THE EMPOWERMENT APPROACH AS A WAY OF CONNECTING WOMEN TO RURAL WATER SUPPLY

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CHAPTER 1

1. INTRODUCTION

The concern of the study is to explore the use of an empowerment approach in providing rural women with water. It proposes that the essence of empowerment in a rural water supply is in the blending of technical with the social activities. It has been noted that the provision of rural water supply has multiple developmental advantages. Several studies have also pointed out that rural development policies will either not have their intended effect, or might even produce unintended negative outcomes, if the role and position of rural women is not distinctly considered (Sen & Grown, 1987; Longwe, 1988; Young, 1988; Melchior, 1989; Narayan-Parker 1989; Friedman et al. 1990; Blackie, 1990; Friedman, 1991).

That is why this paper is going to proceed from a belief that any rural water scheme whose goal is that of development should have women's participation as the main objective to achieve that goal. This means mobilising women into more dynamic roles in all stages, from planning to implementation and through to the monitoring of water schemes. This should not be seen as desirous only because it is a basic rights issue which makes economic sense but because it realizes the necessity for them to take control of their lives. It is suggested that gender relations - (i.e. relations between men and women) have to be considered, for these relations determine the presence or the absence of empowerment.

It is also the contention of this paper that communities have an integrated approach to development, and as such the provision of water per se, can not be explored in isolation. The supply of water through the empowerment approach necessitates or even succeeds the organisation of other basic needs required by rural people for development. This holistic view is critical, in rural areas, because it is often argued that access to any form of resource is influenced by women's total circumstances (Friedman,
It is consequently suggested therefore that, non-formal education as an empowering process as well as community organisation constitute a necessary condition for providing access to safe water and sanitation. The success of any rural water supply can then be tested by seeing community organisation replicating itself in the same community for further development. Thereafter the implications for planning will also be explored.

The study is divided into three parts. It starts by explaining the rationale and the purpose of the study. The rationale is presented in terms of a theoretical background to empowerment and conceptual rationale from a gender-planning perspective. The second part presents a discussion of what the empowerment approach entails in rural water supply. A framework which forms the basis for an evaluation of the presence or absence of empowerment in a rural water supply programme is formulated.

The framework advances five necessities that shape the empowerment approach in a rural water scheme, these are: effective participation; the development of women; sustainability of water schemes; effective use of water sources and replicability of development benefits. The methods for facilitating the employment of community organisation are explored. The problems that emerge with that will be identified and discussed.

The third part constitutes a case study of Mabheleni Water Scheme in which an assessment of the project will be made. The appraisal of the scheme will be made in terms of the presence or absence of empowerment in this community according to participation in voluntary organisation, the classification of roles and structural autonomy within organisations. Effective and sustainable use of water facilities will be examined. Then the capacity of or the extent to which women's roles can be transformed as well as the possibility for project replicability
1.1. The relevance of the study to planning

At the end of the International Drinking Water Supply and Sanitation Decade (1981 - 1990) and with the trend towards 'appropriate technology', sustainable water schemes in rural areas remain a source of contentious planning and development debate. Water schemes still breakdown almost immediately after completion. The implementation and maintenance of schemes without external assistance is still almost non existent. As the world focus is gradually shifting from water supply and sanitation to other basic needs, it is important for planners, engineers and other development practitioners to maintain the momentum generated by the decade. It is also crucial to learn from previous mistakes whilst noting that the scenario within which such processes are going to continue may be totally different (Makhetha, 1990; Blackie, 1990).

Rural communities have numerous needs, all of which have to be addressed at regional, national and international levels. South Africa is experiencing a period of major changes. The development of rural areas is going to be affected by those changes. It is therefore imperative that in order to maximise returns of the ever diminishing resources, and to maximise economic and political control, that the question of empowerment in development projects is addressed more carefully.

Rural development normally involves the improvement of the quality of life in those areas. The most marked social characteristic of the rural areas in South Africa is poverty. The widely used indicator to measure poverty is income. However, there are other indicators which can help anyone involved in rural development to measure the quality of life. For instance, they can be infant mortality rate, distance walked to school, and water supply. Service provision also contributes in the improvement of the quality of life. Quality of life though, is ultimately not only about poverty, but also about the capacity
of rural poor to take greater control of their lives. Hence, the focus of this study on sustainable water through the empowerment approach.

Statistics have shown that in Third World countries, 127 countries [ie. 30 %] of rural people, and 75 % of urban people have safe drinking water. Sanitation is the luxury, more than 3/4 of people in rural areas , and nearly half in towns and cities do not have it (Falkernmark, 1982). South Africa is no exception, the most impoverished areas which have been totally neglected in service provision (among other things), are the rural areas. It is therefore important to explore the significant ways of providing such services for the betterment of the quality of life in these areas.

In addition, women have for a long time been directly linked to the provision of water and sanitation. Women have tended to be considered only as end users, last-in-the-line receivers. Seldom have they been considered as decision makers, agriculturists, hydrologists and other skilled personnel, who could have been a positive influence in the type of systems and services they most need. Yet, they constitute the majority of the permanent rural population.

They have been singled out in this study because, they take water and sanitation issues seriously. This is because where there is no drinking water, running water, or toilets, women spend many hours hauling water for many uses or caring for children with water-borne diseases. Women are the main carriers, users, and managers of water, they therefore bare the brunt of the lack of safe drinking water and sanitation. They also have a special interest in securing these things for their communities (Instraw, 1990).

Attempts have been made to redress the problems of inadequate rural water supplies. However, it is of little use to install thousands of pumps and dig hundreds of wells if these are not maintained through active community participation. Nevertheless,
community participation does not occur in a vacuum but is situated within a concrete social, economic and political context (Lund, 1987). Also, community participation is futile if it is not effective. Therefore, it requires mobilisation of people particularly women into more dynamic roles in all stages of the water supply programmes. It is also not enough to mobilise them through specific physical projects, without consolidating the work into an organised offensive for further development. That is why community organisation should be able to provide skills that will allow replicability of projects and self-reliance within rural communities.

Because of all these reasons this study will focus on: effective participation; the development of women; effective and sustainable use of water sources; and the ability for projects to replicate in other areas. These constitute the empowerment approach. They are relevant to planning because they are part of rural development and aim at improving the quality of life of those who live in rural areas.

It is often argued that the requirement for understanding and assessing any particular development activities is understanding the theoretical influences which have informed the different approaches. The theoretical background to the empowerment approach will therefore, be given in the succeeding chapter (Lund, 1987; Friedman, 1987; Moser, 1989).

CHAPTER 2

2.1. Theoretical Background

Development theory forms the background on which the empowerment approach is based. The empowerment approach can be seen as a development policy with origins that can be traced to the changing policies which address the problem of poverty. Its origins are derived less from the First World research on development, but have concentrated more among Third World studies, popularly used by grassroots development organisations.
(Sen & Grown, 1987; Friedman, 1989; Moser, 1989). However, theoretically the approach has largely been informed and influenced by the Basic Human Needs (BHN) approach.

The Basic Human Needs approach came about as a result of wide disenchantment with the previous policies and efforts about development (Ghai, 1977; Lee, 1977; Streeton, 1977; Liepziger 1977; Crosswell 1981; Lisk, 1985). The previous policies on rural development concentrated on economic growth as the most effective way of eradicating poverty. The whole impetus was on 'modernising' the 'backward' or 'traditional' areas so that they can also resemble the 'developed' First World countries. It was believed that the gains of economic growth would automatically 'trickle down' to the poor and their benefits would spread widely. Too much faith was also put in the governments as the democratic vehicles, whose concern for the poor obliged them to extend the benefits of growth through social services and progressive taxation (Streeton, 1977; Lisk, 1985).

However, the intractability of the problem of rural poverty forced a universal realisation of the inadequacy of this view. (Streeton, 1977; Liepziger, 1977; Lee, 1977). Income and other benefits of economic growth did not 'trickle down', rather, growth was often accompanied by industrial dualism - (i.e. expansion of the 'modern' urban and industrial sector alongside stagnation in the rest of the economy). There were instead, stagnating levels of food production, nutritional decline, a breakdown of rural communities and massive and uncontrollable migration towards urban areas. This was the demise of the modernisation approach.

The modernisation approach was bound to have an impact on women who constitute the majority of the rural poor. It had a negative impact or had even worsened the overall position of women in those societies. (by ignoring their central role in the rural economies or underdeveloped countries). However, following the modernisation approach the World Bank and other international development agencies came with an idea of directing development
programmes and policies to specific 'disadvantaged' groups. This was called the 'target approach' (Lee 1977). They felt that indiscriminatory and general distribution had failed to make a dent to the problem of rural poverty. During this period, some development writers felt that women were a target group that needed to be integrated into this 'modernisation - cum-development' process as they had previously been excluded. In this way it was felt that they needed to be included in the 'innovation - diffusion', just like men (Boserup, 1970; Rogers, 1980).

The concept of 'integration of women into (modernisation) development' also came under attack. It was criticised because it implied that such big planning agencies and international aid organisations like the World Bank and United Nations (who supported it), which also implied that women had been invisible to them. This meant that an external agent was needed to act on them and women's participation in development was not regarded as a significant factor in development, because it could not be measured in economic terms. As such . . .:

"By defining women as housewives and breeders, it is possible to obfuscate the fact that they are subsidising, as unpaid family workers and as low paid production workers, the modernisation process." (Mies 1986 : 188)

Practically, the modernisation approach had serious concrete implications, particularly considering women's day-to-day lives. For instance, women's access to resources and the marginalisation of basic needs from the dominant production structures had been effectively reduced, which meant that their own role as the predominant fulfillers of those needs was diminished (Sen & Grown, 1987). Problems with the implementation of this model resulted in the formulation of the 'redistribution with growth' (RWG) approach.

This notion was still within the modernisation perspective in that its proponents argued that growth was necessary for sustained large-scale redistribution. In fact, this approach called for women to be actively involved in economic production.
However, they further suggested that redistribution with growth was a precondition for sustained growth, and to stimulate local demand. They redirected their emphasis to small scale and informal sector development and the maximal use of local resources for local demand. (Dewar et.al. , 1986)

This position implied that women are passive, and that intervention in terms of 'development for the people' became untenable. Like modernisation, it was seen to be 'top-down' with the main aim of 'modernising'. Moreover, this approach was criticised for its minimal and superficial look at social service provision. Besides, some people argued that it demanded too much radical restructuring for it to have its intended effects (Dewar et.al. , 1986). A disillusionment with the shortcomings of the redistribution with growth approach led to the promotion of BHN approach. It is suggested that there are two versions of the BHN approach, the conservative and the radical version.

The BHN approach was initiated by the International Labour Organisation (ILO) (Lisk 1985) as a way of addressing problems generated by the modernisation model (Friedman 1989). Its central emphasis was on meeting the basic needs of the poor masses within the shortest possible time. It realised that growth had failed to bring about any tangible improvements in the living standards of the poor instead it had led to their absolute impoverishment (Griffin & Khan, 1977).

The BHN strategy took some elements of the RWG approach in that it emphasised the utilisation of local resources, small scale labour - intensive technologies, but all for meeting the basic needs of the people. A minimum set of goods and services necessary for human survival were identified and targeted for the poorest. They were defined to include food, shelter; clothing; safe drinking water; sanitation and health services; education and transport. Since it accorded the key role to public service in combating poverty as well as redistribution of income and wealth, it also took on some elements of
modernisation.

The conventional version of the BHN approach opens up the possibility of autonomous, self sustained growth for the Third World. Some of the strategies identified to practicalise this approach were: the need to encourage more employment of the poor; community participation with greater emphasis on the 'bottom-up' management style; more social services to be paid for by taxation; the creation and support for institutions for promoting social development (Ghai 1977, Friedman 1987).

Nevertheless, it has been suggested that this approach is relatively ambiguous (Dewar et al. 1986). It has also been criticised for continuing to emphasise economic production, and other economic aspects, at the expense of people's participation and long term possibilities for sustaining autonomous development.

The radical version of BHN is more advanced because of its belief in the transformation of existing structures. Its aim is to eradicate dependency and foster autonomous control with sustainable development. Under this variation of BHN, underdevelopment is seen as a problem of exploitation rather than lack of resources (Derman & Poultney 1987).

Poverty is seen as merely the symptom rather than the cause of underdevelopment. The most important concern is to empower people to participate in the development process so that they are also involved in directing this process. Such participation is seen to occur in a way which will ultimately affect structural changes as well." (in Friedman 1989: 15)

This implies that the way development change can occur requires empowerment of communities. There is an acknowledgement that, unless all poor people who participate in 'development', are mobilised and empowered to determine and decide what they need and how they will achieve those needs, even the radical BHN would not help them. They need to have more direct access to resources and more say in project choices, planning and implementation. Women in this instance have to take the forefront role (Palmer 1977; Maguire, 1984; Friedman 1989). This
therefore calls for a serious consideration of gender relations, patriarchal structures and attitudes. Unless this is done, no amount of redistribution of even power and control may reach the rural poor, particularly women.

This is evidenced through the experiences of Third World women - that women can not be developed in one area while they are subjugated in another. It has been observed that if a woman earns some money through an income-generating project but does not control the income distribution in the household, this limited economic programme might end up benefiting the husband, who might not necessarily be enlightened about or sufficiently sensitive to the desperate need for basic services. That is why a more dynamic and gender sensitive approach is relevant.

Although the empowerment approach is largely similar to radical BHN, feminists writers have used it to focus its attention on the need to recognise gender relations between men and women. Apart from participating together with men to empower themselves as disadvantaged communities, they both should be encouraged to transform power relations existing between them, their household and their communities. Such power relations are often derived from production relations, and sexual division of labour, according to who does what labour and who controls which resources. Within this framework, therefore, development has a broader meaning than economic growth because it includes the aspect of human growth.

The empowerment approach questions the assumptions concerning the interrelationship between power and gender relations. While it recognises the importance of women to have power, it seeks to identify power not in terms of domination over others. Meaning, that it does not assume that a gain for women will be a loss for men. However, it concentrates more on the need for women to increase their own self-reliance and internal strength. This is identified as:

"the right to determine choices in life and to influence the direction of change, through the ability to gain control over crucial material and nonmaterial resources" (Moser, 1989: 1815).
More importantly, the empowerment approach places less emphasis, it is argued, on increasing women's status relative to men, but delves on empowerment of women through the redistribution of power, within, as well as between, societies. It basically questions the fact that development necessarily helps all men and that women want to be integrated into the "western design development, in which they have no choice in defining the kind of society they want" (Moser, 1989: 1815 from UNAPCWD, 1979; Friedman, 1991).

The approach has also been actively promoted by women and men who are directly involved in development work. Most of the literature on this approach is found in development projects' documents and pamphlets. For instance, Abrams of the Rural Advice Centre, a nongovernmental organisation that works with rural communities defines it as:

"the establishment of collective power for the fulfillment of the individual. It incorporates financial, community and political leverage to gain control of the people's resources and destiny" (Abrams, 1990:2-3).

According to him, rural areas are characterised by seven aspects which, when combined, constitute rural 'entrapment'. These are: poverty, lack of financial control; environmental restraints (like lack of water, sanitation etc.); marginalisation; lack of access to expertise and information; repressive forms of authority and control. He argues rightly, that if one is to talk about rural development then one should aim at disentangling the rural people from this 'rural entrapment'. That would be redressing the above issues. In this way one would be engaging in 'rural empowerment' (Abrams, 1990).

The result of empowerment of individuals, people, communities and mass organisations is seen as the gaining of control of social, political and economic factors which influence people's daily lives. Importantly, the regaining of knowledge and self-confidence, both individually and collectively becomes the key
to contentisation and mobilisation. The result of which becomes reflected in informed practices through a learning process and development experience.

The process of empowerment should involve the analysis of the process of entrapment. It should negate the process whereby the poor wait as victims for someone else to redress their grievances. Thereafter, empowerment should result in gaining the will to act, and if that happens the poor can be empowered in the midst of their poverty.

Needless to say, gender sensitivity in the implementation of projects whose objectives is empowerment has been practised. However, most case studies of the gender aware projects operate at a very small scale, localized level. Their concern has been to ensure that the whole context of women's lives are addressed in the development intervention. It is often argued that "it is through confronting the concrete realities in new and innovative ways that development becomes more than just an income generating project or the delivery of a water pump" (Friedman 1987:20).

In the practical implementation of Rural Water Supply, this implies that it is through the blending of the social and technical inputs that the provision of water, achieves a development objective (Friedman et al, 1990). How this can be done is going to be discussed in part 11. The mechanism for the blending to happen will be a framework which will be formulated. Before I discuss it, the framework also needs to be put in its theoretical context from a gender-planning perspective.

2.2 GENDER-PLANNING PERSPECTIVE

This section addresses the reasons why the empowerment approach is useful for the purpose of Rural Water Supply from a gender-planning perspective. Since the 1970's there has been general consensus or acknowledgement that women play an important role in development. However, what has been lacking is the actual
translation of this recognition into planning practice. Possibly because there is lack of clarity over whether it is really possible to plan for the needs of women in their own right, rather than planning for communities or family or households which include men. Gender -Planning is about the clarification of that concept.

Gender -planning is about the articulation of planning needs of men and women in a way that can address three practical problems, those are:

1. Redirecting the perceptions of development authorities from being gender-blind oriented to being gender-aware.
2. Developing an analysis of gender divisions and their complexities, into methodological tools which can enable the planning practitioners to translate gender awareness into practice.
3. Creatively and sensitively 'grafting' gender onto existing planning disciplines.

Recent gender studies [Molyneux, 1985; Sen & Brown, 1987; Moser, 1989] have tended to agree that no matter how feminists attempt to theorize the position of women in development, if the above three are not addressed...;

"...women will always be marginalised in planning theory and practice until theoretical feminist concerns are adequately incorporated into a gender planning framework, which is recognized in its own right as a specific planning approach."[Moser, 1989:1800]

One understands that rural women are already marginalised and the shortage or lack of access to safe water and sanitation is linked to gender relations. In order to understand this it is suggested that one needs to realize that Third World women are experiencing triple oppression. Also, in all endeavours that seek to incorporate women into development, the articulation of their needs for planning purposes is done through the meeting of 'strategic gender needs' and 'practical gender needs'. This can be explained in terms of the usefulness of a gender-planning perspective (Molyneux 1985; Young, 1988; Moser 1989).
Gender Planning is based on the simple understanding that women and men play different roles in society. As a result their needs also are often different. The roles they play, as a member of a particular sex, are socially constructed. Within these roles women are systematically situated in a subordinate position. Their work includes not only reproductive work (in terms of child bearing and rearing responsibilities), but also productive work (often as incoming earners - in rural areas - agriculture) as well as community management work. Because of the chronic shortage of basic services in rural areas (water, health etc.), it is women who not only suffer most, but also who are forced to take responsibility for the allocation of limited resources to ensure the survival of their households (Palmer, 1977; Falkernmark, 1982; Sen & Grown, 1987; Moser, 1989).

"The vantage point of poor women thus enables us not only to evaluate the extent to which development strategies benefit or harm the poorest and most oppressed sections of the people, but also to judge their impact on a range of sectors and activities crucial to socio-economic development and human welfare" (Sen and Grown, 1987).

However, the gender-planning perspective does not overlook the importance of race, ethnicity and class, but only concentrates on gender because it is much too often subsumed within class in both policy and planning. (Moser 1989)

The gender-planning framework proposes that planning should be based on the prioritized concerns of those being planned for. This requires that when identifying and implementing planning needs, planners should disaggregate households and families within the communities on the basis of gender. This would help to recognize the necessity of relating planning to women's specific requirements. Gender Needs therefore, need to be identified.

Gender Needs can be divided into Strategic Gender Needs (SGN) and Practical Gender Needs (PGN). In practice, these two
these needs is therefore crucial in order for realistic parameters to be achieved in a planning process. (Molyneux 1985; Young, 1988)

According to Molyneux (1985) strategic gender interests (SGI) are derived from an analysis of women's subordination and from the establishment of alternative and gratifying patterns of survival from those that exist. This implies that if all women's SGI's can be met all women would be emancipated. For instance Molyneux sites such interests as:

"the abolition of sexual division of labour, the alleviation of domestic labour and childcare; removal of institutionalised forms of discrimination; the establishment of freedom of choice over childbearing; the adoption of adequate measures against male violence and control over women; the attainment of political equality" (Molyneux, 1985: 233).

This is met through both state intervention and bottom-up struggles of women.

Practical Gender Interests (PGI) are derived from the position in which women are situated within the gender division of labour. They address practical needs for survival like shelter, food or water. Understanding the distinction between these interest has implications for the meeting of needs of women. For instance, meeting PGN's only can constitute an end in itself or can be used as a means to achieve SGN's. This means that providing water to women comprises a welfarist provision in terms of meeting PGN's unless accompanied by longer term social organisation and development, which constitutes meeting SGN's. As Friedman puts it:

"When development is understood as a process of human development, then the latter path is to be favoured. The totality of a person's being is considered (physical; emotional and sexual needs) and they are not simply viewed as objects to consume services; to generate income or produce children" (Friedman, 1991: 12).

In terms of the empowerment approach to providing rural women with water supplies, it is important to understand these
distinction so that providing water can be seen in its totality. That is, meeting gender needs. It is important to establish what empowerment actually entail, the following part will provide a framework with which to measure empowerment.
PART 11 : THE EMPOWERMENT APPROACH IN RURAL WATER SUPPLY

CHAPTER 3.

INTRODUCTION

Empowerment can be used in a number of circumstances as a buzz word which practically carries no meaning. However, it has been suggested that it can carry a concrete meaning if it can be measured. (Longwe, 1990; Narayan-Parker, 1990; Melchior, 1989) Nonetheless this does not mean that it should be made a dogma, but be possible in a practical sense. The focus of this chapter is on developing a framework for measuring empowerment in a rural water supply programme. This framework was used as a mechanism for measuring empowerment in Mabheleni which is my case study area.

The framework for measuring empowerment constitutes five indicators, which when prevalent in a rural water supply programme, reflect the presence of empowerment. These five indicators will be discussed in this chapter and thereafter, their applicability will be tested in the Mabheleni Project. The five indices are: Effective participation, the role and development of women, effective utilisation of water sources, sustainable use of water supply and replicability of projects.

3.1. Indicators to measure empowerment

3.1.1. Effective Participation

Participation in development planning has been widely advocated, such that it has tended to become a cliche for many projects. However, various studies have acknowledged that little progress has been made in translating these ambitions into effective action (Korten 1980; Gow and Vansant, 1983; Lund, 1987).

At any rate, it still stands to reason that effective participation is a foundation to empowerment. Effective participation depends on three interrelated components. These are: commitment to action,
community organisation and two-way communication.

Commitment to action

Meeting many basic human needs requires collective action. The widely recognised and effective method has been putting the community in charge. However, there is a danger of romanticising 'the community', expecting rural people to demonstrate a cohesion, capacity, and the will that do not exist elsewhere, whether a rural or urban area. Another danger is to make the notion of community participation trivial by using it as a euphemism for low cost labour. Proper community participation and organisation, though, has tremendous potential, and there are several conditions under which community organisation can contribute towards empowerment of the community in order to run a successful rural water scheme. (Briscoe & de Ferranti, 1988) But firstly there should be commitment to action.

Community organisation

The important thing about community organisation is to recognise that development with empowerment is a human process. "If development is a human process then the way in which humans organise themselves will determine how they develop" (Abrams, 1990:8). One of the most important phases in a development project is how it starts. If the community takes the initiative then that project stands a chance of developing from a sound foundation. It is also important that as soon as the project starts the community is aware or made aware that they own the project. The development agent, be it a governmental or non-governmental organisation, simply does not own it. Whatever the problem, it is their problem. If some community assistance is needed as a requirement by the agency, and the community does not want to get involved, it is still their problem. And they bear the responsibility of making it work even if they need assistance. (Briscoe & de Ferranti, 1988; Abrams, 1990)

However, this does not mean that the community should be expected to work on its own, without the professional help it requires from
development personnel. But the development agent should have the capacity and the will to support the endeavors of local people.

Two-way communication

A two-way communication between the actors has been promoted by different development practitioners and theorists. It is argued that this communication must foster critical awareness and be based on the bottom-up planning by the grassroots people along with the development agents. Organisation simply cannot be done to a community, however there needs to be a careful discernment to ensure that the 'community' is represented by some form of democratic or collective basis. It should be noted that the actions of a development agent also call for accountability to their clients, the community in this case. There is actually a mutual arrangement between the two, from which both parties benefit.

The reality is that very few villagers will necessarily act out of true altruism (as much as in other societies), therefore it is suggested that there should be guarding against a few elite acting to advance their own cause, for self-interest could be a powerful organisational and developmental motivation. "A project aimed at meeting the greatest common self-interest is likely to succeed." (Abrams, 1990:9; Mahase et al, 1989)

According to Mahase et al (1989) the role of the development personnel should be an advisory one, for communities must always make the decisions about what affects their lives. Participation goes beyond the level of tokenism if the community makes and changes decisions. The roles of skilled personnel are powerful ones and can be manipulative, thus, decentralised decision making is important. Notwithstanding, these communities should be able to make informed decisions. For instance, they will not choose a ventilated pit latrine if they do not know that a choice exists. This requires the adviser to translate the basic technology in order to make an informed choice, for they cannot be expected to understand the dynamics of open channel flow, for an example. Apart from being advisers, the skilled personnel should also be able to understand
the intricacies involved in community organisation and thus should live in the areas during field trips and workshops.

It is often recognised that within the organisation conflict might arise, however, it can either be divisive or cohesive. Whilst divisive conflict must be avoided, cohesive conflict should be encouraged in order to enhance the project. The formation of a single development organisation should have a snowball effect if it has an impact on the community. However, this should not negate the autonomy of individual organisations. This requires that skills should be implanted into the community about financing, managing and monitoring the projects (Walters 1987; Mahase et al, 1989; Abrams, 1990)

In summary, effective participation requires that there should be i) transfer of ownership to the local people, ii) willingness to act and be accountable, by both the beneficiary and the benefactor, iii) collective action iv) a translation of professional and technical expertise to the local people v) a horizontal and vertical information network system vi) use of the greatest common self-interest vii) building on positive aspects of any conflict viii) structural autonomy (Korten, 1980; Hoek-Smit, 1985; Lund, 1987; Mahase et al, 1989; Abrams, 1990; Walker, 1990). The next indicator for testing empowerment is the development of women.

3.1.2. The role played by and the development of women

It is well known that women are the arbiters of health behaviour in the home, as well as the usual haulers of water - therefore, they have been targeted for messages concerning the use of safe water. It has also become clear that if they are to be prime recipients of information on water use and sanitation practice, they should be enlisted in the management and control end of things (Falkernmark, 1982; Blackie, 1990; Walker, 1990).
Not only that, in practice, planners and development practitioners have to realise that women generally constitute the majority of the rural population, and that without their development, there can be no empowerment. They do all the work, from domestic through to production to income generation and reproduction. They are the most exploited section of the population and also the poorest of the poor. Like men, they are entrapped by rural poverty, yet they lack access to education, improved technology and tools, work related skills and have excessive work burdens in addition, more than men. If empowerment is to mean the struggle of the poor to dismantle the shackles of poverty then women need to play a big role in that struggle. In addition, if empowerment is to be a route through which the provision of rural water can be effective, the condition and position of women needs to be transformed. However, it would be realistic to recognise this will be a human process.

Because it is important for women to participate and be empowered, it is necessary to define criteria by which empowerment can be measured. Longwe (1990) has formulated criteria to measure women's development in any area of social life. She formulated a hierarchy of the empowerment of women.

The hierarchy is:

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control

participation

conscientisation

access

welfare
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Starting from the bottom, welfare is the first stage in the ladder and it addresses practical needs of women. At this level the concern is about the material well being of women, relative to men, with
respect to the basic needs for survival (e.g. food supply, income, medical care). At this level of equality, it is not important if women themselves are the active creators and producers of their material needs. As long as these needs are provided for women as well, the first step of the ladder is achieved. Thus, one hurdle towards equality and empowerment is overcome.

The second step constitutes access to the factors of production on an equal basis with men. This stage requires that women also have access to such factors like land, labour, credit, training and market facilities etc. What this means is that for the equality of access to be obtained there should be equality of opportunity. Thus reform of the law, policies and other administrative practices that discriminate against women would entail equality of opportunity. In that way this step of the ladder towards empowerment of women will be achieved.

The third step is conscientisation. This refers to the need for an understanding of the difference between sex and gender roles and that they are socially or culturally formulated and thus can be changed. Conscientisation also means that there should be a commitment towards a fair and agreeable sexual division of labour which is against economic and political domination of one sex by the other. Belief in sexual equality forms the basis of gender awareness. Thus, if conscientisation is achieved, that ensures collective participation by both sexes towards a process of empowering women.

The fourth level towards empowerment constitutes participation in the decision making process and policy formulation and administration. It is not enough for women to be involved in implementation and management but they should be able to make and change decisions. Thus participation should entail participation of women at all levels of project from pre-planning through to planning, implementation and evaluation.

The highest level in the hierarchy of empowerment of women is control. This refers to "more than just mere participation of women in the decision making process, but utilisation of this participation
through conscientisation and mobilisation, to achieve equality of control over the distribution of benefits" (Longwe, 1990:8).

The achievement of this level of control necessitates a balanced control between men and women without a prescription in ratios. This will be indicated by a situation where there is no position of dominance or subordination. However, it is important to note that the process of control has its own obstacles. Firstly the powerful might resist transferring control. Secondly, achieving this level is complex in the face of the already existing alienation and lack of information (Arnstein, 1969; Kindervatter, 1979).

On the basis of the above outline, formulated by Longwe (1990) women's development in rural water supply will be tested in Mabheleni. The next indicator of empowerment in rural water supply is effective utilisation of water sources.

### 3.1.3 Effective utilisation of water

If people do utilise a water source, that does not guarantee that the utilisation is effective. Effective utilisation refers to the use that maximises benefits and minimises negative consequences (like using safe water sources even when less than optimally convenient; maintaining water quality from source to mouth; improved waste handling practices; increasing total volume of water used for household purposes; ensuring proper drainage near the source to prevent breeding of mosquitoes; using water or waste for micro-enterprises or horticulture). It constitutes optimal, hygienic and consistent use of a water source over an extended period of time. Without effective utilisation of a water source there can be no positive health impact and little economic, social and environmental impact. Therefore using this criteria to measure empowerment forces planners to:

"give a central place to people, their behaviour, their preferences, their willingness to pay, to operate and maintain, to organise and bring about changes in themselves and their communities" (Narayan-Parker, 1989:4).

Optimal use concerns the use of water facilities to maximise
economic benefits without short or long-term detrimental effects on the environment. This implies that if a water facility was designed for 100 people and only 10 use it, there is no optimal usage of that facility. Also if a source is used only for domestic purpose and mostly flows back into the ground without being harnessed for other uses, like agriculture etc., then the source is not used to its maximum potential.

At an individual level, if women save no time either because of distance, low water pressure, clearing up of disturbed water, or crowding, then new water sources are unlikely to result in economic benefits. On the other hand, optimal utilisation of water means that, long term detrimental impact on the environment should be guarded against. Hence four primary indicators have been derived to measure out optimal utilisation of a safe-water source

1. Total number of users and their characteristics;
2. Quantity of water used for all purposes (household and production);
3. Time taken to use facilities;

Next is the category of hygienic use, in gauging effective use of water supply.

Hygienic use refers to the maintenance or improvement of quality of drinking water after it has been withdrawn from the source. (Narayan-Parker [11], 1989:7)

Although quality of water at source is important, water can be contaminated in the journey from source to mouth. This is possible in the process of withdrawing, carrying, transferring and storing. However, contamination during its journey does not only depend on handling and storage practices, but is also influenced by the sanitary conditions at home and at the facility as well as by personal hygiene. For instance, uncovered water containers are exposed to things like, insects, animals and dirty hands, that can contaminate water. Therefore, the issue of whether the containers are covered or not is crucial.
Water can also be of poor quality at source (in terms of taste, smell, bacteriological pollution etc.), but can be treated chemically or through practices like boiling and filtration to improve quality. Improper disposal of faeces is also related to hygienic use of water and is a health hazard.

In summary, there are five main categories of sub-indicators to measure hygienic use, these were used in evaluating hygienic use in Mabheleni:

1. Water quality from source to mouth;
2. Sources of enroute contamination;
3. Practices to improve water quality;
4. Site and home hygiene;
5. Personal hygiene.

The last category in measuring effective use is to measure consistent use.

Consistent use means the use of facilities throughout daily and seasonal cycles, over the life of a facility, even when less than optimally convenient. (Narayan-Parker [11], 1989:7)

Walking past an unprotected and unsafe water source during the rainy season in order to fetch water from a protected but further away source, can have implications for use of the safe-water facility. The concept of consistent use also forces consideration of seasonal migration patterns of households, which is prevalent in some rural areas.

The two main indicators that need consideration to test consistent use are:

1. Pattern of daily use;
2. Pattern of seasonal use. (Melchior, 1989; Blackie, 1990;)

The ensuing indicator for measuring empowerment is sustainability of water schemes.

3.1.4. **Sustainability of water schemes**

Sustained functioning of a water scheme is an attractive advantage any project would seek to achieve. However, what this means and how
it is measured is not easy to conceive. Narayan - Parker [11], (1989) defines sustainability as:

"The ability to maintain efforts and derive benefits both at the community and agency level without detrimental effects on the environment, even after 'special assistance', managerial, financial and technical has been phased out." (1989:9)

Any project that deals with the human interaction is bound to be dynamic, it can not be static. Each community also has specific peculiarities which can not be easily predicted in project planning, even a water scheme. Hence the key to achieving sustainability is planning for change or evolving with changing circumstances - that is changes in finance, natural resources, policy, interests, demand and capabilities.

One way that is central to achieving sustainability is to build problem-solving capacities in communities and encouraging partnership agencies to resolve problems as they arise, and to build in the capacity to evolve with changing environments. This requires that there should be effective participation, not tokenism, but realistic decision-making processes.

However, building the capacity and confidence of people in communities and agencies in management, knowledge generation and technical skills is also crucial if sustainability is to be achieved. This process is facilitated by making the design of a 'learning environment' a central management task. A learning environment is characterised by facilitative leadership, shared vision, two-way communication systems, resource and information generation and conflict resolution. Water is a finite and mobile resource which must be managed wisely. (Melchior, 1989; Narayan-Parker, 1989)

Water supply and sanitation projects can not be sustainable if they are confined to one sector only. In real life they are not, and must be embedded in and inter-related to other systems. For instance, if a water project is linked to a micro-enterprise development, this can help to sustain cost recovery and team work between multiple agencies to integrate sanitation and health education.
The definition of sustainability as problem-solving capacity has important implications for measuring sustainability, which are more than measuring sustained functioning of facilities. Since sustainability is not a static concept, it should include dynamic measures which will indicate if sustainability can be maintained in a changing environment. This applies to fluid aspects like, increased confidence, competence, pride; future orientation of groups, ability to self introspect; capacity to generate knowledge and resources; systems for conflict resolution; ability to take initiatives (Narayan-Parker [11], 1989 :9). This aspect of measurement is related to the aspects that measure effective community organisation. Hence it will depend on the type of project it is.

The dynamic measures should compliment the static measures of whether sustainability has been achieved at a particular point in time (eg. whether pumps are functioning or what has the community contributed, labour or cash ?)

Hence there are five main indicators of sustainability:

1. Installation and functioning of systems
2. Confidence and competence among individuals in the community and in the agency.
3. Strong organisation within the community and within the agency.
4. Environmental conservation
5. Inter-organisational collaboration
(Narayan-Parker [11], 1989 :10)

3.1.5. Replicability of the project

Replicability is "the ability to duplicate the processes of benefits of a set of development activities in new locations after their effectiveness has been demonstrated in limited geographic areas" (Narayan- Parker [11], 1989 :26).

Replicability of projects is more likely to occur if there is an optimal use of local resources. This requires that there should be more use of local people; local skills should be utilised and explored; indigenous knowledge and existing procedures should be
built upon. Such projects are easier to replicate than if they are depended on external incentives and personnel. However, special inputs may be necessary whilst the project is in the early stages for developing effective strategies.

Small pilot efforts, though, should first be proven in larger demonstration projects. These inputs should vary with the stage of growth of a particular programme. Rondinelli (1983) has identified three broad stages through which a programme can go before its replicability can be rated. These are: pilot, demonstration and then replication. These stages can occur at a district, regional as well as national level.

The fundamental process in achieving replicability involves participatory processes, rooted in local culture and institutions with emphasis on human capacity and institutional development, as in sustainability. The success of replication varies with the scale at which the project is undertaken. It is therefore a different situation if the programme is to be duplicated on a large scale. It normally depends primarily on increasing efficiency of effort and on administrative capacity to disseminate and deliver programmes.

The following are the indicators of replicability:

1. Proportion and role of specialised personnel.
2. Establishment of the institutional framework.
3. Budget size and 'sheltering'.
4. Documented planning and implementation procedures

(Narayan-Parker, [1,11,111], 1989 ; Melchior, 1989)

3.1.6. Non-formal education

It is a well documented fact that for communities to be able to take control of their lives they need some form of education. However, evidence suggests that 'formal' education in the class situation is inadequate for the practical needs of rural people. That is why this study proposes non-formal education as an appropriate process towards empowerment. Non-formal education that empowers is that form of education which does not only promote the acquisition of
skills, but also emphasises the utilisation of these capabilities for collaborative problem solving. Thus, it should be oriented towards influencing the socio-economic structures and relationships through group action-taking in relation to health, literacy and other programmes. Nonformal education as an empowering process places an emphasis on how education processes and relationships affect the learners (Kindervatter, 1979; Friedman et al., 1990).

In the context of rural water supply one may ask what education has to do with planners and implementers of a water scheme? In what way can they contribute?

It is often argued that if a water programme is to have health benefits, then education is necessary, since the link between health, sanitation and water is not obvious. In Thailand for instance, many villagers continued to collect water from a pond where a buffalo lived, even after boreholes were drilled. They complained that the water coming from boreholes was tasteless. It was only after an intensive educational programme that they were convinced that deaths of their children and the recurrent diarrhea was the result of contamination of their traditional water source (Falkernmark, 1982; Friedman & Mahlawe, 1990).

Also, rural areas, unlike urban areas, have got no identifiable agencies like the municipality, where they can solicit a service because people pay directly for maintenance and operation of those services. Instead, the whole community is expected to take direct responsibility for such. Thus effective participation becomes necessary for maintaining the system. Because of this, some amount of non-formal education addressed to the whole community is essential if such a community is to participate fully in its projects (Makhete, 1990). Programmes arranged according to this framework have been designed with the specific intention of enabling people to critically analyse their own life situations and to develop skills required for acting to improve their situations (Friedman et al., 1990).

It is not possible to have a blue-print document for non-formal
education because it is a process involving change and building of problem-solving capacities. Thus each project will have its own framework for training. Training for a rural water supply programme should involve mass training, house to house visits, the use of mass media, training of trainers, and training of planners and technicians.

Mass training

It is generally useful to use mass gatherings to impart a large variety of information. With proper planning, these gatherings may be used as a forum for a mass training. Careful consideration should be placed on the quality and quantity of training; timing of training sessions, and the use of existing leadership.

The quality and quantity of training

The most important aspect in training sessions for rural water and sanitation schemes is to keep the community interest throughout the session. The methods have to be participatory, and at the level that can be easily grasped and understood. The presentation should generate interest in the community to participate in future meetings. There should be a proper balance between the quantity of training imparted per session. When training sessions interfere with the work that people already have, the results would be disastrous.

Timing of training sessions

The timing of mass training sessions is therefore important to determine the success thereof. Training needs to be given to people who are in the right frame of mind to accept it, otherwise such training becomes terribly wasted. Extensive efforts at community motivation and health education must precede any such training.

Use of existing leaders

It is important that people who already have certain skills be identified. Such people can then disseminate training to others who might be slower in learning. However, it must be noted that training
specific individuals gives them immense power. This position can be used to the detriment of the project.

**House to house visit**

House to house visits can be an effective tool for training. This strategy is advantageous because of personal contact and the time available to address issues. It however generally consumes a lot of energy and time for the trainer and trainee. This strategy can help to determine whether the community has received the training required, the physical and psychological skills required to ensure a successful and sustainable project.

**Mass media**

Various channels are available nowadays for imparting training to rural communities. The radio seems to be a common feature in the rural areas. Some rural people do read papers as well. The mass media should however be used only as a backup to personal contact. It cannot be singly relied upon for training because there is no way of measuring the effectiveness of such training.

**Training of trainers**

Local trainers are the suitable candidates. If small groups are trained and given the task of training others; it ensures manageable and effective training. However this must be a co-ordinated activity and the trainers should be really capable of dealing with the task required of them. The effectiveness of this approach can be greatly enhanced if training occurs locally, to the local people who are not perceived by the community as outsiders or unacceptable and who often do not identify with the problems of that locality.

**Training of planners and implementers**

The training of planners should be relevant to the needs of rural population too. Despite the shift towards appropriate technology in the last few years professional and technological still lack training
in this field. A water supply engineer or technician is inherently not equipped to deal with the problems that arise in his field in rural situations.

Nevertheless, the most crucial factor for effective training in a rural water project is the integration of social and technical skills, because sustainability of projects depends upon it. This means that communities should be able to take control of all the aspects of the project.

3.2. Limitations to empowerment

3.2.1. Empowerment versus disempowerment

It is worth noting that empowerment has to do with power, and there can be no absolute empowerment without political power. This is the major limitation to empowerment because, rural black people have got no formal power at all. To them homelands (KwaZulu included) constitute a daunting edifice of officialdom. Formal power rests with the ‘tribal authorities’. These local authorities play their role differently and the perception of the rural folk towards a particular one depends upon his accessibility and identification with the needs of the people.

In the face of the bureaucracy, corruption and inefficiency of these structures, they are usually seen as part of the problem rather than an agent of empowerment. Whereas they are supposed to play a significant role in development administration (Hope, 1983; Abrams, 1990).

The tribal authority system forms the base-line sociopolitical administrative structure in rural areas. It is also widely recognised, that in underdeveloped countries the relationship between the structures which play a determining role in the allocation and distribution of resources, and the people, has direct consequences for development (Korten and Uphoff, 1981; Hope, 1983; Zulu, 1984; McIntosh, 1990).
But if one can characterise the tribal authority system of Kwa Zulu, based on various literature, one would clearly agree it is a restriction towards empowerment. The structures do not lend themselves to any form of representative or consensus democracy. Particularly after the interference by colonial powers with the traditional representative system as it operated before 1878 in Natal. It has become more of an extension of the 'apartheid' state apparatus than an organ which represent the people. Thus functionally, it has tended to concentrate more on the bureaucratic demands rather than on the co-ordination and articulation of the popular wishes. Such a stand creates various barriers, which now result in people blaming the local structure for what is actually the responsibility of the political superstructure (Daphne, 1983; Zulu, 1984).

These structures are characterised by inefficiency, which is fortified by the lack of job description for those responsible. They often find themselves playing very conflicting or else contradictory roles, (as administrative and representative personnel). The result is that the majority of the incumbents do not fit into jobs they are meant to perform, particularly concerning development. The rare democratic chief, who genuinely has the interest of the people at heart is often in conflict with the authorities. Because they also do not have absolute power, particularly over a non-democratic and exploitative state, they either have to join forces with the superstructure, or relinquish their relative power. Some choose not to, they want to cling to the relative power they have, and for that they can be absolute hurdles to development with empowerment. Therefore, this implies that empowerment to some, can be disempowerment to other members of the community.

The 'tribal authorities' also drain the resources which could have been used for local development in many ways. In addition, whilst most bureaucratic structures require some form of training so as to streamline their performance, this is not the case with the tribal authorities. Instead, apart from the common problems of bureaucracies like red tape and unnecessary delays, tribal authorities tend to be dysfunctional.
According to Zulu (1984), because these tribal structures have to be maintained as well, the social costs of that are usually felt by the poor people. Economically too, they are a drain and tend to rely on bribery and corruption to maintain control. However, in the current economic recession "the people can no longer afford to sustain old reciprocities and gift exchanges amidst poverty and deprivation" (Zulu, 1984:9). These practices are contrary to the principle of empowerment which encourages community participation in day to day activities of the people. For the principle of accountability does not exist in their vocabulary and in their practice. This position adds to bottlenecks which can paralyse development for considerable periods of time. Nevertheless, these occurrences do not indiscriminately to all tribal authorities. It is only a note of caution that needs to be taken seriously.

"Any rural development work which takes place without taking cognisance of the restrictions imposed by the tribal authorities system, and without the intention to facilitate the creation of alternative structures, is likely to have limited long-term impact" (Daphne, 1985:14).

3.2.2. The difficulties of participatory approaches to planning

Participation is by no means a new approach in development. It has existed for the past 30 years, although under different names. What has changed is the emphasis and the faith being put in it by different development agencies. The empowerment approach also advocates effective participation as one of the major objectives for achieving empowerment. However, the one problem with community participation efforts, has been that they often have only a narrow conception of what makes a 'community' and what comprises 'participation'.

There is a tendency to take 'communities' as a homogeneous mass. Thus, if one talks to the headman, one assumes one knows what the community wants. Yet, within communities there may be different groups and sub-groups whose priorities and needs might differ. The same applies to 'participation'. There has been a tendency to see it as a contribution of labour, ideas, and materials not as a
partnership for decisions - like, what kind of facility will be suitable, where and when - whether or not there is a need to participate in the project in the first place etc.

Many specific problems and obstacles concerning community and women's participation, have been identified by planners and practitioners involved in development. Questions are asked as to: what women's participation actually is?; what difference does it really make? the costly nature of participatory approaches, in terms of time, money and energy required for the training involved?; the sensitivity of the issue for outside development agents (interference)?; the apathy of women, the conflicts between the interests of the technical and social staff?; participatory approaches being only feasible in small scale projects?; women's involvement merely stated at policy level, not in practice. These questions are realistic questions which can prevent empowerment because they do influence the decisions about whether effective community participation should be part of the project or not. Notwithstanding, evidence suggests that most development practitioners have had to change from this conception because: "practitioners realised with time that their projects did not work without community or women's participation" (Melchior, 1989:6).
3.3. Conclusion

The above framework provides a combination of both technical and social activities that comprise the empowerment approach. A sound balance of these as the framework prescribes need to be sought, if one uses this approach.

The mechanism with which empowerment can be achieved is non-formal education. Even though, training is required in a rural water supply, the specifics of NFE will depend on material situation.

The proposed framework for evaluating empowerment can not be smoothly applied, because empowerment has to do with control and power. Power and authority in rural areas have subjected rural communities to repressive conditions. Also, marginalisation of rural people all constitute barriers to empowerment. The following section will test whether the proposed evaluative framework will work for the Mabheleni Project. All five indicators will be used to gauge the presence or absence of empowerment in that community.
PART III : CASE STUDY : MABHELENI

CHAPTER 4. BACKGROUND TO THE MABHELENI PROJECT

INTRODUCTION

This section will be an attempt to look at the background of the project. This will help to put the water project within its context. The section will be organised as follows:

4.1. The setting
4.2. Formation and objectives of the project
4.3. The structure, staffing and funding of the project
4.4. Project activities
4.5. The limitations of the study

4.1. The setting

Mabheleni is a hilly rural area situated in KwaZulu, a 'self-governing' homeland, approximately 150 km from Durban on the South Coast of Natal. The nearest town Hibberdene, is approximately 40 km from Mabheleni. The extent of the area is about 16 km in radius.

Mabheleni has lived under the influence of the missionaries since most of the land belonged to the Roman Catholic Church. There are about 20000 people living in the area. It is largely constituted of Zulu-speaking people. The area is also divided into seven wards all of those under one chief. Each ward has a tribal committee which ultimately reports to the chief. Like most of the homelands, migrancy characterises the demographic composition of the area (women and children constitute the majority).

Water in the area is in abundance, however it is unprotected and often polluted by livestock because of lack of fenced grazing areas. Most people obtain drinking water from the springs and use the river for drinking as well as for other household needs. The climate of Mabheleni is characterised by very hot and rainy summer and cold winter seasons.
The major land use is residential. There are however, also commercial services in the form of general dealers which provide a postal service and restricted use to telephones; there are schools, churches and a clinic. They are all controlled by the Kwa Zulu Government. The nearest towns to which most people commute are Hibberdene, Scottburgh and Port Shepstone. The hospital, magistrate, and police station used are found in Scottburgh. There are 14 schools in the area, 10 Primary; 3 Junior Secondary; and no Senior Secondary and they all fall under the KwaZulu Government. The community has taken the initiative of building and rebuilding schools where none existed or were flooded away, with the peripheral assistance of the government. A Senior Secondary school has just been finished whilst a pre-school is in the pipe-line.

Roads in the area are generally poor and extremely difficult to negotiate during rainy seasons. The topography of the area is characterised by hilly patches and settlements are arranged mostly on the hilltops. This has resulted in winding and narrow roads. Transport networks to the nearest villages and towns is by public transport and private taxi. These are hardly available during the day, because they leave the area in the morning and only come back in the afternoon. (Gambushe, 1990)

4.2. Formation and objectives of the project

The Mabheleni project started as a result of the floods which attacked most of the Natal/Kwazulu areas in 1987. A member of Community Organisation Research Development (CORD— a nongovernmental development organisation that works with rural communities), who was at that stage working on a flood-relief programme went to Mabheleni as a result of a request from the Catholic Church in the area. The church subsequently requested CORD to assist them in a longer term development programme for the area. CORD then agreed to discuss the issues that needed to be taken and those they can be involved in. They, together with some community members who were elected from the seven wards that make up the Mabheleni area, then looked at the general and potential problems of the area.
Approximately six to nine months were spent in discussing a myriad of rural problems and priorities of the area, and finally they decided on four priorities for development. These were housing, water, education, and agriculture. The people who were involved in the pre-planning and discussion apart from CORD had formed themselves into an Interim Committee. This committee initially had fourteen members (all men) whose role was to work out what the needs were and what was feasible. These fourteen people were selected from the wards, with two representative from each ward.

CORD identified the goal as using the local resources to empower local people so that they can develop the area. They (CORD) were prepared to assist with financial, technical, and professional resources where needed. Once four priorities were identified, the objective was to use the consumer-capacity of the community in order to assist it, to develop itself. A shop (called co-op) was to be built in which goods related to the services that were to be provided, (ie. water, housing, agriculture and education) were to be sold. The profits accrued from those sales were going to be revolved within the community, through employing local staff, buying some more material and the general running of the co-op. With the assistance of CORD staff, the project started by selling some agricultural and building products from some community members households. The choice of those households was based on spatial accessibility and the labour to do the selling was obtained from the family members of those households.

It was believed that in order for services that are required by the community to be provided, some funds needed to be available on a continual basis. The way of doing this was for the community to invest in a shop (called co-op) which will sell equipment made on demand, for providing the services needed. Thus, if people want to build houses the co-op will sell building material, for water the co-op will sell pipes and pumps etc. It orders according to needs. The co-op also delivers the material to the community and it sells at the same prices as in town, without any General Sales Tax. At the moment only 50% of the total costs for services are covered by
profits made in the co-op. The other 50% comes from the money raised by CORD for this project. The co-op intends to establish small depots in the different wards which are going to operate the same way as the co-op in the future.

4.3. Structure, Staffing and Funding of the project

There is a male co-ordinator who is a town and regional planner by profession and three trainers, all of whom are employed by CORD. One is a female qualified nursing sister, and is now responsible for problems relating to welfare and pensions; the other two male employees are responsible for education and the youth.

Other employees in the project are employed by the co-op committee, there is a male bookeeper, three salespeople (one male two females), a male driver, a male security guard, and two male members of the committee who are paid as overall co-ordinators of the co-op. There is a team of people that deals with the technical installation of water. They are called the water team, and are paid members of staff. The co-ordinator of the water team is a civil-engineering diplomate. He has worked in development work for three years and has been seconded from Rural Advice Centre (another nongovernmental organisation that specialises on rural advice, technical and material assistance). He is also responsible for training the other members of the team who were recruited from Mabheleni. They were taken just as employees of the co-op before they constituted the water team, they therefore had no special skills on water installation.

There is an Interim Committee which organises, plans and implements decisions taken about the running of the co-op. This committee initially consisted of fourteen people. Two representatives from this fourteen had no right to call meetings but were just "standing figures - so that discussions in meetings could be productive" (they are said to be used to meetings). However, since then, three of the original members were voted out of the committee because of involvement in 'corruption'. Two women were incorporated into the structure later on. These women were delegated by the school committees of their wards to come to every co-op meetings, and were
subsequently voted into the structure.

The employees of the co-op are all local people and are selected through interviews, on merit, sanctioned by the committee, with some assistance from the project co-ordinator.

The CORD staff visits the area regularly and sometimes sleep over for two to three days, depending on an individual’s responsibilities. Funds are raised by CORD for the project, they were received from a variety of sources, particularly the Irish funders. R80 000 was the initial amount that was allocated to the project to run for two years. (extract from an interview). Since there is a clear realisation that funder’s money does not last forever, there is reluctance to be dependent on those funds.

The major debate has been how to invest the money so as to get a long term return. The form of investment that the community has undertaken is an interesting one. Funds are generated by the co-op through ‘indirectly taxing’ the community. This means that the community uses its money to buy in the co-op and then, with that ‘indirect taxation’ (i.e. profits), services are provided in the community. 50% of the profits obtained from the co-op go to salaries of paid staff, equipment for running the co-op (e.g. trucks), material for social services like housing, water education etc.

There is no formal training that has taken place prior to the establishment of the co-op, everyone has had to learn—while on the job. Although a meeting was arranged to discuss formal training, which seems necessary, it did not materialise, because of poor attendance.

4.4. Project Activities

Housing: On housing, the people of Mabheleni had previously been taught to a certain extent how to build sustainable houses, both with mud and cement blocks after the floods. Help came from Built Environment Support Group (BESG) another development non-governmental organisation, and to a certain extent from CORD. The
co-op also helps in selling the building material and prefunding for those who want to do block-making. The loan has to be paid back according to agreed terms when that person has become established.

**Education**: Education is one of the issues which have been taken very enthusiastically in Mabheleni. The co-op has revolving funds for building schools in the area. There has been problems though, in terms of the procedure for applying for schools to the KwaZulu government. Schools also take the first priority in terms of being provided with safe-water tanks. However, the neighborhoods surrounding the school, through their school committee, have to lodge an application for water. There are two schools that have been built from project funds.

**Water**: The water team that is employed deals with all the technical aspects of installing the water tanks and taps. The application for installation, though, has to go via the project committee. The water team claims that it tries to attend to all applications, by installing in all areas where there has been an application, although the community institutions take a priority. The contribution of the community is largely through digging trenches, providing food and accommodation for the water team. The funds for the first installation come from CORD.

There are ten installations that have taken place, and only one has given problems. The problem has been the incompatibility of the topography of the area with the kind of facility installed. At the moment CORD is working on trying to change the technology used to a more suitable one. Once the water team is finished in one neighborhood they leave and maintenance is the community’s responsibility.

**Agriculture**: There has been some organisation around agriculture because of the problem of lack of viability of agriculture as a result of the topography. The St Patrick’s Farmers Association performed some limited outreach activity around agriculture and homecraft. But it did not survive. The co-op also helps in selling some agricultural products like, seeds, fertiliser etc. CORD insists
that when people buy fertiliser they are told how to use it (by an informed salesperson) because of its potential environmental risk.

Small Collectives: One other objective of the co-op has been to establish small collectives. They do pre-funding out of the raised funds and assist in training to a limited extent. At the moment formal training happens outside the community, at different institutions. One or two members of a specific interest group (like a sewing club) go out to get training, with the assistance of the co-op. This representative is chosen by the interest group itself. On completion, that member is expected to implant his or her skills back into the community. One way of encouraging this is that the co-op also employs the incumbent. This serves as an incentive to prevent people from using the skills elsewhere whilst it ensures that it "empowers some members of the community through knowledge and information." At the moment there is a limited number of people who have obtained this kind of training, however as soon as the depots are established, it is said, there will be demand.

The activities which have been started include sewing, block making, shoemaking knitting and poultry farming. The people who get helped with funds to start their own projects are assisted both as individuals and as groups. However, they are also expected to pay the money back on agreed terms. These have recently been incorporated as part of project activities.

4.5, The limitations of the study

One of the crucial factors about research is that it imposes time and energy constraints on those who are being interviewed. These factors are exacerbated in a rural area because they are already in short supply. The other problem is that a researcher often depends on the influential people (mostly chiefs or headman) to get introduced in the area. This affects the responses one gets, because most people fear authority and they will tend to give socially acceptable answers. This was the problem I experienced during the time when I was accompanied by the headman into the area.
Even though people already appeared to be exhausted during the interviews, there was a tremendous response and willingness to talk. This was particularly encouraging because we were two in the area doing different research at the same time. The problem was that this community was not used to being interviewed. Very few studies have been done on the area, such that to the interviewees some questions were inconceivably 'stupid'. This tended to result in leading questions in an attempt to explain the seriousness of the question for my purposes.

To some members of the community, particularly the young ones, it was exciting and the focused interviews have a tendency of making one to get carried away with the information. Thus, real concentration on relevant subjects demands discipline on the part of the researcher. In addition, this methodology is open to bias, because when in a focused group discussion only the talkative and the 'not so shy' tend to answer most. Moreover, where there are also children who are interviewees, they tend to feel threatened and only answer when they feel irritated by the answers the older people are giving or when the questions are directed to them. However, there was an attempt to deal with this problem, by asking all those who have been keeping quiet directly.

A survey schedule that deals with the socio-economic profile was not done in the area, for during the discussions held with the co-op employees on 'things to consider' it was felt that residents would resist revealing personal information. Also it was not very critical, because of limitations in time and labour. However, there was a realisation later that it would have been useful to have that demographic data in order to establish whether or not the decisions are taken by the elite.

The questions on gender related issues were difficult to measure efficiently because of gender related stereotypes. Because I am a young woman, this said a lot of things to the male interviewees. Some would start by making whistles and jokes about me coming to talk to them, until I tell them I am married and am on a serious assignment. Some would comment about their appreciation for an
'educated lady' to come and do research in their area, it meant that their sons would get educated wives.

Also the issue of water was also seen as a 'women's issue', such that in a focussed group discussion of both sexes, men would only respond to issues on organisation. There was also a tendency for women to 'protect' men or men to 'patronize' women. However these were not insurmountable problems, and they were anyway expected. What seemed to balance problems out was the degree of curiosity and enthusiasm of people to answer questions.

The fact that this was a Kwazulu homeland, and I am from a Transkei homeland by origin has implications in a volatile South African situation. Being a 'foreigner' means that people are going to question your concern. Also some will be looking at a researcher, trying to establish whether you are not carrying along certain 'political agendas'. Objectivity in that situation is challenged, thus one has to learn to be 'unaffected' by some sensitive issues that might crop up as a result of that.
INTRODUCTION

Given the problems of social scientific methods of research in rural areas in general, South Africa's KwaZulu homeland was not an exception. The research method adopted in this study has been informed by the existence of these problems.

This section is going to discuss the choice of the Mabheleni scheme for a case study; the design of the interviews undertaken and the sources of information gathered.

5.1. Selection of a water scheme

It was decided to investigate the work of the Mabheleni scheme, a project which gets professional and technical assistance from CORD. The objective of the study in the area was to explore the process by which communities manage and take control of the project. The aim was to establish whether there was an impact of the interrelationship between social and technical issues in a water scheme, and whether a combination of these can empower the community to manage their lives.

The project is unfortunately still new, six months in actual operation, however, the idea of empowering the communities to manage their own lives has been a central tenet of the scheme. This motivated me to choose this scheme. Besides, through previous interaction with CORD, I realised that the area and the scheme would be easily accessible. CORD allowed me to have discussions and interviews on the project provided the community representatives agreed. They also offered free transportation to the area for me to ask permission to do a field study and an appraisal of the project, which I was subsequently granted. Once I got the permission, they also offered to take me to the area, as well as allowed me to interview any of their staff members.

The factors that were crucial for the selection of the area in the
first instance were that:

(i) The area be situated in a rural setting
(ii) The concept behind the project, was the transfer of technical and management skills, information and power to the local people — by the informed and well trained development personnel, so that the community can take control of their lives.
(iii) The agent should allow access to the opinion of the beneficiaries unconditionally and without interference.
(iv) The researcher should be allowed access to the opinion of development agency staff

Since the project is new I wanted to cover both the areas in which there has been water schemes in operation and those without (within the catchment). I also decided to concentrate on the work of a non-governmental organisation because of their well described characteristic that:

"they tend to be closer to the poorer sections of the community than are government officials; the staff is usually highly motivated" (Hyden, 1983: 119).

Also, my motivation was to explore replicability, in order to establish whether anything could be learned from the project for further development.

5.2. Design of focussed interviews

The major data-gathering method has been taped focussed interviews. The advantage of this tool as a method in a rural setting is that every thought of respondents gets recorded. As Moser & Kalton (1971:298) argue:

"such interviewing gets away from the inflexibility of formal methods yet gives the interview a set form and ensures that all the relevant topics are discussed. The respondents are all asked for certain information, yet they have plenty of opportunity to develop their views at length. Interviewers, on the other side, are free to choose when and how to put their questions and how much to explore and probe, all the time keeping within the frameworks imposed by the topics to be covered" (quoted from Lund, 1987 :29).
Some guiding questions were drawn up to cover the objectives of the study. What determined those topics was the already discussed criteria for measuring empowerment in rural water supply. Some of the topics overlapped, but the interviews allowed me to refocus the questions and explore a question from a different angle depending on the setting. In addition to these guiding questions, interviewees were asked to make some recommendations and ask questions they expected me to have asked. Guiding questions though, were not the same, they differed according to who was being interviewed. They all attempted to address or include all the areas in question. Some questions were obtained from the international literature which also attempted to explore effective and sustainable utilisation of water facilities and replicability of projects (PEGESUS-Melchior, 1989).

5.3. Sources of information

Permission was acquired from the community leaders and the elected committee for the project, to make taped interviews. The interviews were done with the project co-ordinator; project committee; water team; and the end-users. Site visits were also done as these ensured interviews with the actual end-users.

Group discussions were held with the employees who work at the co-op in order to ascertain if there are no words which are taboo and the relevant times for going to site visits. Some information was acquired from the documentation by the regular fieldworkers of CORD. A copy of the water policy, which outlines the procedure of acquiring assistance in terms of installation was obtained from the project committee (see appendix 2).

I am also indebted to the studies by Narayan-Parker (1989) who made in-depth studies on the evaluation of water schemes in Indonesia, plus Lund’s (1987) studies on primary health programmes which were useful in a South African context.

DATA COLLECTION

INTRODUCTION

This part deals with the data collected from the different sources in terms of interviews. Topics to be covered are: interview with the project coordinator, interview with the project committee, interview with the water team, interview with the end-users, and visits of observation.

5.4. Interview with the Project Co-ordinator

Interviews with the co-ordinator lasted about three hours. However, a large part of the data gathered was the background to the project. This was necessary because the project’s goals and objectives from his perspective were necessary. Material on the area is scant. The interview was taped and transcribed. It was agreed that names of people who appeared on the transcripts were going to be discarded. Also it was agreed that transcripts will not be used as appendices.
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5.5. Interview with the Project Committee

These are the people who are said to represent the seven wards of Mabheleni. They are an interim structure, however I obtained the permission for making the study, on behalf of the community from them. Interviews were done with them as individuals in some circumstances and in a group in one circumstance. They were also taped and their transcripts were also used for the background. The time spent on an interview varied according to the degree to which the member had information to impart.

These interviews lasted a long time and there was a high degree of enthusiasm 'to get it all down'. The members of the committee were
told from the onset that they were going to be interviewed as members of the committee and that any information they would like to contribute as end-users as well was going to be specified. This was meant to differentiate between opinions given as a matter of principle and personal feelings.

5.6. Interview with the Water team

The water team consists of the technician who is an 'expert' on the technical installation and is responsible for training the other members of the team. There are four members in the team, however due to timing problems the technician was absent when I interviewed the other three members of the team.

The interview occurred during their lunch and it took one and a half hours. They were also taped. It was realised that the fact that the technician was not there as a trainer was an advantage because of a free communication about all subjects covered (not to say there were conflicts).

The contribution of the technician which occurred later on was very useful for the background. It also became useful in terms of testing the hypothesis, because here was a technical expert whose role also was to train people and be involved on the ground. He also had come in earlier than the other members and was well versed with the dynamics of the project from pre-planning to the present, including implementation. The interview lasted for two and a half hours. Recommendations were also solicited from them all.

5.7. Interviews with the end-users

The interviews occurred at different levels. The decision as to what kind of an arrangement depended on the schedule of the people who were going to accompany us to build rapport easily, and the suggested timing of interviews to ensure that we get people. The first day was spent in areas where it was difficult to reach by ordinary cars, and the headman was the suitable person to accompany me to these areas because of the dynamics of the area and
transport. These were also the areas where work was already done to a certain extent.

At other days the headman did not accompany me and those included areas where there were no water operations going on and those which already have. During some of the days I visited the sites so as to obtain information straight from the 'horse's mouth'. This was going to help me take photographs of the sites as well. The time spent on an interview varied in accordance with the number of people available, the willingness to talk, the level of organisation and understanding, the age group, gender composition, and the time available to cover all the topics.

5.8. Visits of observation

Since I had to do some interviews 'on spot' this was an opportunity to observe some activities relevant for my study. For instance, I saw the water containers which would have been described. The time people spend in fetching water was also estimated from the sites by asking where the people were coming from. The quality of water also was established by myself.
CHAPTER 6 : THE ANALYSIS AND INTERPRETATION OF INTERVIEWS

6. INTRODUCTION

This constitutes the analysis of the information gathered in the above chapter in accordance with the indices that were meant to measure empowerment. To recap on that, there were five factors that were meant to measure empowerment, these are: voluntary and effective participation, role differentiation, effective utilisation of water sources, sustainable use of the water scheme, and the replicability of projects.

At the end of each analysis there will be an interpretation which attempts to draw the implications of data in terms of my hypothesis. It is important to state my hypothesis at this stage. My hypothesis is that:

*The integration of technical and social inputs forms the basis for the empowerment of women (and men) in the provision of a rural water project.*

What constitutes the 'technical and social inputs' are the requirements that measure empowerment and those are:
- Effective and voluntary participation
- The role and the development of women
- Effective utilisation of water resources
- Sustainable use of the water scheme
- The replicability of projects for further development

**6.1. Effective and voluntary participation**

I will start by addressing effective participation. Effective participation was meant to establish the extent to which the communities, in question, took the responsibility to organise their lives. To this end, an enquiry of the organisational network and areas of activities which the community organised on was made in order to:
- assess the extent to which the human potential is effectively utilised in the area.
- identify the structures which facilitate that organisation
Thus, effective participation is presumed to be one of the
ingredients which make up effective organisation. Also, the extent to
which there is community participation also depends on where the
power to make and change decisions lie. Measuring effective
participation, therefore, entailed measuring the decision making
capacities of the community.

The components that measured effective participation in this study,
included:
1) Transfer of ownership of the project to the local people.
2) Horizontal and vertical process of communication and information
system
3) The extent to which decisions rested with the local population and
their democratically elected representatives.
4) Whether these decisions and choices were made out of informed
choice.
5) Attempts made in order that organisations have a snow-ball effect
without affecting the autonomy of the organisation.

In this study, guiding questions were used in the interviews.
The interviewing sessions allowed me to add on these questions,
whilst in some circumstances some questions became irrelevant.

Involvement in organisations

When asking the organisations that interviewees were involved in,
organisations that were most commonly mentioned were, church
(manyano), sewing club, the school committee, inkatha, and farmer’s
association; and then there was a series of 'no organisation', and
'don't know'. Also, in order to ascertain the degree of involvement in
the organisational machinery of their areas, there was a relatively
high degree of ignorance of the way in which organisations function,
from most of the interviewees. This situation indicates the problem
of apathy, lack of self-esteem and self confidence (as indicated by
the substantial number of 'don't know'). A few even went to an extent
of saying that they believed it is always right to be led because
they think they themselves are stupid.
The role of chiefs in community organisation

Given the obstacles to empowerment and effective participation, in terms of involving the chiefs and headmen, it was necessary to establish their role. On enquiry, about the role and participation of the chiefs in community organisation matters, there was a substantial number of people who believed they were doomed without chiefs. This is because most people felt that there can be no way their standard of living can be improved without chiefs.

In some instances, the reason given was that, chiefs have to sanction every activity that is to take place in the area. Because of that, they wield so much power that whenever a development project is 'acceptable' for their purposes, then there will be 'development'. This was indicated by the general contentment with the 'supremacy' of the chiefs. In some situation it was indicated that the fact that I was also accompanied by a chief seemed to be self-explanatory. (That is why I decided to excuse him after the first two days.) However, during the days in which I was not accompanied by a chief different responses prevailed.

Experience and skills in problem-solving activities

When the interviewees were asked to stipulate the areas where they were involved in discussions and problem-solving activities, most people cited involvement in school issues, water crisis (flood) and conduct and discipline. On probing, it became clear that the problems experienced in sewing clubs were also a great problem. Most people even men, were becoming concerned about the progress and the futility of the sewing clubs.

However, the reasons for concern were clearly different. Men felt that women had been spending a lot of time on these clubs without much success, such that 'they would not mind them disbanding' so that they can spend more time on the home front or in other 'productive activities' elsewhere. Yet for women, they felt that much time and energy of the productive work they could be doing, was being taken
up by household activities. Also some were becoming disillusioned by the attitude of their husbands who are allegedly not seeing any reason for continuing with these. This caused great concern because they felt they had no power to change that aspect of their lives except to work harder on their clubs, even though they did not know how. Notwithstanding, there was an element of hope that, a promised programme for training and the building of organisational capacity which was forthcoming would be a remedy.

Community participation in decision making

There was some evidence of decentralized decision making, but how far down this can go, is questionable. At the moment discussions occur at the level of wards, and through the elected representatives, decisions taken are made by the local people. But, there was a high indication of dissatisfaction with the way information gets disseminated to most members of the community. The water team, the project committee, the co-op employees and a very few number of enlightened elite are well informed about the decisions taken and the processes involved. They were convinced that the community is in control of the project because decisions are taken after discussions between and with the local representatives. However, the rank-and-file end-user was still in the dark about the processes of decision making.

Although there are about 20 extra people (about 30% of which are women) who attend the single end-of-the-month meeting who are not members of the committee and do not have voting powers, there is an indication that they are attending out of their own self-interest. (extract from the co-ordinator's interview). The co-ordinator argues that an attendance of 40 people from the initial 18 is an encouraging development, even though the majority of them do not contribute much.

The bulk of people who are not in some way, related to the members of the committee do not get report backs. They do not have a clue what happens to those meetings, and who else is there except the person(s) they know (like the chief). Most people just hope that the
person they know, whether she or he represents their ward or not, will tell them when the issues affect them specifically. For instance, those whose areas have not yet had water tanks installed, do not know the procedure. They allege that they are wondering how the 'lucky ones' have done it and are hoping that 'the white man' (i.e. the engineer) will come to their rescue. (extract from a group of women).

In some instances, where there is some form of organisation there is an over-reliance on representatives that they 'will always make good decisions because they know what is happening.'

On probing whether they themselves do want to know, so that they can make it easier for everyone including the representative, again the inferiority complex steps in. They would ask how they would start when they are ignorant and stupid.

Voluntary participation has become a very contentious issue in development projects recently. There has been arguments for and against payment of staff in rural communities. Those who argue for it attribute the advantages of this to the value of altruism per se, that it should be encouraged. It is often argued that if one wants to foster community participation there needs to be a 'community spirit'. It is also advocated for on the basis of promoting self reliance (Lund, 1987).

The arguments against voluntarism are based on the assessment of the reality of the situation, where most people in rural areas are already poor. Women are over worked and there is little or no access to formal jobs, even with informal income-generating activities there is little remuneration.

This has caused concern and friction between NGO's and development agencies which pay staff and those who do not. Not only that, the friction has filtered through to the members of the community and between project personnel. In this study responses to the question differed in terms of who was being interviewed.

The project coordinator felt that there must be some form of payment that goes to those who are involved in the day to day
organisation of the development project. However, he argues, although he realises the need for employment, there needs to be a limit because of limited resources. Also, it is secure for a development project to know that there is a consistent group of paid staff from the locality as much as it is welcome to have voluntary participation as an ingredient, particularly in the beginning. He appreciates the role of voluntary participation particularly in so far as the community voluntarily seeking help or advice when they do not know.

There were mixed feelings among members of the project committee because (I think) some of them are not paid. This has apparently been a major debate although informally (i.e. outside meetings). There is an underground feeling of dissatisfaction about the issue.

The water team believe that it was obvious that their kind of work (technical) required some form of formal payment. The project staff felt the same way since they think the co-op is based on the idea of money anyway.

For the end-users the feeling was that of helplessness. Although they felt they were prepared to work voluntarily it was unrealistic because of the activities they are already involved in (eg the 'normal' household and income-generating work). However, they showed concern that whilst they do like to see improvement in their well-being, services provided, access to opportunities for further advancement they do not have the financial resources to do these. Nor do they have the knowledge as to how to go about it. "This makes it even difficult to show the willingness when you know you cannot do it".

IMPLICATIONS FOR EFFECTIVE AND VOLUNTARY PARTICIPATION

The analysis indicates low levels of participation in accordance with the requirements for effective participation. This can be attributed to apathy, lack of self-confidence and self-esteem. Most people have tended to accept what is there without questioning. This was evidenced by their understanding of leadership, however those who were well informed about what is happening in the area and in the
project felt they were (relatively) in control over what affect their lives which indicates that there is a relationship with the level of informed participation, decision making on the one hand empowerment on the other.

However, most of the people who were well informed are men. These are the people who knew who their 'leaders' were, the procedures for electing them. They also indicated that they did see themselves as leaders in their own right, in some circumstances. They were involved in the establishment and others in the running of the co-op.

The question of political power also comes out as clearly related to the level of participation. Being accompanied by the chief must have affected the answer. However, it has to be understood that after decades of poverty, indoctrination and marginalisation people have learnt to answer questions in a way which pleases those in power.

In terms of problem-solving capacities, when the interviewees were asked about problem solving, they immediately thought of the conscious perceptions of their problems. On probing it was apparent to me that the strategy adopted for solving problems is influenced by gender relations. For instance, whereas for men there were conscious ways identified for dealing with their problems, for women it was a different case. The fact is that the attitude of their husbands inhibited them from formulating an appropriate strategy for dealing with the problem. Furthermore, I think that identifying this obstacle as their problem is a starting point towards challenging patriarchy for this is a process. How much it can be taken up to serious levels depends on the organisational capacity and their knowledge base.

In so far as decision making is concerned some decentralisation of decision making is a starting point. But the limitations to that are numerous. In this study it has been identified that the knowledge base of the community about the project limits them from participating and acting. What has been apparent is that the end-users, who happen to be women are not actively involved. Thus, lack of flow of information, accountability and general apathy has limited
effective participation. Although the project is still emerging, it was clear in this study that, one of the reasons why effective participation was not achieved was because the project emphasised on effective technology to the detriment of social organisation and development. This was indicated by the technician as well as the water team, plus the level of awareness about the technicities more than the whole organisational processes in the project. Water was not placed adequately within the project structure and activities. Thus it was seen as a separate issue linked to mere installation by the water team.

Effectively thus far, transfer of ownership has not filtered through to the local people, the information system is not adequate, and decision-making is concentrated on the committee and a few who attend meetings 'out of self-interest'. No formal training and broadening of knowledge about decision-making, conducting meetings and accountability - consequently the snowball-effect would be difficult to measure let alone achieve.

Since the majority of people who have an interest and practically play a big role at a domestic level are women, it is crucial that women's participation be measured. Because effective participation was measured independently, this issue has been discussed separately. It is important to stress that, even though women's participation is crucial for sustainability, it should not be achieved at the cost of exclusion or alienation of men.

Practically within the Mabheleni community, men interviewed are mainly involved in the limited organisational development tasks, since they are the ones in the commitTEE and make most of the decisions, and are responsible for hiring and firing the technical and social staff. Most women concentrated on the technically related tasks, they do the applications, dig trenches (helped by children, and occasionally some men) and mix cement. However, although there was an inclusion of both sexes in the project there was a degree of marginalisation of one sex (women) by the other because of the differentiated roles.

A sense of self-confidence and self-concept is psychologically
constructed and it can be measured through people's behavioral manifestation and self-ratings of abilities. However behavioral indicators of confidence tend to vary across culture and hence have to be culture specific. In this study, these were gauged through self-ratings and abilities on intelligence, leadership and problem-solving. Apart from the questions asked on these issues when measuring effective participation, a three point scale of self confidence was developed and administered during the focussed group interviews. (see appendix)

6.2. Role differentiation

Role differentiation was meant to establish roles played by different actors in the programme. This information was meant to test the awareness of communities of different roles and also establish the extent to which the sexual division of labour allows or inhibits participation in organisations and community projects. The issue about role differentiation is to raise the question of involvement of women in the project. The guiding questions for role differentiation are in the appendix.

It is often assumed that absenteeism and apathy of women are caused by their preoccupation with the work load that they have to tackle everyday. Role differentiation was meant to establish the contribution of the different roles that men and women play towards empowerment or lack of empowerment. As it has been discussed, the extent to which a project leads to women's empowerment constitutes the five criteria forwarded by Longwe (1990): (i) welfare (ii) access (iii) conscientisation (iv) participation (v) control.

It is worth noting that some of these factors were tested in other topics as well. For instance, participation in the decision making process was tested when measuring effective participation; conscientisation and mobilisation of women for control over distribution of benefits were tested in measuring community organisations. Thus this section deals with the last three levels of the hierarchy. These are: welfare, access and conscientization about sex and gender roles. Thus, the role and the contribution of the sexual division of labour in limiting or allowing empowerment was
tested.

Welfare

The material welfare of women in so far as the water project is concerned was tested by asking about the quality and quantity of the water used. These are also related to the questions asked about sanitation system and health facilities. (These were also asked in measuring sustainability and effective use of the scheme). This is because if the goal of improved health is high on the agenda of water supply, then it must also be linked to improved sanitation systems and that will contribute to the material welfare of women.

The question was asked in the background section of each interviewee why they saw water as one of the primary needs that the community needed to consider. All interviewees from the co-ordinator, to the water projects committee and through to the end users (both men and women) presented water as being beneficial in terms of improving health by preventing water-borne diseases. It was also asked what they think was wrong with the water from the springs and river in their natural state. After they indicated that the quality of that water contributed to ill health, it was asked what the actual cause was. This was meant to probe the question that health is related to water whilst it also tested the level of understanding of primary health care.

Questions relating to sanitation were asked when measuring the hygienic use under effective utilization as well. Most of the interviewees did not relate water to sanitation in the first instance. This is because the water - sanitation relation is not obvious and visible to most rural people unless there is education. A substantial number of people (interviewees) +- 40% in the area still use the bush to relieve themselves. There is also no indication of a primary health education programme(s) that has taken place. Even though there is a clinic, it is understaffed for the population it is serving, for purposes of both normal clinic practice and health education. It is also under equipped with the material necessary for improving health. This implies that the material
welfare of the people of Mabheleni in so far as water is concerned is still low.

Access

Women's access to services, benefits and resources relative to men is said to be a way of measuring equality of opportunity for women's empowerment. Access to such things as land, labour, credit, training and market facilities, and other public services is a problem to both men and women in rural South Africa. It becomes difficult to measure access to equal opportunity for women when there is no access to opportunity, service and resources for everyone. It was clear from the response though, that men are better off in terms of training and skills whereas there has generally been lack of access to marketing facilities let alone credit.

In terms of access to the resources connected with the water scheme the project was organised such that CORD pays for the installations but the community is responsible for management. However for effective management to occur, it requires the basic knowledge of the context within which the water project is placed which does not prevail among the womenfolk. Decisions about where to install tanks were made by the 'technical experts' in conjunction with some members of the committee (with no women involved). Although this point does not affect access to the facility it lack of access to the information affects effective use of the facility and sustainability.

Conscientisation

This level in the hierarchy for criteria for women in development constitutes an awareness and understanding of differences in sex and gender roles. It also includes an awareness that they are culturally and socially formulated and that they can be changed.

It is important to know who plays which role in the running of households and what effect this has on the participation of members of households in the water scheme and the project in general.
The responses to this varied. In some instances women are the heads of households, they are either widowed or men are permanently living in urban areas where they work. They occasionally come home. Most women interviewed were the ones to first hear about the water scheme, but they did not relate it to other projects (eg. the co-op itself, housing or agriculture). Men heard of these projects in 'tribal meetings' and subsequently in the co-op monthly meetings.

Women who do attend the monthly project meetings and who are relatively informed about the running of the co-op said they are still watching and once they understand fully how to go about organising they will be active. They also expressed grave concern about the report-backs. Most of them felt that information got stuck on the male representatives. They suggested that women should be encouraged to be involved but be trained first.

They argued that it is important for women to be involved in organising and making decisions, for information will get disseminated and filter down to every member of the society because women meet often in the river, church, shop etc. Also women are in close contact with their children so issues like water and education, they argue, need men and women as well as children because they collect the water and this impacts on their time for education.

One woman proposed that if the co-op could adopt the approach used in the organisation of school matters, development projects would run better. The school committee consists of all parents who have children at school, and they participate in the decision making processes. However, it was mentioned that it does not mean that there are no problems in the school committee. But still the approach where all the members of community particularly women are included in discussions and are well informed of the processes involved, seemed to be advocated. (extract from an interview).

With respect to the sexual division of labour, women showed some understanding that men and women play different roles in which women are subordinate. Subordination in their perspective is not seen in
an oppressive sense more than it is explained in terms of cultural enforcement or prerogative. It was acknowledged that the work that women do and their status in society, particularly in front of the high decision making structures like the tribal authority were incompatible.

However, this was seen as a prerogative of culture which women do not have control over. Some women indicated that they would like to be knowledgeable and take control over their lives in community matters. Some women felt that it was too late, they felt they lack basic education, they lack confidence and generally feel incompetent. They just want to be led and sometimes indicate that as long as men together with the 'white men' are still there they are alright.

IMPLICATIONS FOR ROLE DIFFERENTIATION

The criteria for the empowerment of women as espoused by Longwe have not been met. This implies that there is no equality of opportunity. The roles that men play in the community compared to those of women give them some space to make decisions about their lives. Thus they can effect change. Whereas the project seems to be efficient, progress is appreciable, sustainability can not be guaranteed because of biased role differentiation.

In terms of both technical and social skills women of Mabheleni have been marginalised. They do not feel part of or in control of the co-op, they only see it as a shop brought about by the white man. This does not mean they are not grateful of its benefits. They do not link the co-op to the services they are gaining. Thus, ownership of the project has not been transferred to the local people in the minds and understanding of the majority of people particularly women.

Even in practice they do not feel it is accountable to them. In effect, in terms of welfare, access, participation, conscientisation and control they are still alienated. Therefore, empowerment of women is still unthinkable yet.
6.3. Effective and sustainable use of water sources

**Effective utilisation** was measured in terms of three categories:
- Optimal use
- Hygienic use
- Consistent use

**Optimal Use**

The optimal use of water resources was planned for and is catered for in the water policy (see appendix). A minimum and maximum number of households that can get a water tank installed for them is specified in the policy. This serves to ensure that not every single household draws water when in fact the capacity of the spring does not allow for it. First priority is given to groups and public institutions, but private installation can also be done with cost.

Most women use a 25 litre container to fetch water whereas children use 25 litres and less. The 25 litre container usually has a lid, but in some circumstances buckets are used. In a household of 8-10 people an average of 125 litres of water is collected per day, depending on the presence of children.

However, more than 50% of the population still uses unprotected water sources. Observation revealed that a few households from areas where there are still no protected sources come to collect from those that have. However, this happens in tanks which are installed in schools (mostly after school and during holidays). Protected water was mostly used in the home for food, drinking and bathing. For washing clothes and watering vegetables river water and unprotected springs were used. In some areas concrete built-in basins were built next to a tap so as to be utilised for washing clothes. Interestingly, people tended to bypass these basins and do their clothes-washing in the river. This was discovered when interviews were done on site. The reason given by the few women asked is that the river was not very far and that it is better to do loads of washing (which they were carrying) where there is a substantial number of people (i.e. in the river).
Some people use big plastic drums (+- 200 litres) and zinc drums (+- 250 litres) to store water. The same containers are used during rainy seasons to store water for domestic use.

There has been one experimental installation of a water source for irrigation purposes. This was a learning curve for the water team because after five months of installation that facility is still not used for what it was meant to. (extract from an interview).

Apparently some members of the community in that area applied to the co-op for installation. They were intending to have a communal vegetable garden. It ended up being a chicken and egg story because instead of the water team discussing which one comes first the communal garden or the water tank they carried on with their task.

The need to conserve water and protect water sources has been dealt with to a very little extent. This factor is one of the pressing needs for the co-op to obtain some environmental education. However the coordinator says that in the meantime people are learning from experience.

Hygienic Use.

No special hygiene education programmes had been set in the area, either by the water project as the co-op or, by the clinic. Only when mothers send their sick babies to the clinic are they told about hygiene. Definitely not every household has a baby sent to the clinic. These programs are also not offered all the time or everyday, the clinics have other things to attend to.

The water team has not undertaken water quality testing from source to mouth or any other possible contamination between the source and mouth that could be detected and prevented because of the enormous amount of work. Part of it is linked to education though.

Where I had gone to interview the end users from the source few water containers were clean. Most people did not boil water before using it unless told to by the doctor.
Water is usually kept within reach of children for they are the ones who have to see when it is finished and collect it. Also where there are kitchen cupboard units, water is put on top of the cupboard. When asking the household with very young children what they do to prevent children spoiling water, most people said that their containers are closed anyway and some said they cover the buckets. Since I did all the interviews outside and had never got inside, I cannot tell whether this was true. However, the fact about children is that it is unlikely that their easy access to the water does not lead to contamination in most instances.

In most areas the new water sources had a tap so they need not have a water-dipping facility. Where water was obtained from an unprotected spring or a river, a basin is used to dip water from the source. Those who do not have installations yet, indicated a sign of helplessness. They said there was no other option, but to eat and drink the polluted water until the co-op provided safe water.

Needless to say, it is clear that without a clearly focussed hygiene education programme relating to water handling and storage it will be difficult to achieve hygienic use of water.

**Consistent use**

Consistent use refers to the use throughout life of a facility, even when less than optimally convenient. Measuring consistent use was a little limiting because the safe water installations have only been put in during the past five months. However for drinking water all areas which have tanks use the source daily for household purposes.

For those waiting for an installation, they said they had no option but to use unprotected water sources. Seasonality in use was judged by asking people about use of sources in the rainy season. All interviewees definitely used rain water. However, some people still used rain water for all their requirements whereas some used it for specific things. There was a marked hesitancy about this question because some people in a group would want to answer it in
a socially acceptable way one whilst others wanted to be honest. Some people felt rain water was as safe as the tap water, which indicates no hygienic education. Also, it is likely that it saves on their time as well. There was therefore an increase in the use of rain water for household purpose.

**Sustainable use.**

Sustainability refers to the ability to derive benefits and maintain a facility or the project without detrimental effects on environment, even after the managerial, financial and technical assistance has been phased out.

There is no likelihood that the benefits accrued in the area necessitate that the external assistance be phased out. It would therefore, be unrealistic to expect this project to achieve what the definition seeks to achieve because it is new. However the potential for the area to sustain the project was measured. This was meant to establish whether sustainability of the water scheme was planned for? This was done in terms of technical operations, social and human development and environmental concerns.

Technically, the questions asked related to installation, operation and maintenance system. There are eight water tanks in the detached tap, four are situated in schools, four specific neighborhood. Three of those are gravity fed. There are also two spring captures which are mere protected springs. All the changes in the water sources were done by the water team with the assistance of the community, mostly women and children in terms of digging trenches, off loading material and mixing cement.

The decision as to which sources to improve, where to build rested on the water team particularly the engineer. However he was limited by the fact that he could only choose from those areas which are not far from the people who applied to have water in a particular neighborhood.

At the moment the technical staff (ie. water team) makes most of the
technical or 'expertise' decisions. Initially, it was the technician only but now he has given some training to the other members of the water team and they can also make some decisions.

Only one installation is giving problems, because of the topography of the area. Normally a project feasibility is done on the area, depending on the number of people who are going to use the facility then the team decides on the type of technology to use. The water team's response was that the community are the managers of water once they finish installation. Since there has only been one problem, (and is the result of their fault) they feel it is hard to tell how thing are going to work since the project is still new.

In terms of human development, one should note that the greatest resource rural people have is themselves and there can be no development without human development. This implies if people are not competent enough to undertake the tasks expected of them because of lack of self-confidence, sustainability will not be achieved. However self-confidence, competence and decision-making depend upon a knowledge base, acquired skills and whether people have been trained in a practical sense to take control. This is not an easy overnight task, but is a process.

Since the majority of people who have an interest and practically play a big role at a domestic level are women, it is crucial that women's participation be measured. Because effective participation was measured independently this issue has been discussed separately. It is important to stress that, even though women's participation is crucial for sustainability, it should not be achieved at the cost of exclusion or alienation of men. Practically, within the Mabheleni community, men interviewed are mainly involved in the organisational development tasks though to a limited extent, since they are in the committee and make most of the decisions, and are responsible for hiring the technical and social staff. Most women concentrated on the technically related tasks, they do the applications, dig trenches (helped by children particularly school children) and mix cement. However, although there was the inclusion of both genders there was a degree of marginalisation of one gender by the other because of
differentiated roles.

A sense of self confidence and self-concept is psychologically constructed and it can be measured through people's behavioral manifestation and self-ratings of abilities. However behavioral indicators of confidence tend to vary across culture and hence have to be culture-specific. In this study, these were gauged through self-ratings and abilities on intelligence, leadership and problem solving. Apart from questions asked on these issues when measuring effective participation, a three point participatory scale of self-confidence was developed and administered during focussed interviews (see app).

Human development also means that the community must be organised. The important components of effective community organisation constitute the establishment of collective leadership; structural autonomy; accountability; two way information system. The organisational capacity of the area and decision making has been discussed under effective participation.

In terms of leadership, lack of self-confidence always comes on the way for people to emerge as leaders. The response of women made it clear that they were low in self-confidence and as such did not see women as leaders. Only the two women who are already in the committee were seen as leaders.

The role of a participatory project should be to facilitate not lead, if its goal is self-reliance and sustainable development. This is difficult to achieve let alone to measure. However, it is important to measure success and change in the area, so as to indicate a sense of efficacy. In this instance most people saw the headman, and the "white men" (technician and co-ordinator) as the most instrumental people who brought about changes in the area. They do also acknowledge the work they themselves did in terms of providing labour and accommodation. It is only those people who do attend the meetings as members of the projects committee who are indicating that it is a joint effort by the community and CORD staff. They were however quick to re-emphasise that without the coordinator and
the technician it would have been very difficult. Very few people mentioned the water team as being instrumental in changes, and those who did also indicated that is because they are paid.

The co-ordinator, all committee members, the technician and the water team felt it was still premature for CORD to leave the community on its own. They, however, are convinced that collective leadership has to be worked into.

In terms of structural autonomy, there is no formal organisation, i.e. constitution, disciplinary code, set principles at the moment. "Everything is still laissez - faire" (CORD interview) it is difficult to measure autonomy. There is still a level of interdependency between structures although there is a bias of depending on CORD. Otherwise the project and organisation within it are independent of political and social organisation existing in the area.

Because of the loose way of organising at the moment, the issue of accountability has not been worked out. However the coordinator mentioned that CORD staff was accountable to no one but CORD, because they are non-voting members of the committee they neither make nor change decisions made by the committee. Their work is professional and financial assistance.

The project committee though has had some bad experience with lack of accountability. They have voted out three members who were abusing their power. They have indicated that the policy of accountability is crucial in their committee. They often remind the chief headman in the committee that when he is in the committee he is not chief but another member of the committee. The community though - (ordinary rank and file) - are still not conversant with the dynamics of the project. This means that, the people to whom the committee was supposed to be accountable to, do not have an idea about the details of their activities.

This leads us to the important question of horizontal and vertical information systems. Even if the community is allowed to make decisions or offered a choice if there is lack of information and the
knowledge base, that decision-making is likely to be futile. People might decide to change the idea for a better one once they have information. No ultimate self-reliance can be sowed if the communities in which the development agencies work do not know anything about their goals and objectives. The only result of this kind of situation would be exploitation of the rural resources (both human and material) by a development agency. Also, unless institutions have the power to function relatively autonomously and retain control over major decisions affecting their functioning, they are unlikely to gain strength. Without relevant information networking in a bottom-top, and side-ways fashion, relative autonomy itself can not be achieved. Therefore it is crucial that this is measured.

Everyone who was interviewed agreed that the information network system was limited. The co-ordinator, technician and committee members attributed this to lack of education or training as well as experience in participatory organisation. The chief headman admitted that although he has experience working with committees, he had been operating in a way that is not acceptable to the current co-op policy. He acknowledges the difficulty of reaching out to people. They then (i.e. co-ordinator and committee members) suggested that a full-time "social engineer" is required and evaluations of the project would be welcome to hear feedback. Some women suggested that there should be an approach which integrates both men and women - men should also make their wives knowledgeable and those wives should also be allowed to come to meetings.

In terms of environmental concerns, sustainability also means that since water is a finite resource it must be managed creatively and wisely in the long term. This requires that environmental conservation measures be taken. However they have to make sense to the local people so that they can be practiced voluntarily on a sustained basis. This has educational implications.

In Mabheleni people are not conversant with environmental protection. They do not prevent livestock from destroying the wetlands. Also
people use the marshes and reeds to do their handicraft work for income generation. All this involves education.

The co-ordinator suggested that they will be starting to look seriously at the environmental management because it is vital for sustainability of water schemes. Already, people have been learning from experience about the importance of an environmental awareness. For instance, one member of the community planted trees on his land and in no more than two weeks the nearby water spring was drained. The community now had a problem as to whom to lay the blame on. The tree owner planted his trees on his land and he had a right, but the spring is a community facility. Was Sappi who gave the trees without alerting the land owner of the possible environmental ramifications responsible? Was it the community's lack of knowledge or what?

The co-ordinator acknowledged this as having educational implications. People could now start to discuss forms of trees. They can also approach it from an angle of discovering what drains the water from the source? The protection of community facilities is another question.

IMPLICATIONS FOR EFFECTIVE AND SUSTAINABLE USE OF WATER SUPPLY

Effective and sustainable use by their nature, encompass technical and social aspects that are meant to result in empowerment of women (and men). In the measurement of these aspects it has been apparent that, so far there has not been effective and sustainable use.

6.4. Replicability of projects

When one measures replicability the capacity to duplicate the process and benefits of developmental activities of some project in other locations must have been achieved. Whether small scale activities are replicable is a key test of their value in wider development efforts.

Replicability of projects was measured in terms of four issues, personnel, the institutional framework, budget, and project
procedures. It was difficult to measure replicability because the project is still new. However, questions were still asked.

**Personnel**

In terms of the skills required for the people employed both by CORD and the co-op there was a general shortage. It came out clearly that there is a great need for a thorough induction, education at all levels.

The water team expressed a great concern about the fact that they were not trained to provide the social skills required as background to the technical infrastructure. They found themselves confronted with a massive ground work that was needed in order for them to start in the first place. The technician described his as a very good learning experience. He admitted that when he came into Mabheleni he never thought that there was a need for him to engage in most of the community or social aspects he was confronted with.

Further, he was put in a very different picture from what he discovered about the area. He was told, since there were representatives which were already elected from the different wards the community was organised, people were ready to participate in all the work required of them, the area boasted a well organised committee, and that he was going to work with some local women who were going to help him out with social input.

To his surprise, that was a myth, for the installations could not start without a well worked out strategy for the social input. This included informing the general public in a much more extensive way. To make members of the committee understand what the goals of the project will be, so that they can comprehend their role in the project. The debates about who gets employed, what criteria to use to change a person from a volunteer to a paid member of staff, how much to pay who etc., has to be understood to avoid sowing divisions and conflict.

This then, indicates the complexities involved in an attempt to braid
the technological with the social aspects of a rural water scheme. The educational part of it is an enormous task. From environmental to primary health, to organisational to technical skills training, these educational needs have not been addressed but the need to have them for the empowerment of the community has been acknowledged, by most of the interviewees.

Institutional Framework

In terms of the institutional framework for the organisation it has been discovered that a lot of ground has not been covered. To the average person in the area it is not clear what the project stands for. For a backwards and forwards network system this understanding is crucial. It will not help to have nice and durable facilities with no one to maintain them. The kind of linkage between the different development sectors the co-op is involved in, has to be instilled into the community so as to improve other aspects of their well-being. 'Water' is more than just a glass of clean water. As it has been discussed in the text, this too has an educational implication. Although a framework is necessary it important to realise that each area has its peculiarities.

Budget

Evidence suggest that the co-op has done a lot of work in terms of generating funds. It is said to have made big profits which indicate the potential for the area to build itself and be self-sufficient.

So far, two trucks for delivery have been bought out of the co-op money, they have made a decision to increase their paid staff. They intend to pre-fund more small collectives, they have funded two university students to do a degree that is going to relate to the needs of the area, they intend to build another school from the co-op funds as well as raise more money for a creche.

The co-op bookkeeper has been commended for his good work. He does not have any formal training but he is said to have never had any deficits. He is also a very disciplined person. However without him
there will be a gap because other people do not understand much of his work. This also has educational implications.

Project procedure

There has been no standardised procedures. The belief was that human development is a process and that it should grow organically.

IMPLICATIONS FOR REPLICABILITY

Since the project is still new, and has not addressed some essential questions yet, replicability then was difficult to measure. Although, there have been some people who have visited the area to get some 'hands-on-the-job training' there has been no reports of whether their experience has worked in their own areas.

SUMMARY AND CONCLUSIONS

The empowerment approach is concerned about bringing about change beyond the narrow objectives often conceived by project planners. The impact of rural water schemes goes beyond water and health but influences and is influenced by social, economic and environmental changes that have positive or negative influences on individuals, groups and communities.

Measuring empowerment methodologically is complex and difficult. However, empowerment can be measured by testing the social and technical inputs on a project. For empowerment to have been achieved in a water scheme, therefore, implies that there should be effective participation; women should play a major role; there should be an effective and sustainable utilisation of water sources; and the project should lead to the replication of activities in other areas and fields of development.
CHAPTER 7 : RECOMMENDATIONS AND CONCLUSION

7.1. Questions arising

This study has used an evaluative framework to test the presence or absence of empowerment in the Mabheleni water scheme. It came out clearly that the control over decision making processes constitute effective participation. The development of women would only be achieved if women had control over their lives, this was absent for the Mabheleni women. The potential for sustainability of the project when external financial technical and managerial assistance has been phased out does not exist. Partly due to the lack of a balance between technical inputs and social inputs, educational needs requirements thereof and due to the gender blind nature of the project. Effective utilisation of the water sources is not achieved partly because of the educational implications of hygienic use, and due to the lack of involvement of the haulers and managers of water. The ability of the project to duplicate elsewhere is limited because it is still at the elementary stages for this to occur and this would have required the achievement of the above factors anyway.

Nevertheless, there are questions arising from these findings:
Is the lack of effective participation really the technical emphasis in the project or is it the social relations which also emerged strongly? Since there is a suggestion of lack of control with the exception of some individuals who were said to felt they were in control. Is felt control - same as actual control? Does this lead to real empowerment? Is this situation not greatly affected by the political power that does not really exist for everyone in the area? How empowering is empowerment on a small scale, without political and economic power?

It has been argued several times that empowerment as prescribed by the framework, is a process. But is it fair for the suggestions made when this project has only started the actual operation for six months? How long should the process of empowerment take? There is a marked constant reminder by the co-ordinator that the people
are learning on the job. How much space should be given to the people to learn for themselves to achieve the goal and objectives of the project? Alternatively will the absence of NFE limit what is possible?

Another social research question arising from the study, is the question of consciousness raising as a researcher. Since there was enthusiasm to answer but most women felt they were stupid, and helpless but hopeful, to what extent do ethics of social research allow conscientisation by the researcher? How does it influence research and empowerment?

This study is not going to provide straight answers to these questions but would like to suggest that answers can be found on the theory of empowerment to a great extent. To a certain extent it really depends on the material situation of the project. That is, the political economy within which it is situated, the social relations occurring, the cultural dynamics of the area, the type of an NGO working in the area, the personalities of the people responsible to take action (both from the community and the development agency) etc.

Refering to the theory of empowerment, it was suggested that a gender-planning perspective is necessary for empowerment to occur. It is argued that one of the central debates in the theory of empowerment are the relations between gender and power relations.

To reiterate:
While it recognises the importance of women to have power it seeks to identify power not in terms of domination by others, but:

"it is the right to determine choices in life and to influence the right direction of change, through the ability to gain control over crucial material and nonmaterial resources" (Moser, 1989 :1815).

Also Abrams provide a slightly different but related aspect by arguing that the result of empowerment of individuals, people, communities, and mass organisations is seen as the gaining of control of social, political and economic factors which people's daily lives. Importantly, it is argued that the regaining of knowledge and self-confidence, both individually and collectively becomes the key to
conscientisation and mobilisation.

7.2. Recommendations

The empowerment approach is not only meant to empower women but for rural water supply (much as any development project), the primary involvement or empowerment of women is a fundamental necessity. What constitute the empowerment approach in a rural water project are: i) effective participation ii) the development of women iii) sustainability of the water scheme iv) effective use of water v) the snow-ball effect that results. All these have educational implications. If these five components are encompassed in all stages from pre-planning, planning, implementation, monitoring and management of the project, technical and social inputs would have been braided together. The way to do it is through non-formal education (NFE).

Non-formal education for social issues involves i) building the organisational capacity (meaning training and information on accountability, collective leadership, efficiency etc.); ii) enhancing environmental awareness through an educational programme that considers local beliefs and needs; iii) emphasising the relationship between water and health; water and sanitation; water and development etc.

On technical issues NFE involves, i) training in the water quality testing, assessment of the relevant and appropriate technology for communities, the capacity of the spring ii) training in issues affecting effective use.

It is only through the blending of these that any success in empowerment can be boasted of. It is futile to have organisationally strong communities who have no knowledge of and any sense of appreciation for the environmental conservation, because the decision on the type of technology that will be appropriate in an area also depends on this. As with the gum trees, there might not be enough water in that area anymore. Same with the use of fertiliser in agriculture, it might lead to water pollution if the topography and climate is predisposed towards that. Therefore, NFE for empowerment
should consider this.

It is useless to have enthusiastic women who can do all the digging, the loading, supply loads of good food, provide plenty of accommodation, all for the sake of 'safe water', if at the end of it all they will drink water contaminated between the source and the mouth.

It does not help to have litres and litres of 'safe water' if the sanitary practices in the area will take the people back to square one. Hence, the issue about water should be the issue about empowerment, the issue about empowerment should be the issue about women's rights, the issue about women's rights should be the issue about political and economic power, policy and decision making.

Case Study: Mabheleni

In terms of the criteria outlined in this dissertation, the water project in Mabheleni has not achieved most of the necessities for empowerment.

In terms of social inputs there is not much organisation happening in the area. However with the start of the project and its philosophy of the co-op, it is likely to attract many activities. There is a great potential for success and development only if there is a consideration of the requirements for empowerment. Training and NFE is at the heart of building organisational capacity, the people are willing, there are human and material resources to a certain extent, and the 'powerful authorities' are open to it.

It should be noted that women are instrumental in effective participation for various reasons. For the fact that they meet in various places and can disseminate information effectively. They are an active part of what the co-op is concerned about in their own ways. They build the houses, they nurture children, they attend to the fields, they collect water or are responsible for delegating the children to, they are concerned with the education of their children (as evidenced by their participation in school issues), they run their
homes and thus require an income. If then the project's priority areas are water, education, housing and agriculture women should at least know what the co-op is all about, its objectives, its progress even before deciding on whether they want to participate.

If the co-op is about generating funds and implanting them in the community, then people have to know about this intention, how it is going to go about it, who owns it, and its success. To reiterate NFE for empowerment is the immediate vehicle towards effective and sustainable use of water supply. Without these, as it is indicated by the results of the study, the Mabheleni water scheme is still far from empowerment they are espousing, also water will remain a cup or a bucket of water to the women of Mabheleni. The co-op will remain just a shop organised by the chief, with the philanthropic help of the 'white men'.

As far as technical input are concerned, through practical experience it is clear that there is no 'technical' without 'social' in rural water, as there is no social without the technical know-how.

7.3. Conclusion

This dissertation started by explaining the purpose and the rationale of the study. The purpose being to explore the use of empowerment approach in providing rural women with water. An appraisal of a water scheme in the Mabheleni area was also the purpose. The rationale given is in terms of the advantages of a gender aware approach and the theoretical influences of empowerment.

Subsequent to that is the framework which explains what empowerment consists of. The same framework was used for evaluating the Mabheleni Water Scheme. The framework forwards effective participation, the development of women, effective utilisation of water sources, sustainability of water schemes, and replicability of development benefits as the indicators necessary for empowerment in a water scheme. In this part the details of what constitutes empowerment are given.
The last part dealt with the actual assessment of the water scheme in Mabheleni. The background to the Mabheleni Project as a whole is given as well as the water scheme within that, the research methodology and the limitations of the study were discussed and the analysis and interpretation of data was done. The tested hypothesis was that the combination of social and technical development forms the basis for empowerment in a rural water supply. These social and technical aspects are encompassed within the framework.

The results were that there is a lack empowerment in the water scheme. Reasons for this were given in the questions arising. They are partly due to the technical emphasis of the project at the expense of social development, partly due to the lack of nonformal education, as well as the fact that the project itself is new and empowerment is a process.
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MAHELENI PROJECT

INTERVIEWS ON EMPOWERMENT

(Guiding questions to focussed interviews and group discussions)
Guiding questions for End-users

VOLUNTARY AND EFFECTIVE PARTICIPATION

General:
1. What organisational activities are found in this area?
2. Which ones are you involved in?
3. How did you hear about them?
4. In what way are you involved in those (e.g. an elected executive, govt. or NGO official, educated member of the community, professional,)
5. Is there any activity that you consider the community does in improving the standard of living in this area?
6. What is your contribution?
7. Who initiates activity?

Water:
1. Where do you collect water?
2. Where did you collect water before?
3. How did you hear about the water scheme?
4. How long did it take you or the community to have access to water?
5. In what way were you involved in the establishment of the water scheme?
6. Who else has been involved in this establishment?
7. What contributions were made by the chief(s) or izinduna?
8. How do they usually help?
1. Who makes decisions within the water user group in this neighbourhood?
2. Who selected the group leaders?
3. Who decides what activities the group should undertake?
4. What is your position in the group?
5. Do you have any intentions of changing your position?
6. If not how long do you think you are going to remain in this position?

1. Who decided where the water pumps or tanks or taps should be located?
2. Who makes decisions about undertaking repairs if anything goes wrong?
3. Who decided on the individual or people who do repairs?
4. How are they renumerated for their services?
5. Do you think they deserve to be renumerated?

1. Have you ever experienced any problems about the decisions on water?
2. What sort of problems? When?
3. How would you have liked the decisions to be?
4. What do you think your role should be as an end-user?
5. Do you have to pay anything for the water?
6. Do you think you should?
7. Who should decide on the monetary contributions when there are any?
ROLE DIFFERENTIATION

General:
1. What do you know about clubs/organisations/committees in the area?
2. Who are their representatives?
3. Do you know what is talked about in their meetings?
5. Who else is involved?
6. In what capacity?
7. What do you think your role in the community is and should be?

Water:
1. How many are you at home? Please specify ages?
2. Who is the household head?
3. Where is each one of the people mentioned?
4. Who collects water? Where?

1. Who in the household was the first hear about the water scheme?
2. Who decided it would be a good idea to be involved?
3. In what way were you and the members of your family involved?
4. In what way is it important to you to be involved?
5. Who do you think is the most important person in the establishment of water?
6. Do you think it is enough for that person or those people to be the only ones?
7. Who do you think should take a leading role?
EFFECTIVE AND SUSTAINABLE USE OF WATER SUPPLY

Effective utilisation:

Optimal Use: 1. How many households or families use the water you are using?
2. Where do you get water for drinking; washing; self-bathing; cooking and other?
3. If you have to collect, how many times do you collect per day?
4. What do you use to collect?
5. Do you use all the water collected per day? If any left what do you do with it?
6. How long does it take you to collect and previously?
7. Do you know what is used to protect water?
8. Why would you think water needs to be protected?
9. Who manages the water resources and ensure it is not spoilt?

Hygienic Use: 1. If you collect water do you normally go straight from home to water (not via shop, or anywhere)?
2. Do you have to boil water before using it, for what?
3. If you do, how much do you boil?
4. For what do you use the water from the water scheme?
5. Where do you put your water at home?
6. Are there any children at home, ranging from what ages?
7. How do you ensure that they also have access to water at home?
8. How does the water you normally use visually look like (in colour)?
9. How often do you rinse your bucket?
10. What do you use to dip water, where it is not a tap or tank or pump?
11. Where do you keep your water-dipper?
12. When do you sweep the floor at home? How many times a day?
13. Have you ever had anyone tell you about hygiene in this area?
14. What? and how often?
15. Do you think what is said make any sense?
16. How would you change the circumstance if you are not satisfied?

Consistent Use: 1. When do you decide to use rain water instead of river/tap/pump?
2. If it rains consistently, where do you get water from?
3. Have you ever experienced any drought problems?
4. What do you do in such conditions?

Sustainable Use

Installation, Operation and Maintenance systems
1. Who installed the water points?
2. What was the community role in this?
3. How many installation points were built by communities?
4. How many require improvement or renovation?
5. Were water points producing sufficient water in all seasons?
6. What do you think about the quality of water at source?
7. Have rules developed about operation and maintenance?
8. Who is responsible for the costs incurred in the process?
9. What is the contribution of the community towards maintenance costs?
10. If there are costs involved, how are funds managed?
11. Where do you get spare parts from?
12. What has been the government role in spare parts provision?
13. Is it possible for everyone to get (e.g., pump) water from the source?
14. Is water available throughout the day from the source?
15. Do you have alternative means of attaining water in a case of unavailability?
16. Do you think it is necessary to have it in your area?

Competence and confidence among water-users and in project experts
1. Is the help from experts readily available in cases of crisis?
2. If not, is the community capable of resolving technical problems?
3. Who does the community approach when and if it can not resolve it?
4. Who makes decisions about the need for repairs, improvements, and new installations?
5. Are all water facilities in a working condition at the moment?
6. Do you think the community can operate and manage the water scheme without the existing financial and material assistance?
7. How much help do you think is still needed?

Environmental Conservation

1. Where do you think water originate from?
2. What do you think is the worst quality of water?
2. What do you think causes water pollution?

3. Do you think that water pollution can be prevented?

4. What in your opinion is the best way of protecting water sources?

5. What is the role of the community in ensuring that water sources are protected?

6. Do you think there is any role that watersheds play? Explain.

**STRUCTURAL AUTONOMY WITHIN ORGANISATION**

**Community level**

1. What organisational activities are involved in the water supply?

2. What is the role of an individual, like you in that organisation?

3. When have you, as a user-group, solicited help since installation?

4. From whom?

5. Which decisions rest on you in the water scheme?

6. Who controls your finances?

7. Who selected this person/people.

8. When do you think you can effect change in the water project.

9. Who determines the start of a water-user-group?

10. What are is the difference between your user-group and the other neighbourhoods?

11. Can you be comfortable if we take the leadres from the next neighbourhood away? why?
Water Policy

The following points should be discussed thoroughly with the full understanding of both the party applying for a water project and the Mabheleli Water Committee members.

The Final Authority needs to be with the MWC regarding the approval/rejection of applications and the implementation of the specific water scheme. The water development team is accountable only to the MWC or persons designated by them to control the work. This means all matters such as payments, conditions of employment, leave, discipline etc. will be handled by MWC.

Water can be divided into two areas:

1. Community

This covers macro issues in the areas such as the provision of water for schools, clinics, community gardens, irrigation, water pipelines on the scale of village or township.

2. Neighbourhood

This covers micro issues such as the provision of water for individual households, stores, small clusters of homestead etc.

While the overall general water policy will be consistent they will be differences between the following two areas. Thus the following points need to be discussed fully and agreed upon.

1. Community

1.1 An application needs to be made by representative body of the community concerned. The MWC reserves the right to decide whether or not the body is truly representative i.e in the case of a school/the parent/teachers/committee or a community garden and the committee members.

1.2 The application must be done formally in writing and the response should be likewise.

1.3 Once the application has been approved in principle representatives from the body concerned should be invited to come to a meeting with the MWC to discuss the following points:
1.3A The date and the length of the particular project concerned

B Estimated costs

C Applicants contribution towards those costs or means by which money will be raised and who will control the money raised.

D Applicants contribution in land i.e storage facilities for materials and tools; accommodation and meals for MW Developers when applicable, labour required to move material to site, excavate trenches for pipes, mix concrete etc.

E Hand over maintenance and responsibility for the project and time period of guarantee of workmanship.

1.4 If the particular scheme is large enough to warrant it a formal agreement should be drawn up and signed by both parties to protect both sides. Minutes of the meetings will be sufficient in most smaller water schemes.

1.5 The MWC should have a firm "Walk Away" policy if any conditions are not met or are broken.

Neighbourhood

All of the above points for community can apply to neighbourhood water scheme with the following additions:

2.1 The MWC must make it very clear to those applying for water scheme that it has a system of priorities and that these are governed by the following factors

2.1.1 A community water project will have a greater "Weighing" order of priority on the job list than a neighbourhood water project because it affects more people and therefore is a wiser use of a MWC's limited resources

2.1.2 Once a project has been placed on the job list and a date to beginning nothing shall supersede it whether it is a community project or not, unless it is seen as absolutely critical by the MWC

2.1.3 If after arriving at a starting date for a neighbourhood water project it is found that agreements in terms of
looking a slow in materializing the MWC shall move the water development team on to the next project that is ready and has complied with all items agreed on

2.1.4 The MWC should take special care when assessing a neighbourhood project that all those that will be affected by improvements made are included and that the water project will not become a divisive issue.

3. General

3.1 The MWC is totally responsible for the water development team and takes full accountability for timeous payment of wages, transportation to and from water (on a weekly basis i.e. begging and end of each week) adequate benefits such as leave, sick leave, pension fund etc.

3.2 The MWC is solely responsible for the disciplining of the water team and final authority rests with them.

3.3 The MWC controls and is accountable for the tools that the water team uses, their maintenance and replacement - this can be delegated the senior water developer, but they need the responsibility. The ordering and timeous delivery of materials - likewise delegated to the SWM. Monitoring the quality of the completed work and checking the clients satisfaction with the completed product

Senior Water Developer

Conditions of employment:

The person selected should have and agree to the following:

1. Qualities and Capabilities

They must have a normal standard of fitness which will enable them to cope with hard physical work. They need to be able to communicate well to understand technical things and have the practical ability to apply their training.
2. Experience\Qualifications

It would be an advantage to the applicant to have had experience and some sort of training in the technical\construction industry

3. Payment

Wages will be paid on a monthly basis by the MWC treasurer. These will be at a sum agreed upon by the MWC, they will be signed for by a particular person. Allowance will also be made for annual leave which must be applied for a minimum of 25 working days before it is to be taken. Since leave will be granted on production of an official letter either signed by the clinic sister or the hospital doctor. Compassionate leave will be granted at the discretion of the MWC as will unpaid leave. Leave may not be taken in such a way so as to affect the water program detrimentally and the MWC reserves the right to spend the employee if they decide after the meeting in caucus that they are not satisfied with the employee’s behaviour\attitude.

4. Working Conditions

4.1 The working week runs from Monday to Friday, public and religious holidays excluded. The day begins at 08H00 and finishes at 16H30 with tea from 10H00 to 10H15 as well as lunch from 13H00 to 13H45. These times are flexible at the discretion of the senior water developer but should in no way jeopardise the smooth or normal flow of work. Rain will obviously affect the work pattern and a careful log\record must be kept of all "rain days”.

4.2 The water development team is entitled to 1 pair of gumboots and 2 pairs of overalls each calendar year, issued on a six monthly basis ie January and July. These items are their own property and they are responsible for making sure that they last. They entitled to keep them on leaving the employment of the Mabhe\eni Water Team.

4.3 Absolutely no consumption of any intoxicating drinks or drugs will be tolerated. Breaking of this agreement will lead to instant dismissal.

4.4 Absolutely no fraternization will be allowed during working hours with members of the opposite sex in the particular
community the MWT is working in. Breaking of this agreement will lead to instant dismissal by the MWC.