

COMMUNITY PARTICIPATION IN SELF-HELP WATER
PROJECTS IN KIAMBU DISTRICT

DEDICATION

BY

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TO THE ALMIGHTY

TO TRUTH, GATHONI AND SIWEMU

A MANAGEMENT RESEARCH PROJECT SUBMITTED IN PARTIAL
FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS
OF BUSINESS ADMINISTRATION
FACULTY OF COMMERCE
UNIVERSITY OF NAIROBI

NOVEMBER 2000

DECLARATION

This management project is my original work and has not been presented for a degree in any other university

DEDICATION

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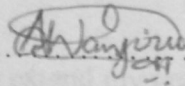
DECLARATION

ACKNOWLEDGEMENT

I would like to thank God for bringing me this far. I believe it is through His grace that I have lived to see the end of this

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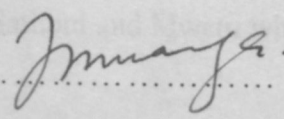
Special thanks go to my project supervisor, Mr. J.M. Njehia for his guidance and advice in the course of my research work.

Signed... 

Date... 23/11/2000

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This management project has been submitted for examination with my approval as the University supervisor.

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ACKNOWLEDGEMENT

I would like to thank God for bringing me this far. I believe it is through His able hand that I have lived to see the end of this.

My very sincere gratitude is to everybody who has contributed immensely towards the completion of this research project and also my entire MBA course. Special thanks go to my project supervisor, Mr. J.M.Njihia for his guidance and advice in the course of my research work.

I wish to extend my gratitude to my colleagues for their support and teamwork through this rigorous programme. Specially, I would like to thank Lilian Mureithi and Patience Mshenga for the worthwhile time that we have shared in this life changing experience.

I am greatly indebted to my dear parents Samuel Njuguna and Felicita Mweru, my brothers, Ndichu and Kihato and my sisters, Wangui, Kabura and Wangari. They have let me see that my success was theirs and fully gave me their support and understanding. I also wish to thank John, my husband for his moral support and otherwise, my little darlings Gathoni and Mweru who withstood my absence with patience.

I am deeply grateful to friends who stood by me and offered their assistance in whichever form especially the Kamanus and the Karanjas. I cannot fail to acknowledge Lucy for minding that very essential task for me and this gave me the peace I badly needed at this time.

Thanks also go to Kamau who tirelessly typed the bulk of this work for me.

God Bless

ABSTRACT

Community Participation is a very popular paradigm in empowering the people to not only to be beneficiaries but also agents of development in their projects. It is a way to lead to successful and self sustainable projects. The rationale behind this is to involve the people on the other side of the drawing board so that they are the architects of their projects.

This management research is based on the theme of community participation with a specific reference on the self help projects in Kiambu District. The study sought to establish the degrees of participation and success of these projects. Another aim was to establish the relationship between participation of the community and how the projects performed.

A thorough literature review on the subject of participation has revealed that community participation improves the performance of projects.

The study was conducted by assessing the various variables that comprise the stages of a project. This was done mainly through self administered questionnaires. This stages were mainly the initiation, consultation, construction and post implementation.

Findings from the research led to conclusions that community participation does contribute to a large extent the success of projects. It is important to involve the stakeholders and emphatically at the consultation and the post implementation phases of a project life cycle. It was recommended that participation the people should be involved in these stages because of the impact this has on the performance and the longterm sustainability of the projects.

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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND

Self Help water projects are based within community level and are very important with respect to the role they have played in providing water for several Kenyan rural communities. These projects sometimes manifest just how much a community can achieve on its own. Ideally these projects are ones that ought to encourage community participation in all the phases of the project.

Majority of the water supply projects were planned and implemented by the government, the recipient communities were regarded as passive beneficiaries. The facilities were planned and supplied by the government, without involving the community. The community was not involved at all in any stage of the project life-cycle. This approach may have led to a large number of unsuccessful projects. Problems occurred especially in the upkeep and maintenance of water facilities, leading to malfunctioning or discarded water installations Habitat,(1995).

In recent years, community participation has gained importance in community water projects. 'Kenya's successive development plans since independence in 1963 to the present espouse the centrality of popular participation in the national development endeavour.' Muia(1994). In essence planners have come to realise that community participation is an essential ingredient for projects to be successful. When community water supply projects are implemented the people who are beneficiaries should be involved in all stages of the project.

The theme of participation is inherent in all projects done by the WorldBank or the United Nations as well as most NGOs. Plan International has been involved in for instance several projects in the district and yet these projects seemingly have failed. The question is then "What type of participation is there?" and "How does it relate to project success?" "Is the so called participation mere hype?"

According to a training module publication by United Nations Center for Human Settlements in 1989, the community can participate in various phases of the Water Supply Projects.

1. Initiative
2. Locating the facilities
3. Planning and Design
4. Construction
5. Operation and Maintenance

The researcher in this study sought to reveal the status of some of the self help water projects in Kiambu. Some have stopped functioning due to various problems. With the adoption of community participation in the water projects, it is likely that these projects could succeed.

1.2 Statement Of The Problem

Preliminary studies, had established that some self help water projects have not been operational for some time. Studies show participation generally improves participation. According to Vierstra who cites conclusions from a review of the Kiairia "A" Harambee programme where motivation sprang from the village itself and participation

was widespread, representative and fruitful at every level of the program. Buch Hensen (1991) confirms this fact in a programme where revenue collection improved only after the involvement of the community. The study thus sought to determine the type of community participation adopted in Kiambu self help water projects.

The nature and extent of community participation encouraged by a water supply project varies. This may range for minimal participation (outsiders soliciting the community's land, labour or materials) to fully involving the community in decision making throughout all phases of the project. Community participation is not simply a yes/no variable that is either present or absent, rather participation occurs in varying degrees WASF(1987).

1.3 Objectives Of The Study

- (i) To determine the extent of community participation according to the various phases of the project life cycle.
- (ii) To determine the degree of success of the project.
- (iii) To relate degree of participation and success in projects.

1.4 Hypothesis

H1: Degree of participation determines the success of projects.

Ho: Degree of participation does not determine the success of project

1.5 Significance Of The Study

- Participation will be taken to mean the involvement of the community
- (i) For academia the study will contribute to the body of knowledge. It will also form a basis for further research on the area of community participation in projects.
 - (ii) It can be used by government and other policy making bodies in decisions involving the community. They will be able to determine the most crucial stage at which the community should be involved.
 - (iii) It will be useful to NGOs and other agents of development involved in community projects.
 - (iv) For the community, this will create awareness on whether they are involved or not in decisions that affect them in projects and at what stage their participation is significant.

WORKING DEFINITIONS

Participation

Participation will be taken to mean the involvement of the community in one or all the stages of the project life-cycle.

Self-Help water project

Self-Help water project will be taken to mean the community based small-scale projects initiated to meet water needs of a specific community. In explaining the concept of "self help", Miller (1979) indicates that it is simply " people helping themselves"..... " It may be group rather than individual but, in any case it usually implies a totally voluntary action. The impetus for the action is of local origin and outside influences are few, if any. Pages 11-12.

Type of community participation

Type of community participation will be taken to mean the involvement of the community in the project with respect to stage of the project.

Project success

This will be taken to mean the perceived positive realisation of the goals of a water of a self help project.

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LITERATURE REVIEW

2.1 Participation

Participation is a popular theme in development circles. As a concept participation has been "subject to lengthy debates in terms of its historical origin, its theoretical connotation and practical applicability (Tideman and Knudsen(1989)) cited by Mikkelsen (1995).

Mikkelsen implies that participation is so widely and so loosely used, like many other catch words in the development jargon that the meaning of the concept has become a blurred one. Narayan Deepa(1995) citing several people(Cohen and Uphoff 1977; Korten 1980; Paul 1987; and Ghai and Henit de Alacarta 1990) in defining participation explains"Definitions of participation abound. All of them include in some measure the notions of contributing, influencing, sharing or redistributing power of control, resources, benefits, knowledge and skill to be gained through beneficiary involvement in decision making."

2.2 Evidence for encouragement of participation

Muia (1994) says that much has been said and written in different fora about the need for people's participation in development. Kenya's successive development plans since independence in 1963 to the present espouse the centrality of popular participation in the national development endeavour. The District Focus Strategy for Rural Development is the latest in the Kenya Government efforts to more committedly capture people's participation in development (Development plan 1984/88:95)

Quoting Kenya's Sessional Paper No. 10 of 1965, Muia suggests that it underscores the importance of participation by all Kenyans in the development process. The Sessional Paper sees participation in terms of a mutual responsibility by its members in the struggle for prosperity. The District Focus strategy in Kenya attempts not only to decentralise the bureaucracy, but also to build a system where a participation (bottom-up) situation in development planning obtains, and the phenomenon of popular participation is at play in development.

2.3 Meaning of participation

"Participation" and "participatory" are words which are used frequently in development. They have many different meanings. Various studies, project documents and manuals have interpreted participation in different ways. Mikkelsen has gathered several such opinions on participation from different sources. Whereby:-

- (i) Participation is the voluntary contribution by people in projects, but without taking their part in decision making.
- (ii) Participation is the sensitisation of people to increase their receptivity and ability to correspond to development projects.
- (iii) Participation is an active process meaning that persons or group in question take initiatives and asserts his/her autonomy to do so.
- (iv) Participation is the fastening of a dialogue between the local people and the project preparation, implementation, monitoring and evaluation staff in order to obtain information on the local context and on social impacts.
- (v) Participation is the voluntary involvement of people in self-determined change.
- (vi) Participation is involvement in people's development of themselves, their lives, their environment.

In 1984, the ILO published a 'survey of different participatory approaches found in rural development activities and offered a sampling of definitions and statements used to describe the concept of participation; they are illustrative of a wide range of interpretations as earlier implied.

- (i) Participation is considered a voluntary contribution by the people to one or another of the public programme supposed to contribute to national development but the people are not expected to take part in shaping the programme or criticising its content.
- (ii) Participation means in its broadest sense, to sensitise people and thus to increase the receptivity and ability of rural people to respond to development programmes as well as to encourage local initiatives.
- (iii) About rural development, participation includes people's involvement in decision-making processes, in implementing programmes, their sharing in the benefits of development programmes, and their involvement in efforts to evaluate such programmes.
- (iv) Popular participation in development should be broadly understood as the active involvement of people in the decision making process is as far as it affects them.
- (v) Community involvement means that people who both have a right and duty to participate in solving their own health problems have greater responsibilities in assessing the health needs, mobilising local resources and suggesting new solutions, as well as creating and maintaining local organisations.
- (vi) Participation is considered to be an active process meaning that the person or group in question takes initiatives and asserts his/her or its own autonomy to do so.
- (vii) The organised efforts to increase control over resources and regulative institutions is given social situations on the part of groups and movements of those groups and movements of those hitherto were excluded from such control Bergdall ,(1993).

However, for purposes of this study participation will mean the community's involvement implied by (iii) above. The reason is that it is more relevant to my study and is more specific.

Miller, (1979) explains that in comparison to self help, participation implies a greater scale in terms of group size It can be identified as a process " to release people from being the subject and make them agents of modernization and change..... Participation entails some degree of interaction with higher order priorities and outside (usually extra local authorities).

Miller summarizes three characteristics or components which are usually attributed to participation. These are:-

- (1) Participation in decision making meant as a dynamic process of discussion, dissent and collective consent from the outset of a plan, programme, project or any other intervention foreseen.
- (2) Participation in the implementation of action(s) decided upon above; meant to include action involvement in terms of for example, self help labour, provision of local building materials and supervision of construction.
- (3) Participation in the sharing benefits to be delivered from the action and the costs to undertake the actions meant to be an equitable (not necessarily on equal or exclusive) sharing of both benefits and burdens.

2.4 Scale of the degree of participation

White 1978, developed a scale of the degree of participation in the various phases of an environmental sanitation project, and the number of people who can do so will vary from situation to situation.

- 1 a) Consultation with community representative or leaders , to ensure that the programme introduced by the outside agency is adapted to the needs of the community.
 - b) Consultation with other members of the community or specifically the poor to ensure that the programme meets their requirements.
 - (2) A financial contribution by the community towards construction.
 - (3) Self help projects in which a specific group of beneficiaries contribute labour (perhaps also materials) especially in construction work, to reduce costs. There is a large input from the external agency.
 - (4) Self help projects in which the whole community collectively contributes labour (perhaps also materials) especially in construction work. There is also a large input from the external agency.
 - (5) The training of one or a few communtiy members to perform specialized tasks.
 - (6)Mass Action: Collective work aimed directly at environmental for general benefit
 - (7) Collective commitment to change personal behaviour and collective social pressure for realization of such changes.
 - (8) Self reliance is the sense of autonomous generation, within the community , of ideas and movements for the implementation of these improvements.
 - (9) Self-reliance in the sense of using only the efforts of community members themselves and not appealing to outsiders for help.
 - (10) Self reliance in the sense of using local materials and manpower, rather collecting funds internally in order to purchase goods and services from outside including increasing local capacities with this kind of self reliance as a goal.
- In this study the researcher will adapted this scale to gauge the extent of community participation.

2.5 Points offered in favour of participation

Points offered in favour of participation of communities in projects have been quoted by Bergdall from a UNICEF publication devoted exclusively to the topic of community participation. These are listed below:

- (a) Services can be offered at lower cost
- (b) More can be accomplished
- (c) Participation leads to a sense of responsibility for the project
- (d) Participation guarantees that a felt need is involved
- (e) Participation ensures that things are done in the right way
- (f) It frees the population from dependence on professional
- (g) It uses indigenous knowledge and expertise
- (h) It can be a catalyst for further development efforts
- (i) Participation has an initialised Value for participants
- (j) Conscientization can occur concerning the structural causes of poverty

2.6 Levels of Participation

Samuel Paul (1987) is quoted by Deepa Narayan where he distinguishes among levels of participation, all four which coexist in a project. The first two categories present ways to exercise influence; the other two offer ways to exercise control. The levels comprise

- (i) Information sharing
- (ii) Consultation
- (iii) Decision making
- (iv) Initiating action

Information sharing

At this level project, designers and managers may share information with clients to facilitate collective or individual interaction. The information flow is one way, from agencies to communities. Although it reflects a low level of intensity information showing can positively affect project outcomes by enlarging clients understanding of specific issues.

Information sharing may also be one way in the other direction, in the form of baseline or feasibility studies where there is information (but not necessarily opinion) is gathered from beneficiaries. Many such studies tap local knowledge but also do not consult the local clients.

Consultation

When project designers and managers not only inform clients but also seek their opinion on key issues, a two-way flow of information develops.

This two way flow presents some opportunities for clients to give feedback to project designers or managers who can use the information about preferences desires, tastes to develop designs and policies that achieve a better fit between agency programs and community demand. Example of consultation includes methods that tap indigenous knowledge and organizational forms such as socio-economic surveys, beneficiary assessments and willingness to pay studies.

Decision-making

Information sharing and consultation generally do not increased local capacity or empower local people and institutions, although they can lead to programs that are more

effective. Client involvement in decision making, however, either exclusively or jointly with the external agency is a much more intense level of participation, which often promotes capacity building. Decision-making may be about policy objectives, project design, implementation or maintenance and different factors may be involved at different stages of the project. Thus the decision to participate in a project may be made by a community and the choice of technology may be jointly after the costs and benefits of the various technology options have been explained by the agency and understood by the community.

Initiating action

Initiating actions within parameters defined by agencies presents a high level of participation. Self-initiated actions are a clear sign of empowerment. Once clients are empowered they are more likely to be proactive to take initiative and to display confidence for understanding other actions to solve problems beyond those defined by the project. This level of participation is qualitatively different from that achieved when clients merely carry out assigned tasks. Institutional options for rural water supply depend on whether the water is treated as a public, private or common property good and on the resultant degrees of excludability.

2.7 Types and classes of participatory approaches.

Mikkelsen (1995) gives a narration on the subject of participation to the effect that two major alternative uses of participation centre around participation as an end in itself or as a means to development. Logically the two interpretations are not placed at either end of a continuum. They represent "transitional participation" and "instrumental participation" and may appear in different combinations in a given project.

As an end, participation entails empowerment; that is, everybody's right to have a say in decisions concerning their own lives. Thus, interpreted participation is an instrument in the promotion of ideological or normative development goals such as social justice, equity and democracy.

In the alternative form, participation is interpreted, as a means to efficiency in project management, that is participation is a tool to implement development policies. It implies a management strategy through which the state attempts to mobilise local resources. In reality, the two rationales for participation are often present at the same time.

The conceptual diversity indicates that "participation" may amount to little more than a catchword devoid of real content. "Genuine participation, initiated and managed by people themselves is a goal in the democratic process. However, few societies rely on voluntary approaches to activate people for major development activities. Coercion and positive motivation are very different approaches yet in the literature both concepts are used to designate participatory methods.

Approaches to promote participation.

<p>1. Passive participation, training and information between project staff people at village visits. Different technical packages are advertised for the people to adopt</p>	<p>We know better than you what is good for your approach.</p>	<p>One way teacher student communication staff and local.</p>
<p>2. Active participation sessions.</p>	<p>Training and visits</p>	<p>Dialogue and 2-way communication gives local people an opportunity to interact with extension officers and educators.</p>
<p>3. Participation by subscription.</p>	<p>Contract-type, that task paid approach: "If you (people) do this the project will do that."</p>	<p>Local people as individuals or small groups, are given the choice to subscribe to a chain of events with the responsibility for each subsequent action resting</p>

		<p>alternatively with the local people or the project. The model allows a switch from classic project to a Subsidised programme in which a local committee is responsible for the organisation and execution of the work. An advantage modifications can be made as experience grows t better reach the desired objective.</p>
<p>4. Participation on local requests</p>	<p>“Demand driven” approach PRA and action research Approach</p>	<p>Project activities focus more on responding to needs expressed by local people rather than offering them solutions conceived by out-sides. The activities are not a</p>

		<p>typical project: there are no timetables for physical interventions, no specific budgets tied to fixed periods. No project implementation.</p>
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Source: Mikkelsen, 1995

2.8 Gender Issues In Water Supply Projects

Gender issues have become central in considerations of the running of the organizations. Recent trends reveal that organizations make deliberate efforts to be gender inclusive. The Swedish International Development Aid (SIDA) has developed guidelines on gender and water resources management to ensure that both women and men have possibility to influence, participate in and benefit from improvements to water supply and sanitation. (SIDA sector information on the web). The Hesawa programme (Tanzania) realises that for its plan of action to be achieved “increasing popular participation, especially the participation of women was the way to go” Mitra, Aloka (1984) is a paper on water, sanitation and rural women of West Bengal India cites the community participation. She says community participation was achieved in a rural water supply project in five villages through contacts and co-operation with local administrative bodies..... involvement of active village workers including the women in local project management: separate house visits and discussions with women by female workers; and a vocational training health and income generation programme for women.

-The exclusions of certain groups particularly women from the decision making process sometimes makes it difficult for outside institutions or support workers to consult them.

2.9 Empowerment

The rationale behind involvement of a community in decisions that affect them is to make them “more in control” of their lives. In other words, they are empowered.

Mikkelsen (1995) describes empowerment as everybody’s right to have a say in decisions concerning their lives.

Narayan (1995) says that it is essentially a political concept that means more equitable sharing (or redistribution) of power and resources with those who previously lacked power. Any activity that leads to increased access and control over resources and to acquisition of new skills and confidence so that people are able to initiate action on their own behalf and acquire leadership is an empowering activity.

It thus follows when participating approaches in management of projects are allowed the people have a voice in all the aspects of the project. One of the reasons to emphasise the issue on gender as Martin Falthermark illustrates is that “.....Effects of modernization vary as between men and women if rural women were to have more power in local and national decisions regarding rural water supply, since they are directly affected, a village’s representation regarding water demands would become stronger.

As a result of an effective participation of rural women in water supply developments, the involvement of the communities regarding their contribution both in the form of labour and/or money for construction and maintenance of rural water supplies would become more feasible.

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RESEARCH PROCESS

3.1 Population

This comprised of all self-help water projects in Kiambu district.

3.2 Research Design

This entailed a survey of thirty self-help projects. A survey was chosen because it would adequately lead to collection of data from a representative sample of the self-help water projects.

3.3 Sample And Sampling Technique

In choosing the sample, the simple random sampling technique was used. From a list of 128 water self help projects documented at the Ministry of Water Head quarters in Kiambu, the researcher drew a sample of 30 self-help projects.

3.4 Data Collection Technique

This was done through the use of questionnaires whereby a group leader from each self-help group was interviewed. These questionnaires were self-administered.

It consisted of semi-structured questions with a likert scale rating the degree of community involvement and degree of success of the project.

CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

The data analysis was done using the SPSS Computer Programme for MS Windows.

The data analysis was done in three parts which comprised of descriptive statistics (frequency distribution), inferential statistics (correlation) and cross-tabulations.

4.1 Frequency Distributions

These were obtained for all the variables of the data. The frequencies and percentages of self help projects showing the degree of their participation is summarized as follows in Table 19.

4.1.1 DISCUSSION ON PARTICIPATION

4.1.1.1 Initial stages

Generation of idea and improvement of idea

In generation of idea and to a very large extent improvement of a project all self help groups were found to be quite participative. This is mainly because it is the community who experience the problems related to water scarcity or accessibility. Especially where communities felt they had to look for an alternative source of water the initiative largely emanated from them. It is only in very few cases where agencies initiated ideas for the community to change their reliance on some particular source. This shows that in the initial stages the community displays a high degree of participation.

Table 1 7

VARIABLE	DEGREE OF PARTICIPATION									
	DEGREE OF VALUES AND PERCENTAGE									
	1	PERCENTAGE	2	PERCENTAGE	3	PERCENTAGE	4	PERCENTAGE	5	PERCENTAGE
1. Generation of Idea	30	100	-	-	-	-	-	-	-	-
2. Improving Idea	26	86.7	4	13.3	-	-	-	-	-	-
3. Location of Project	7	23.3	15	50.0	6	20.0	2	6.7	-	-
4. Number of water points	8	26.7	17	46.7	5	16.7	3	10	-	-
5. Pipeline routes	13	43.3	9	30.0	8	26.7	-	-	-	-
6. Technology	12	40.0	8	26.7	4	13.3	5	16.7	1	3.3
7. Treatment works	12	40	9	30.0	5	16.7	4	13.3	-	-
8. Mode of distribution	6	20	14	46.7	8	26.7	2	6.7	-	-
9. Technical facilities	4	13.3	17	56.7	6	20.0	3	10.00	-	-
10. Project start time	11	36.7	9	30.0	7	23.3	1	3.3	2	6.7
11. Evaluation of resources	12	40.0	8	26.7	6	20.0	4	13.3	-	-
12. Mode of labour	12	40.0	13	43.3	2	6.7	2	1	3.3	-
13. Level of labour	9	30	15	50.0	2	6.7	4	13.3	-	-
14. Nature of labour	11	36.7	11	36.7	7	23.3	1	3.3	-	-

VARIABLE	DEGREE OF PARTICIPATION									
	FREQUENCIES FOR VALUES AND PERCENTAGE									
	1	PERCENTAGE	2	PERCENTAGE	3	PERCENTAGE	4	PERCENTAGE	5	PERCENTAGE
15. Material contribution	7	23.3	13	43.3	5	16.7	5	16.7	-	-
16. Finance contribution	13	43.3	9	30.0	4	13.3	2	6.7	2	6.7
17. Operation and Maintenance	12	40.0	8	26.7	6	20.0	2	6.7	2	6.7
18. Training	8	26.7	11	36.7	6	20.0	3	10.0	2	6.7
19. Supervision	11	36.7	12	40.0	5	16.7	2	6.7	-	-
20. Revenue collection	15	50.0	8	26.7	4	13.3	2	6.7	1	3.3

Source: Primary data

4.1.1.2 Consultation

The stage of consultation where this comprises variable location of the project to variable project start time the community was found to be generally highly involved. A response of a large extent degree of participation of the range 13.3% to 43.3 % is displayed across all the consultation variables (table 4.1)

Ranges of 26.7% to 56.7% for fairly high degree of participation are displayed. Where the community was moderately involved percentages of 13.3 to 26.7 are shown. The cases diminish where the communities were involved to a fairly low extent to a low extent. It was found that in most self help groups that after the initial stage of identification of cases the government had to be involved because it is a legal requirement and secondly the government provides personnel and consultation in terms of the design of the project. Actually even, where NGOs have provided assistance the design of the project has to be approved by the government. However, the community has been relatively involved to give an idea on the population to be served, the availability of resources, financial resources and otherwise to come up with a realistic design.

Locality of the project

In choosing the locality of a project the community is fairly highly involved (to 50%). This can be explained by the fact they are aware of the availability of space/site. Besides even where the public land is chosen as the arena for a project the community has to approve of such initiatives.

Number of water points

The number of water points are usually a decision of the people themselves. Even with the chipping in of expert knowledge for example from the government officers it was always crucial that the community decides on the outlets to avoid squabbles after implementation.

Technology

In most of the communities ventured it was found that some of the members of a self help group may have some technical know-how. This is especially where one of the members is an expert in the technical water field. Then in such cases the community was found to be largely highly participative to a large extent to moderately participative. The choice of technology notwithstanding is dependent on availability of finances. The choice for example for the type of pump was hinged on the money available. A good type of pump like Grundfos costs a lot of money. The resources of a community then have a role to play in the choice of technology. In other words, the community is then involved in stating their feelings and willingness to invest in a certain technology.

Treatment works

The community was also to a large extent involved in choosing the treatment works. It was actually found that it was largely a people initiated decision to have their water treated. The presence of cases of contaminated water was the main reason for communities to ask for treatment of their water.

Mode of water distribution

In the case of mode of water distribution to a larger extent the members of a self help group had an input. The most dominant scenario is a system where water is delivered to each member's home through the pipeline. However, those of the members who could not afford costs related to getting water from their taps at home a water kiosk was made available. In essence, the needs of the members were taken into consideration.

Technical facilities

The issue of technical facilities to be built like that of elevated tanks, dosers, pump houses were the initiative of the members. They fully and largely participated because this was commonly governed by the committee members. In cases where they got help from agencies like the NGOs or charitable organizations it was still up to the members to decide on the nature of the tanks and the way they were to be built.

Pipeline routes

Pipeline routes followed the road reserve areas. This is usually the case because then there is no interference with proprietary rights. However, this was unanimously agreed from all sections of the projects.

Project start time

The project start time was a function of when the resources became available and to a low extent how the agencies behaved. The members would be given a target time to fulfil their obligations in terms of mostly providing financial resources. On the other hand, some of the NGOs that were

providing some help required of the self-help groups to partially cater for a percentage of costs pertaining to the execution of the projects

4.1.1.3 Implementation

Evaluation of resources

In evaluation of resources needed for the project the members were substantially involved with only a small percentage involved to a low extent. Figures of 40% for large extent; 26.7% for fairly large extent, 20% for moderate extent and 13.3% for fairly low extent degree of participation (table 1)

Mode of labour

Towards the construction the members provided either hired or local labour but in all to a great extent 83.3% they were involved.

Level of labour

In provision of skilled/unskilled labour it was found to a large extent (80%) the members were involved. In some instances, there were members who would not be physically present to provide the labour. However, they could give monetary equivalents which was allowed though not very encouraged. A 73.4% large extent degree of participation was displayed.

Contribution of materials

Most of the self help groups greatly participated in provision of materials for construction of the project. Some individuals or organizations could provide the same but it was to a relatively low extent.

Contribution of Finance

The most common way of contributing financially towards the construction of a project was through a set fee for members of a project.

4.1.1.4 Post implementation

Operation and Maintenance

After the construction it was found that most projects were responsible on their own for operation and maintenance of the projects. It was found that most self-help projects had some of their members to mend repairs, leakages or even correct simple pump breakdowns. In case of large-scale problems then outside assistance was sought especially in cases like a complete pump breakdown. Either a project contracted services on operation and maintenance from companies Davis and Shirtliff or if the pump is irreparable, approached individuals/ NGOs to assist. In some cases a person was employed to undertake the operation and maintenance.

Training

Where training for operation and maintenance was available the projects members were found to participate to a great extent. This meant deciding among themselves who could be trained in these aspects. For instance in some projects the members of the committee could even be taken for short courses to other successful projects or trained by NGOs.

Supervision

In supervision of the project, there was a high degree of participation infact any member could report cases of burst pipes in most of the projects.

Revenue collection

In terms of revenue collection this was mostly done by members of the committee. It was to a very low extent that members of self-help projects were not fully involved in revenue collection.

4.1.2 DISCUSSION ON SUCCESS OF PROJECTS

Provision of water

The projects of interest were all successful projects in as far as provision of water was concerned.

Table A-2

VARIABLE	DEGREE OF SUCCESS									
	FREQUENCIES FOR VALUES AND PERCENTAGE									
	1	PERCENTAGE	2	PERCENTAGE	3	PERCENTAGE	4	PERCENTAGE	5	PERCENTAGE
1. Provision of water	30	100	-	-	-	-	-	-	-	-
2. Provision of adequate water	3	10	13	43.3	8	26.7	6	20	-	-
3. Provision of treated water	5	16.7	8	26.7	8	26.7	7	23.3	2	6.7
4. Completion of Project within budget	5	16.7	11	36.7	9	30	4	13.3	1	3.3
5. Efficiency in water delivery	8	26.7	14	46.7	7	23.3	1	3.3	-	-
6. Rate of completion of project	4	13.3	14	46.7	8	26.7	3	10	1	3.3
7. Revenue generation	4	13.3	12	40	9	30	4	13.3	1	3.3
8. Quality of the project	2	6.7	15	50	9	30	4	13.3	-	-

Source : Primary data

Adequate water

Adequate water was however not available in most projects. There are cases where the former project design cannot suffice for a growing population. Lack of adequate water was acute in some water projects where they were provided with water only once/twice in a week.

Treated water

Treated water provision was generally successful but not very successful. About 70% of the projects claimed to have moderately to high success in treatment of their water (table 2).

Completion of the projects within the budget

Completion of the projects within the budget rated to relatively highly to moderately successful (83.3%). Where projects were not completed within budget, was where these were defaulters in payment or a poor management system existed.

Efficiency in water delivery

Efficiency in water delivery comprises of the absence of water leakage, bursts, breakdown of pumps, delivery to all members of a project and so on. Upto 73.3% of the projects were successful.

Rate of completion of the projects

The rate of completion of the projects was given a 86.7% moderate to high successful rate. It was found that some projects delayed where members lagged in payments of their obligations.

Table 4.1 Stages in the project life cycle

Parameter	Initiation	Consultation	Implementation	Post-implementation

Revenue collection

All the projects generated some income in terms of payment of monthly bills from members. The members who paid bills promptly were to a fairly large extent and large extent about 53.3%. There were some few defaulters 3.3% in these projects.

Table 4.2 Relationship between degree of participation in the stages of a project life cycle and the degree

Quality of the project

The feeling of the members of projects was that 56.7% of their endeavors were successful. However, some members had some misgivings pertaining to possible omissions in their projects.

Table 4.3 Relationship between degree of participation in the stages of a project and

4.2 HYPOTHESIS TESTING

Table 4.4 Pearson's correlation statistics for the relationship between degree of participation in the stages of a project and

Pearson's correlation statistics was used to test the hypothesis .

Relationship between degree of participation and the degree of success

The correlation coefficient for this relationship was found to be .4303. This implies a positive relationship between participation of a community and the success of their water projects. This relationship was also found to be significant with a level of .018. Thus it was found that there is a relationship between the participation of people in their project and the success of a project.

Table 4.5 The relationship between degree of participation in the stages of a project and the degree of success

Table 4.6 The relationship between degree of participation in the stages of a project and the degree of success

Table 4.7 The relationship between degree of participation in the stages of a project and the degree of success

Parameter	Stage in the project life cycle			
	initiation	Consultation	Construction	Post implementation
Correlation coefficients	-.1612	.4970	.0553	.3516
P	.395	.005	.772	.057

Table 4.3 : Relationship between degree of participation in the stages of a project life cycle and the degree of success of a project.

The relationship between the initiation stage and success of the project is a negative relationship about 16% in strength. This suggests that there is a reverse relationship between success of a project and participation at the initial stages. This can be explained by the fact that the initial stages are common in all projects and also the fact the members always have needs. This is thus a stage that does not make so much of an impact on the success of a project.

At the consultation stage a strong positive relationship is inferred. This is also a significant relationship. There is a more than 99% confidence level that this relationship is true. The explanation behind this is the fact that this stage is crucial for decision making. It follows that participation of the community during consultation is very vital.

The construction stage has a weak positive relationship in relation with the success of a project. It is also not a significant relationship. At this stage despite the involvement of the community, the most significant decisions are made by the technical personnel behind the construction.

The post-implementation stage has a positive strong relationship in relation with the success of a project. It is also a significant relationship. The fall of most operational projects comes with the neglect of the project after its construction. Thus this stage is important for the long term sustainability of the project. The task of the community is enormous at post implementation if a project is to be successful.

4.3 CROSS TABULATIONS

Cross-tabulation was also done between the agencies involved in the projects and the success achieved.

A summary of the cross tabulations is as in the table 4.4 below.

Table 4.4

		PROJECT SUCCESS SCORES			
		14-18	20-27	28-34	TOTALS
AGENCIES	CODE	FREQUENCIES			
GOVERNMENT	1	5	9	4	18
NGOS	2	1	-	1	2
INDIVIDUALS	3	-	-	1	1
POLITICIANS	4	-	-	-	-
GOVERNMENT AND NGOS	5	4	-	-	4
GOVERNMENT AND INDIVIDUALS	6	1	1	-	2
GOVERNMENT AND POLITICIANS	7	-	-	-	-
ALL AGENCIES	8	1	1	1	3

TOTAL	12	11	7	30
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Table 4.3

Source : Primary data

From the above it is inferred that self help success scores rated from 14 points to 34 points. A total of 12 projects fell in the 14-19 bracket which is a high degree of success; 11 projects in the 20-27 bracket and 7 in the 28-34 bracket. The agencies that were involved in most of the projects comprised of the government, NGOs, individuals and a combination of all these groups existed.

The role of the agencies varied the provision of finances, materials, professional advice and even supervisory and training services.

Specifically, the government offers consultancy and technical support in the form of government officers. In the former years the government provided financial support through the Rural Development Fund which has since been non existent. However, this fund was responsible for drilling and equipping of boreholes in the years of 1979 –1981. Most of the boreholes ceased with the withdrawal of the fund. Infact, the rise of the self-help projects was a consequence of the failed projects in the area of study.

NGOs and individuals have been involved in the rehabilitation of the boreholes through provision of materials, finances and advice.

Nevertheless, 18 projects in the sample were successful without support of any of the agencies except the government. This shows that communities are capable of handling water supply matters at a local level when empowered.

All in all, it is only an added advantage when an NGO supports them if they are committed to their cause. From the table however, 5 of the NGO assisted projects are in the upper success

bracket and this can be construed to mean that NGO assisted projects have a high chance of succeeding.

5.1 Summary And Discussion

The study sought to achieve three objectives as earlier indicated. Reviewed literature indicated that community participation generally improves the project success. In the foregoing chapter this fact was confirmed from the correlation results between participation and project success.

The null hypothesis indicates that there is no significant relationship between participation and project success. This leads us to accept the hypothesis (H1) because there is a significant and positive relationship between the variables was to establish the degree of participation in the self-help water projects in Kiambu District. Different degrees of participation were found to exist. The ratings against participation ranged between 22- 50. A score of 21 would have been indicative of projects where participation of the community was very high. The nature of self-help organization is people oriented. The issue of participation however comes to in play because of the existence of agencies who did the project management while it is low in other phases. The mean of total participation is 39.3 points (primary data) which is just moderate.

The other objective was to determine the degree of success. The mean was found to be 22.5 (primary data) which is moderately successful. This recommendation is to an extent linked to the participation of the people in the project.

CHAPTER 5

5.1 Summary And Discussions

The study sought to achieve three objectives as earlier indicated. Reviewed literature indicated that community participation generally improves the project success. In the foregoing chapter this fact was confirmed from the correlation results between participation and project success.

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The other objective was to determine the degree of success. The mean was found to be 22.5 (primary data) which is moderately successful. This performance is to an extent hinged on the participation of the people in the project.

5.2 Recommendations

On the basis of the discussions above a positive relationship between community participation and success could be achieved if social issues are considered. Firstly, from correlation results there are some crucial stages that determine the success of the project. The consultation stage should be highly emphasized to achieve satisfactory success results. It is also important that in issues to do with the post implementation stage in the community should also be highly involved. The success of a project can be gauged on the initial objectives. This cannot be done without the full integration of the community. It was found that there were several factors like revenue collection, supervision, operation and maintenance and training that constitute this stage. Where a project was found to be performing poorly, the cause was grossly leaning on the failure of revenue collection, supervision, operation and maintenance and training. It is therefore recommended that the community is highly enlightened on the repercussions of neglect of the said factors. Operation and maintenance failure contributed heavily to lack of adequate water or worse the abandonment of a project.

A sense of responsibility for the project among its member should be inculcated. More of the members should be trained on issues like repair of small pipe burst, repair of minor gadgets and also how to heat the water.

Ensuring that the members pay bills on time and also adequately means that the project is not stalled on such grounds of nonpayment of electricity bills, broken down pumps on any other misnomer. This is because with the availability of financial resources the project more often than not tends to remain sustainable.

The type of leadership inherent in the project is also crucial. Self appointed leaders end up misappropriating funds, abusing the office and in the long run frustrating their members. This is an issue that should be looked into seriously for the success of a project.

Another item that needs serious pondering for the project is community acceptance and even ownership of the project concept satisfaction since community apprehension discourages its contribution.

The type of participation to guarantee success is not necessarily where a project gets a lot of outside influence but where the community itself participates actively. Results indicate that very successful projects are also to be found in self-help projects that did not receive assistance from NGOs and charitable individuals except the government. This is because the success of projects is really dependent on the commitment of participants of a project. The reason is that community based projects should be self-sustaining and cannot be done by the agencies but through full participation of the community.

5.3 Limitations of the study

The study was conducted through consultation of committee leaders. It was assumed that they were representative of the other members. However, some tended to be stringent with information. The researcher felt that members of the community could give insight into the hidden information. It was not always possible to do this.

Limitations of time and financial constraints lead to a narrow scope chosen. A bigger sample of projects or better case studies would be appropriate for this study. This would give more depth to the research findings.

SPECIMEN LETTER TO RESPONDENTS

5.4 Suggestions for further research

SELECTED REFERENCES

A replicative study on the issue of community participation could be carried out in other areas like low cost housing projects, health projects and security projects which are community based.

The participation of the agencies in community based projects could also be another direction for further research.

A case study of one or several self-help projects can be done to give more depth to the research.

APPENDICES

- 1 INTRODUCTION
- 2 SPECIMEN LETTER TO RESPONDENTS
- 3 QUESTIONNAIRE
- 4 SELECTED REFERENCES
- 5 RAW DATA

NIHILMAA W
MBA STUDENT
UNIVERSITY OF NAIROBI
FACULTY OF COMMERCE
P.O. BOX 30197

24th JUNE, 2000

I am a postgraduate student at the University of Nairobi, in partial fulfillment of the requirements for the award of the Master of Business Administration (MBA) Degree. I am conducting a study on Community Participation in Self-Help Water Projects in Kiambu District.

Your organization has been selected to form part of this study. To this end, I kindly request your assistance in completing the questionnaire and providing any other relevant information necessary for the study.

The information and data provided will be used for academic purposes only and will be treated in strict confidence. A copy of the research project will be made available to your organization upon request.

Your cooperation will be highly appreciated.

Thank you

Yours faithfully

NIHILMAA W
MBA STUDENT

MR. J. M. NDIRA
SUPERVISOR

FACULTY OF COMMERCE
UNIVERSITY OF NAIROBI
P.O. BOX 30197
NAIROBI
27th June, 2000

INTRODUCTORY LETTER NJUGUNA A.W. AKA WANGIRU

Agnita Wangiru Njuguna is a Masters student in the Faculty of
In partial fulfillment of the requirements for the Masters in Business
undertaking research for the master's project. The research title is
PARTICIPATION IN SELF-HELP GROUPS IN KIAMBU DISTRICT.

Your project has been chosen to form part of this research. To this end, I kindly request your
assistance in completing the questionnaire, which forms an integral part of the research project.
Agnita will be responsible for the administration of the questionnaire. For any additional
information you may refer to the research proposal of the study.

NJUGUNA A.W.
MBA STUDENT
UNIVERSITY OF NAIROBI
FACULTY OF COMMERCE
P.O. BOX 30197

27TH JUNE, 2000

I am a postgraduate student at the University of Nairobi. In partial fulfilment of the requirements-
for the award of the Master of Business of Nairobi (MBA) Degree. I am conducting a study on
Community Participation in Self-Help Water Projects in Kiambu District.

Your organization has therefore been selected to form part of this study. To this end, I kindly
request your assistance in completing the questionnaire and providing any other relevant
information necessary for this study.

The information and data provided will be used for academic purposes only and will be treated in
strict confidence. A copy of the research project will be made available to your organization upon
request.

Your co-operation will be highly appreciated.

Thank you.

Yours faithfully,

NJUGUNA A.W.
MBA STUDENT

MR. J.M. NJIHIA
SUPERVISOR

FACULTY OF COMMERCE
UNIVERSITY OF NAIROBI
P.O. BOX 30197
NAIROBI

27th June, 2000

INTRODUCTORY LETTER: NJUGUNA AGATHA WANJIRU.

Agatha Wanjiru Njuguna is a masters student in the Faculty of Commerce University of Nairobi. In partial fulfilment of the requirements for the Masters in Business Administration, she is undertaking research for her masters project. The research title is "COMMUNITY PARTICIPATION IN SELF-HELP GROUPS IN KIAMBU DISTRICT."

Your project has been chosen to form part of this research. To this end, we kindly request your assistance in completing the questionnaire, which forms an integral part of the research project. Agatha will be responsible for the administration of the questionnaire. Any additional information you might feel necessary for this study is welcome.

The information and data required is needed for academic purposes and will be treated in strict confidence.

Any assistance accorded to her will be highly appreciated.

Thank you,

Yours sincerely,

JOHN K. A. KENDUIWO
Dean Faculty of Commerce.

CC.MBA Co-ordinator,

Mr. J. M. Njihia, Supervisor
Department of Management Science

- 3 – Moderately
- 4 – To a fairly low extent
- 5 – To a low extent

1	Generating idea or where to obtain water	1	2	3	4	5
2	Generating idea of improving previous water source	1	2	3	4	5
3	Choosing the locality of the project	1	2	3	4	5
4	Choosing the number of water points	1	2	3	4	5
5	Choosing the pipeline routes	1	2	3	4	5
6	Choosing the technology	1	2	3	4	5
7	Choosing the treatment works	1	2	3	4	5
8	Choosing mode of water distribution	1	2	3	4	5
9	Choosing technical facilities to be built	1	2	3	4	5
10	Choosing the project's start time	1	2	3	4	5
11	Choosing evaluation resources needed for the project	1	2	3	4	5
12	Choosing mode of labour contribution (hired, local)	1	2	3	4	5
13	Choosing level of labour to be used (skilled, unskilled)	1	2	3	4	5
14	Choosing nature of contribution towards construction in terms of labour	1	2	3	4	5
15	In contributing materials towards the construction of the project	1	2	3	4	5
16	In contribution financially towards construction of the project	1	2	3	4	5

17	In being involved in operation and maintenance of the project	1	2	3	4	5
18	In being trained in skills for operation and maintenance of the project	1	2	3	4	5
19	In supervision of water collection points.	1	2	3	4	5
20	In collection of revenue	1	2	3	4	5

Other questions

- 21 What was the mode of financial contribution by the community.
- i) By revolving fund
 - ii) By a water contract system.
 - iii) By loan.

LEVEL OF SUCCESS

To what extent were your objectives as a community met. Please circle against the relevant opinion.

1- To a large extent

2- To a fairly large extent

3- Moderately

4- To a fairly low extent

5- To a low extent

1) Provision of water	1	2	3	4	5
2) Provision of adequate	1	2	3	4	5
3) Provision of treated water	1	2	3	4	5
4) Completion of project within budget	1	2	3	4	5
5) Efficiency in water delivery	1	2	3	4	5
6) Projects revenue generation	1	2	3	4	5

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Correlation Coefficients

ICONSULT TOTALSUC

ICONSULT 1.0000 4978

(.30) (.30)

P= .005

TOTALSUC .4970 1.0000

(.30) (.30)

P= .005

(Coefficient = Cases) 2-tailed Significance

is reported if a coefficient is not reported

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Variable Cases Mean Std. Dev.

ICONSULT 49 22.100 4.3753

TOTALSUC 49 22.512 4.3401

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Variable Cases Classified by Variable-Cross

ICONSULT TOTALSUC 49 22.100 4.3753

Variables	Cases	Cross-Prod Dev	Variance-Covar
TCONSULT TOTALSUC	30	319.2667	11.0092

-- Correlation Coefficients --

TCONSULT TOTALSUC

TCONSULT	1.0000	.4970
(30)	(30)	
P= .	P= .005	

TOTALSUC	.4970	1.0000
(30)	(30)	
P= .005	P= .	

(Coefficient / (Cases) / 2-tailed Significance)

" ." is printed if a coefficient cannot be computed

Variable	Cases	Mean	Std Dev
TCNSTRCT	30	12.1000	3.5753
TOTALSUC	30	22.5333	5.6491

Variables	Cases	Cross-Prod Dev	Variance-Covar
TCNSTRCT TOTALSUC	30	32.4000	1.1172

-- Correlation Coefficients --

Variable	TCNSTRCT	TOTALSUC	Std Dev
TCNSTRCT	1.0000	.0553	3.691
TOTALSUC	(.30)	(.30)	5.6491
	P=.	P=.772	
TOTALSUC	.0553	1.0000	
	(.30)	(.30)	
	P=.772	P=.	

(Coefficient / (Cases) / 2-tailed Significance)

" ." is printed if a coefficient cannot be computed

Variable	Cases	Mean	Std Dev
TOTALSUC	30	22.5333	5.6491
TPIMPLM	30	8.5333	2.7510

Variables	Cases	Cross-Prod Dev	Variance-Covar
TOTALSUC TPIMPLM	30	158.4667	5.4644

-- Correlation Coefficients --

Variable	TOTALSUC	TPIMPLM	Std Dev
TOTALSUC	1.0000	.3516	5.6491
	(.30)	(.30)	
	P=.	P=.057	
TPIMPLM	.3516	1.0000	
	(.30)	(.30)	

Variable	Cases	Mean	Std Dev
TOTALINT	30	2.1333	3.457
TOTALSUC	30	22.5333	5.6491

Variables	Cases	Cross-Prod Dev	Variance-Covar
TOTALINT TOTALSUC	30	-9.1333	-.3149

-- Correlation Coefficients --

TOTALINT TOTALSUC

TOTALINT	1.0000	-.1612
	(30)	(30)
	P=.	P= .395
TOTALSUC	-.1612	1.0000
	(30)	(30)
	P= .395	P=.

(Coefficient / (Cases) / 2-tailed Significance)

" ." is printed if a coefficient cannot be computed

Variable	Cases	Mean	Std Dev
TCONSULT	30	16.7333	3.9211
TOTALSUC	30	22.5333	5.6491

P= .057 P= .

(Coefficient / (Cases) / 2-tailed Significance)

". ." is printed if a coefficient cannot be computed

P= .057 P= .

(Coefficient / (Cases) / 2-tailed Significance)

" ." is printed if a coefficient cannot be computed

27 Aug 00 SPSS for MS WINDOWS Release 6.1

AGENCIES agencies by TOTALSUC

Table 8

Page 1 of 3

AGENCIES	TOTALSUC					Row Total
	14.00	15.00	16.00	17.00	18.00	
1 Government	1	1	2	3		30
2 Activities						6.7
3 Policies						1
4 Government and N				1		3.3
5 Government and I					1	6.7
6 Agencies						3
7						6.7
8						3
9						6.7
Column Total	1	1	2	5	2	30
Grand Total	3.3	3.3	6.7	16.7	6.7	100.0

AGENCIES agencies by TOTALSUC

Table 6

		TOTALSUC					Row Total
Count		14.00	15.00	16.00	17.00	18.00	
AGENCIES							
1							
government		1	1	2	3		20
							66.7
3					1		2
individuals							6.7
4							1
politicians							3.3
5					1	1	2
government and N							6.7
6						1	2
Government and i							6.7
8							3
All Agencies							6.7
Column		1	1	2	5	2	30
Continued Total		3.3	3.3	6.7	16.7	6.7	100.0

AGENCIES agencies by TOTALSUC

Page 2 of 3

AGENCIES	Count	TOTALSUC					Row
		20.00	21.00	24.00	26.00	27.00	Total
1	3	1	1	2	2	20	
government						66.7	
3						2	
individuals						6.7	
4						1	
politicians						3.3	
5						2	
government and N						6.7	
6		1				2	
Government and i						6.7	
8					2	3	
All agencies						10.0	
Column	3	2	1	2	4	30	
(Continued) Total	10.0	6.7	3.3	6.7	13.3	100.0	

AGENCIES agencies by TOTALSUC

AGENCIES	Count	TOTALSUC				Row
		28.00"	29.00"	30.00"	34.00"	Total
1	1	1	1	1	1	20
government						66.7
3				1		2
individuals						6.7
4			1			1
politicians						3.3
5						2
government and N						6.7
6						2
Government and i						6.7
8	1					3
All agencies						10.0
Column	2	2	2	1		30
Total	6.7	6.7	6.7	3.3		100.0

Number of Missing Observations: 0

	--Correlation Coefficients--				
	MEANINT	MCNSTRCT	MCONSULT	MPIMPLMT	TOTALSUC
MEANINT	1.0000 (30) P=.	-.0252 (30) P=.895	-.1509 (30) P=.426	-.0773 (30) P=.685	-.2142 (30) P=.256
MCNSTRCT	-.0252 (30) P=.895	1.0000 (30) P=.	.5148 (30) P=.004	.4106 (30) P=.024	.1242 (30) P=.513
MCONSULT	-.1509 (30) P=.426	.5148 (30) P=.004	1.0000 (30) P=.	.4068 (30) P=.026	.4970 (30) P=.005
MPIMPLMT	-.0773 (30) P=.685	.4106 (30) P=.024	.4068 (30) P=.026	1.0000 (30) P=.	.3516 (30) P=.057
TOTALSUC	-.2142 (30) P=.256	.1242 (30) P=.513	.4970 (30) P=.005	.3516 (30) P=.057	1.0000 (30) P=.

(Coefficient/ (Cases)/ 2-tailed significance)

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