and decision-making aspects of water supply programmes. 'Both men and

women have gained confidence in themselves and in each other. This is evidenced by increased respect for women and their acceptance into public decision making. Young, female extension workers are accepted and listened to with respect even by older men and women in a predominantly Muslim society. The importance of women as pump caretakers and on decision making committees is appreciated and supported by communities.' (PROWESS/UNDP, 1988: 8.)

When women take on such roles, not only are services usually more effective, but changes in perceptions about gender roles may occur which have implications beyond WSS provision.

II LESSONS FROM EXPERIENCE

The following account attempts to draw out both positive and negative lessons from the experience to date of women's participation in WSS activities. Some pointers are given as to which strategies are effective and in which contexts.

1. Planning and decision making

i **Project planning and preparation**

Experience shows that a failure to consult women at the stage of project planning and preparation can lead to inconvenient design and location of facilities and thus to their non-use. If women are not involved early on, they will also tend to be passed by at later stages of implementation, management, maintenance, and evaluation (IRC, 1991: 3).

In establishing objectives and promoting the new activity, women's involvement is likely to lead to greater community mobilisation and take up. Non-involvement of women in needs identification means that WSS is less likely to be prioritised (van Wijk-Sijbesma, 1985: 46). Soliciting women's own views of their needs may also lead to other priorities, such as income generation, emerging at an early stage, and being incorporated in the project design.

In one project in Guinea Bissau, villagers were trained as promoters of safe water. Women with children, or older women (who would command more respect) were chosen to do this. In villages where promoters contacted women individually, more people used the new wells. The desire for improved irrigation was also recognised early and vegetable gardening consequently flourished, improving women's income. (INSTRAW, 1989a: 3.)

The necessary time, funds, and modes of strengthening women's participation need to be specified in project documents, in an integrated way so that it cannot easily fall off the agenda. Strengthening women's participation should be one of the explicit project objectives and should be included in the job descriptions of project workers. Criteria for monitoring and evaluation of women's participation must also be established (see final section). (Hoffman, 1990; Hannan-Andersson, 1990.)

ii **Data gathering**

Conventional approaches to involving women at the planning stage have usually taken the form of collecting information on women, generally rather late in the process of project planning. Where baseline data is weak, this also feeds into weak monitoring and evaluation at a later stage and greatly limits the scope and impact of the project. Many surveys rely on household level information, focusing on the (male) household head as the main informant, overlooking the fact that women and men have different experiences and insights. (Hannan-Andersson, 1990.)

A better approach is to collect data early on, as part of the baseline data for the project/programme, from both men and women, and particularly to collect information from respective groups on their own situation and activities. In general, women should interview women and men should interview men. It may also be important to interview women away from their husbands since they may not wish to contradict them publicly. Other matching of interviewers and informants (e.g. by ethnicity) may also be necessary, as found in an Participatory Rural Appraisal (PRA) needs assessment exercise in Gaza, where the lack of Bedouin interviewers was a constraint on interpreting information from Bedouin women (Grady et al, 1991). Children are also a good and often overlooked source of information since they are less constrained and many have experience of working for their mothers in water collection.

It is also important to recognise that women are not a homogenous group; special efforts should be made to get access to poor women.

Part of the process of planning should be to establish early on a few simple criteria and indicators for monitoring and evaluation purposes. (Hannan-Andersson, 1990.)

It has been suggested that baseline data should cover the following areas from a gender perspective:

Baseline data needs
<i>At household level:</i>
Division of labour Time budgets Decision making and authority Information channels Income sources and expenditure and consumption patterns Access to resources Productivity, community participation and economic activities (different sectors) Human resources indicators (education, health, family size etc.)
<i>At community level:</i>
Information channels Decision making processes Community activities/gender based participation Organisations
Source: Hannan-Andersson, 1990

The way in which data is collected is also important. Conventional questionnaires may fail to elicit the desired information and cause frustration among interviewees. This was noted in a Finnish water project in Tanzania (Kivela, 1985: 50).

Direct questions are notoriously unreliable, since respondents frequently give answers they think are expected of them. For example, women will report that they wash their hands after defecating, when in fact there is no water available to do so. Women may also attribute responsibility for activities to men, when in fact they are carried out by them. It is thus important to ask how things are done, rather than who is in charge. Questioning needs to be supplemented by observation.

Training local people to conduct community surveys may be one way of making data-gathering more effective and participatory. Information gathered in this way has been found to be as reliable as data from conventional surveys and this approach may be more cost-effective (van Wijk-Sijbesma, 1985: 55). Another way of getting information, whilst at the same time building group solidarity, is through guided discussions or group interviews (*ibid.*: 54).

Rapid or participatory appraisal techniques including semi-structured interviews (with groups and individuals), mapping, ranking etc activities can be very effective tools in both bringing forth local knowledge and needs, and in instilling confidence in marginalised sections of the community, such as illiterate women, in their own capacities. For example,

community mapping of existing water sources and defecation areas has been used in some instances to elicit local knowledge. (Kerr, 1990.)

PRA techniques also need to be gender sensitive, however. In the Gaza exercise mentioned above, certain techniques were found to be of little relevance to women - e.g. seasonal work calendars. Other methods were evolved which were more appropriate to assessing the patterns of women's time use and movements, for example mobility maps and daily work routine diagrams. These provided much valuable information which supplemented - and in some instances contradicted - that gained from interviews. (Grady et al, 1991.)

Reporting back to the community the result of survey or other data gathering exercises is a useful way of assessing the reliability of information, gaining supplementary insights, and generating further discussion or interest around new activities. It is important that data gathering exercises are closely linked to follow up actions, otherwise expectations may be raised and then frustrated. (van Wijk-Sijbesma, 1985: 55.)

iii Institutional mechanisms for women's participation

Attempts to involving women in planning through official leadership structures or through general assemblies open to the whole community are both problematic. (van Wijk-Sijbesma, 1985: 55.)

Women tend to be excluded from formal political structures. In some areas, there are quota systems for women representatives, but these are not always met and such systems can effectively stifle genuine women's participation. Where women **are** represented in local structures, poorer or other marginalised women may not be. (van Wijk-Sijbesma, 1985: 57-8.) Women may have complementary networks which are quite segregated from those of men; or they may be in seclusion and only have access to informal contacts. Thus, specific strategies, geared to local contexts, are needed to promote women's participation. **Women themselves will often have insights on the best way to work around male dominated power structures.** (van Wijk-Sijbesma, 1985: 6.)

In large and heterogeneous communities, general assemblies may not be an appropriate or accepted forum for decision making; moreover, women may be easily silenced in such gatherings.

As far as possible, women should be integrated into mainstream activities, rather than organised separately (Hannan-Andersson, 1990) but this cannot be a hard and fast rule. It is often found that women's participation in decision making structures is very limited. Moreover, men often do not pass on information to women about new activities or developments (van Wijk-Sijbesma, 1985: 85). Where men publicly dominate decision making and women's participation in formal structures is low - e.g. where they are highly segregated or secluded - it may be necessary to create or build on women's networks which can then influence more general decision making structures. In some places, mother's clubs or other women's groups are formally represented at village level meetings (van Wijk-Sijbesma, 1985: 58).

Informal women's organisations working in parallel with more formal general institutions is an approach which seems to have been effective in some instances. In a CARE health education project in Bolivia 'the most effective method was where mother's club meetings took place alongside general meetings attended by both men and women' (WASH, 1990a). In communities where **only** mother's clubs operated 'some husbands were reluctant to allow their wives to attend gatherings' (*ibid.*).

A Rural Potable Water Institutions Project in Tunisia has set up informal women's interest groups (AIFs) which work alongside community based Water User Associations (WUAs) to promote women's participation (WASH, 1990b). However, 'establishing AIFs demands many hours of field work by a female agent in each community. AIFs are sometimes viewed with suspicion by men in positions of authority ... Identification and use of male advocates of the program could be advantageous.' (WASH, 1990b: 16.) In setting up informal women's groups of this kind, it may also be necessary to offer other activities, such as literacy or skills training, to attract women.

Working with existing women's NGOs or community organisations is another way to involve women directly. However, such organisations tend to be monopolised by more affluent women with more free time, and may exclude poorer sections of the community. Thus, it may be necessary to hold separate meetings for particular groups, e.g. poor women. Given the limitations on such women's time, this requires considerably outreach work and flexibility about when and where to meet. Meetings at neighbourhood level may be useful in this regard, given the spatial segregation of income groups, or at places where poor women work.

In one rural sanitation project in Maharashtra, it was found that the established Mahila Mandals (women's organisations) had little potential for mobilising women generally: 'these women do not seem inclined to break social barriers of caste and class to implement any programme. Involving women ... should entail a multi-pronged approach that is directed to women of different socio-economic groups rather than rope in the most visible, high profile women and women's groups'. (Sundararaman, 1986: 247.) In another project in Indonesia, a women's NGO had difficulties in relating to local women. The NGO leaders suggested to the village women what they should do; the village women, not wishing to oppose the leaders, did not express their real needs. (ADB, 1990: 61-2.)

Community based groups may be able to achieve considerable levels of women's participation, but the power to take or veto decisions may effectively lie elsewhere, at higher levels of the local administration. This highlights the need for women's representation at higher levels in order to make women's participation at grassroots level effective. Some governments have taken initiatives in this direction (van Wijk-Sijbesma, 1985: 58, 68-9.)

The selection and training of women representatives on committees and of women as health or extension workers is another mechanism for involving women. The choice of women for such roles is crucial and must be supported by both men and women generally as well as relatives. Qualities which have been found to be important are a strong personality and organisational experience; single women are often preferred because of their independence and mobility. (See sections 1.vi(4); 2.ii; 3.ii and 3.iii.)

iv Gaining the support of men

Men may oppose the provision of new facilities over which women have greater control, and which may afford them greater autonomy. Various tactics have been used by male leadership to exclude women from decision making, for example by arranging meetings at inconvenient times (IRC, 1992: 23), or not informing them when meetings are taking place (Kivela, 1985:). Women sometimes do not attend meetings unless specifically summoned by men (van Wijk-sijbesma, 1985: 61; IRC, 1992: 16).

Care is needed to elicit the support of men for women's participation in WSS activities, or at least to avoid generating counterproductive opposition. Opposition may not come just from men; the problem lies more generally in patriarchal attitudes (ADB, 1990). Parents, mothers-in-law and even women themselves may initially resist the shift of gender roles implied in new forms of women's participation in WSS activities. (ADB, 1990.)

Thus, early consultation with men, particularly community leaders, and attempts to promote positive attitudes towards women's active participation among them are important. Where women are involved in separate activities or training, the potential advantages should be explained, and/or complementary or parallel activities organised for men.

The case of a Finnish supported project in Tanzania demonstrates the difficulty of overcoming male resistance to women's involvement and the need for sensitivity towards male authority structures.

'The village leadership resisted the well project from the start. Organising the first discussion with women may have contributed to the irritation of the chairman. Also the fact the women were sent to discuss the matter may have had something to do with the response. Maybe it would have been proper procedure to allow the chairman to introduce the whole matter, also to the women, and we as visitors should have only added our bits of information.' (Kivela, 1985: 49.)

Many projects have encountered initial resistance from men to women taking on new roles in WSS, but these attitudes have often shifted once the benefits to the community, households, and women themselves were demonstrated. In the Dodota project in Ethiopia, 'several men were asked to comment on the "water ladies". While they admitted that they were suspicious at first, all admitted to quickly changing their minds.' (Narrowe, 1989: 25). When women in Kenya were trained as pump mechanics, 'in spite of the initial scepticism and cultural resistance which many of the men had to the idea of women carrying out such a technical task, the fact that the handpumps now run smoothly has persuaded them to accept the change.' (Hoffman, 1992: 19.) In another project in Kenya, a man who refused to allow his wife to participate in training later commented: 'now I regret it. I see what the training has done for the women and what it has done for us as a community'. (IWTC, 1981: 14.)

v Facilitating women's participation in planning meetings

The intention to involve women alone is insufficient. Practical measures are also needed to ensure that project information reaches them, that they are able to attend meetings and that meetings provide a forum in which they can actively participate. (IRC, 1991: 3-4; van Wijk-Sijbesma, 1985: 59.)

For example, personal contacts, puppet shows, advertisements, radio broadcasts, the use of key local women and women's workshops have all been effectively used to reach women (IRC, 1991: 4). Women can also be reached through community surveys and through outreach of female community health and education workers. (van Wijk-Sijbesma, 1985: 6.) Local educated women are often effective intermediaries in disseminating information to women in the community; in Latin America, female school teachers have been particularly prominent in this role (van Wijk-Sijbesma, 1985: 59-60).

The time and place of meetings, and seating arrangements in meetings also need to be appropriate so that women are able to attend and air their views. Meetings should not be arranged in men's meeting places and care should be taken that women do not sit in a group at the back where they cannot hear or be heard (van Wijk-Sijbesma, 1985: 59). One approach has been to arrange meetings in situ at water supply sites (Morgan, 1992).

Open discussions may facilitate women's participation but also require specific measures to overcome the deference or muting of women's views in front of men. Having breaks in the discussion to allow for consultation and appointing a spokeswoman in advance can be helpful. Meetings need to be conducted in vernacular languages which are accessible to all, or time allowed for translation. (IRC, 1991: 4.) The use of models,

drawings and photos are also ways of actively engaging women in discussion (van Wijk-Sijbesma, 1985: 60; Sundararaman, 1986).

Particularly in large communities, it may be necessary to hold follow up meetings of smaller planning groups, including key women representatives, or perhaps smaller women's planning groups, where their roles and responsibilities can be elaborated in more detail. (*ibid.*: 4.)

vi Areas for involvement of women as well as men in decision making

There are numerous aspects of project planning which require the involvement of women as well as men in decision-making. Women are often better informed than men about the possibilities and constraints for project development.

(1) Identification of water sources and siting of facilities

Women have considerable knowledge of existing water sources and of the potential problems in locating new facilities. In Panama, village women led engineers to a fresh water source which had not been identified in the initial survey (INSTRAW, 1989a: 3). In the Philippines, women pointed out that the tap site selected would force children to cross a busy road (IWTC, 1989: 6).

Issues of quality of the water source for different uses are important (IRC, 1991: 3). For example, where salinity levels are unacceptable to communities for drinking purposes, they may revert to traditional sources. (van Wijk-Sijbesma, 1985: 51-2.) The lathering quality of water for washing is also a key consideration of women. In Egypt, in spite of water installations and washing machines in homes, women continued to wash clothes in the river, because of a premium on white clothes and the better lathering quality of river water. Thus women continued to be exposed to the health risks of contact with river water. (El-Katsha and White, 1989.)

(2) Choice of technology and design of facilities

It is important that new technologies should be trialled with their main users, i.e. women and children. Where handpumps are not trialled with women and children, the handles have often proved to be too high, or there have been other design faults, and this has led to disuse and/or disrepair (van Wijk-Sijbesma, 1985).

Choice of technology must also relate to maintenance capacity. In some instances rope and bucket systems are preferred to handpumps, where women have experiences of breakdowns or long waiting times (Sundararaman, 1986). Family handpumps may provide an appropriate solution where seclusion means that women cannot easily get to external water sources, but they may also deprive women of their limited social contact (ADB, 1990).

Latrines may not be used or may become unhygienic if water supplies are still inadequate and pour-flush designs mean extra work for women in carrying water. In Nicaragua, a latrine was not used by women because their feet could be seen from outside. This problem could have been avoided if women had been consulted about the design of facilities.

Women need to be consulted about the provision of washing and bathing facilities. Although it is usually considered unhygienic to locate these at water points, women often prefer to wash or bathe on site because it saves them carrying water for washing to their homes. In rural Iran, communal laundry facilities built were large rectangular sinks at waist height, whereas Iranian women traditionally wash in a squatting position, so that the laundry facilities were not used. The design of pumps or tapstands needs to consider these potential uses too. (van Wijk-Sijbesma, 1985: 52-3; Mathews, 1992.)

Women have been known to develop their own innovative technical solutions to WSS problems, such as the children's latrines built under the eaves of houses in Sri Lanka (IWTC, 1982: 17; van Wijk-Sijbesma, 1985: 52). In a Maharashtra rural sanitation project, the latrine design was altered to include foot rests when villagers objected that the slippery surface would be unsafe, particularly for children. The experience of outsiders abusing latrine facilities also led for a desire to have locks but the original latrine design did not provide for this. (Sundararaman, 1986.)

The aesthetic design of new facilities is important to foster a sense of involvement and pride, for example, painting latrines, or providing latrine slabs with polished surfaces. This is another aspect of design in which women's input can be constructively engaged (van Wijk-Sijbesma, 1985: 52; Sundararaman, 1986.)

Introducing new low cost technologies such as pumps is not the only approach to improved WSS facilities. The improvement and protection of traditional supplies (e.g. through storage facilities, better lifting devices) and the maintenance of traditional systems with improved transport provision, may be alternative solutions. The latter has received limited attention to date. (IRC, 1991: 1.)

(3) Sharing arrangements

The question of whether private or communal facilities should be promoted is crucial. Whilst private facilities may be preferred by many, especially women, there may be problems of finance, affordability, land ownership and security of tenure which constrain large sections of communities from accessing private facilities (Sundararaman, 1986). Men may be unwilling to finance private latrines, for example, whereas women place a high premium on privacy. In one project promoting PVC handpumps in Indonesia, 19 percent of the community did not participate on cost grounds; a further 16 percent because they were renting houses and thus the investment was too risky (IRC, 1992: 12).

Sharing arrangements for communal facilities, and concomitant user responsibilities are another area where women have considerable insight to offer. As regular users of water sources, they are usually aware of potential sources of conflict between different groups of users. In one project in Java, consultation with the community led to a revision of group sharing arrangements (van Wijk-Sijbesma, 1985: 53.)

Access to communal facilities of women from minority groups and poorer women needs to be assured; often affluent or powerful sections of the community are able to influence siting decisions which limits access to poorer or other marginalised groups. (van Wijk-Sijbesma, 1985: 42.)

Different groups of users may also have different needs from the same facilities, creating design conflicts - e.g. women may require closed latrines whereas for children such dark environments may be inappropriate. Socio-cultural considerations also come into the sharing of facilities, e.g. the need for separate latrine facilities for women and men, fathers and daughters etc. (van Wijk-Sijbesma, 1985: 42-3.)

(4) Selection of caretakers and choice of water committee members

Women are aware of the socio-economic and socio-cultural make-up of their own community. They have knowledge about who would be the most responsible and effective women to be involved in decision-making and other roles. **Older women heads of household are often selected by other women as committee members or for other responsible positions, because they are more independent and mobile, more interested in part-time work and have greater motivation because of their socio-economic need.**

(van Wijk-Sijbesma, 1985: 4.) Where women are directly involved in appointing responsible persons, there is then more accountability when problems arise.

When men are involved in discussions about who should be appointed to caretaker or water committee positions, with sufficient time and discussion about who actually has the responsibility for use of facilities, they can be persuaded that women should take on major roles, even if they initially attempt to appoint men. This was illustrated in the case of a project in Nepal (Morgan, 1992).

(5) Choice and management of financing system

The shift in policy in WSS towards community based provision and financing has led to some resistance from communities who still see WSS provision as a government responsibility. This may be particularly acute where neighbouring areas have benefited from publicly financed provision. Shifts in donor policy (e.g. from paying maintenance staff to recruiting volunteers) may also be a cause of resentment. However, there is considerable evidence of willingness to pay for improved and reliable services, particularly among women.

Women have varying degrees of financial autonomy in different contexts and there are also variable gender divisions in terms of household expenditure responsibilities. If the financial situation of women locally is not understood, there is a danger of excluding many from access to new provision by setting fees too high. **Cost recovery schemes bring in a danger of increasing women's financial burden since it cannot be assumed that men will pay.** Given women's generally lower incomes, they will tend to spend a higher proportion of their income on water charges, even if men's contributions are absolutely higher.

'In a project in Western Kenya, it was assumed for a long time that male household heads were responsible for the payment of household expenses and could easily afford to pay for water supplies. The fact that cost recovery rates were disappointing was something of a mystery. It was later found that it was often women, with much lower income levels, who took a large part of this responsibility, and many simply could not afford to pay. Affordability studies had been targeted at the wrong group, and had produced quite misleading results.' (Evans, 1992: 26.)

In a CEC project in Swaziland, 70 percent of women were making a major financial contribution to water supply. 30 percent of households (predominantly female headed households) were excluded from provision because they could not afford the fees. The level of charges had been set too high for them because it was assumed that men would pay. (Hoffmann, 1990.)

The setting of water charges is therefore a crucial issue which must be approached from a gender perspective. **Vulnerable groups, such as certain categories of female headed households (e.g. widows) may need special exemptions or arrangements because they lack surplus cash or labour to contribute.** In some cases free labour has been given to low income households; in others women heads of households have been trained to carry out construction themselves. (van Wijk-Sijbesma, 1985: 49-50.)

If women are expected to contribute to new or increased water charges, they must have means for doing so. Data on who has the responsibility for paying for water in a household is necessary in order to set charges at a level affordable to different kinds of households and to assess the impact of new charges on household budgets from a gender perspective. (Hoffman, 1990.)

One way of tackling this has been to promote income generation activities (IGA) for women in conjunction with new WSS facilities. There are numerous examples of IGAs which have arisen spontaneously in conjunction with WSS projects, e.g. vegetable growing, beer

brewing, laundry, bike repairs, fish farming, brick making and tree nurseries. However, unless such activities provide at least enough income to cover the increased costs of water provision, this is rather self-defeating. Women may end up working increased hours simply in order to pay new water charges. (Kamminga, 1992.)

If IGAs are to be introduced, this needs to be carefully considered in the early stages of project planning. Evidence suggests that there are a relatively limited range of conditions under which this is likely to be successful in the longer term and that additional complementary inputs are required. Co-ordination with other agencies in the area, with experience in credit, marketing etc, may be helpful in promoting IGAs (IRC, 1992: 5; Hoffman, 1990; Kamminga, 1992.)

In some instances, local desire - especially among women - for IGA has not been met because it was not considered early enough in project design and new water supplies proved insufficient for productive as well as domestic uses. Costing structures may also prevent women from engaging in these activities. In a CEC programme in Swaziland, the charging structure had not considered women's needs as small scale consumers of water for income generating purposes. The high rate set for non-domestic use was prohibitive for women. (Hoffmann, 1990.)

Some types of scheme, e.g. latrine or family handpump provision, may require innovative credit mechanisms which are adapted to meet the needs of low income groups lacking collateral. Credit for family handpumps also raises the issue of risk for low income households and mechanisms are needed to insure against this. Repayment periods for credit may need to be spread over long periods. There are possibilities here for involving women in management of revolving funds and credit. (ADB, 1990.)

2. Human resource development

i Areas of involvement of women in training

In WSS and health education projects, women have generally been trained and/or employed as village health workers, site caretakers and in some cases in more technical capacities, e.g. in the maintenance of handpumps. Women have also been involved in construction work (see section 3.i.) and some have been trained in related skills, e.g. for installing latrines and latrine slabs. Women have been involved in financial aspects of project administration, but usually in the work of fee-collecting and book-keeping rather than in management roles. Women have also been involved in training, alongside men, as water committee members.

Many of the roles for which women have been trained or employed are closely related to their perceived traditional responsibilities or qualities. Whilst not negating the value of these activities, it is important that women should be supported to take on other less conventional and more influential roles. **They need to be more involved in technical aspects of project operations and also in decision making and management.** In this respect, budgeting skills are particularly important to ensure project sustainability. This has been a major failing of the otherwise successful Dodota water scheme (SIDA, 1990; Poluha et al, 1990).

ii Making training accessible to women

Many women have been by-passed in terms of human resource development in WSS, because of the timing and location of training and due to biases in selection of candidates. (Hannan-Andersson, 1990)

Training should be made more accessible to women by recognising the constraints on their time and mobility. This may mean making training courses shorter, providing training locally, arranging for childcare and organising group or accompanied travel where training is held outside the locality. (van Wijk-Sijbesma, 1985: 77.)

The selection of candidates for training often directly or indirectly excludes women by setting criteria which are difficult for women to meet, particularly with regard to literacy or education levels. A project in Niger limited the scope for women to become supervisors by setting criteria that candidates should be married, mature and literate. (IRC, 1992: 15.)

On the other hand, a training programme for women handpump caretakers in Bangladesh demonstrated that illiterate women were perfectly capable of fulfilling this function (Bilqis et al, 1991). Other projects have also found that illiterate women can be trained in technical functions. Where women are required to keep records, they can often recruit children or other relatives to assist (PROWESS/UNDP, 1988; IRC, 1991: 2).

Opposition from men and parents may be encountered when attempting to provide training for women. Thus effort is required to persuade family members and community men of the value of training and reassure them that this will not unduly disrupt normal activities. (IRC, 1992: 13; IWTC, 1989; Bilqis et al, 1991.) Public graduation or award ceremonies on completion of training will also assist in acceptance of women's achievements and new roles (Hoffman, 1990).

Whilst women only training courses may be necessary in some instances, they can be counterproductive by creating a mystique and resentment around these activities. Once there has been local acceptance of the value of training women, it may be preferable to work towards inclusion of men (PROWESS/UNDP, 1988a: 12).

iii Impact of women's training and employment

Women's training and employment as project workers can have many beneficial effects both on service provision and for women themselves. The functioning of services can be improved by involving women in service maintenance and delivery. Women themselves can gain incomes and status from involvement in new activities. (IRC, 1992: 2-3.)

The training and/or employment of women can also have more indirect effects by creating role models for other women to aspire to, by imparting skills which can then be transferred into other areas. Perceptions of gender roles may change among both men and women. Involvement in training may raise women's consciousness and spur their capacity and desire to learn more in other areas. (Narrowe, 1989; IRC, 1992: 23,29.)

However, if the potential multiplier effects of women's human resource development are to be maximised, it may be necessary to make facilitating interventions, for example in providing support to income generating activities, in providing refresher courses, or in encouraging women who have been trained to impart their skills to others. One question posed about the long term impact of women's training and employment, in an evaluation of the Dodota project, was whether the scheme had simply created an elite of women in the area with access to salaried employment. (Narrowe, 1989.)

Providing paid employment for women after training seems to be the exception rather than the rule. Women are particularly vulnerable to being tapped as a source of voluntary labour, in spite of the often higher opportunity costs of their time (IRC, 1992: 3). **However, the perceived value of training, particularly to women, can be greatly enhanced if it is known to lead to paid employment.** This was a key feature of the success of training programmes for women in the Dodota project in Ethiopia (Narrowe, 1989). Women may

resist becoming involved in WSS activities if they are not going to be remunerated (Madsen, 1990: 12).

Where formal employment cannot be provided, other options such as facilitating the establishment of co-operatives, providing support for self-employment, or organising placements with employers, should be explored. (IRC, 1991: 2, 22.)

iv Training content and methods

Training needs to be balanced between imparting particular technical skills and the development of problem solving and decision making capacities which can provide the basis for greater project sustainability. For women, particularly, who are unused to assuming positions of authority, considerable groundwork may be needed to develop self confidence and assertiveness skills for dealing with village authorities (Wijk-Sijbesma, 1985: 77). PRA techniques may be very useful here in instilling confidence in women in their own knowledge and capacity for solving problems.

Didactic approaches focused on imparting knowledge are generally less successful than 'hands on' approaches to learning. In the Dodota project in Ethiopia, home economics and 'speciality' courses were provided for participating women, the latter consisting of streams in pipe fitting and maintenance, administration and management and elementary accounting. A 'learning by doing' pedagogic approach involving many practical exercises and pairwork was greatly appreciated by trainees and very effective in developing problem solving capacity. The home economics component, which was lecture based, was less successful. Its practical relevance to the conditions under the new water supply project was limited and its content and delivery were reminiscent of more traditional welfare approaches towards women. The knowledge imparted to women on this course was not, on the whole, diffused in the community on their return. In the later stages of the project, the home economics component of the course was dropped and more practical and field based exercises were added. **This highlights the need for continuous evaluation and revision of training programmes.** (Narrowe, 1989: 17-20.)

It is important that training programmes use a variety of methods to sustain the attention and involvement of participants. A five day training programme in Nepal for female sanitation volunteers incorporated the use of posters; non-directive questioning; short walks in the locality; role plays; demonstrations; the adaptation of popular songs; street theatre and puppet shows. Although no payment was made to participants, they were each provided with a sanitation kit. (Morgan, 1992.)

In training for pump maintenance in the South Coast Handpump project in Kenya, local names for pump parts were invented to aid memory and quizzes were held to review knowledge. **Community involvement in the assessment of trainees has helped motivation and laid the basis for the accountability of handpump caretakers.** (PROWESS/UNDP, 1988: 16.)

v Training of project and support staff

WSS activities often involve NGOs (including women's NGOs) as facilitating organisations. Whilst some of these have considerable experience and expertise in participatory methods, not all do. **It may be necessary to strengthen the capacity of NGOs by training local staff in participatory methods.** Didactic approaches to training staff will backfire, as these will tend to be reproduced in working with participants and have been found to have limited effectiveness. (IRC, 1991: 4.)

There is also a need for training project staff and staff of supporting agencies in gender awareness. It is important not to limit this to producing a small cadre of specialists, but to diffuse awareness and skills as widely as possible, particularly among more technical personnel. (Hannan-Andersson, 1990.) The training of project staff and communities themselves (including women) in participatory evaluation methods is also important (see section 5.i).

3. Implementation, operation and maintenance

Women's involvement in the implementation of WSS projects has tended to be seen in terms of labour inputs (often voluntary), the provision of materials, and participation in water committees or similar structures. Increasingly, women's participation in the community management (and financing) of WSS activities is also stressed as a goal but the methodologies for achieving this are not well developed. (Hannan-Andersson, 1990.)

i Construction of facilities

Women have been involved in self-help construction work, particularly in Latin America, Africa and parts of Asia, especially where they have a high participation rate in agricultural work. Elsewhere, they have been instrumental in motivating men to do construction work, in feeding and lodging construction workers or in raising funds. Some construction skills are closely linked to women's traditional skills in housebuilding and plastering. Women may be more acceptable in construction work at household level where there are socio-cultural restrictions on male/female interaction. (van Wijk-Sijbesma, 1985: 63-4).

Women have also been involved as construction workers in food-for-work projects, in some countries in large numbers. These tend to be the poorest women, including many heads of household. Such schemes may need adaptations, such as childcare provision, adequate water and sanitation provision and skills training for future employment, to make them more responsive to women's needs. (van Wijk-Sijbesma, 1985: 65-66.)

ii Women and water committees

It is now accepted that women should play a major role in water committees (WCs) which are usually set up to monitor and manage community based WSS activities. Some policy or project documents stipulate that at least 50 percent of WC members should be women (e.g. ODA, 1992; WaterAid, 1988), but in practice quota targets are often not met. One study of the functioning of WCs in Gujarat found that in the least effective committees, the quotas of women were not met (IRC, 1992:16). In some cases, voting structures in user associations which only permit the head of household to vote impede the election of women to committees (van Van Wijk-Sijbesma, 1985: 72).

The quality of women's participation in water committees, as well as the quantity, needs to be improved. Where women have been involved on water committees or other management bodies, they have often been token representatives with a passive role and few real responsibilities. In a study of village level water supply management in Hyderabad, it was found that the three women representatives on the village councils which manage the water systems 'do not attend meetings unless specifically summoned' (IRC, 1992: 16). In a Tanzanian project, although six out of eight WCs have women members, they 'are not yet seen as representing all women users and have no recognized status with the village government' (IRC, 1992: 11).

The participation of women in water committees is more readily accepted in areas where they have traditional responsibility, e.g. health aspects (van Wijk-Sijbesma, 1985: 60). Women are also readily selected as treasurers since they are generally considered to be

more dependable with funds. In the KWAHO South Coast Handpump project, all WCs have women treasurers and each WC is made up of five women and four men (PROWESS/UNDP: 1988). Having at least two women on a WC allows for mutual support. The attendance of early meetings by a female extension worker may also assist their participation. (van Wijk-Sijbesma, 1985: 60.)

In some areas, community dissatisfaction with the performance of male dominated committees has eventually led to the selection of more women. In a Malawi village handpump project, villagers do not question whether women should be involved, but whether men should be involved. (Hoffman, 1990; van Wijk-Sijbesma, 1985: 67.)

In secluded communities, it may be necessary to have separate all women water management structures. These have functioned well in some cases but not in others. An awareness of common interests and strong organisation are key factors. (van Wijk-Sijbesma, 1985: 73.)

Ensuring equal and active representation of women on WCs requires efforts by the implementing agency to promote women's representation and support for this within the community and at higher levels of administration. Women's involvement in selecting candidates is likely to result in a higher and more dynamic level of women's participation. **Women WC representatives may need special training, in leadership skills, confidence building and communication, but this should be done in conjunction with training for men to avoid alienation** (van Wijk-Sijbesma, 1985: 60).

iii Women and financial management

Women have been particularly active in financial aspects of WSS projects, e.g. in fund raising, fee collecting, fund keeping and supervision of local boards, because of their perceived willingness and dependability in these roles. There are also links with their roles in domestic budgeting and in the maintenance of social contacts. It may also be that men wish to avoid the difficulties of asking others for money and/or that there are social constraints on men entering households. (van Wijk-Sijbesma, 1985: 72.) One question not raised in the literature is whether the gender of the person collecting fees affects the gender balance of contributions from a particular household.

More women should also be involved in financial management, rather than simply doing the routine work of fee collection etc. **There is scope for greater involvement of women in e.g. the management of credit and revolving funds.** This, however, would require training inputs.

iv Involvement and effectiveness of women in maintenance

A typical example of project failure due to the lack of involvement of women in maintenance is a village level scheme for handpumps in South India. Over 600 men were trained as caretakers, but this proved ineffective because the women did not know who the caretakers were and the men - who did not collect water themselves - did not know when there were problems to deal with. (Mathews, 1992.)

Because of their routine involvement in water collection, women are generally more aware of breakdowns, leakages etc when they occur. Since they are regularly at water collection points, they are also in a better position to carry out routine preventative maintenance. Also, once trained, they tend to be more reliable and have a lower turnover. This is particularly true of older, married women, whereas younger women in some communities may leave when they marry (PROWESS/UNDP, 1988). Women are also more effective in maintenance because of their greater ease of relating to other women users (IRC, 1991: 2).

Nevertheless, women's roles in the maintenance of water supply services have tended to be limited to a caretaker capacity. They have had less involvement in technical areas, e.g. as pump attendants. Some women have been involved in the more technical sides of maintenance, particularly where there is a high level of male outmigration or where specific women's projects have been developed. (van Wijk-Sijbesma, 1985: 69-70.) In some cases, it has been found that even where men were formally responsible for maintenance work, their wives were actually carrying out the work (IRC, 1992: 18; van Wijk-Sijbesma, 1985: 71).

There is a need to involve more women in technical aspects of operation and maintenance, on the same terms as men doing equivalent work. (Hannan-Andersson, 1990). In one project in Kenya, after all the male technicians had migrated to towns, women were trained to take on maintenance roles. **Although previously the male technicians had been paid from community funds, when the women site caretakers were trained to take over maintenance roles, they were expected to work as volunteers.** The new responsibilities of these women clearly had positive effects on their self-esteem and status, but the heavy workload was having severely negative effects on their income generating possibilities and thus on their family health and well-being. Some of these women indicated that they would soon have to give up their new positions for these reasons. Following a meeting at which these issues were raised, there were indications that the value of these women's work may be taken more seriously in future. (Hoffman, 1992.)

A few studies have been done which attempt to evaluate the effectiveness of women in maintenance roles, although there is not always a systematic comparison with men's performance. A study in Bangladesh of the performance of women handpump caretakers concluded that 'after 15 months of maintenance by women, the condition of the pumps was found to be as good as that of the pumps maintained by trained project mechanics' (Bilqis et al, 1991: 179.)

Another social cost-benefit analysis of a handpump maintenance system using women mechanics concluded that, although training costs for women mechanics were three times higher than for men, the reduction in incidence and duration of breakdowns saved considerable resources and thus overall, the economic efficiency of the project was enhanced. Added to the positive cost analysis are other intangible benefits, such as improved health awareness, more income spent on family, and the development of positive attitudes towards educating girls. (IRC, 1992: 29.) **Thus it would appear that, although initial costs may be higher, employing women as mechanics has both economic and social benefits.** However, more attention is needed to the effect of such roles on women's workload (IRC, 1991: 2).

v Problems in community based maintenance

The decentralisation of maintenance to village level and the support of women's involvement can not only improve services but also lead to cost-savings (IRC, 1992: 2).

However, there are also negative aspects of the experience of women's involvement in village level maintenance. In one project in India, the failure to involve the community in planning or inform them about the roles of caretakers led to non-responsiveness and a lack of recognition for the women involved (Devi, 1988). In another case, women were frustrated by their lack of tools which meant they could not perform all the tasks for which they had been trained (Narrowe, 1989). Lack of spare parts may also be a major bottle-neck (IRC, 1992: 11). If women are not given sufficient support or resources at community level, they can become dependent on male authority structures at higher level (Hannan-Andersson, 1990: 15). In some cases women have failed or ceased to report breakdowns because they do not know who to contact, or they do not get a response from higher authorities (IRC, 1991: 12). **This highlights the importance of two way communication between higher level**

maintenance authorities and workers at lower level. Maintenance needs to be agreed jointly, so that women know what to do and why. (van Wijk-Sijbesma, 1985: 68-9.)

Another possibly negative aspect of women's involvement of maintenance may be that men start to feel less responsible for contributing towards maintenance costs. (IRC, 1992: 11.)

There is a need for more widespread monitoring of maintenance systems, not only from the point of view of continued functioning of services, but also in respect of wider economic and social costs and benefits, particularly for women. (IRC, 1991: 2.) .)

4. Sanitation and health education

i **Need for and limitations of health education**

Experience has shown that domestic and personal hygiene do not necessarily improve when new facilities are installed. Potentially, increased water use has major health benefits, but there is no clear pattern to suggest that water use increases when new provision is installed. Also, there are numerous mechanisms through which risk of contamination of improved water supply persists. Moreover, if drainage or maintenance is inadequate, new facilities can themselves become sources of infection or breeding grounds for vectors. (van Wijk-Sijbesma, 1985: 81-5.)

It is now widely recognised that WSS activities need to be integrated with health education, but there is also a danger of health education becoming a coercive tool, or the scapegoat for poor project design due to lack of earlier consultation. (van Wijk-Sijbesma, 1985: 85-6.) Where technical facilities are inappropriate, the addition of hygiene education has little impact (IRC, 1991: 3). Integration of health education with WSS activities requires co-ordination of structures above the project level. Systems of monitoring and follow up for health education are needed to ensure that gains are sustained after implementation.

Health education programmes have often had limited effectiveness, because of limited coverage; poor teaching methods; inappropriate messages and a failure to recognise the economic and cultural constraints on changes in behaviour. A difficulty underlying the development of more effective health education programmes is the lack of comparative evaluations of the success of different approaches in leading to changes in behaviour.

Communities, including women, are rarely motivated primarily by health considerations to be involved in WSS activities (IRC, 1992: 3). Further, local conceptions of ill-health may be rather different from external views. Illness may only be considered a serious matter when it prevents people from working (Sundararaman, 1986).

Several experiences point to the importance of understanding people's perceptions and beliefs about health and hygiene as well as local practices. For example, the belief that child excreta is harmless is widespread (van Wijk-Sijbesma, 1985: 43). Whilst handwashing before eating is widely practised, it is less common before food preparation (El-Katsha and White, 1989). Washing of hands in a communal bowl may be a cultural norm (IRC, 1992: 9).

Some approaches have simply imparted general health information in a didactic fashion, with little attention to local conditions, beliefs or practices. These have generally been viewed by audiences as condescending and have proved counterproductive. Although knowledge may be increased in this way, there is little effect on practices. (IRC, 1991: 3.)

In other cases, a social marketing approach has been taken. Knowledge Attitudes and Practices (KAP) surveys are used to elicit information about existing health and hygiene behaviour being practices and this information has been used to design mass media

campaigns. Some useful insights may result from such surveys but they are often too rigid to uncover subtle variations or nuances of behaviour and may only provide information about ideal rather than real practices. Moreover, they can imply a measurement of actual practices against an 'acceptable' standard. Mass media messages have been found to have limited effectiveness (see below) and more participatory approaches are now favoured.

Economic and other constraints on changes in behaviour need to be recognised. For example, recommending the use of soap where women cannot afford it will yield few results. A better approach is to explore local alternatives such as ash or dried plants. (IRC, 1992: 19.)

One study of WSS activities in Latin America and the Caribbean found that 'effective hygiene education is participatory. It involves female opinion leaders as promoters and helps install the facilities required to implement hygiene messages, e.g. laundry basins and bathing cubicles'. (IRC, 1992: 10.)

ii Involving women, men and children in health education

Health education interventions related to water and sanitation projects are often the only part of WSS project in which women are heavily involved. (van Wijk-Sijbesma, 1985: 85-6.) Women are often targeted as passive audiences for health education messages.

There is a need for the active involvement of women in discussion of health issues, the joint identification of problems, and the development of locally appropriate solutions. For women, particularly poor women, lack of time is a major constraint to participation in health education. Arranging discussions at places where women congregate as part of their daily routine, e.g. at local washing sites, water collection points, or markets is one way around this. Arranging childcare provision may also free women to attend health education activities.

Poorer women particularly may need health education to be adapted more closely to their needs due to economic constraints, for example through the provision or local manufacture of particular implements, or through income generation/expenditure reduction initiatives. The provision of other skills training (e.g. literacy) in tandem with health education may increase the uptake and involvement of women.

It is important, however, that **personal, domestic and community hygiene should not be seen as the sole preserve and responsibility of women; men and children must also be involved.** If men are not involved, they may oppose women's involvement; or they may use their authority to prevent improvements being made for hygiene purposes. It is also important to involve men in order to bring about a more equitable division of responsibilities. **Thus, parallel courses should be designed and run for men.**

There is also considerable experience of involving children in health education, through schools programmes and child-to-child approaches. The latter are important in view of the role of older siblings in childcare and have been found to have considerable potential. Where girls are known to have low school attendance rates, other mechanisms are needed to reach them, such as home schools.

There is also a need for more systematic evaluation of programmes involving men and children.

iii Media for health education

The media through which health education messages are spread vary considerably in accessibility and effectiveness. **One way transmission of information through lectures or**

films lack effectiveness; personal contacts or groups discussions seem to work better. One survey in India found that women's access to media like radio, film and TV is low, but that women respond better to village level functionaries spreading water and sanitation messages. (IRC, 1991: 8.) Of the mass media, radio is most likely to be accessible to women, but also has serious limitations as a medium. In some instances, **radio listening groups have been formed to encourage a more active, participatory approach to radio based health education.** (van Wijk-Sijbesma, 1985: .)

The development and use of visual aids to spread health education messages can be a way of involving women, including illiterate women, in a more creative learning process. In rural Orissa, images based on drawings of village women, containing positive and negative health education messages, were adapted and tested for comprehension and appeal with various groups including literate and illiterate women. Not only did the women greatly enjoy the process, since they were being asked for their opinions, but the experiment revealed how knowledgeable they were. (Rana, 1990.)

5. Monitoring and Evaluation

i **Approaches to monitoring and evaluation**

Earlier approaches to monitoring and evaluation emphasised health and socio-economic impacts of WSS interventions. There are methodological difficulties in establishing causal linkages between improved facilities and health and income improvements, however, because of the numerous variables involved. Moreover, such impact studies require a long-term perspective. Indications from such studies as there have been, are that health and socio-economic benefits to WSS interventions are not automatic, but location specific and highly variable. (Kamminga, 1992: 4.)

Short term performance indicators such as the number of pumps installed, or population covered are also of highly limited value in that they do not reveal whether facilities are still functioning or being used. **The focus in monitoring and evaluation is now on intermediate variables such as the functioning of systems and behaviour changes.** (van Wijk-Sijbesma, 1985.)

In general, monitoring and evaluation procedures are quite weak. It is generally conceived as a formal, one-off process at specific points in the project cycle (e.g. end, midway) and tends to be both conducted by and aimed at outsiders (i.e. conducted by consultants for project donors and governments). Project beneficiaries and personnel are rarely seen as either the audience for results of evaluations or participants in the process of evaluation. (Hannan-Andersson, 1990.)

There is a need for evaluation to be seen more as a process and to involve both project personnel and community members as recipients of and participants in evaluation. At a minimum, results of evaluations should disseminated among workers and the community through translations of documents, or workshops and seminars.

Self evaluation by communities and project personnel should be given more emphasis. 'Subjective' perceptions may be as important as 'objective' evaluations by outsiders and this is particularly true of changes in perceptions about gender (Poluha *et al.*, 1990). The methodologies and mechanisms for self-evaluation need to be developed. (Hannan-Andersson, 1990.)

ii Bringing gender issues into monitoring and evaluation

Standard criteria used for evaluation of WSS projects need to be made more gender specific, such as the WHO Minimum Evaluation Procedure (MEP) and PROWWESS' effective use / sustainability / replicability formulation . Gender should not be an add on, but an integral part of evaluation and should pervade all aspects of reporting. Not only the short term benefits to women, but also longer term strategic gains should be included. (Hannan-Andersson, 1990.)

Improved monitoring and evaluation requires information broken down by gender on:

- access to and control over resources provided (info, training, skills, technology, employment, income);
- control over decision making (at household and community levels);
- human resource development;
- stimulation of other development activities (e.g. IGAs);
- development of skills and competence;
- impact on women's status in the community;
- changes in women's self perception;
- changes in women's work situation;
- health impact.

(Hannan-Andersson, 1990.)

Internal evaluations on whether women are taking part and the reasons for this are one mechanism for increasing gender sensitivity at project level. (IRC, 1991: 4.)

Explicit indicators are needed to examine the level and quality of women's participation in different project activities. A GTZ (1989) manual on community participation suggests that the involvement of women can be gauged by, for example: whether they are actively informed about the project; whether they can take equal part in training programmes; and whether they fulfil community supported functions in maintenance and sanitation programmes (IRC, 1991: 28). Women's presence at meetings or in training programmes does not necessarily equate to active participation. In one project in Thailand, less than three percent of women participating in training courses spoke during the training (Tunyavanich et al, 1987).

Another approach to measuring women's participation, formulated in a WHO/PROWWESS workshop, is to ask:

whether a local women's group was involved in planning, implementing or evaluating the project;

whether a women's group was formed or strengthened to participate in the programme;

the percentage of men who accept women's involvement before and after the project;

a 1-7 scale to measure degrees of women's participation ranging from 1 - women do not come to meetings to 7 - women plan ahead and take long term responsibility. (ADB, 1990: 67.)

iii Economic benefits and costs of WSS activities for women

It has been largely assumed that increased water use, health benefits and time and effort savings for women will result from improved WSS provision. However, **there has been**

little examination of the actual, as opposed to the potential, economic benefits of increased water use and time availability for women. (Kamminga, 1992.)

Benefits and costs from interventions are likely to be unevenly distributed among households. As indicated above, certain groups of women (female headed households) are particularly prone to exclusion from benefits. In particular, there is a need to address the problem of women (and men) whose livelihood may be affected by the provision of new facilities, such as water carriers, vendors, or waste collectors.

There is no clear pattern of increased water use following the introduction of new facilities and time savings do not occur in all cases either. In one study in Sierra Leone, women were found to spend more time collecting water after implementation of the project (Bah, 1988). In other cases there may be little time saved either because women collect water more frequently (and increase household water use - there may be health benefits here), or because new facilities bring in other time costs. The time spent in attending meetings etc is rarely accounted for. In one project in Rwanda, women spent more time collecting water fees after implementation than they had done collecting water previously (IRC, 1992: 15). Moreover, the reduction in the time/labour burden on women may be offset by a reduction in assistance from children and men.

There may only be time savings of an order which could have productive uses where the new water supply is very much closer than previous sources. Without alternative productive opportunities, the economic value of time savings cannot be realised in any case. There may be few opportunities for income generation or employment; the available opportunities may yield very low returns and thus not offset the opportunity cost of domestic labour or rest; time saved in water collection may fluctuate seasonally and not coincide with peak seasons for other activities; women may have little incentive to re-invest their time if they do not control the returns to their labour. However, other benefits may result in the form of increased leisure, or time spent with children. (Kamminga, 1992.)

New WSS facilities may also increase the financial burden on women, especially as there is growing emphasis on community financing. If women's income increases as a result of project related activities, men may reduce their contribution to household expenditure.

III CONCLUSIONS AND RECOMMENDATIONS

i Generalising the experience so far

There is now considerable experience of attempts to involve women in community based water supply and sanitation projects, particularly in Africa, South Asia and peri-urban areas of Latin America. The lessons, positive and negative, of this experience have been reviewed above and a number of practical strategies suggested. In applying such strategies, it is important to take account of variations in local conditions, and to adapt approaches accordingly.

Women's programmes in rural and community development, primary health care, appropriate technology have the potential to support self-help initiatives by local women not served by larger scale programmes. National women's organisations also have major role to play in supporting self-help initiatives of local women. (van Wijk-Sijbesma, 1985: 111-118.)

The widespread adoption of community participation in WSS as a means to more sustainable and effective service provision has many potential advantages. However, it cannot be assumed that participatory approaches will automatically lead to improved women's participation; specific strategies are needed for this. Care must be taken that women are not involved in ways which increase their workload and/or financial burden, or prevents them from using benefits of improved WSS in productive ways. This calls for a gender perspective which looks not just at women in isolation, but at the relative roles and responsibilities of men and women, and their changes over time.

Much of the literature reviewed is focused on project level interventions and NGO activities. Bilateral donors and international organisations have for a number of years been involved in developing sector strategies, guide-lines and check-lists on women and WSS; in developing methodologies to increase women's participation; in conducting and disseminating research; and in producing training materials. (See e.g. PROWESS, INSTRAW, DGIS in Bibliography.) (Hannan-Andersson, 1990; van Wijk-Sijbesma, 1985: 79.)

There is a need to incorporate new experiences and insights from the field into training manuals, guidelines and other materials, so that knowledge is disseminated beyond individual workers. Manuals and guidelines also need to be adapted for participatory approaches. Ways of specifically involving women and the constraints to this need to be given much more emphasis in training materials than they have been to date. (van Wijk-Sijbesma, 1985: 78; IRC, 1991: 5.) Even so, such efforts do not lead to major changes in approach unless supported by complementary strategies at other levels. Support is also needed at policy making levels, i.e. at intermediate and central levels of government and related agencies and from bilateral donors (Hannan-Andersson, 1990).

ii Policy and programme level interventions

Little is known about the involvement of women at the policy level in WSS activities, but it is probably quite weak. Women are more likely to be represented at policy levels in 'soft' ministries such as health and community development than in technical areas of water supply. Few national women's organisations were represented on the National Action Committees (NACs) set up during the IDWSSD. (van Wijk-Sijbesma, 1985: 78.)

The lack of co-operation between health, community development and related agencies and more technical agencies involved in water supply and sanitation is a major constraint to the co-ordination of 'hardware' and 'software' components of WSS programmes and thus to the development of more gender aware approaches. Institutional resistance to co-operation and varying levels of competence and influence are a problem here. There is a need for increased

dialogue at central and intermediate levels of such agencies in order to overcome these obstacles and also to develop strategies and systems for supporting women's initiatives at local level. (Hannan-Andersson, 1990; van Wijk-Sijbesma, 1985: 118 .)

Water use policies and related charging procedures should be sensitive to the fact that charges may have to be met by women and also recognise women's uses of water for productive purposes, as well as domestic consumption. This may require gender awareness and analysis inputs at the level of national or regional water boards, or relevant ministries. (Hoffmann, 1990.)

More emphasis is needed on bringing gender considerations in WSS activities into all stages of programme planning and policy making. Project identification teams should incorporate gender specialists. Where socio-economic studies incorporating gender concerns are done prior to implementation, there should be clear mechanisms for linking these to project and programme design. Project documents should set out women's participation in managerial and decision making capacities as well as in terms of labour mobilisation and consumers, as explicit objectives. They should also specify the time frame, budget and human resources, including training of personnel, and the implementation and organisational procedures needed to achieve this. Evaluations are a good entry point for gender issues, even in projects where women's participation has not been prioritised initially. Sector reviews, since they are carried out regularly, are another strategic entry point for gender issues. (van Wijk-Sijbesma, 1985: 79; Hannan-Andersson, 1990; Hoffman, 1990.)

APPENDIX: ORGANISATIONS INVOLVED IN WATER AND SANITATION
ACTIVITIES¹

African Water Network
c/o P O Box 72461
Nairobi
Kenya
Tel: (254) 562015/562022
Fax: (254) 562175

'The African Water Network (AWN) comprises 50 NGOs from 17 African countries. Its objective is to promote the durable development of water resources on the African Continent and, conscious of the key role of women in the development process, AWN considers the participation of women to be a decisive factor in the success of water planning projects.' (AWN, 1991.) AWN publishes reference documents and a regular information letter as well as setting up a databank on the various aspects of African water supply. AWN also holds regional workshops (see bibliography for proceedings from 1991 workshop).

Asian Development Bank
Water Supply and Urban Development Division
P O Box 789
1099 Manila
Philippines
Tel: (632) 711 3851
Fax: (632) 741 7961
(632) 632 6816
Contact: Arthur McIntosh, Senior Project Engineer

Since 1985 promoting involvement of women in WSS activities. In 1989 held regional seminar in Bangkok on women and water, focusing on the family handpump as a means of involving women in WSS activities (see bibliography).

International Development Research Centre (IDRC)
P O Box 8500
250 Albert Street
Ottawa, Canada
K1G 3H9
Tel: (1) 613 238-7230
Fax: (1) 613 236 6163

IDRC has sponsored regional seminars on women and WSS and also produced audio visual materials to promote women's participation in WSS (see section 2.vi and bibliography entries under IDRC and Zandstra).

¹ This is not a comprehensive list of organisations, but a selection of organisations at international/regional level involving in promoting WSS activities, with a particular focus on women's participation

IRC International Water and Sanitation Centre
P O Box 931190
2509 A D The Hague
The Netherlands
Tel: (31) 70 33 141 51
Fax: (31) 70 38 140 34
Contact: Eveline Bolt, Research Officer

Publishes annual abstract journal 'Women, Water, Sanitation,' and various technical and occasional papers on women and WSS issues. 1993 edition of 'Women, Water and Sanitation' will focus on water related environmental issues, and will be published in mid-1993. IRC are also producing three regionally oriented (for Asia, Latin America and Africa) field guides on how to involve women in water supply, sanitation and water source protection, based on regional workshops to be held in 1993.

INSTRAW
P O Box 21747
Santa Domingo
Dominican Republic
Tel: (1-809) 685-2111
Fax: (1-809) 685 2117

INSTRAW has been involved in organising national and regional seminars on women and water and sanitation and in the production of modular packages for training of trainers. A special issue of INSTRAW News including a supplement was produced in 1989 (see bibliography).

PROWESS/UNDP
Room FF-12108
United Nations Development Programme
304 East 45th Street
New York NY 10017, USA
Tel: (1) 212 906-5862
Fax: (1) 212 906-6350

PROWESS has worked with governments on WSS projects in at least 20 developing countries to develop replicable models for involving community women in sustainable, effectively used and environmentally sound WSS activities. Initially it carried out demonstration projects but some of these have now reached provincial or national levels. PROWESS also works in developing participatory methodologies of data collection, monitoring and evaluation; in the training of trainers in these methods; in the production of training materials; and in training staff in national and international organisations

UNDP-World Bank Water and Sanitation Program
1818 H Street, N.W.
Washington D.C.,
20433, USA
Tel:
Fax:
Contact: Mrs Mari Dhokal

A collaborative venture emerging from the IDWSSD of the 1980s, the UNDP-World Bank Program is currently working in more than 40 developing countries, and focusing on a selected group of 'countries of concentration.' The Program works to strengthen national efforts to improve WSS services to the poor. It has field networks based in Kenya, Ivory Coast, India, Indonesia and Latin America. Under the Program, International Training Network (ITN) centres supplement the field structure. Their main task is to promote low cost technologies and multidisciplinary approaches to planning, implementation and operation of WSS systems. They engage in a variety of training schemes for sector professionals, demonstrating projects and information and documentation activities. Working closely with governments, donor institutions, NGOs, participating communities and the private sector, the Program's 'Strategy for the 1990s' includes initiatives aimed at institutional and financial reform, essential human resources development, continuing improvements in low-cost technologies, and promotion of women's participation. The Program works closely with PROWWESS (see above). (PROWWESS/UNDP, 1991.)

Water and Sanitation for Health Project (WASH)
1611 N. Kent Street, Room 1001
Arlington, VA 22209-2111
Tel: (1) 703 243 8200
Fax: (1) 703 525 9137

Set up by USAID in 1980, in conjunction with IDWSSD, to augment and streamline technical assistance capability in water and sanitation. WASH provides multidisciplinary technical assistance to USAID missions or bureaux and other US agencies, host governments and NGOs, including on the design, implementation and evaluation of water and sanitation projects. WASH publishes Field Reports and Technical Reports (see bibliography).

WaterAid
1 Queen Anne's Gate
London SW1H 9BT
Tel: (44) 71 233 4800
Fax: (44) 71 233 3161
Contact: Catherine Johnson

UK based NGO supporting community based water projects in Africa and Asia. Publishes a quarterly journal 'Oasis'. 'WaterAid recognises that water and sanitation is primarily a women's issue and therefore our policy of community participation should aim primarily at women's participation; i.e. the full involvement of women in the consultation, design, planning, operation, maintenance stages of their project.' (WaterAid, 1989.)

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